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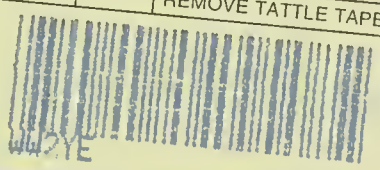
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THE PHILADELPHIA MEDICAL JOURNAL

A WEEKLY JOURNAL OWNED AND PUBLISHED BY
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ALOYSIUS O. J. KELLY, M.D.

VOLUME IV
JULY–DECEMBER, 1899

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The Philadelphia Medical Journal

A Weekly Journal Owned and Published by The Philadelphia Medical Publishing Company and Conducted Exclusively in the Interests of the Medical Profession

GEORGE M. GOULD, M.D., *Editor*

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Scientific Articles, Clinical Memoranda, News Items, etc., of interest to the profession are solicited for publication. Reprints of Original Articles (250) will be furnished gratis to Authors making the request.

The Editorial and Business Offices are at 1420 Chestnut St. Address all correspondence to **The Philadelphia Medical Journal,** 1420 Chestnut St., Philadelphia, Pa.

VOL. IV, No. 1 — JULY 1, 1899 — $3.00 PER ANNUM

Who Killed Cock Robin?—The following is an Associated Press dispatch from Chicago on the 21st instant:

"Fifty hospital ambulances shipped to Tampa, Fla., over a year ago by the local army officials, to be forwarded to Cuba for the use of the United States troops, have been lost. . . . What makes the loss all the more astonishing is that it took a freight train of seventeen cars to haul the ambulances from this city."

An Exhortation and a Prescription.—Mother Eddy sent a letter to the convocation of Christian Scientists recently held in Boston, in which, among many similar sentences, was the following gem:

"O, how is man, seen through the lens of spirit, enlarged, and how counterpoised his origin from dust, and how he presses to his original, never severed from spirit."

Whether *post hoc* or *propter hoc*, we cannot say, but just then a case of sunstroke occurred. The Christian-Science prescription was, literally, "to wit:"

"The simple knowledge that the creative energy of the universe is sufficient to make you well, must be held in thought."

Christian Science and Spoons.—The following is from the editorial pages of a recent number of the *Christian Science Monthly*:—

"Christian Science Spoons—On each of these most beautiful spoons is a motto in bas-relief that every person on earth needs to hold in thought. Mother requests that Christian Scientists shall not ask to be informed what this motto is, but each Scientist shall purchase at least one spoon, and those who can afford it, one dozen spoons, that their families may read this motto at every meal and their guests be made partakers of its simple truth.

"MARY BAKER G. EDDY."

And there are thousands, they say hundreds of thousands, of people who are enthusiastic adherents of this sorry mixture of ignorance, delusion, and cunning. And the Americans are called shrewd and quickwitted! The query as to the truth of the diagnosis suggests another as to the occurrence of a great psychologic change in our character.

The sanitary supervision of schools is a subject whose importance is yearly becoming more clearly recognized, and it is entirely in line with the movement that is everywhere going on in the direction of preventive medicine. To an interesting and timely communication on this subject by Dr. C. Shattinger, of St. Louis, was recently awarded a prize offered, through the St. Louis *Medical Review*, by the Medical Society of the City Hospital Alumni to its members for the best paper or report based on the practical and scientific medical aspects and results of the inspection of public-school children. In this paper are discussed the economic basis of the work, its statistics, its medical and pedagogic aspects, its method of application, and its cost. The enterprise and its successful outcome are creditable to all concerned. Thus to encourage practical instruction in hygiene for the pupils in the public schools is to build a secure foundation for preventive medicine.

Proctology as a Specialty.—The establishment of the *American Proctologic Society*, and the successful carrying-out of the first meeting in Columbus, on June 6 and 7, seem to us praiseworthy. A brief report will appear in a future number of the JOURNAL. The society started with 15 charter members, and by its rules its membership will be limited to 25. It is somewhat strange that such an organization has not been formed long before. This branch of medical work is one that for peculiar and obvious reasons requires special fitness, training, appliances, and experience. It has been egregiously exploited by the quacks, and these we trust are now to be dispossessed and the diseases of many more people than we are likely to suspect treated scientifically and with true professional spirit. From the excellent judgment shown in founding the organization we judge that a naturally suggested caution is entirely unnecessary as to possible exaggerated statements, hobby-riding, etc., and the clear value of strict ethical and scientific methods, in order to secure for the society a proper and deserved dignity and a recognized professional standing.

The Doctor Who is an Enemy of his Own Profession.—The following is a copy of a letter being sent by an optician to general practitioners:—

"We are giving our special attention to the patients which doctors send us. Many physicians do not care to test eyes, and we have greatly increased our patronage among these members of the profession by encouraging them to send us the patients in whom they suspect eyestrain, to have our experts make examination. All such patients we refer back to the doctors.

"If you are interested, kindly drop us a line and we will forward you a complete set of our eye-testing cards, by which you may make preliminary tests for eyestrain yourself.

"We would like to have you appoint a time when a mem-

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ber of our firm might call on you for the purpose of laying our methods more completely before you and to thoroughly convince you that our constant endeavor in our work is to safeguard in every way possible the interests of our professional friends."

If it were not a fact that physicians are too often guilty of this professional disloyalty, it would not pay the optician to spend so much money to secure the trade. Physicians are too slow to learn that the pretense of opticians to be able to prescribe for eyestrain is downright quackery, and frequently results in great injury to patients. To advise such patients to consult the optician for ocular disease is fully as bad as it would be to advise them to consult the druggist for other diseases.

The Persistence of Diphtheria-Bacilli in the Upper Air-passages.—Recently (Vol. III., p. 1315) we discussed the persistence of diphtheria-bacilli in the throats of children convalescent or recovered from an attack of diphtheria and the danger associated therewith. Of the facts—that is of the accuracy of the observations—there is no reasonable doubt, and a plausible explanation is offered by Pearce (*Jour. Boston Soc. Med. Sciences*, March, 1899), who reports the results of bacteriologic examination of the accessory sinuses of the nose, particularly the antrums of Highmore, in 39 cases of diphtheria, 5 of diphtheria complicated by scarlet fever, 2 of diphtheria complicated by measles, and 4 of scarlet fever observed at the Boston City Hospital. In no case were symptoms present pointing to disease of the antrums or other sinuses. In most of the cases of diphtheria in which the sinuses were invaded death took place between the fourth and the tenth day of the disease; in the cases of scarlet fever between the ninth and the fifteenth day. In these fatal cases the sinuses and antrums were exposed with special precautions, and in much the larger number they were found the seat of inflammatory changes, and from their contents diphtheria-bacilli were obtained, together with streptococci and staphylococci. These observations illustrate the frequency with which the maxillary sinuses are infected in cases of diphtheria, and although those studied terminated fatally, it is probable that similar infection occurs with approximately equal frequency in the cases that run a more favorable course. The sinuses, it may be surmised, constitute a good culture-nidus for the bacteria, and this may be the explanation of the sometimes long persistence of diphtheria-bacilli in the throat. The practical deduction is that greater attention should be directed towards these cavities in the class of cases under consideration, in order that their potentiality for infection may be counteracted.

Still Defying the Law.—Another case of malpractice by a Christian Scientist is reported in this city. The victim was a resident of one of the Southern States and was afflicted, it is alleged, with diabetes. He became deluded with a belief in this fraudulent practice, and came to Philadelphia for treatment. In this city his case was taken in charge by a man who professed this quackery and who secured a room for the invalid in a private lodging-house. The proprietress of the house alleges that she did not suspect that the "practitioner" was not a regularly qualified physician, as he visited the patient at stated intervals in that guise, professed to be treating him, and expressed his intention of curing him. Here is a clear case of practising medicine in this State under false pretense and without a license.

The patient steadily grew worse, although he kept protesting that he was feeling better, and in this brutal deception the Christian Scientist encouraged him. Finally the man's wife was hastily sent for, apparently to the relief of the now alarmed landlady, and arrived on the scene just about in time to see her husband die. Up to the last moment the tragi-comedy was kept up—the superserviceable fanatic making his visits and the patient continuing to "feel better"—until, to his wife's and probably his own amazement, the victim suddenly expired.

All the elements of fraud and illegal practice are clear in this case, and it should be put to the test in our courts of law. There should certainly be some machinery to set going, by which a prosecution could be instituted. Perhaps it rests with one of our medical societies; and yet we cannot too strongly insist that it is the public and not the medical profession that is most interested in this matter. The newspapers seem inclined to put the responsibility on the profession—but it is not the part of the profession to do police duty. Where are the police, the coroner, and the district attorney? They know that there has been a violation of the law—just as much so as though a man had been killed in a fight on the street, or a woman in the hands of an abortionist. Public opinion expects them to do their duty.

Against Tuberculosis.—Young communities, like young people, sometimes succeed when older ones have failed, and accomplish what formerly seemed impossible. In the light of our knowledge concerning tuberculosis the following law, which went into effect June 10, in the State of Washington, is a great step in the right direction, and is perhaps the most vigorous move made by any State or country against this disease:

SECTION 1. All practising physicians in cities of the first and second class in this State are hereby required to report to the local boards of health of such cities, in writing, the name age, sex, occupation and residence of every person having tuberculosis who has been attended by or who has come under the observation of such physician for the first time, within five days of such time.

SEC. 2. All local boards of health of cities of the first and second class in this State are hereby required to receive and

keep a permanent record of the reports required by the first section of this act to be made to them; such records shall not be opened to public inspection, but shall be submitted to the proper inspection of other local and State boards of health alone, and such records shall not be published nor made public.

Sec. 3. It shall be the duty of such local boards of health, unless requested by the attending physician not to do so, to furnish to each patient, or to the head of the family where such patient resides, printed instructions for the prevention of the communication of such disease to other persons; to enforce compliance with section 1 of this act; to see that the premises occupied by any such patient are kept in good sanitary condition; and within five days after the death or removal of any such patient, to see that such premises are thoroughly and properly disinfected.

The expense of such disinfection shall be a charge against the owner of such premises; and on the failure of such owner to properly disinfect such premises within five days after notice to do so given him by such board of health, it shall be the duty of such board to have such disinfecting done at the expense of such city, and the costs thereof shall be a lien on said premises in favor of such city and may be enforced by the city by proper action.

Sec. 4. Any practising physician who shall willfully fail to comply with the provisions of section 1 of this act shall be guilty of a misdemeanor, and on conviction thereof may be fined for the first offense not exceeding $5, and for any subsequent offense not exceeding $100.

Sec. 5. It is hereby made the duty of every person having tuberculosis, and of every one attending such person, and of the authorities of public and private institutions, hospitals or dispensaries, to observe and enforce the sanitary rules and regulations prescribed from time to time by the boards of health of such cities, and of the State, for the prevention of the spread of pulmonary tuberculosis.

Buffalo has had a similar law in force for the past five years, and New York City for nearly that length of time; other communities have made various efforts toward restricting the spread of this disease, but this is the first effort made by any State. No one would think of opposing reasonable restrictions placed against acute infectious diseases, yet tuberculosis, which kills more than all the others combined, is proverbially treated with the greatest indifference, and restrictions or regulations regarded as impositions. While heartily commending this law we fail to see why a geographic line should be drawn instead of making the measure applicable to every part of the State.

The late Mr. Lawson Tait.—Through the death of Lawson Tait English surgery becomes the poorer by one of its ablest sons. He was not first in the field in his country as an ovariotomist and never claimed to be so, but once the surgical ground in this direction had been broken he eclipsed all his colleagues by the fertility of his invention, his resourcefulness in difficulty, his boldness and his neatness of operative technic. His success in the removal of ovarian tumors was regarded some years ago as magical—indeed, there were those who did not shrink from throwing doubt upon the statistics—and although other great surgeons in England and elsewhere have been enabled since to publish lists of consecutive recoveries longer than Tait's, none of them in the public opinion ever attained to his position as an exponent of surgical dexterity. For years his practice as a gynecologist in Birmingham brought him in a colossal income, which he spent royally in art treasures, in building fancies, and in charity. Towards the close of his life, which was by no means a prolonged one, for he died at the age of fifty-five, a scandal of a nature calculated to be particularly damaging to a surgeon with a feminine clientele considerably affected his practice. He was able to prove that the essential part of the rumors against his private character was founded upon baseless allegation, but he never quite regained the enormous public repute that he had formerly enjoyed. He felt this himself, and the sense that he had slipped back rankled a little and led him to import into his relations with his colleagues an acerbity that was really foreign to an expansive nature. Success which he obtained in abdominal operations with the use only of most minute care as to cleanliness and detail, led him to belittle the value of antiseptics, for he claimed that the most modern antiseptic ritual would not have led to better results than he had obtained without such precautions. But he did not stop here, perhaps unfortunately for himself. Always a fighting man, strong in his views and resolute in their support, his attitude of scepticism was turned into one of ardent antagonism by finding his surgical brethren ranged to a man in opposition to him. And to a certain extent his love of struggling fiercely against a majority influenced him also in the position which he took up as an antivivisectionist, though here an almost morbid love of domestic animals played its share in obscuring his judgment. But whoever should estimate Tait's position in the scientific world by his wrongheadedness in the two directions we have just mentioned, would be far from appreciating the real man. Mistaken and obstinate he certainly was in some ways, but in the main he was a wonderfully sane, keen, and accomplished man, who rightly occupied a high position in his profession alike as thinker, writer, and worker.

The Suppression of Tuberculosis.—Medicine has no more formidable foe than the great white scourge, but there are indications that the resources for combating this relentless enemy are being daily strengthened, and it would appear that we are at present in the midst of a movement that promises to result in increased control and better restraint of the tuberculous diseases. No disease can be successfully attacked without a comprehension of its natural history, of its causes, its course, its modes of termination. Intelligent effort became possible only with the discovery of the tubercle-bacillus as the causative agent. With a knowledge of cause were provided means of prevention or of suppression, and with the known possibility of spontaneous recovery came increased hope from therapeutic endeavor. At no time in the history of medicine has the outlook been more encouraging. It is recognized that a disease dependent upon a living cause is also transmissible and preventable. Almost over the whole world have societies been

organized for the prevention or suppression of tuberculosis, everywhere are sanatoria for its treatment being established, and at no time has the literature of the subject been larger. The results have begun to be evident, and the next quarter-century may be confidently expected to show a diminished prevalence and a lower death-rate. A great impetus to the movement has been given by the Congress of Tuberculosis organized a few years ago and whose latest meeting was held recently at Berlin. (See Vol. III, p. 1346.)

The Congress was held in the Reichstag Building, and the opening session took place in the presence of the Empress and high German officials. The most prominent German physicians, hygienists, and bacteriologists were present, as well as representatives from England, France, Russia, Italy, Denmark, Austria, Japan, Spain, America, etc. There were over 2,000 members of the Congress and over 200 official delegates.

The papers presented by the most prominent men were thorough and complete reviews of our present knowledge of tuberculosis, from both the scientific and practical standpoints. The special object for which the Congress was called, namely the purpose of arousing interest in the erection of sanatoriums for the tuberculous poor, especially the working classes, will be greatly advanced. According to the present German laws, each laborer and each employer of a laborer is required to pay a small tax, which is subsequently utilized in taking care of the tuberculous poor. In this way quite a large fund has been secured and at the present time there are fifty sanatoriums in the German Empire in which the poorer and laboring classes can be treated. In this way a double purpose is served, namely, the improvement of the health of the individuals and at the same time their education in sanitary matters.

The discussion of the ways in which tuberculosis is contracted, especially from dust, was most complete and satisfactory. One of the most important factors in checking the spread of tuberculosis in all countries is the education of the people thoroughly in regard to the different modes in which tuberculosis may be acquired and the great danger in associating with tuberculous individuals. In other words, the people generally must be thoroughly educated in hygienic matters.

Congresses, such as that just held in Berlin, aid greatly in this general education and in exciting interest and are therefore productive of much good. The campaign promises to be a vigorous, and probably a protracted one, but it is certain that victory will ultimately be with hygienic medicine.

Marching Through Civilization with a Brass Band and a Totem-Pole.—We protest that we have only the kindest feelings towards our sectarian brethren, the homeopaths, and wish them all manner of good things in this world and in the next. For this reason we watch for and read the reports of their national gatherings with interest, eager to find, and not seldom finding, proofs that in some ways they are catching up with the times, and that the "new school" is not in reality the very oldest of schools. The recognition this year at Atlantic City by proper resolutions that opticians cannot practise medicine, the growing perception of the value and necessity of surgery, the emphasis on hygiene and cleanliness—these and similar proofs of progress always delight us and make us thankful for small favors while wishing for many more and greater ones.

But we must sadly confess that we are greatly disappointed at two phases of their convention-work. One is the brass-band nature of the proceedings. The long quotation-marked reports in the newspapers of a kind that could only be supplied by the authors, plainly shows extreme strabismus, and that the scientific eye is the amblyopic and nonfixing one; the eye that sees well and straight is looking at the popular effect. The nature of the quotations makes this most certain; the sneers at the "allopaths," the posing as martyrs, the contemptible application of the term *allopath* to those who do not believe in allopathy, the self-glorification in therapeutic success, the "prevention" of appendicitis, typhoid, etc., the nonrecognition by the government in the distribution of offices and honors, the contempt for vaccination, with many similar things,—all these things are not hopeful signs. Earnest and scientific men are not thus minded; their thoughts are fixed not upon themselves, their enemies, and their worldly success, but upon the work they have to do. Perhaps this phase of homeopathic convention-work is growing a little less conspicuous; we hope so; but the proofs are not striking, and while there is a large minority which sees the childishness and unprogressiveness of the historic fashion, its voice is altogether too weak and its influence too little manifest.

In the recognition of the great truths of biologic and medical progress whereby genuine medical science is marching to victory over disease and possession of the future,—there is really hardly a sign. Stranded and impotent, oblivious they seem to be of all the tremendous truths that are revolutionizing medicine. These truths are not "allopathic," they are in some respects even homeopathic, if we understand the term, and yet no word even of assent is given. Bacteriology, the germ-theory of disease, the great problems and victories of serotherapy, the science of the transmission of disease, the laws of heredity, the astounding truths of preventive medicine whereby the death-rate is being lessened 50%,—of these things we hear no word. They are the work of the "allopaths" and cannot therefore be acknowledged. And hence, suicide,—unpremeditated, unconscious, but yet plain suicide. Because, if

verily these are great truths, refusal to accept them means disinheritance by the future, and sentence of death for disloyalty. And, alas, in the scouting of vaccination and vivisection to the refusal of acceptance is added the contempt of denial.

Then the totem-pole at the head of the marching-column! Hahnemannism, the doctrines of *Similia*, of potentization, of the infinitely-little in dosage, etc., not to speak of the itch-theory, the smelling of drugs, the provings, etc., etc., have these any significance or value in scientific progress? Are there a dozen men in America who really in their hearts believe them? Are there a half dozen who actually carry them out in practice? Wise homeopathists should hide, and even bury, the totem-pole!

Seasickness.—The agents of the ocean-liners tell us that an unusually large number of people are going abroad this summer, and we trust the sailing-lists will include many members of the medical profession. But whether from the incentive of prospective personal experience or of professional fees, *mal de mer* always comes in for a good share of study at this season. Fortunately, the illness has no dangers, or, at least, only in the rarest cases; however, those who endure its discomforts tell us that no condition of more absolute human wretchedness can be conceived. The number of remedies, both curative and prophylactic, which have been proposed and used, is about equal to the entire table of contents of the pharmacopeia, but they are apparently as useless as numerous. Of all the lot, the bromids are the favorites. We are not at all certain that their use is desirable; they tend to depress the nervous system and disorder the stomach, both of which effects would tend to produce rather than prevent the sickness.

A number of instances have come under our observation in which persons taking the bromids freely have succeeded in warding off the illness for a time, but have later succumbed and suffered the most abject misery during the remainder of the voyage, after their fellow-passengers had had their share of discomfort and recovered. The state of the general health is of first importance; prospective travelers will do well to go on board rested in body and with the gastrointestinal tract not disordered by the banqueting and wine that often celebrate the evening before departure. A thorough hepatic purge is of decided value. Another factor of importance is the mental state of the traveler. Immigrants who have later repeatedly visited their native land often state that they were very seasick on the first voyage, when naturally depressed on leaving home and friends, but that in their later ocean travel they have been entirely free from any illness. But probably the factor of greatest importance is the steamship with which one sails. Persons who suffer intensely if they cross on the long, narrow, ocean-greyhounds which roll with every swell and pound the ship into constant motion with their powerful engines, are able to cross with slight if any discomfort on the heavily laden, broad-beamed, slow-going boats which are now so commonly well fitted for the comfort of the passengers as well as for carrying freight. Travelers who are subject to seasickness should choose the most favorable season of the year (spring or summer) in which to cross; they should select staterooms and deck quarters in the middle of the ship where there is usually least motion; they should keep in the cool air on deck with pleasant companions, and should move about as little as possible until accustomed to the ship's motion.

Under ordinary conditions of the weather there are probably few persons in good health who cannot cross the ocean in a steady ship without serious discomfort.

A unique and praiseworthy work of the Indiana State Medical Society was brought to the attention of the members of the American Medical Society at the Columbus meeting. For several years the society, by a committee on pathology, has been collecting pathologic specimens. Dr. Frank B. Wynn, of Indianapolis, is chairman of this committee, and the results of the work were brought to Columbus as a unique contribution to such research of most remarkable excellence. We copy the hitherto unpublished report of the committee made to the State Society at its last meeting. This decidedly novel movement is a proof of noteworthy originality, which we hope may stimulate others to see if the monotony of society meetings may not be varied to the great advantage of interest and scientific progress. The report reads:

> The kind expressions of approval from members of the State Medical Society, concerning the practical features inaugurated in the Department of Pathology at the meeting in Lafayette last year (1898) have led the committee to continue the plan, viz., of collecting gross pathologic specimens, photographs of unusual cases, and making practical bacteriologic demonstrations. The report upon the work accomplished must necessarily be brief and general in character. Even in a cursory manner to describe each specimen and give the history of the case as contained in the three volumes herewith submitted, would require as much time as the reading of the papers to be submitted to this body. The main features which we have sought to make prominent are the following:
>
> 1. *Animal Pathology.*—Animal pathology has brought princely returns to the science of medicine. Many disease-processes in man and beast are identical. When such is the case, it has been possible on animals better to work out the various stages of pathologic change in many diseases. Not a few contagious affections in man are contracted from beasts. Animal pathology, therefore, has a wide mission to perform in preventive medicine. Through it alone is experimental pathology possible. Without animal pathology, vaccination for smallpox, the marvelous discoveries of bacteriology and serumtherapy would not have been realized. It is entitled, therefore, to a dignified position in the Department.
>
> 2. *Bacteriology.*—The chief aim in this branch has been to present tangible proofs of the very important relationship between bacteriology and diagnosis as well as its practical bearing on all surgical procedures.
>
> The Widal test and various culture-experiments have been

shown, illustrating the dangers of failing to sterilize instruments. Theoretically all of us speak familiarly of wound-infection, of streptococci and staphylococci, but how many are consistent in practice? It is not a rare thing to see a surgeon wash in a series of antiseptic *solutions*, and yet during an operation thoughtlessly wipe his spectacles, place an instrument on unsterilized parts, grasp or touch unsterilized portions of the patient's body, in conversation splutter infected saliva into an open wound or infect it from the dripping perspiration of the face. The surgeon or practitioner, therefore, who would appreciate the full meaning of sepsis and asepsis, should possess a practical laboratory knowledge of bacteriology.

3. *Pathologic Anatomy.*—Pathologic anatomy forms the basis of rational diagnostic procedure. Familiarity with gross pathologic structures is to the physician who would diagnose disease correctly what accurate knowledge of anatomy is to the surgeon who would operate successfully. Each in its way is essential to the attainment of highest results. In the large number of specimens contributed to the pathologic exhibit, ample proof has been given of the diagnostic earnestness and scientific enthusiasm of the members of the Indiana State Medical Society. The three volumes herewith submitted contain brief histories of all the cases and descriptions of the specimens and photographs, summarized as follows:

1. Miscellaneous specimens	25
2. Photographs	204
3. Eye and ear specimens	17
4. Nervous system	19
5. Digestive system	82
6. Genitourinary system	43
7. Respiratory system	13
8. Circulatory	31
9. Osseous system	10
10. Embryology	20
11. Obstetrics and gynecology	45
12. Surgical specimens	15
13. Animal pathology	35
14. Bacteriology	200
Total	759

The thanks of the committee are due Drs. Roscoe Ritter, Conrad Marxer, Leland Westover, and W. T. S. Dodds, and numerous medical students, for valuable assistance in the preparation and presentation of the exhibit.

Committee: { FRANK B. WYNN, Chairman. H. G. GAYLORD, A. W. BITTING.

The Philadelphia Monthly Medical Journal for May, somewhat delayed, has been sent to subscribers. It contains the following articles:—

1. Eclampsia. By THOMAS SNYDER, Ph.D., M.D.C.M., M.D., of Kingston, Ontario, Can.
   (The essay winning the second prize in the department of Gynecology and Obstetrics in the PHILADELPHIA MEDICAL JOURNAL Prize-Contest of 1899.)
2. Some Facts and Theories Relating to Autointoxication. By R. H. CHITTENDEN, Ph.D., of New Haven, Conn.
3. The Indigo Group in Relation to Internal Medicine. By F. LEONARD VAUX, M.D., C.M. Trin., of Ottawa, Can.
4. Sarcoma of the Thyroid Gland. By CHARLES GREENE CUMSTON, M.D., of Boston, Mass.
5. Chemicolegal Testimony—Strychnin. By G. H. MEEKER, M S., Ph D , of Philadelphia.
6. Hay-Fever. By CAROLUS M. COBB, M.D., of Lynn, Mass.
7. Catgut Sizes. By H. B. BESEMER, M.D., of Ithaca, N. Y.
8. The "Family Sanatorium" for Pulmonary Tuberculosis. By A. DAVIS HARD, M.D., of Wentworth, South Dakota.
9. A Case of Multiple Arthropathy. By FRANK E. SIMPSON, M.D., of Chicago, Ill.

Handwriting of the Insane, Diseased, etc.—The editor of the PHILADELPHIA MEDICAL JOURNAL requests physicians to have the kindness to send him references to articles treating of or illustrating the handwriting characteristic of types of disease, insanity, criminality, etc. Those having unpublished examples or data concerning the subject will confer a favor by corresponding concerning the same.

Correspondence.

ANESTHESIA.—WITH SPECIAL REFERENCE TO COMPOUND OXYGEN AND CHLOROFORM.

BY NATHAN SMILIE, M.D.,
of Philadelphia.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

AFTER 2 years of experience as anesthetist to a general hospital covering at least 3,000 cases of anesthesia, in private and hospital work, the conclusion is forced upon me that in 9 out of 10 cases the shock of an ordinary anesthetic is greater than that caused by the operation *per se*. It is useless for me to go over the common everyday results of ether and chloroform; every anesthetist is familiar with the circulatory depression of chloroform and the respiratory depression of ether, etc., *ad infinitum*.

While experimenting with the Northrop method of administering chloroform by passing the pure oxygen-gas through the chloroform and allowing the patient to breathe the vapor in a closed inhaler, I noticed that in every case there followed a depressed condition of varying degree, dependent almost wholly on the previous condition of the patient, and not to any marked extent on the severity of the operation. This opened the way for the usual interrogation, Why? And it is to answer this question, according to my deductions, that I now write. Our study of chemistry and physiology has taught us that the normal atmosphere we breathe contains only 21 volumes of oxygen to 79 volumes of nitrogen and other gases; and further, that life cannot be sustained on pure oxygen alone. By forcing the patient to breathe an atmosphere of pure oxygen and chloroform in a close rubber bag, we are increasing the combination of the red corpuscles with oxygen and forcing a rapid combustion of the tissues, thus rapidly charging the blood with the result—carbonic acid and water. This is proved by the fact I have noticed always that the longer the anesthetic is kept up the higher is the ratio of shock. It is much greater for the last half of the hour than for the first half, in fact many cases that start in apparently in good condition for the first 30 minutes suddenly "go to pieces" and the anesthetic has to be stopped, and in many cases the patient infused with normal saline solution to bring about proper reaction. Kirke, in his Physiology, page 93, in speaking of the absorption of oxygen by the blood, says: "If the proportion is great the absorption will be great. The absorption continues until the proportions of the gas in the liquid and in the atmosphere are equal,—and the action of the oxygen in contact with blood goes further, it forms a chemical union with the red blood-corpuscle; the hemoglobin constitutes 90% of the red corpuscle, and thus has great power of absorption of oxygen. The product of oxidation is always a deleterious matter, carbonic acid, and therefore we can account for the marked depression by the use of pure oxygen, in the poisonous effect it has on the nerve-centers, causing a partial paralysis, and, if continued long enough, complete paraly-

sis." To anticipate a little let me say here, that the action of nitrous-oxid gas reduces the oxyhemoglobin, and therefore leaves the reduced oxyhemoglobin in a condition to take up oxygen actively again. Therefore, instead of using pure oxygen I suggest the substitution of a compound which has within itself the antidote for the depressing effect of too much oxygen, namely, a mixture of oxygen and nitrous-oxid gases in the proportion of 60 parts of oxygen to 40 parts of nitrous-oxid gas. We thus make an approach to the normal atmospheric combination, yet at the same time introduce an agent which by itself has anesthetic properties.

As to the mechanism of administrations, I would make the following suggestions: The best arrangement is probably the one manufactured by Chas. Lentz & Sons; but if desirable to save expense one may devise an outfit as follows: Procure an ordinary cylinder containing 40 gallons of compound oxygen, 60 parts, N_2O_2 40 parts, such as may be obtained in the market, a valve-attachment for regulating the flow of gas, and, to attach the pipe to, an ordinary wide-mouthed 4-ounce bottle with rubber cork, and 1½ yards of half-inch rubber tubing, two pieces of ½ inch brass or copper tubing, one 3 and one 5 inches long, also a common Esmarch inhaler. Cut a 6-inch piece of rubber tubing and then attach one end to the 5-inch metal tube and insert it in one side of the rubber cork so it will reach the bottom of the vial. Attach the other end to the valve stem on the cylinder. To the short metal tube attach the balance of the rubber tubing, and insert the metal tube in the rubber cork so as to just pass through the cork into the vial; then attach the free end of the long rubber tube to the center of the under side of the Esmarch inhaler by a safety pin or silk thread. When ready to use fill the bottle half-full of water, insert the cork and turn in a slow bubbling stream of gas. Then place the inhaler over the patient's face and drop the pure chloroform on the top of the Esmarch inhaler, gradually increasing the quantity until the patient is in the third stage of anesthesia, which is characterized by the contracted, slightly reacting pupil, insensitive cornea, etc. As soon as the patient is in the third stage or deep narcosis, count the pulse and compare it with the rate of beat before the anesthetic was started; if it is slower than at the start, increase the flow of gas; if faster, diminish the flow of gas until it returns to the previous condition. It is very essential that the pulse should be taken while the patient is resting quietly in bed, a half-hour or an hour before operation. I do not consider the pulse-rate as taken in the operating-room just before starting the anesthetic a reliable guide, as the anxiety and excitement just prior to the operation often change the pulse-rate remarkably. Desgres and Nicolaux, of Paris, state that after making some exhaustive experiments, chloroform in contact with potassium or any alkaline fluid disengages oxid of carbon. Experimental investigation showed that the alkaline blood affected inhaled chloroform in the same way, one subject having 1—1000 of oxid of carbon to 5 kilograms of blood, total weight of the blood 65 kilograms. While the proportion is not large, still it is such a deadly poison that it may explain some of the accidents due to pure chloroform. Therefore, by the introduction of oxygen and nitrous-oxid gas, the oxyhemaglobin is reduced, the oxygen resupplied and the condition of the blood is kept nearer the normal than in any other form of anesthesia. To summarize the reasons why I prefer compound oxygen and chloroform:—

1. There is less shock, and therefore less danger to the life of the patient. The records of 500 cases show that in an enormous percentage the pulse runs up under ether to 140 or 150 at the end of an hour. This, I am confident, was due to ether-shock, as I have never seen it correspondingly high under compound oxygen and chloroform, nor have I seen it alarmingly depressed in the same length of time.

2. I have never seen a spasm of the glottis or the respiratory muscles, in the experience of my assistant in learning its use, nor in my own experiments.

3. I have never seen a patient become cyanotic or indicate poor aeration in any way, as is common under ether-narcosis.

4. On account of the tranquillity of the circulation when under its effect there is less hemorrhage during operation than under ether when the heart is bounding and throbbing and the blood is forced in torrents through the vessels.

5. It is not contraindicated in operations on the brain, as it does not produce marked congestion of the meningeal bloodvessels, as does chloroform or pure ether (due to the action of the nitrous-oxid gas).

6. There is almost complete absence of nausea—none as soon as the patient is fully conscious. Several cases have been out on the street 30 minutes after being in the third stage of anesthesia under its action.

7. In Bright's disease it is not contraindicated. It has been given to patients with large amounts of albumin, casts, and all evidences of a chronic kidney-lesion, with no bad effects after operation, and no aggravation of the lesion.

8. It is the ideal anesthetic for tuberculous, alcoholic, and syphilitic patients. Especially in alcoholics, what anesthetist has not deplored the fact when one of the old "chronics" fell to his lot, to anesthetize? There is no excess of mucus secreted, as it is nonirritant to the mucous tract.

In fact, it has been given in all cases in hospital work, without discrimination as to age, general condition, or severity of the operation, taking them as they came, and in none has any bad result followed.[1]

I will cite a few cases to show the nature of the results:

Mrs. E. A. G., aged 40, with the heart-impulse weak, urine scanty and albuminous, had a temperature before operation of 98.2°, a pulse of 80, and respirations 20. The operation was for the removal of fibrocystic tumor, weighing about 3 pounds, from the posterior surface of the uterus. The time of operation was 1¾ hours. The temperature at the end was 98°, the pulse, counted by three persons, 80; the respirations, 22. Two ounces of chloroform was used, and compound oxygen as needed.

Case II.—A. J. H., aged 54, whose heart was good, had albumin in his urine; his temperature was 99.8°; his pulse, 98; his respiration, 28. The operation was a trephining of the skull, occupying 30 minutes. After the operation the temperature was 98.8°, the pulse 104, the respiration 28. One ounce of chloroform was used, and compound oxygen as necessary.

Case III.—Miss J. M. had heart, lungs and urine normal; her temperature was 99 4°, the pulse 80, the respiration 24. The operation was double oophorectomy, occupying 1 hour. After the operation the temperature was 99°, the pulse 78, the respiration 26. Chloroform, 1½ ounces, was used, and compound oxygen as indicated.

Case IV.—W. B. had heart and lungs normal; the urine was not examined. The temperature was 98.4°, the pulse 88, the respiration 24. Time of operation (appendicectomy) was 30 minutes. The temperature after the operation was 97.6°, the pulse 87, the respiration 24. Three-quarters of an ounce of chloroform and compound oxygen were employed.

These cases are simply to give an idea of what the action of compound oxygen and chloroform is on the human system. Notice the absence of shock, even in the first case, prolonged for an hour and 45 minutes, and of itself a serious operation. I earnestly extend my plea for a trial, and shall be glad to hear reports from those interested.

[1] My thanks are cordially extended to Dr. Chas. A. Church, of Passaic, N. J., for suggestions as to the compound oxygen best suitable for anesthetic work.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

University of Pennsylvania.—Owing to the resignation of Dr. Chas. B. Penrose, the chair of gynecology is vacant. Individuals desiring to be considered as candidates for the position may send notice of such desire to the Dean of the Medical Faculty, University of Pennsylvania, before September 18, 1899.

Vital Statistics of Philadelphia for the week ending June 24, 1899:—

Total mortality		379
Children under 5 years of age		122
Diseases.	Cases.	Deaths.
Pulmonary tuberculosis		50
Nephritis 26, uremia 5		31
Gastroenteritis 12, cholera infantum 17, diarrhea 1		30
Heart-disease 22, inflammation of the heart 4, fatty degeneration of the heart 3		29
Marasmus 16, inanition 9, debility 2		27
Diphtheria 20, membranous croup 2	63	22
Carcinoma 16, tumor 2		18
Convulsions 16, epilepsy 2		18
Inflammation of the brain 11, congestion of the brain 6		17
Apoplexy 12, paralysis 1, softening of the brain 2		15
Pneumonia 14, congestion of the lungs 1		15
Senility		14
Casualties 8, burns and scalds 4		12
Typhoid fever	48	9
Scarlet fever	36	3
Cerebrospinal meningitis		1
Smallpox	2	
Drowned 7, pertussis 7, bronchitis 6, cirrhosis of the liver 4, cyanosis 4, appendicitis 4, peritonitis 3, shock 3, sunstroke 3, teething 3, dysentery 2, intestinal obstruction 3, pyemia 2, suicide 2, alcoholism 1, dropsy 1, catarrhal fever 1, gangrene 1, hemorrhage 1, poisoning 1.		

NEW YORK.

Cornell University Medical College.—Dr. Paul R. Brown has been appointed lecturer on obstetrics and surgery in the Ithaca branch of the college.

Bellevue Hospital, New York.—Dr. George R. Lochwood has been appointed visiting physician to succeed Dr. Jacobi, resigned, and Dr. Henry A. Griffin has been appointed assistant visiting physician.

St. John's Hospital, New York, is to be provided with a new pathologic laboratory. It is thought that the erection of the building will be begun shortly, the funds having been raised. The laboratory will be thoroughly equipped.

NEW ENGLAND.

Dr. Charles F. Folsom, for many years connected with the Boston City Hospital, has resigned.

Dr. Harold C. Ernest, professor of bacteriology in the Harvard Medical School, has resigned his appointment as physician to out-patients in the Massachusetts General Hospital, the demands of his laboratory calling for all his time.

Boston City Hospital.—Four wards in the Boston City Hospital have been closed for six months by the Board of Trustees. The estimates for maintenance were too honest. The hospital authorities asked for no more than the lowest possible amount of funds, and the City Board of Apportionment revised it by cutting off $15,000, thinking it would never be missed in a year's expenditure. But every cent was needed, and immediate curtailment followed the news of the vote.

CHICAGO AND WESTERN STATES.

Wedding Gift to a Hospital.—On the occasion of the marriage of Arthur P. Heinze, of Brooklyn, N. Y., and Ruth Meiklejohn Noyes, of Butte, Mont., the groom and his brother gave $5,000 each for the establishment of an emergency hospital in Butte.

Chicago Medical Society.—At the annual meeting held June 21, the following were elected officers for the ensuing year: Dr. J. C. Hoag, president; Dr. H. B. Favill, first vice-president; Dr. H. T. Patrick, second vice-president; Dr. S. C. Plummer, treasurer; Dr. A. R. Edwards, secretary. Drs. Sanger Brown, John M. Dodson, and A. D. Bevan, trustees.

Cincinnati (Ohio) College of Medicine and Surgery.—Dr. W. E. Kiely has resigned the Chair of Pediatrics and been elected to the Chair of Theory and Practice of Medicine. Dr. H. W. Bettman has been elected Professor of Theory and Practice of Medicine. Dr. W. H. Wenning, Professor of Gynecology, vice Dr. J. A. Johnston, resigned; Dr. Giles Mitchell, Professor of Clinical Gynecology; Dr. Tate, Lecturer on Pediatrics.

Cleveland Medical Society.—At a meeting held on June 9 DR. W. T. HOWARD read a paper on **The typhoid bacillus as a cause of post-typhoidal suppuration.** He called particular attention to the considerable number of cases of typhoid in which there are complicating suppurative processes, and that in nearly all of these the typhoid bacillus is the cause directly of the suppuration. The danger of typhoid infection to the physician or nurse caring for these cases is very definite. There are now a number of carefully recorded cases of typhoid in which the bacillus occurs in the body without the characteristic lesions of the ileum and colon. The typhoid bacillus when it gains entrance to the intestine does not necessarily produce ulcers. Postmortem it is always necessary to make cultures before it can be positively stated that the disease was not typhoid. DR. L. G. TOWSLEE asked in what percentage of cases typhoid can be diagnosed by a bacteriologic examination of the urine. DR. R. J. WENNER asked how long after an attack of typhoid the Widal reaction holds good. DR H. S. UPSON pointed out the probability from recent progress of an entire regeneration of our nomenclature of disease. Formerly we named diseases by a symptom-complex, then we began to name them by their typic pathologic lesion, but now we are approaching a much better method of classifying them according to the germ which causes them. DR. HOWARD, in closing, said that Richardson found the typhoid bacillus in the urine in a considerable proportion of cases, and that in some cases the bacillus appeared in the urine early and in others late in the course of the disease. The Widal test being really a reaction of immunity the blood serum of a person who has had typhoid will give it for a very long time after the attack; just how long we do not yet know. The only scientific way of classifying disease is according to etiology. I am in the habit of saying to students that diphtheria is any process in any part of the body caused by the diphtheria-bacillus. In answer to a further question by Dr. Wenner he said that he did not consider the diazo-reaction of much importance in typhoid because it occurs in so many other diseases with which typhoid is likely to be confused.

DR. C. J. ALDRICH made some remarks upon the **epidemic of cerebrospinal meningitis** now occurring in Cleveland, promising at a later date a full report of two necropsies of cases at the City Hospital. He spoke of the great value in the diagnosis of the disease of Kernig's sign, which has not yet been properly estimated at its full value by the profession. It is very simple, consisting in inability for a child with meningitis to sit on a bed with the legs extended flatly, for, owing to a contraction of the hamstring-muscles, they are bent at an angle of 20° or more. Lumbar puncture is undoubtedly the most valuable method of diagnosis, but requires an extensive laboratory to make the necessary careful cultures. DR. W. G. STERN showed cultures from the cases

of cerebrospinal meningitis at the City Hospital. The *diplococcus intracellularis* was found in the culture from serum obtained by lumbar puncture in one case. It was found that simply inoculating the culture-medium with a drop or two of the suspected fluid was unsatisfactory. It was found to be much better to overlay the medium with a 5 to 10 cc. of the serum, when growth took place readily. DR. WENNER noted that always the cerebrospinal fluid from a case of meningitis if examined closely will show some clouding. DR. HOWARD reported a recent case at Lakeside Hospital in which the fluid drawn by lumbar puncture seemed clear, but on putting it in the centrifugal machine a considerable amount of sediment was obtained from which cultures were readily made. In this case there were no eye-symptoms, but slight deafness and delirium, which soon passed away, leaving practically no symptom but weakness, and becoming an apparently chronic case. In a necropsy done for Dr. H. W. Wickes of the Marine Hospital there was a large amount of thick yellow pus at the base of the brain. The optic and olfactory nerves were covered with thick pus. Pus was also found in the pia arachnoid under the surface of the cerebellum. Cultures could not be made from this pus, probably because the organisms were in the cells. It was noticeable, however, that the total amount of pus was less than one would expect would cause death, leading to the conclusion that the toxins produced by the organism must be very virulent.

MISCELLANY.

Obituary.—DR. WALTER M. WRIGHT, Orange, Mass., June 23.—DR. E. L. JOHNSON, Lestershire, N. Y., June 21.—DR. THOMAS OSMOND SUMMERS, a volunteer surgeon in the U. S. Army during the recent war, and professor of anatomy in the College of Physicians and Surgeons of St. Louis, by suicide while despondent, June 13, aged 47 years.—DR. FRANCIS A. SIMMONS, St. Joseph, Mo., June 4, aged 70 years.—DR. B. H. BEAN, Cherry Valley, Ill., June 18.—DR. N. R. CASEY, Mound City, Ill., June 6, aged 73 years.—DR. B. F. FOWLER, Galena, Ill., June 16, aged 74 years.—DR. M. W. GOBBS, Richmond, Ind., June 16, aged 65 years.—DR. JOHN S. PEARSON, Louisiana, Mo., June 2, aged 67 years.—DR. NATHAN PRATT, Mildred, Del., June 23, aged 65 years.—DR. WILLIAM G. BRADY, New York, June 20, aged 37 years.—DR. LULU C. FLEMING, a well-known missionary in Africa, under the auspices of the Woman's Baptist Foreign Missionary Society, in Philadelphia, June 20.—DR. JAMES WARD SCOTT, JR., Belair, Md., June 20, aged 54 years.—DR. WALTER M. WRIGHT, Orange, Mass., June 18, aged 55 years.—DR. IRA D. BROWN, Weedsport, N. Y., June 23, aged 68 years.

Changes in the Medical Corps of the U. S. Army.

GIRARD, Major JOSEPH B., surgeon, is granted leave for one month, on surgeon's certificate, with permission to leave the limits of the department of the Missouri. June 6.

QUINTON, Captain WM. W., assistant surgeon, is assigned to the department of the province of Havana and Pinar del Rio.

LIPPINCOTT, Lieutenant-Colonel HENRY, deputy surgeon general, leave for 15 days granted is extended 15 days. June 9.

FULLER, First Lieutenant LEIGH A., assistant surgeon, is relieved from duty in the department of Havana, and will report at U. S. Military Hospital, No. 1, Havana, Cuba, for assignment to duty.

THOMPSON, LUTHER, hospital steward, will be sent by the commanding officer of Fort Snelling to Fort Keogh, for duty.

WATERHOUSE, First Lieutenant SAMUEL M., assistant surgeon, is assigned to duty at Fort Wood, N. Y.

KIMBALL, Major JAMES P., surgeon, will, in addition to his other duties, perform those of chief surgeon of the department of the East during the absence of Colonel C. C. BYRNE, acting assistant surgeon, on leave.

LEAHY, MICHAEL, hospital steward, Fort Sheridan, will be sent to San Francisco, Cal. He will report to the commanding general, department of California, who will assign him to duty in that department.

RAIKES, BENJAMIN T., hospital steward, Fort Thomas, will be sent to San Francisco, Cal., and will report to the commanding officer, battalion of the Twenty-fourth Infantry, which is to take station at Manila, P. I., for duty with the Hospital Corps department of that battalion.

COMBE, Major FREDERICK J., surgeon, is assigned to duty at the Medical Supply Depot, Santiago, as officer in charge.

GEDDINGS, E. V. acting assistant surgeon, Medical Supply Depot, Santiago, will report to the commanding officer, U. S. General Hospital, Santiago, for duty.

GARDNER, Major EDWIN F., surgeon, leave for one month is granted to take effect upon the adjournment of the general court-martial of which he is president. June 21.

Changes in the U. S. Marine-Hospital Service,

for the seven days ended June 22, 1899:

IRWIN, FAIRFAX, surgeon, granted leave of absence for three months from July 8, 1899, with permission to go beyond the sea. June 16.

CARTER, H. R., surgeon, detailed as quarantine officer of the port of Habana, Cuba, under the provisions of Executive order of January 17, 1899. June 22.

BANKS, C. E., surgeon, to proceed to New York, N. Y., for special temporary duty. June 22.

WERTENBAKER, C. P., passed assistant surgeon, to proceed to Danville, Va., for special temporary duty. June 17.

SMITH, A. C., passed assistant surgeon, granted leave of absence for 30 days from July 15, 1899, or when relieved. June 20.

STEWART, W. J. S., passed assistant surgeon, granted leave of absence for 52 days from June 19, 1899. June 16.

COFER, L. E., assistant surgeon, to proceed to El Paso, Texas, as inspector. June 16. To proceed to Mexico, Mexico, for temporary duty. June 16.

SIBREE, H. C., acting assistant surgeon, granted leave of absence for 10 days from June 21, 1899. June 21.

WAKEFIELD, H. C., acting assistant surgeon, granted leave of absence for 30 days from June 15, 1899, on account of sickness. June 16.

GAHN, HENRY, hospital steward and chemist, to proceed to New York, N. Y., on special temporary duty. June 16.

MASON, W. C., acting assistant surgeon, granted leave of absence for 6 days from June 25, 1899. June 19.

PROMOTION.

SLOUGH, CHARLES, junior hospital steward, to be senior hospital steward. June 16.

RESIGNATION.

STEWART, W. J. S., passed assistant surgeon, resignation as passed assistant surgeon accepted as tendered, by direction of the President, to take effect August 9, 1899.

Changes in the Medical Corps of the U. S. Navy,

for the week ending June 24, 1899:

ATLEE, L. W., surgeon, detached from the "Boston" and ordered to the "Bennington."

WARD, B. R., passed assistant surgeon, detached from the "Bennington" and ordered to the "Boston."

FURLONG, F. M., assistant surgeon, detached from the "Independence" June 30, and ordered to the "Solace" temporarily, for passage to the Asiatic Station.

HERNDON, C. G., surgeon, on completion of temporary duty at recruiting rendezvous at Chicago, Ill.; Cleveland, Ohio, etc., ordered home to wait orders

MARMION, R. A, medical inspector, detached from the Washington Navy Yard, July 1, and ordered home to wait orders.

DICKSON, S. H., surgeon, ordered to the Washington Navy Yard, July 1.

Foreign News and Notes.

GREAT BRITAIN.

Diphtheria in London.—During the month of May there were 1,099 cases of diphtheria in London of which 129 terminated fatally. During the week ending June 10 29 deaths were registered from this cause.

A bust to the memory of the late Dr. George R. Mather was recently unveiled in the People's Palace, Glasgow. Dr. Mather was well known and esteemed by all in Glasgow, but by none so much as by those resident in the East End, where he chose to labor. He was of most sympathetic nature, benevolent and prominent in all movements looking toward the betterment of his fellow citizens.

Canon Fleming is an eloquent and popular London preacher and his church, a small one, St. Michael's, Chester Square, stands in a highly fashionable part of the Grosvenor estate. For years the Canon has extracted from his wealthy congregation a magnificent offertory to be given to the

Metropolitan Hospital Sunday Fund, and in 1899 his words have still had their magic effect upon his parishioners' pockets. As a response to his appeal from the pulpit on Sunday, June 11, no less than £1,333 was subscribed by his hearers.

Scotch Thrift.—The Scotch nation is universally famed for getting much out of people for little return; and the fourth annual report of the Local Government Board for Scotland, which has recently been published, contains a proof that the national reputation has been well earned. For in the matter of salaries to their public-health officers certain Scotch communities would seem to have reached the extreme limits of economy. In four Scotch boroughs the *annual* remuneration af the medical officer of health is £1; in two it is one guinea (£1 1s.); in one it is £1 5s.; in one it is £1 10s., and in seventeen it is £2 or £2 2s. Of course the boroughs in question are small, some of them are very small, but no community can be so tiny as to warrant the payment to its health-officers of such ridiculous salaries.

The Ingratitude of the Imperial Parliament.—Mr. Arthur Balfour, the First Lord of the Treasury, had a singularly ungracious task to perform when explaining to the British House of Commons, at a recent sitting, why in the formal vote of thanks offered by Parliament to the officers and men engaged in the recent Soudan campaign the names of **no members of the Royal Army Medical Corps were included.** The First Lord said that the omission was due to the principle that "you must draw the line somewhere," but gave no reason whatever why the line should be drawn so as to exclude proper recognition of that department of the army of whose services in the very campaign in question, Lord Kitchener had used the following significant words: "The medical arrangements were so conducted as to afford the maximum of comfort with the minimum of suffering." There can be no doubt that, in common justice to the excellent work of the Corps, Surgeon-General Taylor, R. A. M. C., should have been personally thanked by Parliament, as the officers of his rank in other departments were thanked. And there can also be no doubt that it is this sort of petty slight which has made military medical service unpopular among British medical men.

Surgeon-General Sir Joseph Fayrer has been granted a good service-pension, and if there is an officer who has earned any sort of pension, however large, which it is in the power of Queen Victoria to bestow, it is the well-known man of science, soldier, and administrator, Sir Joseph Fayrer, who is in his seventy-fifth year, has served in the Naval Medical Service, the Army Medical Staff, and the Indian Medical Service, and while an officer in the last of these services went through the Indian mutiny, being Residency Surgeon at Lucknow throughout the famous siege. In 1876, he accompanied the Prince of Wales on a tour through India, when his remarkable knowledge of the climate, customs and topography of the Empire largely assisted the heir to the crown in his tour of survey. Only recently he resigned the important appointment of President of the Medical Board of the India office, which he had held for over twenty years, on which occasion he was made a baronet. The list of his honors is a large one. He is a K. C. S. I., a Fellow by examination or in an honor capacity of all the important scientific societies and medical corporations; a Fellow of the Royal Society of London and also of Edinburgh; an LL.D. of Edinburgh, St. Andrew's, and Calcutta Universities, and a *décoré* of such famous orders as the Redeemer of Greece, the Conception of Portugal, and the Turkish Mejidieh. His scientific works are too many to enumerate, but his work on the poisonous snakes of India is his best known literary achievement.

The New Medical Graduates' College.—A highly successful dinner was held in London on June 14, to celebrate the opening of a new central college for the use of British medical graduates, called the Polyclinic. The object of the new institution is to afford a central place of post-graduate education for practitioners. It has long been felt that medical science is now so progressive as well as so wide in its scope that it is impossible for a man engaged in the routine of daily practice to keep abreast with all the developments in treatment, to say nothing of all the speculations as to etiology, with which he might desire to be familiar. The aim of the Polyclinic is, in the words of Sir John Lubbock, who presided at the inaugural banquet, "to facilitate the lifelong education of medical men in all directions and to give them the opportunity of making themselves acquainted with all fresh discoveries." This is to be done by providing the subscribing members of the Polyclinic with a first-rate library, some carefully selected postgraduate lecturers, a collection of instruments and surgical appliances, which will be kept up to date, and lastly a certain number of daily consultations concerning rare or obscure cases. It is notorious that medical men, whether British or visitors, never see a small fraction of the clinical material which London contains. Now a rare case is admitted to (say) St. George's Hospital, and a few people hear of that; now a departure in treatment is devised at (say) the London Hospital, and a few hear the surgeon give his reasons for his procedure, or see him perform the operative feat; but the two hospitals are miles apart, and there is no central bureau for interchange of information; so that it is almost certain that whoever sees the unusual patient does not see the unusual operation. This is true with regard to the London consulting surgeon or physician; and it is doubly true with regard to visitors from abroad or busy general practitioners having only a limited time at their disposal during their flying visits to the metropolis. The authorities in charge of the Polyclinic intend to centralize and utilize some of this ennormous quantity of clinical material, now of use only to a few staff officers and students at different hospitals, for the benefit of general practitioners. Rare cases will be looked for and brought to the Polyclinic for demonstration, and new operative procedures will be debated at the consultations. There will be no beds in the building, and, therefore, no acutely ill patients and, of course, no operations. With these limitations, the Polyclinic should, if it lives up to the scheme of its foundation, prove to be a permanently up-to-date medical school for qualified men; a place where they can always find information and advice. Mr. Jonathan Hutchinson, F.R.S., consulting surgeon to the London Hospital, and a past president of the Royal College of Surgeons of England, has been the moving spirit in starting the Polyclinic and has dowered its museum with a unique collection of specimens and its library with a splendid collection of books, to say nothing of subscribing £1,000 to the general expenses.

CONTINENTAL EUROPE.

University of Halle.—Four young women have passed their Physikum (the preliminary after fourth semester-examination in the study of medicine). This is the first time that women have been admitted to medical examinations in Germany.

The French Surgical Congress will meet in Paris, October 16, 1899. The following are the questions proposed for general discussion: Total abdominal hysterectomy, and tumors of bone.

University of Berlin.—Dr. Karl Benda has been appointed professor of histology, Dr. Paul Heyman, professor of diseases of the nose and throat, and Dr. George Salomon, professor of medical chemistry.

University of Cracow.—Dr. Bronislaus von Kader, of the University of Breslau, has been invited to assume the chair of surgery in the University of Cracow, made vacant by the death of Professor Ed. Grube.

Horseradish in the Rectum.—At a recent meeting of the Société d'Anatomie de Paris, Dr. Leguen presented a piece of horseradish, cone-shaped, 14 inches in length, that he had extracted from the rectum of one of his patients.

University of Vienna.—Dr. Emil Zuckerkandl, professor of anatomy, has been elected Dean of the Medical Faculty, in succession of Dr. Theodor Puschmann, professor of medical history, who has resigned because of failing health.

A statue of Hippolyte Larrey was unveiled last week in the court of the Hôpital de Val-de-Grâce. The ceremony was conducted by General Zurlinden, military governor of Paris. In the same court stands a statue of the famous Baron Larrey, father of Hippolyte Larrey. Military medicine from the time of Napoleon I up to the present day has centered in the Larreys. The father was attached to the army of Napoleon Bonaparte, and participated in every campaign up to and including the disaster at Waterloo. The mantle of the father fell upon the son, and with the army in Italy, to Solferino, in the hospital at Picpus, during the great cholera epidemic (1832), and lastly the campaign of '70, this son continued the history begun by the father.

Southwest German Neurologists and Psychiatrists.—The twenty-fourth convention, held June 3–4 at Bern, had some 20 members on its program. The most important were Prof. v. Strümpell, of Erlangen, "The Action of the Reflex in Skin and Tendon in Nervous Diseases;" Prof. Fried. v. Schultz, of Bonn, "Diagnosis and Successful Treatment of Tumors of the Membranes of the Spinal Cord;" Prof. Vierordt, of Heidelberg, "Little's Disease in Twins." Other speakers were—Strassburg: Dr. Hoche, Prof. Füstner, Dr. Passow, Dr. Gerhardt, Dr. Neumann; Heidelberg, Dr. Nissl, Prof. Hoffmann, Dr. Aschaffenburg; Teinach: Dr. Wurm; Mannheim: Dr. Friedman; Wiesbaden: Dr. R. Schütz; Stuttgart: Dr. M. Weil; Tübingen: Prof. Grutzner; Aachen: Prof. Dinkler, Dr. Eversmann; Konstanz: Dr. H. Schmidt; Königstein: Dr. Kohnstamm; Rockenau: Dr. Fürer.

A Vaccination Centenary.—In Vienna recently the medical profession celebrated the hundredth anniversary of the first vaccinations in Vienna, and, in general, on the Continent of Europe. Dr. Johannes Chevalier de Carro, a native of Geneva, who studied medicine in Edinburgh, made Jenner's acquaintance, and, on settling down in Vienna, received from him, in May, 1799, the first cow-virus, with which, on May 10, he vaccinated his two elder sons, who subsequently helped him to promote the use of the new preventive. The Archduke Charles, in 1803, recommended to the Hofkriegssrath, or War Office, the introduction of vaccination in the army, but in the meanwhile Dr. de Carro had sent cow-lymph, which was by that time being produced in Vienna itself, to Greece, Turkey, and even to Bombay, Ceylon and Sumatra, the invention of an ingenious method of packing vials of liquid lymph being attributed to him by his contemporaries. In any case he was undoubtedly foremost in propagating Jenner's idea, and in introducing vaccination to all the Eastern countries.

Another Case of Total Extirpation of the Stomach.—Friday, June 9, Dr. Kocher, in his clinic at Bern, made a total extirpation of the stomach for carcinoma of the pylorus. The case was held to be favorable because of the absence of lymphatic involvement. The patient was a woman about 40 years of age. The stomach was removed as a whole, including the cardia, and a direct anastomosis was made between esophagus and duodenum. The patient recovered from the operation, and apparently was doing well until June 13, when, for some unaccountable reason, she died. At the postmortem it was found that in spite of the great care exercised not to interfere with the circulation of the intestines, that the nutrition was sufficiently bad to cause a small area of necrosis in the wall of the transverse colon. As a result of this there was a mild peritonitis, which in the patient's poor condition was enough to cause death. The field of the operation itself was found in good order, the esophagoduodenal anastomosis having nearly healed.

The fourth convention of the "Woman's Association for Help and Care Under the Red Cross" (IV Verbandstag der Deutschen Frauen Hilfs- und Pflegevereine unter dem Roten Kreuz) was held June 6–8, at Bern. Many illustrious names were enrolled on the list of attendants. The city gave special concerts, excursions and an illumination of the castle in their honor. Some of the speakers were, Dr. Sachs, of Karlsruhe; Dr. Bettmann, of Heidelberg ("Training of Nurses"); Dr. Kraske, of Freiburg i. B. ("Preparation of women to service in war-hospitals"); Major-General Speck, of Munich ("Arrangements for the support and care of the Red Cross nurses in the case of war"); Dr. Czerny, of Heidelberg ("First care of abdominal wounds"); Dr. Hauser, of Karlsruhe ("The care of the sick in the country.") Geh.-Rat Czerny made five theses: (1) It is no longer correct to say that abdominal wounds in war cannot be helped; (2) they can be helped if brought out of the firing line to professional surgeons within 12 hours; (3) since with the increase of the number of wounded because of the modern rapid fire guns the number of surgeons must be too small, we should support the demand that a "Sanitäts-Colonne" with trained physicians should be in the front on foot; (4) even if the conditions at a field of battle prevent the same care for asepsis as in peace, yet the conditions for the success of a laparotomy are not so complicated as the "antiseptic purists" demand and can be met; (5) it is not at all necessary to appoint a special division for abdominal operations. Every physician should aid where he can be of real help. Such a division of labor leads to a loss of power and could only be allowed where there is an abundance of workers.

MISCELLANY.

Obituary.—Dr. HERRMANN IMMERMANN, professor of medicine and director of the medical clinic at the University of Basle, June 9, aged 61 years.—DR. HUGO WEIDEL, professor of chemistry and director of the chemical laboratory at the University of Vienna, of angina pectoris, June 7, aged 50 years.—DR. FRANZ VON CHELIUS, a well-known surgeon of Heidelberg.

Society Reports.

THE AMERICAN MEDICAL ASSOCIATION.

Fiftieth Annual Meeting, held at Columbus, Ohio, June 6, 7, 8, 9, 1899.

(Special report for the PHILADELPHIA MEDICAL JOURNAL.)

Section on Diseases of Children.

(Continued from Vol. III, page 1339.)

SECOND DAY.

Hysteria in Children.—DR. E. E. MAYER, of Pittsburg, described hysteria as an affection characterized by a discharge of morbid influences along the various motor and sensory paths. The brain was a passageway as well as a storehouse. The well-known hysteric stigmata were usually absent in children, thus adding to the difficulties of diagnosis. Such children were usually precocious, conceited, and emotional. Camp-meetings and spiritualistic seances were powerful etiologic factors, as were also improper home-influences and training. DR. SLAGLE said that as a symptomatic affection, hysteria was not uncommon in young children, but he did not think idiopathic hysteria was frequently met with. In certain cases in which the cause of the hysteria was obscure, the physician should bear in mind that the administration of strychnia was often responsible for hysteria. DR. ROSA ENGELMAN and DR. G. BLECH narrated interesting cases of hysteria occurring in young children, and DR. HARRIET E. GARRISON spoke of a case which had puzzled her a long time before she had discovered that the hysteric convulsions were dependent upon taking strychnin. DR. SLAGLE declared that hypnotism was superior to all other methods of treating hysteria. DR. MAYER replied that it was, in his opinion, the worst method, and that it was steadily losing ground even in Paris.

Infantile Convulsions; their Cause, Nature and Management.—DR. C. G. SLAGLE, of Minneapolis, was of the opinion that there existed in some children "a convulsive tendency." A body-temperature of 103° F. kept up for several hours in a neurotic child would be very apt to result in convulsions. He found it difficult to recall out of his large experience cases in which the convulsions seemed to have resulted from dentition, and it was a safe rule to exclude dentition from consideration until all other probable causes had been excluded. Probably in 50% of all cases of convulsions the direct cause was improper feeding. DR. A. C. COTTON, of Chicago, directed attention to his studies on the changes in the quality of breast-milk resulting from mental, hygienic, climatic, thermic, and other influences, and gave it as his opinion that a nursing infant was often most seriously disturbed, and sometimes even thrown into violent convulsions, by changes in the lacteal secretion brought about by unusual or excessive coitus. DR. KIMBALL, of Indiana, lauded gelsemium as a means of quickly and easily controling the convulsions pending the instituting of other measures directed at the underlying cause. DR. EWING, of Salt Lake City, said that he had found convulsions in male children so often dependent upon an adherent prepuce that he now made it a rule, in such cases, to look for this condition and relieve it. DR. FOSTER, of Illinois, spoke of the pathology of infantile eclampsia, and expressed the opinion that the condition was one of depression and not of stimulation. DR. SLAGLE, in closing the discussion, said that he knew of nothing better than chloroform by inhalation as a means of controling the convulsion. He relied largely on saline enemata and emetics as adjuvants. An adherent prepuce could hardly be more than a contributory cause.

Comparative Therapeutic Value of Recent Antiseptics in Pediatric Practice.—DR. GUSTAVUS M. BLECH, of Chicago, divided these agents in (1) those acting on the respiratory tract; (2) those affecting the gastrointestinal tract; (3) those influencing the urinary apparatus, and (4) those acting on the organism as a whole. Guaiacol carbonate, he said, was a nearly tasteless and non-irritating antiseptic of much service in cases of chronic bronchitis. Nosophen had been proved to be harmless, and antinosin in a 2.5% solution was nonirritating, and was a most useful disinfectant and detergent wash for the nasal passages. Eudoxin had proved in his hands a very valuable remedy in diarrhea. It was split up by the action of the gastric juice, the nosophen passing on unaltered. In two cases of typhoid fever treated with eudoxin the stools had been rendered sterile in about 3 days. DR. SLAGLE thought that there were only 3 internal antiseptics possessing much value, viz. calomel, sulfur, and soda sulfite. DR. COTTON said that he could not overcome his prejudice in favor of calomel as an intestinal antiseptic, but he had found eudoxin useful, and intended to give it a more extensive trial. He used guaiacol both locally and internally, and liked its action.

Treatment of Septic Conditions in Children.—DR. EDWIN ROSENTHAL, of Philadelphia, in this paper advocated strongly the more general use of the antistreptococcic serum in these conditions. He asserted that it was harmless in any dose, and advised its use not only as a curative agent in various septic affections, but as an immunizing agent in operations, such as those about the mouth and throat, in which there was a peculiar liability to septic infection. DR. DILLON BROWN, of New York, expressed surprise at the author's strong advocacy of this method of treatment, especially in cases which were evidently not pure toxemias. DR. BLECH and DR. ENGELMAN spoke in favor of the use of the antistreptococcic serum in such cases, and DR. COTTON expressed his belief that, in the present state of our knowledge, it was the duty of every physician to try this serum.

Membranous Tonsillitis and Pharyngitis of Influenza.—DR. ROSA ENGELMAN, of Chicago, described a recent experience with a series of cases in which she had been able to demonstrate the presence of the Pfeiffer bacillus, although the clinical appearance was that of diphtheria. DR. ROSENTHAL remarked that in cases of this kind that he had seen it had been possible to differentiate the exudate from that of diphtheria by its granular appearance. DR. COTTON said that there was no longer any such thing as clinical diphtheria, and that the pure Klebs-Löffler diphtheria was not only a rather rare affection, but was quite amenable to treatment. He was not only in favor of using diphtheria-antitoxin in suitable cases, but if the symptoms were not promptly controled thereby he would resort to the injection of antistreptococcic serum. DR. ENGELMAN, in closing the discussion, said that she had been utterly unable to differentiate the exudate in the throat in the grip-cases from that observed in true diphtheria by its clinical appearance; the diagnosis had only been made possible by bacteriologic examination. The differences of opinion commonly arising among bacteriologists concerning the diagnosis of diphtheria were often to be explained by the fact that they had examined the culture at different stages of its growth. The remedy was obvious. It was now known that in some cases appearing clinically as diphtheria, but in which the diphtheria-bacilli could not be demonstrated, the infection was due to the presence of the bacillus lanceolatus or the pneumococcus.

The Semeiology of the Attitude and Motor State in Children.—DR. S. W. KELLEY, of Cleveland, said that the position of a child in bed was often significant. In differentiating between whooping-cough and that very similar spasmodic cough associated with enlargement of the bronchial glands, it was well to remember that in the latter there was an absence of that well-known apprehensiveness just prior to the paroxysm of whooping-cough. An attitude on the side, with the head retracted and the legs drawn up was indicative of the later stages of tuberculous meningitis. If the child lay on the side and kept the eyes turned toward the wall, one would suspect meningitis or conjunctivitis. If it maintained a posture on one side, one would think of pleurisy or pneumonia, unless there was much pleuritic effusion, when dorsal decubitus might be preferred. Rigidity of the muscles about the jaw should suggest overdoing with nux vomica as well as tetanus. The physician should learn to rightly use his hands and eyes, and not rely solely on the many instruments of precision now at his disposal.

THIRD DAY.

Septic Conditions in some Acute Disorders of Children.—DR. A. C. COTTON, of Chicago, reported a series of clinical histories, with deductions therefrom regarding the modern views of many of the zymotic diseases, and advocated a radical reform in the older and necessarily indefinite

nomenclature. The paper was freely discussed, and the general position of the author sustained, but some of those present objected to such sudden and sweeping changes.

The La Grippe Exanthemata.—DR. HARRIET E. GARRISON, of Dixon, Ill., described some peculiar rashes observed in a recent epidemic in her town. In one case the symptoms had apparently been those of a well-marked German measles; in another, occurring just about at the commencement of an epidemic of la grippe, the clinical appearance had approached more nearly that of scarlatina. In still another class of cases the eruption had been markedly papular, and accompanied by intense pruritus. In some instances the eruption recurred after an interval of a month or six weeks, but in such it was always preceded by the symptoms of la grippe, so that she was of the opinion that these cases were really examples of eruptions appearing as sequels of influenza. DR. SLAGLE thought the explanation was to be found in the simultaneous occurrence of two epidemics, one of German measles and one of la grippe. It was not impossible that some of the eruptions had been produced by the administration of acetanilid. DR. I. N. LOVE, of St. Louis, said that his city had also been visited by an epidemic of influenza which had been characterized by all sorts of complications, including a great variety of rashes. Bacteriologic examination had demonstrated in many of these cases the presence of the influenza-bacillus. DR. GARRISON remarked that she had used acetanilid very extensively, and had not come to expect that its use would be followed by rashes; moreover, in the cases under discussion, there had been no rash when this drug had been most freely used.

Treatment of Scarlet Fever.—DR. R. B. GILBERT, of Louisville, Ky., sent a paper on this subject, which, in his absence, was read by Dr. Solomon. He considered the main points in the treatment to be guarding against the spread of infection, controling the hyperpyrexia and combating the subsequent anemia and other complications. Not only should the patient be isolated, but pet dogs and cats should be excluded, for they had more than once been known to carry the contagion. Anointing the skin with lard, vaselin, or lanolin would prove soothing and antipyretic, at the same time that it would very materially diminish the spread of the infection during the stage of desquamation. The clothing and bedding should be disinfected by boiling or by exposure to live steam. He objected to the use of the coal-tar antipyretics because of their depressing action on the heart. As the full bath was also often attended by considerable depression it should not be used except when the fever was very high and there was very active delirium. The nervous excitement was best allayed by the administration of chloral hydrate. Opiates should be avoided because of the danger of nephritis in this disease. The patient's strength should be sustained by a generous liquid diet, and the anemia controled by doses of iron ammonia citrate. DR. QUAYLE, of Madison, Ohio, advocated the use of lithia water and the flushing out of the bowel with water in order to stimulate the renal function. DR. SLAGLE said that cold water should be the chief therapeutic agent in scarlatina—cold drinks, cold enemas, and cold packs. Antipyretic drugs, quinin, and iron should be avoided. DR. EWING, of Salt Lake City, also favored an eliminative treatment with a view to washing out the toxins, and to this end he urged the patient to drink water freely, and also prescribed potassium acetate. DR. GARRISON said that she could not share the general opinion regarding the inadvisability of prescribing acetanilid, for she had used this drug very freely during 8 years, and had come to look upon it as her main reliance in the treatment of scarlet fever. The only unpleasant effect that she had ever noted from its use was a diminution of the renal secretion and this had been completely obviated by combining the acetanilid with soda bicarbonate. For controling the fever cold water was useful, but the acetanilid accomplished the same purpose and at the same time promoted to a greater degree the patient's feeling of well-being. DR. SOLOMON, of Louisville, said that acetanilid was useful for relieving the severe headache and the joint-pains, but phenacetin was better when much muscular pain was complained of. If the pulse denoted high arterial tension he did not hesitate to prescribe antipyrin, and saw no harmful effects from it, even in the youngest infants, if given in doses of a quarter of a grain. It not only relieved the symptoms, but aided recovery by inducing a free action of the skin. He did not like baths, because they frightened many children, and as cold applications contracted the cutaneous vessels he was afraid that they would increase the tendency to internal congestion, particularly of the kidneys. To relieve such congestion he was in the habit of prescribing a decoction of scoparis, and also such cholagogs as cascara and sodium phosphate.

Thyroids in Juvenile Obesity.—DR. I. N. LOVE, of St. Louis, said that the profession was now beginning to learn what Brown-Sequard had long ago asserted, *i. e.*, that in the ductless glands lay the entire scheme of tissue-building. In 1897, Dr. Love said, he had reported 3 cases of children, varying in age from 6 to 10 years, and in weight from 106 to 160 pounds, whom he had treated by thyroid. Since then he had met with 3 more such cases. A case was cited in which a boy had lost 25 pounds after a number of months of this treatment, and had at the same time improved very decidedly in his physical development. Of course, attention to exercise, diet and general hygiene had been an important aid. He had found that the most important adjuvant of the thyroid treatment was the administration of strychnia in doses of from $\frac{1}{150}$ to $\frac{1}{50}$ of a grain. It was most important to remember that the treatment of obesity in children should be begun early. He employed tablets of the thyroid extract ($2\frac{1}{2}$ and 5 grains respectively), and gave one tablet 3 times a day. The initial dose for an adult was usually 5 grains. DR. A. C. COTTON said that he had been treating 3 adult cases of obesity with thyroid extract, and with fairly good result, but these patients had complained much of severe headache as soon as he had attempted to increase the dose to 10 grains, 3 times a day. DR. LOVE said that when the administration of thyroid extract was pushed too much there would be headache, and sometimes cardiac depression. It was to combat the latter that he had combined the thyroid extract with strychnia, and he had found this method exeedingly valuable.

Adjourned.

Section on Ophthalmology.

(Continued from Vol. III, page 1400.)

SECOND DAY.

The meeting was called to order by the president, who announced that the morning session would be a joint one with the section on otology and laryngology.

Some points in the symptomatology, pathology, and treatment of the sinuses adjacent and accessory to the orbit. DR. CHARLES STEDMAN BULL, of New York, stated that the frontal sinus, the ethmoidal cells, the sphenoidal sinus and the maxillary antrum are often the seat of disease which subsequently extends to the orbit, and that tumors of the bones of the skull, or the sinuses contained within these bones, may extend in every direction from one sinus or labyrinth to another, and often exist for a long time and reach a large size before appearing in the orbit. He then considered in detail the diseases of each of these regions with a full consideration of the best means for treating them.

Diseases of the accessory sinuses in their relation to diseases of the eye. DR. J. H. BRYAN, of Washington, stated that as in diseases of the nose, the affections of the frontal sinuses are frequently accompanied by ocular reflex disturbances, but they are frequently overlooked because of the difficulty in making a diagnosis of the diseased condition of the sinus. The reflex symptom most frequently observed in these cases is neuralgia of the supra-orbital nerve. Abscess of the orbit is rarely primary. In the majority of instances it is the result of extension of inflammation from one of the sinuses, generally the front one. Affections of the ethmoidal cells are generally caused by diseases of the nose, and the eye may escape injurious effect so long as there is free discharge into the nose. To what extent sphenoidal diseases exist there is no means of knowing, since the diagnosis is extremely difficult. A number of cases were reported illustrating the diseases of these cavities.

Eye-troubles attributable to nasopharyngeal and aural disturbances. DR JOSEPH A. WHITE, of Richmond, remarks that from a study of the relations between nasopharyngeal disease and eye-troubles it will be observed that disease is transmitted from the nasopharynx

to the eye in more than one way—it may be direct microbial contamination along the lacrimal passages; it may be by mechanical obstruction of the nasal duct at its lower end or in its canal; it may be by the propagation through the blood-vessels and lymphatics; it may be by toxin poisoning or by reflex nervous influences. When we analyze the recorded cases of ocular phenomena in aural troubles we find that there is occasionally some uncertainty about the connection of the two. Still, while much is yet to be explained in regard to pathologic influence of the ear on the eye, we may conclude from what we have before us that the influence really exists and is exerted by both direct and indirect propagation by way of the nerve-tract and blood-current.

The nominating committee reported the choice of DR. H. V. WURDEMANN, of Milwaukee, for chairman, and DR. C. F. CLARK, of Columbus, for secretary, to serve during the coming year. The report was unanimously adopted.

Analysis of cases of so-called chronic glaucoma, with special reference to the visual field, by DR. DE SCHWEINITZ, of Philadelphia. Based upon a study of 63 eyes suffering from chronic glaucoma and an examination of 184 charts of the visual field. Dr. de Schweinitz discussed the subject under the following headings: (1) The commonly described visual-field phenomena or the so-called typical form of contraction; (2) the horizontal hemianopic visual field; (3) the various atypical contractions of the visual field to which the following names were given; the acorn field, the dumb-bell field, the angle field, and the kite shaped field; (4) the various forms of scotoma; (5) sentient islands within the darkened areas; and (6) the color fields. It was pointed out that although it was commonly stated that the nasal field was earliest and more severely affected, this was by no means the rule. The average of all his observations yielded a visual field with the following dimensions: Outward, 56; upward, 26; inward 25, and downward 37°. In other words, a field which was concentrically restricted and not specially restricted on the nasal side. Although it is commonly stated that in glaucoma the color-fields present a restriction corresponding with that of the form-fields, Dr. de Schweinitz's observations led him to believe that this could not be regarded as a differential test from simple atrophy, inasmuch as frequently the color-field is correspondingly much more contracted than the form-field. His observations led him to believe that in all cases careful study of the field would usually demonstrate a scotoma in some portion of it, and he felt that a study of these scotomas would be more profitable as a method of differentiating this disease from optic atrophy than the color-field, as they might also have some relation to the prognosis of operative interference. DR. THOMPSON referred to the unsatisfactory results so often accompanying operative interference in simple glaucoma, and said that we could count no one happy, who labors under this disease, until he is dead. DR. CONNOR spoke of the importance of carefully correcting even the small errors of refraction in these cases, and of giving attention to the conditions of defective assimilation which so often exist at the same time. DR. SMITH referred to the difficulties of an early diagnosis in this disease, and stated that the tension of the eye frequently varies if taken at different periods of the day; for instance, in the morning there may be no tension and in the afternoon a tension of plus 1. In operating he preferred sclerotomy to iridectomy. DR. TIFFANY stated that he believed the glaucomatous condition was becoming much more rare since we have been giving such careful attention to refraction.

Serous cyst of the iris following a discission for milky cataract, by DR. S. C. AYRES, of Cincinnati. The patient, G. R., aged 6 years, had lamella cataract in each eye, with nystagmus and a very high degree of strabismus convergence. An iridectomy was performed on each eye and the left internus tenotomized. The patient was not seen again for 15 years, when he had a milky cataract in each eye, and discission was successfully performed. Two years later a secondary membrane had formed in the left eye and a cyst sprang from the lower and inner angle of the iris, measuring 5 mm. transversely, and extending in to the anterior chamber so far as to obstruct the lower half of the pupil. An incision was made in the corneoscleral margin and the cyst removed with a piece of the iris. The vision was quite good for some time, but there is now a slow progressive degeneration going on. DR. CLARK referred to two cases he had seen, one of congenital cyst and the other probably traumatic. In the latter case he had operated by simple puncture, and there had been no return. DR. REYNOLDS reported 3 cases, one of which had been operated upon by puncture, which was followed by panophthalmitis.

Experiences with operations for secondary capsular membrane. DR. J. N. RAY, of Louisville, Ky., stated that this operation was of scarcely less importance than the extraction of the lens, and that a study of the subject from all sides showed much diversity of opinion as to the dangers of the operation. In 141 extractions, 53 cases presented themselves for a secondary operation; of these, 5 cases required 2 operations, and 2 cases 3 operations before the desired result was obtained, and in several of these more or less serious sequels resulted. Dr. Ray thought that the sooner the membrane is divided the easier will be the manipulation and the less the dangers of complications. DR. THOMPSON looked upon the secondary operation as much more dangerous than the first operation for cataract. DR. WEEKS stated that in his private cases he performed the operation in at least 95% and in the hospital in at least 60% of all his cataract cases. He had 3 cases out of 300 where the vision had not been as good after as before the secondary operation, but had never lost an eye. He thought that infection could be prevented by having sterile instruments, an aseptic cornea, and by sealing the wound afterwards by means of the actual cautery. DR. WILDER indorsed the position taken by Dr. Weeks, and added that he always operated in a dark room, with an assistant to focus the light from a strong Argand burner directly on the cornea. DR. MITCHELL also operates in nearly all cases, and DR. HAWLEY stated that he always operated in a dark room, frequently performing his operations at night. DR. WILLIAMS said that he always used the Weeks curved needle-knife, and he had found the use of the small electric light of considerable service. DR. CONNOR also operated early, because the capsule is more readily cut then than at a later period, and there is consequently less tension upon the ciliary body.

Report of a case in which both eyes were lost from intraocular hemorrhage after cataract extraction, by DR. A. R. BAKER, of Cleveland. Mrs. Y., aged 63 years, general health good, mature senile cataract in both eyes, and in every way an apparently favorable case for extraction. The first operation was a simple extraction and everything went well until the sixth day when she complained of pain, and inspection showed that intraocular hemorrhage had occurred, iridocyclitis followed and it became necessary to enucleate in order to relieve the pain. One year later the second eye was operated upon, a preliminary iridectomy being performed five weeks before the extraction. Every conceivable precaution was taken to avoid any risk of hemorrhage and the operation seemed to be perfect. Within an hour, however, the patient screamed with pain, and on removing the bandage it was found that the entire contents of the globe had been thrown out and the globe looked as if it had been grasped tightly in the hand and squeezed; even the retina was extruded. There was no appearance of blood. DR. BAKER suggests that in cases where one eye has been lost by intraocular hemorrhage, the other be operated upon after the old method of reclination. DR. THOMPSON stated that twice in his life he had had similar experience, and other cases were reported by DRS. DUDLEY, RISLEY, and REYNOLDS. At the close of the meeting DR. WILDER exhibited a new instrument for use in ectropion operations. DR. SWEET exhibited an apparatus for the detection of foreign bodies in the eye by means of the x-rays, and also a special forceps for the removal of such foreign bodies as bits of copper. DR. WESTCOTT exhibited a pair of spring-scissors, which may be worked by either hand, for use in iridectomies, tenotomies, etc. DR. C. R. HOLMES gave a demonstration of moist specimens to show the relations of the accessory sinuses to the orbit.

THIRD DAY.

The significance of certain rare forms of ametropia. DR. S. D. RISLEY, of Philadelphia, presented the histories of 4 cases, each representing and illustrating different groups of patients presenting unusual and important phases of ametropia. He said that he had always felt that it simplifies the management of refraction-errors to accept

as the ideal standard for perfect vision two healthy emmetropic eyes with normal acuity of vision, and a physiologic range of accommodation and convergence; to regard any departure from either of these factors as anomalies, and, when symptoms of visual disturbance are present to correct accurately the anomalous conditions. This he considered a rational procedure; if ametropia exists, reduce it to emmetropia; if there is ocular imbalance, to determine carefully its nature and cause, and if possible to correct it. When this is successfully accomplished it will be found that a host of symptoms, both local and reflex, will disappear.

Astigmatism after cataract-extraction. Dr. C. F. Clark, of Columbus, had analyzed his own cases of cataract-extraction and compared them with the cases reported by Lippincott and by Pfingst. He exhibited a number of charts and diagrams, showing the variety and degrees of astigmatism that occur after these operations and compared the results of the simple with the combined extraction.

Management of cases of high anisometropia. Dr. Edward Jackson, of Denver: Of 1,000 consecutive cases of ametropia, requiring correction, Dr. Jackson found 107 cases of anisometropia, 46 of which were of high degrees. From the analysis of these cases he concludes that every case must be the subject of careful individual study and the selection of the lens for the worst eye at first tentative. In a few cases capable of nearly equally acute vision in both eyes, the more hypermetropic, or less myopic eye, should have its correcting lens for distant vision and the other eye the lens which will adapt it for vision, at about $\frac{1}{3}$ of a meter. In some cases we must be content with the full correction of the better eye and the adjustment to the other of a lens that will enable it to give the most aid in binocular vision. In cases of very high myopia in one eye, with the other but slightly myopic or hypermetropic, the removal of the crystalline lens from the myopic eye would be proper, and if ever corneal incision comes into practical use to modify high astigmatism it will be proper to apply it first to cases of high anisometropia.

Surgical treatment of high myopia. Drs. H. V. Wurdemann and W. R. Murray, of Milwaukee, describe two cases of high myopia which were operated upon, the result in both cases being satisfactory. Considering the subject of the surgical treatment of myopia, they recommend that it should be limited to cases over 12 D. who suffer great inconvenience from their correcting lenses. The ideal cases for operating are those of 17 to 18 D. Second, the operation is mainly indicated with young adults. Third, cases having active disease and changes in the ocular structures, such as progressive myopia, choroiditis, fluidity of the vitreous, or detachment of the retina, are not applicable. Fourth, the dangers of operative interference are more than counterbalanced by the results to be achieved, which are mainly increase of visual acuity and of the visual field, and more extended use of the eyes which accompanies diminishment of the refraction. The literature of high myopia is extensively reviewed, and a table of statistics shows the proportion of myopic cases over 10 D. to be only 0.54% out of a total number of 5,000 eyes examined under mydriatic. There was an almost unanimous opinion that high degrees of anisometropia should be corrected, though it was suggested by Drs. Savage and Lippincott that full correction should not be given at once, but made gradually, in order to save the patient the discomfort attending a sudden change in his retinal images. Dr. Risley strongly advised against the operative treatment of myopia, and Dr. Wurdemann cited the experience of von Hipple who had operated npon 114 cases, with good results in nearly all, and stated that of 100 highly myopic eyes let alone there will be just as many go to the bad as would occur in 100 cases operated upon.

The national recognition of eyestrain reflexes. Drs. Geo. M. Gould and Helen Murphy reviewed the textbooks of the various nations, and showed that there are but few slighting references to the effect of ocular conditions on the general system, and they made a strong plea for the recognition of reflex disturbances due to eyestrain.

The papillitis accompanying brain-tumor. Dr. John E. Weeks, of New York, reviewed at considerable length the literature upon this subject and gave tables to show the relative frequency of papillitis in tumors of various portions of the brain. He considers papillitis of little value as a means of localizing the tumor, and the size of the tumor appears to have no bearing on the development of the neuritis. The discussion seemed to show that there may be many cases of brain-tumor without papillitis and some cases in which papillitis may appear for a brief period and then disappear, so that unless examined at a favorable time it would be overlooked. Cases of papillitis accompanying brain-tumor were reported by Drs. Gifford, Williams, Huitzinga, and Clark. Dr. Hubbell stated that he believed most of these cases of choked disk to be inflammatory in character, but Drs. Weeks and Gifford had both examined cases in which the evidence seemed to point to simple mechanical edema.

The value of cycloplegia in optometric examinations, by Dr. C. M. Culver, of Albany, N. Y. A study is made of 1,000 cases seen in private practice in which cycloplegia was purposely produced for the sake of optometric examination. If more hypermetropia or less myopia was found by the cycloplegic examination it was considered a "gain," and if less hypermetropia, or more myopia, was found it was called a "loss." Considering all ages, from 5 to 55 years, a gain was noted in 80%, a loss in 4%, and 16% showed neither gain nor loss. The average gain in the 1,000 cases was 0.625 D.,while the average gain in persons between 40 and 55 was nearly 0.50 D. It seemed that a $2\frac{1}{2}$% solution of homatropin hydrobromate provided a trustworthy cycloplegia as effective as atropin. Dr. Jackson considered homatropin a reliable mydriatic, and thought one of the greatest gains in the use of cycloplegics was in measuring the astigmatism and in showing the exact amount of anisometropia rather than in bringing out latent hypermetropia. Dr. Moulton called attention to the value of scopalamin, and Dr. Randall stated that he had been impressed by the superior value of hyoscyamin.

Concerning the bacteriology of acute catarrhal conjunctivitis, Dr. C. A. Veasey, of Philadelphia, found that in the vicinity of Philadelphia the most frequent cause of catarrhal conjunctivitis is the pneumococcus of Fränkel; that occasionally it is produced by the Koch-Weeks bacillus, and that the clinical manifestations of each are so similar in severe cases that it is impossible to distinguish between them without a bacteriologic examination. Dr. Wilder thought that it was quite possible that this organism of Fränkel is frequently present in the conjunctival sac when we do not suspect it, just as it is present in the mouth so commonly without causing any trouble. Dr. Weeks believed that this was so, but was surprised that the small bacillus had not been found more frequently in Dr. Veasey's examinations.

Mucocele of the newborn. Dr. C. W. Hawley, of Chicago. This is a report of 6 cases of dacryocystitis occurring in infants. All were treated by the ordinary surgical measures of opening the abscess and securing drainage through the regular channels. Dr. Starkey mentioned the scarcity of reference to such cases in the literature, and Dr. Wilder, Hale, Hubbell, Bennott, and Westcott all reported cases occurring in their practice.

The phorometer or Maddox rod, which? Dr Alvin A. Hubbell, of Buffalo, has made a comparative examination of the muscles in 140 cases, using the Maddox rod and the Stephens phorometer. In 38 cases the results were the same by either test. In heterophoric cases there was less heterophoria by the phorometer than by the rod-test in 71 and in 8 there was more. The opposite form of heterophoria was shown in 10 cases, while in 7 of the orthophoric cases by the rod there were exophoria, and right or left hyperphoria by the phorometer. Dr. Hubbell concludes that in view of the fact that by the rod-test there is introduced absolutely no extraneous impulse to muscular contraction, and as its findings are in a large majority of cases equal to or in excess of those of the phorometer, it is a more precise and trustworthy guide in daily practice than the phorometer. Dr. Howe did not believe that either of these methods could be trusted implicitly and Dr. Savage urged the value of a monocular phorometer, which he exhibited to the society.

The executive committtee reported the following resolutions:

It is the decision of the Executive Committee that the number of papers to be read at the meeting to be held in 1900 be limited to 40, of which 15 are to be on invitation by the Chairman and 25 to be accepted from volunteers. These are the to be limited to 15 minutes each.

Three addresses by special invitation may be obtained at the discretion of the officers from within or without the Association. These papers may be allowed 20 minutes.

Papers are to be accepted in the order of their reception and at the discretion of the Executive Committee.

Abstracts of all papers must be sent to the Secretary before May 1, 1900.

Discussions are to be limited to 5 minutes each, and no person shall speak more than once in the same debate.

Due notice of this will be printed in the Journal of the Association, which will be considered the official notice for the volunteer papers.

The resolutions were unanimously adopted.

Adjournment.

Section on Laryngology and Otology.

FIRST DAY.

In the address of the chairman, DR. EMIL MAYER, of New York City, the naming of diseases and operations after discoverers was approved, upon the principle that it is better to honor our heroes antemortem rather than postmortem.

The first paper was by DR. CLEMENT F. THEISON, of Albany, N. Y., on **Tuberculosis of the pharynx, with a preliminary report of tuberculous infection of the tonsils and the lymphoid tissue of the pharynx.** After a general resume of the history of pharyngeal tuberculosis, the essayist reported two cases. The first case occurred in a male patient, the tuberculous lesion extending from the uvula to the nasopharynx. The case terminated fatally 6 weeks after the individual came under observation. Potassium iodid was tried without benefit. The second case occurred in a female, the lesion appearing on the posterior pharyngeal wall and also in the larynx. The laryngeal ulcer disappeared under treatment. A bacteriologic diagnosis of tuberculosis was made, the value of which was emphasized. Pure tuberculosis of the pharynx is rare. Infection of the tonsils may play an important role in scrofula. In the second case the patient is living, residing at present in Colorado.

Accessory thyroid tumors at the base of the tongue, by DR. J. SCHADLE, of St. Paul, Minn. A consultant in the case had made a diagnosis of myxoma or adenomyxoma. After the removal of the growth the patient recovered and has been well since. Microscopic examination of the growth showed it to be a gland of the ductless type, and it was pronounced to be an accessory thyroid gland. A second case was reported which was probably of the same character in which the individual would not submit to operation.

DR. J. H. COULTER, of Chicago, gave the results of his observation in **300 tonsilectomies.** In support of total ablation of the tonsil, he declared that he does not believe it good surgery to leave a part of a diseased tonsil. The manner of operating must be left to the operator. He prefers the use of the galvanocautery. The youngest patient was 11 years old, the oldest 57; the average age 31¼ years. A large number were singers, professional or otherwise. In private practice 114 patients were seen, upon whom 216 tonsilectomies were done. The remainder of the operations were done in the Chicago Clinical School. The writer believes that tonsilectomy affords more satisfaction to the patient than does tonsilotomy.

The value of muscle-training in the treatment of vocal and speech defects, by DR. G. H. MAKUEN, of Philadelphia. The subject was demonstrated, and would seem to show that the extrinsic muscles are of great importance in the production of the various qualities of the voice.

DR. ROBERT LEVY, of Denver, read a paper on **The prognosis of laryngeal tuberculosis.** He considers a case cured when all active indications of disease have ceased for one or two years. The process in the larynx may be cured, and disease in the larynx be caused later by extension from the lungs. In the cases of cure reported we must inquire, first, the accuracy of the diagnosis, and, second, the evidence of cure. Several cures were reported. Levy gave a much brighter outlook for these cases than is usually entertained. The character, extent, and size of the lesion has much to do with the outlook in the individual case.

The treatment of chronic croup. DR. EDWIN ROSENTHAL, of Philadelphia, first uses the antitoxin of diphtheria in cases of croup, and then makes a bacteriologic examination. If the examination shows only streptococci he uses the antistreptococcus-serum.

Infective granulomata of the pharynx was the title of a paper by DR. EMMA E. MUSSON.

DR. CUTTER, of New York, presented a paper on **Cold,** in which etiologic importance was attached to beans as an article of diet, the essayist claiming that a "cold" may be produced experimentally by an exclusive diet of baked beans and coffee, if continued for a week. In the discussion, the New England diet was ably defended by DR. GEO. L. RICHARDS, of Fall River, Mass.

SECOND DAY.

DR. L. C. CLINE, of Indianapolis, read a paper on **Diseases of the antrum of Highmore: A study of 150 cases.** The paper was more suggestive than detailed. Between 20 and 70 years of age, 48 cases occurred in females, and 102 in males. In 6 cases there was sarcoma, 3 in men and 3 in women. All the cases gave a history of suffering from their teeth before the appearance of the disease. Four cases of emphysema had come under his observation. A number of cases were relieved by extracting diseased teeth and treating the nose. The chief causes were dental, nasal, and grip. Seventy-five per cent. were on the right side. The zeal of dentists in crowding bridgework seemed to play a role in some cases. Polypoid growths were absent in his cases. In treatment, the writer emphasized the importance of a good-sized opening and the removal of all diseased teeth. To open through the alveolar process is by far the best method. Hot douches are of value to relieve edematous conditions. The dry treatment has not been a success in his hands.

The relation of nasal and accessory cavities and dental lesions, by DR. D. BRADEN KYLE, of Philadelphia. The subject was illustrated with the projection lantern by DR. M. H. CRYER, of Philadelphia.

The determining factors in the symptomatology and diagnosis of infective sinus-thrombosis, was a paper read by DR. FRED. WHITING, of New York City.

DR. GEORGE L. RICHARDS, of Fall River, Mass., presented some **specimens of the mastoid bone,** in which the facial nerve had been dissected out, to show its relation in course and depth, with especial reference to the mastoid operation.

Report of a case of brain and metastatic abscesses following suppurative otitis media, by DR. MILTON GREENE, of Grand Rapids, Mich. The patient received a severe blow over the left ear a short time before his illness, which might have been an etiologic factor in the case. All the abscesses were confined to the left side, and all seemed to be of lymphatic origin except the one in the brain. There was pus in the tympanic cavity, but no perforation of the drum-membrane. There was an abscess over the heart containing about a quart of pus, and an abscess over the tenth rib containing several ounces of pus. There was also an abscess about the pillars of the fauces, and general lymphatic enlargement along the jugular vein. The cerebral abscess was in the region of the fissure of Rolando. The only word the patient could say was "no," which word he would use regardless of meaning, sometimes correcting himself by nodding upon hearing himself speak the word. The order of the paralysis was peculiar in that the patient could first use only the forearm and hand, and later the hand, and so in the lower extremity he could use the leg, and finally only the foot. All the abscesses were opened and the patient apparently recovered, but died a number of weeks later, apparently of cerebritis.

Four cases of otitic cerebellar abscess, with stereopticon illustrations, was the title of a paper by DR. B. ALEXANDER RANDALL, of Philadelphia.

Fractured base with deafness, tinnitus, vertigo, exophthalmus, facial paralysis, mastoiditis; operation and recovery, by DR. J. A. STUCKY, of Lexington, Ky. The Stacke-Schwartze operation was done. The recovery was uninterrupted and rapid. The patient was about the corridors on the fourth day, and at the end of a week was discharged from the hospital and treated as an outpatient.

DR. TALBOT R. CHAMBERS, of Jersey City, N. J., read a paper on **Enzyme: A new treatment for the cure of otorrhea and polypi.** He reported a cavernous angioma, removed from the nose by the rapid cold snare, with but little hemorrhage; and secondly, marvelous action upon an-

giomas and other morbid growths of a pure solution of a proteolytic enzyme prepared by direct extraction from the peptic glands of the fresh pig's stomach, slightly acidulated and which when diluted with equal parts of water, has about the percentage of hydrochloric acid characteristic of gastric juice. A number of cases were reported.

THIRD DAY.

Concerning the complications of acute purulent otitis media. DR. S. E. ALLEN, of Cincinnati, would prefer considering such cases "serious and fatal forms of acute otitis" rather than complications. He deplored the fact that these patients often die even when seen early.

DR. C. R. HOLMES, of Cincinnati, read a paper on **Hypertrophy of the turbinated bodies and their relation to nasopharyngeal and middle-ear inflammations: with deductions based upon 1,500 operations, illustrated by microscopic slides and projection-microscope.** He exhibited specimens demonstrating the accessory cavities and their relation to the nasopharyngeal passages. Dr. Holmes also presented some instruments that had been of special value in operations upon the turbinated bodies. Special emphasis was laid upon the usefulness of a very slender saw, that might be readily turned in the little space at the disposal of the operator in these cases. The 1,500 operations were done upon about 1,000 patients. The chief object in the removal of a portion of a turbinated body in cases of disease of the middle-ear is the prevention of a progressive catarrhal condition, and also the restoration of the normal lumen. The operation he prefers consists in the removal of a portion of the turbinate and the formation of a bone-scar, which he considers important. He would not remove the turbinate unless it is sufficiently diseased.

The conveyance of infection through the medium of the ear-syringe: A remedy, by DR. C. F. TODD, of Minneapolis, Minn. A special bulb-syringe with shield was presented.

The anatomic variations of the nasal chamber and associated parts, by DR. M. H. CRYER, of Philadelphia, was the next paper.

Headaches of nasal origin, by DR. CAROLUS M. COBB, of Lynn, Mass. He reported a number of cases and emphasized the following points: (1) Headache may be and often is caused by intranasal disease; (2) other diseases aside from atrophic rhinitis, nasopharyngitis, affections of the accessory sinuses or the obstructive intranasal conditions may be the cause of headache; (3) an examination of a patient suffering from headache is not complete unless the condition of the nasal cavities has been inquired into.

Sarcoma of the nasal passages, by DR. H. V. WURDEMAN, of Milwaukee, Wis. He reported a case of a small, round-cell sarcoma, which had apparently been cured by operation.

Adenosarcoma of the septum, by DR. A. R. BAKER, of Cleveland. He reported a case that had been operated upon twice, the specimen removed the first time being pronounced benign, and that removed at the second operation, malignant. The patient was living, 14 months after operation, without recurrence.

The treatment of nasopharyngeal adenoids, by DR. LOUIS J. LAUTENBACH, of Philadelphia. He advised against the use of anesthesia in adenoid operations. The only instrument he finds necessary is the fingernail. Sometimes he uses an artificial fingernail. The paper received considerable adverse criticism in the discussion.

Report of a case of echinococcus-cyst of the nose was made by DR. W. K. ROGERS, of Columbus.

Adjourned.

Section on Materia Medica, Pharmacy, and Therapeutics.

FIRST DAY.

It is noteworthy that, without collusion, the majority of the papers touched in some way on the problem of proprietary medicines. In the absence of the chairman, DR. THOS. H. STUCKY, of Lousiville, DR. F. E. STEWART, of New York, occupied the chair. The secretary, DR. LEON L. SOLOMON, of Louisville, was elected to the chairmanship of the next meeting and DR. WAINWRIGHT, of New York, was elected secretary. The program as actually presented was as follows. The numbers refer to the printed program. In the case of many very interesting papers, the title suggests affirmatively the gist, so that no resume will be given.

1. **Nondepressant analgesics,** by DR. JOHN A. CUTTER, of New York, referred mainly to ammonol and was severely criticised on that account.

2. **Paraldehyde as a hypnotic and antidote to strychnin,** by DR. C. C. HERSMAN, of Pittsburg.

3. **Some thoughts on urethral therapy,** by DR. T. A. HOPKINS, of St. Louis, included a favorable report of argonin that led to a general discussion of proprietary medicines.

4. **The use of acetanilid in various combinations as a substitute for many proprietary drugs and mixtures,** by DR. LOUIS F. BISHOP, of New York. Beside extolling the antepyretic, analgesic, and antiseptic virtues of acetanilid, he referred to its use as a basis or important ingredient of numerous proprietary compounds, some of which are claimed to be simple substances. He favored the extemporaneous prescription of compounds as indicated. Two grains of acetanilid and a half a grain each of caffein citrate and camphor monobromate are excellent for migraine. Acetanilid with a bromid is efficient in dysmenorrhea or as a hypnotic.

5. **The proper place for proprietaries,** by J. E. BEERY, of Columbus. Although admitting their occasional convenience, he thought that the routine use of proprietary compounds stultified the physician and reduced him to the position of an agent of the manufacturer. In the discussion of the last two papers, it was stated that antikamnia consisted of acetanilid 70, sodium bicarbonate 20, caffein 10 parts. A proprietary was mentioned, the formula of which was ostensibly published but whose principal ingredient was omitted. DR. CULBERTSON, of Cincinnati, epigrammatically remarked that the extensive use of proprietaries indicated an exchange of gray matter for yellow matter. Still he believed that proprietaries whose formula was published were often a convenience and an economy to the country practitioner who had to dispense his own remedies. H. A. HARE, of Philadelphia, sharply contrasted patented medicines, whose formula was necessarily known, from trademarked nostrums ordinarily spoken of as patent medicines and which were kept secret. It had been legally decided that a common name could not be trademarked—even the term Singer, as applied to sewing-machines, had been decided judicially to be a generic name which could not be monopolized. The impudence of agents in attempting to instruct physicians in therapeutics and to occupy their time with demonstrations of chemic and physical properties of drugs, was due to the ignorance of many of the medical profession. R. G. ECCLES, of New York, spoke of secret proprietaries whose nature was divulged to the editor of the magazine publishing their advertisement, but not to the profession as a whole. He said that the proprietor of such a medicine had attempted, by writing to the manager of a journal with which he had been connected, to oust him from the editorship. J. A. KIMMEL, of Findlay, O., read from the current issue of the *Journal of the American Medical Association* a number of advertisements of secret proprietaries and criticised severely the inconsistency of allowing them in the official organ. A. L. BENEDICT, of Buffalo, referred to the value of acetanilid and said that he was heretic enough to believe that, as an antipyretic, 25 centigrams of acetanilid might be safer than a bathtubful of ice-water. He believed that the physician could learn much from the agents of reputable drug-houses, though suggesting that the same outlay applied to addressing physicians by mail and express and to maintaining local depots whence supplies could be ordered promptly, would be of greater value to the manufacturers than personal interviews. DR. TANEY said that an objection to dropping obsolete remedies from the pharmacopeia was that they would be seized upon for proprietary preparations, when we could have no standard of purity or strength. H. FINKELPEARL, of Pittsburg, who had been a pharmacist, said that dispensing could be done with very simple apparatus, and that the wholesale manufacturer was not a necessity. GEORGE F. BUTLER, of Chicago, ascribed the enormous use of proprietaries to the ignorance of the profession. He disparaged the "Laboratory Doctor" and regreted that the glittering attractions of the microscope and of surgery took so many from the study of therapeutics. DR. LYON pointed out the inconsistency of these remarks,

since careful laboratory training was the only means by which the virtues and defects of drugs could be recognized. DR. BEERY emphasized the value of active principles, particularly because so many drugs, such as opium and jaborandi, contained conflicting active principles. DR. SOLOMON paid a tribute to the manufacturing pharmacists, though considering the prevalent method of prescribing proprietary compounds as undignified.

7. **Clinical notes on digitoxin,** by DR. J. P. SAWYER, of Cleveland. In doses of $\frac{1}{8}$ to $\frac{1}{4}$ mg., it was capable of replacing digitalis and its congeners, acting promptly, without causing nausea or irritation if used hypodermically.

8. **The therapeutics of pneumonia,** by DR. FRANK G. WHEATLY, of North Abington, Mass., cannot be fairly represented by a brief abstract.

10. **Passiflora incarnata,** by DR. HERSCHEL FISHER, of Lebanon, Ohio. The drug was considered excellent in nervous affections, especially in children.

SECOND DAY.

33. **Synthetic chemistry and its relation to modern therapeutics,** by DR. J. W. WAINWRIGHT, of New York. The value of several new remedies was alluded to and the author thought it no more than right that the inventors, who were not bound by the ethics of the medical profession, deserved the protection of a patent which would insure the publication of the formula. The extortion on some German drugs was due to a difference between the patent-laws of the two countries. The reciprocity in patents between Germany and the United States had been sought by the latter, and it was simply an accident that the laws of the two countries gave the advantage to the German inventor.

34. **The scope of the U. S. P.,** by DR. E. H. LONG, of Buffalo (a guest). The relative interest in the pharmacopeia was shown by the enrollment at the last revision of 85 medical delegates and 105 pharmacal delegates. Incompleteness, impracticability, lack of business enterprise and obsoleteness were the principal objections raised against the pharmacopeia. The paper consisted largely in a consideration of answers received from teachers of therapeutics to sets of questions propounded. To show the difficulty of excluding obsolete drugs, he read a list of 55 old and little used drugs whose retention in the pharmacopeia was insisted on by $\frac{3}{29}$ of the authorities from whom he had heard. Rhus toxicodendron, euonymus and bryonia were the most favored of this list, but even marrubium, mellissa and crocus had defenders. Ninety-one per cent. of his correspondents favored placing all chemicals needed to prepare official drugs, but not themselves subject to prescription, in a separate list. Eighty-eight per cent. favored, 6% opposed the inclusion of doses, 66% believing that they should be placed in an index or appendix. Eighty-three per cent. favored establishing a department of information as to new drugs, without making them officinal, and 80% favored issuing annual supplements, while others also advocated supplements, but at longer intervals.

35. **How far can the Pharmacopeia represent the needs and attainments of therapeutics?** by DR. A. L. BENEDICT, of Buffalo. He favored the use of active principles, except of such drugs as ergot, cannabis indica, etc., for which no satisfactory alkaloidal substitute has been discovered. Galenicals should be reduced in number, fine distinctions as between aqua and liquor should be discarded and there should be, for internal administration only, one solid and one liquid galenical, both of which should be of uniform strength as regards the crude drug. Every galenical should be official for every drug to which it is applicable. All definite chemical substances, of therapeutic value, whether patented or not, should be official. Compounds should not be included, unless old favorites like the compound cathartic pill. The pharmacopeia should represent, not what the profession ought to use, but what it does use. Not everything can be made in the back room of a drug-store and it is better to adopt standards which only wholesale manufacturers can fulfil than compel the prescribing of a proprietary article, as is now the case if one wants a pure petrolatum. The following personal statistics were presented: Reagents and supplies for office use, 60; hypodermatic tablets, supplies for pocket-case, samples of definite chemic substances and official drugs kept for office dispensing, 120; 774 written prescriptions, taken at random, but none over 5 years old, contained 168 different substances. Of these 168, 121 were strictly official; 6 were superior but unofficial substitutes for officinal drugs, such as the pure petrolatums; 24 were definite chemic substances not official; 8 were animal extracts, foods, digestive ferments, etc.; 4 were galenical preparations of cola, cactus, piscidia, and condurango; 5 were for proprietary preparations, such as peptonizing tubes, malts, spice plaster, etc.

In the discussion that followed on the last three papers, DR. WAUGH emphasized the value of the alkaloids, claiming that the last paper presented no valid reason why crude drugs should be employed at all, and characterizing the pharmacopeia and dispensatory as museums of antiquity. DR. BUTLER mentioned the excellence of the new ointments introduced into the British pharmacopeia. He cited conium and strophanthus as drugs of which no one active principle exists. In such cases he believed in using standardized fluid extracts, and considered it simple honesty to give credit to Parke, Davis & Co. for work in this line. Apropos of Dr. Waugh's criticism of the contradictory nature of the ingredients of the brown mixture of ammonium chlorid and of the alkaloids found in many crude drugs, DR. H. A. HARE described the familiar crossed action of drugs. He thought the main function of the pharmacopeia was to direct the preparation of galenicals, and that the maximum and minimum doses should be included, with precautions to avoid improper use of the doses in litigation.

12. **The pneumonia antitoxic serum,** by DR. JOSEPH MCFARLAND, of Germantown, Philadelphia, jointly prepared by the reader and DR. C. W. LINCOLN. This was a preliminary report of laboratory work showing the perfect success of the antitoxin in protecting rabbits. In the discussion, the reader stated that the horses kept by Mulford & Co. for preparing antitoxin, used occasionally to contract tetanus from infection from hay, but that after keeping them immunized by means of tetanus-antitoxin, the mortality ceased.

14. **Progress in serum-therapy,** by DR. GEORGE W. COX, of Chicago, consisted of a review of the subject to date.

16. **Old and new remedies,** by J. A. KIMMELL, of Findlay, O., was largely the expression of an opinion against antitoxin, and the reader was severely criticised for not having made himself familiar with the subject.

19. **Therapeutics of kola,** by DR. C. C. YARBOROUGH, of Detroit. Greater use of this drug was urged as a cardiac stimulant, nerve-tonic and diuretic. DR. BENEDICT classed kola, maté, guarana, tea, coffee, and chocolate as practically the same, all depending on xanthin-derivatives, and hence producing symptoms similar to those due to the accumulation of nitrogenous waste in the system. Hence they were contraindicated in nervous, cardiac and renal disturbances occurring in lithemia and autointoxication, although of occasional value in temporary conditions. DR. LYON stated that more caffein could be obtained from dry than from fresh kola, showing that the active principle was closely allied to caffein, though not identical with it. DR. F. E. STEWART quoted Prescott, of the University of Michigan, to show that so-called kolain was caffein tannate, thus explaining the claim of the natives that kola was more permanent in its effects than tea or coffee.

20. **The vegetable narcotics,** by DR. GEORGE F. BUTLER, of Chicago. Attention was called to the value of the older drugs from which study had been diverted to the coal-tar products. Beside much of a historic interest, he mentioned morphin as being chemically similar to waste-products of nervous activity, and hence being more readily passed into the fetal circulation than most other alkaloids. The use of morphin during pregnancy produced degenerate children, but the attempt to break off the habit caused neurotic troubles in the newborn child. Conium varied greatly according to methods of cultivation and opportunity for volatilization. Equal parts of the fluid extract, and sulfonal, after evaporating, could be made into capsules and used as a sedative. He mentioned the use of hellebore as a purge in insane patients, by the ancients.

24. **Intravenous saline infusion in acute suppression of the urine, following operation; with report of a case,** by DR. W. S. BAINBRIDGE, of New York.

27. **Codein and its salts,** by DR. G. J. LOCHBOEHLER, of Washington. The advisability of giving small, repeated doses was emphasized.

THIRD DAY.

31. **Some further observations on the therapeutics of chlorid of gold and sodium,** by DR. D. R. BROWER, of Chicago. The author showed tables of hemoglobin and cellular increase during treatment, and advised using the officinal preparation, not the various proprietary substitutes.

21. **Modern therapeutics,** by DR. W. B. HILL, of Milwaukee. The germicidal and leukocytotic properties of nuclein were dwelt upon and other modern organic agents were spoken of.

32. **Magnesium sulfate,** by DR. J. C. CULBERTSON, of Cincinnati. He mentioned its usefulness in constipation, sluggish liver, accumulation of waste matter in the system, and made it an illustration of the good that could be accomplished by using rationally an old-fashioned remedy. If given at night, while the body was resting, 2–4 cc. in 250 cc. of water, it would have a diuretic and diaphoretic effect. In larger doses, it was rather cathartic and cholagog.

26. **Diabetes mellitus,** by DR. J. M. ALLEN, of Kansas City. He emphasized the frequency of duodenal inflammation or ulceration, having made the diagnosis in 27 cases and established it postmortem in 7. A comparison was drawn with duodenal ulcer due to shock from burns, whereas diabetes was notoriously connected with mental shock. The antiseptic treatment he considered most rational, citing, in order of preference, creasote, sulfo-carbolate of zinc and sodium, sodium hypophosphite, eucalyptol, menthol, oil of cinnamon, calcium sulfite, salol. To control reflex irritation, he combined with one of these, pulv. cannabis indicæ, .004–.006 t.i.d. In most cases, anemia of the nerve-centers indicated the use of strychnin. Iron and codliver-oil were contraindicated on account of the condition of the duodenum. In cases of superacidity, he gave potassium bicarbonate after meals, so as to lessen the irritation of the chyme on the duodenum. DR. J. M. DUNHAM, called upon to discuss, spoke of the rarity of diabetes, having seen comparatively few cases, in spite of the fact that some men claim it to be of frequent occurrence. The speaker, in closing, agreed with Dr. A. L. Benedict, that it was more important to watch the nitrogenous waste than the exact elimination of sugar. Referring again to the nervous etiology, he said that he had found cases following typhoid, severe burns, functional dyspepsia, with superacidity, all of which rendered support to the diagnosis of duodenitis. Like Dr. Benedict, he had very little use for codliver-oil in any disease.

50. **The credulity of the people as pertains to medicine,** by DR. T. B. GREENLEY, of Meadow Lawn, Ky. The need of instructing the laity to a proper elementary conception of medical principles. whenever opportunity presented, was emphasized.

36. **Pharmacy, the handmaid of medicine,** by DR. WILLIAM J. JACKSON, of San Francisco. Paper read by the Secretary.

37. **Do our prescriptions violate the code?** by DR. R. G. ECCLES, of Brooklyn, N. Y. The query was answered in the affirmative to some degree, several instances being cited. Up to 1848, there were no patented medicines. A frank admission of the value of patented and hence published formulæ for synthetic drugs, was recommended.

38. **The work of the American Pharmaceutic Association, in relation to the materia medica of the future,** by DR. F. E. STEWART, of New York, N. Y.

39. **The preparation and administration of pills, tablets, and capsules,** by DR. H. FINKELPEARL, of Pittsburg, Pa. These papers had been largely anticipated in the previous discussion, owing to the change of date of papers 33, 34, 35, hence they will not be abstracted here.

48. **Therapy,** by DR. ELMER LEE, of New York City, was largely devoted to hydrotherapy, the reader using only about half a dozen drugs in emergency to quiet pain, etc. Most of his internal therapy, he declared to consist in the administration of water. Considerable adverse criticism was elicited.

In the discussion of the **pharmacopeia,** DR. E. H. LONG spoke of some of the points of organization of the revisional convention and of the unusually large amount of money at the disposal of the next committee. He thought that the pharmacopeia should be mainly a manual of materia medica and pharmacy, not of therapeutics, though it might be wise to include a description of new drugs. The financial condition was subsequently explained by DR. R. G. ECCLES as due to an insistence that the publishers of the dispensatory should pay for the use of the pharmacopeia. On motion, it was carried to advise the inclusion of patented chemicals in the next revision of the pharmacopeia, 10 voting in favor, none against, about 20 not voting. It was carried unanimously, viva voce, not to admit any secret preparation. DR. CULBERTSON spoke of the necessity of not limiting the pharmacopeia to comply with a code of ethics and the workings of the patent laws, but of securing legislation to revise the latter whenever an injustice was done.

51. **The therapeutic value of evaporators in the living room,** by DR. L. J. LAUTENBACH, of Philadelphia. The speaker showed a porous water-jar to be kept near registers, stoves, etc., so as to cause evaporation of water. The house-air in winter was necessarily far below the point of saturation, since it consisted of air freed from much of its water by cold and then warmed to a temperature at which much more water could be held in vapor.

FOURTH DAY.

40. **The medical issues of the war,** by DR. T. O. SUMMERS, of St. Louis, dealt with various hygienic, medical and organizational problems.

53. **Continental view of alcohol in therapeutics,** by DR. T. D. CROTHERS, of Hartford. The discontinuance of alcohol as a drug was noted, beer and other liquors being used rather as dietetic articles in some of the hospitals. Several hospitals, including one or two English institutions, were mentioned in which alcohol, even in vinous form, had been almost or quite omitted from the list of drugs, with favorable mortality-rate resulting.

A Monument to the Memory of the late Professor Pasquale Landi has just been erected in the surgical amphitheater of the University of Pisa in commemoration of the fact that it was there that, on September 26, 1868, he performed, for the first time in Italy, the operation of ovariotomy. Dr. Landi, who was professor of clinical surgery at Pisa, was born in 1817, and died in 1895. He attended King Victor Emanuel, and was the author of some sixty monographs on surgical subjects.

Cocainomania.—C. G. S. Godfrey (*Australasian Medical Gazette*, April 20, 1899) has met this condition most frequently combined with the morphin-habit, or as a result of the morphin-habit. In the few cases in which a necropsy has been performed hyperemia of the central nervous system was found with albuminous degeneration of the ganglion-cells of the medulla and spinal cord and the nerve-cells of the cardiac ganglia. There was similar degeneration and atrophy of liver-cells and muscle-fibers of the heart and of the arterial coats. Cocain-inebriety is far more rapid in its effects in breaking down the mental powers than the morphin-habit. At first there are no unpleasant after-effects, such as dry tongue, headache, or bad taste in the mouth. In about 4 to 6 weeks the habit is usually well established. There is craving for the drug, depression, anorexia, and insomnia until the dose is repeated. Ultimately insanity ensues. The morphin-habitue may go on for years increasing the dose until enormous quantities are taken with little physical deterioration. In cocainomania cachexia is always present, probably due to disturbance of nutrition produced by the contraction of the bloodvessels of the gastrointestinal tract and diminished function of the liver. The patient loses all moral sense, tells extravagant lies, is careless in his habits, negligent of his brain, and depraved sexually. In several cases epileptiform convulsions have been recorded. In the treatment of the condition the best results are obtained by the sudden withdrawal of the drug. Hot-air baths are useful in combating insomnia, and spartein and trinitrin appear to relieve the morbid craving. The habit is most frequently begun by substituting cocain for morphin or by its use in treating inebriety from other drugs. Another common cause is spraying the nasal mucous membranes for coryza, etc. It is estimated that not less than 30% of all cases occur in medical men. [M.B.T.]

The Latest Literature.

British Medical Journal.

June 10, 1899. [No. 2006.]

1. A Clinical Lecture on Misplaced Testes and their Surgical Treatment. H. BETHAM ROBINSON.
2. The Amœba Dysenteriæ: its Relation to Tropical Abscess of the Liver. D. G. MARSHALL.
3. The Removal of a Fibroid from a Uterus Unicornis in a Parous Subject. ALBAN DORAN.
4. The Solvent Action of Certain British and Foreign Mineral Waters on the Biurate of Sodium. WILLIAM BAIN.
5. Bone Crochet Hook (Four and a Half Inches Long) Accidentally Lodged Within the Peritoneal Cavity. HENRY BRIGGS.
6. Two Cases of Intractable Uterine Hemorrhage for which Vaginal Hysterectomy was Performed. C. E. PURSLOW.
7. Treatment of Coryza. WILLIAM E. BURTON.
8. A New Method of Closing the Peritoneum after Laparotomy. HENRY O'HARA.
9. Delivery of the Arms when Displaced Upwards in Breech-Cases. T. M. CALLENDER.
10. A Case of Hernia of the Ovary. WALTER L. BELL.
11. A Case of Misplaced, Misshapen Kidney. WILLIAM SHEEN.
12. Threatened Death under Chloroform. FRANK E. GUNTER.
13. A Case of Patent Urachus: Operation; Cure. ANGUS KENNEDY.

1.—Robinson classifies **misplaced testes** into (1) ectopia proper, where the testis has descended out of its normal course, and (2) retentio testis, where its migration is incomplete, but in the normal line. Of ectopia testis we meet with the following forms: (*a*) perineal, the most common form; (*b*) crural; (*c*) pubopenile; both of these latter being very rare; and (*d*) abdominal. Treatment in these cases consists in placing the testicle in its proper position by some operative procedure. Retentio testis occurs in the following forms: (*a*) abdominolumbar, (*b*) iliac, (*c*) inguinal, (*d*) cruroscrotal. Treatment here should consist, where possible, in placing the testicle in its normal position, but where the cord is too short to allow the testicle to be brought down into the scrotum castration should be performed. [G.B.W.]

2.—The case of tropical abscess of the liver described by Marshall is of especial interest in that **death was caused by a thrombus containing large numbers of amebæ,** a hitherto undescribed pathologic condition. A strong man of 27 went to the west coast of Africa, where he had an attack of dysentery which kept him in the hospital 3 weeks. He then returned to Scotland and 2 months later an abscess of the liver was opened. Being apparently well a year later, he went to Ceylon, suffered from dysentery, returned home, had another abscess opened, and 3 weeks after was seized with sudden dyspnea and died. Postmortem showed the abscess to be in the upper part of the right lobe of the liver. A thrombus partly organized was found firmly fixed in a large vein just where it joined the inferior vena cava, into which it projected a short distance. Sections of special interest were: (1) From the left lobe; the area around the central vein was paler than the peripheral zone. The capillaries were engorged, leukocytes in excess, and the liver-cells showed beginning degeneration; (2) from the right lobe, sections showed similar changes, but more advanced. No amebæ were found, the changes being apparently due to the chemical products of the organism; (3) sections from the wall of the abscess showed from within outward a layer of mucoid, necrotic material, in which many amebæ were found; next, a reticular layer, also containing amebæ; deeper, granulation-tissue, and then firmer fibrous tissue, amebæ lying both free and in the capillaries; (4) sections of the thrombus showed fairly numerous amebæ and fragments of degenerated liver-cells. Consideration of this case confirms what practitioners in India have learned, namely, that a man who has had an abscess of the liver, and apparently recovered, is still in danger of recurrence, especially if he stays in a tropical climate, or returns to it soon. There is a greater tendency to recurrence in cases in which amebæ are present, owing to the serious damage to the liver-tissue caused by their presence. Such patients should not return to a dangerous climate for at least two years after the abscess has been opened. [A.G.E.]

3.—Doran reports the successful **removal of a fibroid** from the undeveloped cornu of a uterus unicornis. The well-developed cornu in this case opened into a normal vagina, and had proved capable of bearing a fetus to term. [W.K.]

4.—Bain conducted experiments to test the validity of the conclusion reached by Roberts and Luff, viz., that **the mineral waters containing the smallest percentage of sodium salts were the most beneficial in the treatment of gout.** Series of experiments were made with distilled water, mineral waters, and artificial blood-serum to determine their different soluble powers upon the biurate of sodium. The results arrived at show that the difference in solvent power between the various mineral waters tested, such as Contrexéville, Homburg, Wiesbaden, Kissingen, Buxton, Vichy, etc., is almost infinitesimal, and that any difference present cannot be attributed to the percentage of sodium salts contained, the test he considers open to criticism, however, because of the absence of continual agitation such as is present in the blood, and because the chemical compounds which come into contact with the biurate in the tissues may be entirely different than those used in any test-bottle. For instance, the mineral ash of spinach is found in the laboratory to be specially solvent upon the biurate. Given to a patient with chronic gout who was on fixed diet, it had no apparent effect, as shown by the urine. He concludes that inferences from chemical experiments should be modified by giving the substance to a gouty patient and only a positive result should proclaim it of therapeutic value. [A.G.E.]

5.—A bone **crochet hook** (4½ ins. long) had accidentally been **forced through the vaginal wall** into the peritoneal cavity while the patient was attempting to apply iodoform ointment to an ulcerated cervix. The position of the hook was found by the x-rays and easily removed through a small incision in the posterior fornix. The patient made an uncomplicated recovery. [G.B.W.]

6.—Purslow reports two cases of **vaginal hysterectomy** performed for intractable hemorrhage from the uterus which would not yield to rest, drugs, or the curet. Microscopic examination of the endometrium showed the alteration of the epithelial cells, which were round or irregular and proliferative, forming a deep layer in which were found vessels with poorly developed walls. [W.K.]

7.—Burton states that **coryza can be aborted by the local use of belladonna tincture in water,** ʒj or ʒiss in ℥j water. The nose is well cleared out and a Wallas's irrigator, containing a dessertspoonful of the solution, applied to one nostril. The other nostril and the mouth are closed and a long inspiration is made while the irrigator is raised. Treat the other nostril the same and then repeat the process. This is all that is necessary unless the case is one of long standing. In these, alkaline solutions should be used first to clean the nostril, and several applications of the belladonna may be needed. This treatment checks immediately the coryza of hay-fever in many cases. [A.G.E.]

8.—O'Hara suggests the application of a purse-string suture in closing the peritoneum after laparotomy. [G.B.W.]

10.—Bell reports a case of **hernia of the ovary** in the left inguinal canal. There were some adhesions to the interior of the canal, so that the ovary could not be returned within the abdomen. It was removed and the inguinal canal closed as in the ordinary operation for radical cure of hernia. [W.K.]

11.—A greatly **misshapen kidney** was found firmly fastened in a position lying directly on the left common iliac artery. There was no proper hilum to the kidney and the ureter was formed by the junction of 4 main trunks. The kidney is supplied with blood by 3 arteries, 2 arising from the aorta, and one from the iliac artery. [G.B.W.]

Lancet.

June 10, 1899. [No. 3954.]

1. Fragments of Pathology and Therapeutics. W. HOWSHIP DICKINSON.
2. A Century of Medicine in America. J. C. WILSON.

3. The Effect of Baths, Massage, and Exercise on the Blood-Pressure. WILFRID EDGECOMBE and WILLIAM BAIN.
4. Double Pneumonia in the Sixth Month of Pregnancy; Miscarriage; Relapse; Recovery. THOMAS OLIVER.
5. A Case of Ulcerative Endocarditis Treated with Antistreptococcic Serum. BERTRAM M. H. ROGERS.
6. On Systematic Muscular Development as a Radical Cure of Hernia. A. A. WARDEN.
7. Note on a Case of Hernia of the Vermiform Appendix into an Old Femoral Sac. THOMAS F. CHAVASSE.
8. Notes on a Case of Addison's Disease Treated with Suprarenal Extract. ARTHUR FOSTER.
9. Notes on a Case of "Lupus Lymphaticus" of the Eyeball. DAVID WALSH and SYDNEY STEPHENSON.
10. A Case of Addison's Disease in which the Blood-Pressure was taken Two Days Before Death. CHARLEWOOD TURNER.
11. A Case of Diphtheria in which Death Resulted from a Clot in the Basilar Artery. F. H. EDGEWORTH.

1.—Dickinson lectures upon **the causes of dilatation of the heart.** He believes the disorder to be often inferred on insufficient grounds and treated when it does not exist. The dilatation of the left ventricle caused by aortic obstruction is greatly exceeded by that which ensues from the abnormal introduction of blood into it during aortic regurgitation. In the former case the muscle is contracting and tense, in the latter it is relaxed—hence the great expansion, notwithstanding the hypertrophy present. Dilatation of the left ventricle due to mitral regurgitation is explained by the fact that, though the intraventricular pressure is reduced during systole it is increased during diastole—again when the muscle is relaxed. Besides lesions of the valves general dilatation may be caused by aneurysm of the arch of the aorta, more rarely by pericardial adhesions, and commonly by pulmonary obstruction. Aneurysm *per se* has little effect in causing cardiac hypertrophy, but dilatation sometimes presents itself with aneurysm apparently as its consequence. Drink occasionally presents itself as the antecedent of dilatation, but it is to be doubted whether this is more than an accidental occurrence. Anemia and exhaustion are efficient causes of dilatation, though only of the minor degrees of it. In conclusion, both dilatation and hypertrophy are brought about by intracardiac pressure, which is either absolutely increased or is greater than the means of resistance. Hypertrophy is apt to prevail when there is undue retention of blood during systole; dilatation, when there is undue intrusion of blood during diastole. Hypertrophy is the more apparent when the exit of blood is impeded; dilatation, when the entrance of blood is increased. The origin of dilatation in distention during diastole; though not the only mode of its production, perhaps may be regarded as the chief, and as one to which attention needs to be emphatically called. [A.G.E.]

2.—See PHILADELPHIA MEDICAL JOURNAL, June 10, 1899.

3.—Edgecombe and Bain have made a series of observations on **the effects of baths, massage and exercise on the arterial and venous blood-pressure.** The hemadynamometer of Oliver was used, and for arterial pressure the radial artery was employed. For venous pressure, veins on the dorsum of the hand or wrist or on the forearm were taken. Ten subjects were experimented upon, their ages ranging from 20 to 60 years. The summary of their results is: (1) Cold baths raise the arterial pressures, maximum and mean, and lower the venous pressure; after reaction the arterial pressure falls and the venous pressure rises; (2) percussion added to cold increases the rise in arterial pressure; (3) warm baths of plain water lower the arterial pressures and both absolutely and relatively lower the venous pressure; (4) turkish baths lower the arterial and venous pressures to a great extent, though the fall in venous pressure is proportionately not so great as that in arterial pressure; (5) saline baths at warm temperatures lower the arterial pressures to a greater extent than plain water baths; the venous pressure, though absolutely lowered, is relatively raised; (6) dry massage lowers the arterial pressures and relatively or absolutely raises the venous pressure, provided the abdomen be not massaged too vigorously; (7) warm temperature plus massage has a more powerful effect in the same direction than dry massage alone; (8) the effect of exercise on the blood-pressure depends upon the severity of exertion. In all forms an initial rise in arterial pressure occurs; if the exercise be mild a fall occurs during its continuance; if severe the rise is maintained; after exercise, moderate or severe, a fall takes place. The venous pressure is raised during all forms of exercise, and remains raised during the subsequent arterial fall. The return to normal after exercise takes place more or less rapidly according to the gentleness or severity of the exercise and the temperature of the atmosphere. [A.G.E.]

4.—The case reported by Oliver is that of a woman presenting the series of **double pneumonia, miscarriage, relapse of the pneumonia, and final recovery.** When called in consultation, the patient was found to be suffering from severe dyspnea, and the question was whether or not premature labor should be induced, the pregnancy being in the sixth month. The question was finally decided in the negative for fear that the patient might die during labor should it be a tedious one. Three hours after the consultation labor-pains began, and before the physician arrived, which was only 20 minutes later, the child was born, it being dead when the physician came. There was no trouble with the placenta, the lochia remained healthy and the act of parturition seemed to disturb the patient very little. In two weeks she was well and had been up for a few days when pain began in the chest again, dulness followed, rusty sputum was noticed and a veritable relapse in pneumonia was present, as was proved by a bacteriologic examination of the sputum. The first attack lasted 11 days, the second one 7 days, and was not accompanied by as great prostration as was present in the first. As to the treatment of pneumonia occurring during pregnancy, Oliver's experience leads him to believe it is better not to attempt to end the pregnancy. Premature induced labor is always tedious and the muscular pains and sudden expulsion of the fetus act too frequently like surgical shock. Pneumonia itself tends to terminate pregnancy by abortion, and labor should not be induced. [A.G.E.]

5.—Rogers writes of a boy of 10 years in whom a **typical case of ulcerative endocarditis was treated with antistreptococcic serum.** Blood was taken from the front of the elbow-joint on two different occasions and incubated, and both times showed a pure streptococcic growth. The case seemed a suitable one for the use of antistreptococcic serum, and on December 11, 13, 16, 18, and 19, 10 cc. of the serum was injected. The effect was absolutely nil as regards improvement. The condition of the heart remained the same, the fever continued as before, and the spleen remained large and tender. The injections were extremely painful, the boy screaming with pain each time, and because of this and their lack of effect they were stopped. The boy died January 9, and a postmortem showed a large spleen firmly adherent to the diaphragm, stomach, and omentum. Yellow pus oozed through a small tear unavoidably made. The heart was dilated and hypertrophied, and the aortic valves covered with immense vegetations. A small embolus was found in the right anterior cerebral artery, and the spleen contained 5 infarcts. Cultures from the spleen and heart showed a mixed streptococcus and staphylococcus infection. Rogers believes that to get good results from antistreptococcic serum we must be sure, (1) that there is endocarditis; (2) that the endocarditis is infective; (3) that the infection is due to the streptococcus. How the staphylococci present after death in this case gained access he does not know, but they were not present when the blood was examined during life. He thinks that the good effect of the serum in these cases is yet to be proved, at the same time stating that to cure or even relieve a case of ulcerative endocarditis is a severe test to which to put the serum. [A.G.E.]

6.—Warden's **radical cure of hernia by muscular development** is based upon the following facts, which are well known, but which he emphasizes in support of his method: (1) The deeper of the two layers of the superficial abdominal fascia contains much yellow elastic tissue capable of development. This is more or less intimately connected with the external oblique muscle and its fascia. (2) The intercolumnar fibers, which extend partially across the superficial abdominal opening in the aponeurosis of the external oblique, are slender, and send a thin membrane downwards upon the spermatic cord. The internal pillar sends a reflec-

tion of fiber upwards and inwards, which becomes incorporated with the sheath of the rectus muscle. (3) The aponeurosis of the internal oblique is inseparably united with the aponeurosis of the external oblique and that of the transversalis. (4) The transversalis fascia is strongest in the lower part of the abdomen. He contends that each of these structures, of vital importance in the production of all herniæ, is capable of great increase in vascularity, in muscular and aponeurotic substance, and therefore in thickness and resistance to the extrusion of any viscus. Hernia in young children is often cured by the wearing of a truss for a few years, the cure being caused by the development of the child and a more or less complete closure of the hernial sac. In adults the truss is more of a palliative measure and is an affair of a lifetime, holding in the hernia, but not curing it in any way. Warden's method in a small reducible inguinal hernia is: (1) Keep the hernia within the abdomen continuously and permanently by means of a well applied truss. (2) Systematically develop, by suitable exercises, to the greatest extent possible, the muscular and aponeurotic structure of the abdominal wall. The hernia must not be allowed to descend, as one complete descent may annul the results of weeks of treatment. A special trust should be used when the patient is in the bath and, if necessary, even when in bed, in the horizontal position. On no account must the bowel enter even the internal inguinal aperture. As to the muscular development, contrary to the advice generally given to wearers of trusses, he advocates practice of all such muscular efforts as will not tend to force the hernia into its sac, and states that if the truss be a proper one, few reasonable exercises need be forbidden. He has observed how small and firm the internal ring is in gymnasts, and has a number of patients under observation, in whom a great increase of development has been obtained in 3, 6, or 12 months by patient training. This may be done by the Swedish system, or better by resisted movement with some one of the "exercisers" in popular use. Three of the best simple exercisers are: (1) the patient, with his hands at his side, raises himself from the dorsal decubitus to a sitting posture 20 or 30 times, twice or oftener a day; (2) similarly from the horizontal position, let both legs be raised from the ground almost to the perpendicular; (3) modify the first by raising the body sideways in a rotatory movement, and thus exercise the obliques. [A.G.E.]

7.—In a patient 65 years of age Chavasse found a swelling in the base of Scarpa's triangle, about 3 inches long and overlapping Poupart's ligament. This was hard to the touch, irreducible, and painless, with a suggestion of deep-seated fluctuation. There was no impulse on coughing and the skin was unaffected. The bowels acted regularly and freely. Antiphlogistic measures with rest decreased the size of the lump, but it did not entirely disappear. The patient's consent was finally obtained to operation. The tumor was opened and found to be an old thick sac of a **femoral hernia containing** some adherent omentum and the **vermiform appendix.** The appendix was ligated and removed and the stump returned into the intestine. The sac was ligated and the wound closed. The result was all that could be desired. [C.L L.]

8.—The patient was woman of 38, having well-marked **Addison's disease.** Her family-history was remarkably good. Menstruation had been normal until she was 28, when she "caught cold," and there had not been the slightest sign since. Symptoms of the disease had been present 6 months, the skin being greatly discolored. The only pain present was in the back over the suprarenal glands. The uterus was felt to be atrophied upon examination, and the ovaries could not be palpated. The mammæ were small. She was at once given 5-grain tabloids of suprarenal gland substance, taking 4 a day. After a month the pain disappeared and she was distinctly improved. She then had an attack of influenza, but recruited. Three months later she had an attack of diarrhea and vomiting accompanied by severe faints, and was again confined to bed. She lost ground for a few weeks and then convulsions set in and she died in 24 hours in a comatose condition. No postmortem could be obtained. The points of interest drawn from the case are: (1) The question whether the early cessation of the ovarian function and that of the suprarenal glands have a common cause; (2) the rare termination of Addison's disease in epileptic fits; (3) the effect of suprarenal-gland treatment. The patient certainly obtained relief from it. She always felt better after taking the tabloids. The pigmentation was not influenced in any way by them. [A.G.E.]

9.—A rare case is reported, the chief interest of which lies in its exact resemblance to a case reported by Mr. Jonathan Hutchinson as **lupus lymphaticus.** There were jelly-like pouches in the eyeball that were clearly varicose lymphatics. It seems possible from the history and from the dilated surface capillaries and congested retinal vessels that the eyelids and orbital contents generally may be affected with a mixed vascular and lymphatic nevus. The elephantiasis of the eyelids and nævus lymphaticus of the eyeball, if this view of common origin be accepted, are possibly two distinct expressions of some congenital local affection of angiolymphatic type. The present lesion is congenital, noninfective, chronic and associated with congenital nevoid manifestations. [C.L.L.]

10.—The case is reported because it is believed to be the first in which **the actual bloodpressure in Addison's disease** has been recorded. The pressure was taken by Hill and Barnard's sphygmometer, and was found to be 73 mm. of mercury 2 days before the death of the patient, a striking reduction from the normal of 100 to 125 mm. The treatment consisted of laxatives and hypnotics, until 3 days before death, when the extract of one sheep's suprarenal was given. This gave no appreciable improvement. Frequent injections of strychnin and ergotin with morphia were then tried without any permanent result, and the patient, a man of 53, sank very rapidly. [A.G E.]

11.—The rare case of a clot in the basilar artery is described, the patient being a boy of 9 years who had diphtheria. Under the administration of antitoxin the membrane cleared off and the patient appeared to be doing well. Afterward paralysis of the palate became marked, vomiting occurred, and marked opisthotonos, with only 9 inches between the occiput and sacrum, followed. All the muscles except those of the face were in a state of continuous tonic spasm, which, however, gradually lessened before death. Postmortem showed a clot in the upper half-inch of the basilar artery, projecting at its upper end into the openings of the posterior cerebral arteries. No other lesion was discovered in the brain or its arteries. The clot was firm and not adherent to the vessel wall, which was normal. Edgeworth remarks that the clot might have been due to thrombosis or embolism, the facts being more in favor of the latter, though no source of an embolus was found. Tonic spasm, where all the muscles except those of the face are involved, seems quite exceptional from obstruction of the basilar artery. Cases of cerebral hemiplegia following diphtheria have been recorded and attributed to embolism or thrombosis, but the diagnosis has been mostly a matter of inference. In one case an embolus was found in the right middle cerebral artery. In those cases of hemiplegia attributed to embolism no cardiac murmur has been discovered. It is, therefore, a conjecture only that such cases and the one just mentioned were due to clotting of blood in the left side of the heart, possibly in the left auricular appendix. [A.G.E.]

New York Medical Journal.

June 24, 1899. [Vol. lxix, No. 25.]

1. Some Critical and Desultory Remarks on Recent Laryngological and Rhinological Literature. JONATHAN WRIGHT.
2. A Primary Polymorphous-cell Sarcoma of the Nose, with Universal Metastasis and Formation of a Free Sarcomatous Mass in the Right Ventricular Cavity. ALDRED SCOTT WARTHIN.
3. How to Give Anesthetics. WILLIAM S. DEUTSCH.
4. The Inoculation Theory of Malaria. WALTER B. JAMES.
5. Surgical Operations during Hypnotic Sleep. ARTHUR MACDONALD.
6. Rubber Gloves in Aseptic Abdominal Surgery, with a New Method of Sterilization and Bacteriological Provings. C. H. RICHARDSON.

1.—Wright states that the sum total of the results attained in the search for a **tubercle-antitoxin,** so far as a practi-

cal application of them is concerned, lies in the **diagnostic value of tuberculin for the detection of bovine tuberculosis.** From the small number of laryngologists contracting tuberculosis from patients, and from other observations, he is convinced that the majority of individuals are immune to ordinary doses of the tubercle-bacillus accidentally taken in. In considering the comparative infrequency of laryngeal infection, Krieg's results are given: of 700 cases of laryngeal tuberculosis, 252 were unilateral, and corresponded to the lung-lesion. This would suggest propagation through the lymph-channels. Late researches show that in infants thoracic tuberculosis is more common than abdominal. There are good reasons for believing that the tubercle-bacillus enters the human organism before it reaches either the lungs or the stomach. Tubercle-bacilli may be deposited in the nasal passages, esophagus, etc., and, passing through the lymph-channels, be distributed to various localities where they produce tubercle. But the mouth and its adnexa are localities strikingly free from primary tuberculosis. This suggests the question as to whether the tubercle-bacillus must usually acquire some virulent property from a lymph-node before it can cause tubercle. [A.G.E.]

2.—This case of **sarcoma of the nose** is reported, because it is a new variety of sarcoma found in that region; because of its great malignancy; because of the great extent of the metastases, and the occurrence of a free, sarcomatous mass in the right ventricular cavity. The primary growth was in the right nostril, and the postmortem showed secondaries in the dura, pineal body, hypophysis, cavernous sinus, lungs, pleura, heart, liver, spleen, kidneys, pancreas, stomach, intestines, peritoneum, testicles, prostate, and the cervical, bronchial, retroperitoneal, and mesenteric lymph-glands. The free, sarcomatous body in the right ventricle is the most important feature of the case. This was about the size and shape of a large English walnut. It had a ribbed and furrowed surface, and presented no appearance of previous union with the heart-wall. No evidence of such connection could be found in the endocardium of the right heart. The majority of the cells were of the small, round variety, with a few giant-cells. The mass showed no necrosis or degeneration. Its origin is considered to be the breaking loose of a polypoid nodule from the endocardium, its retention in the ventricle, and subsequent growth. If not this, it might have arisen from a primary embolus of tumor-cells retained in the heart-cavity. [A.G.E.]

3.—Deutsch advises a careful study of the patient both psychologically and physically, and holds that such **knowledge of the patient is as serviceable in producing anesthesia** with skill and care as is the danger that arises from the drug itself. No more of the drug should be employed than is absolutely essential. He considers the pupillary reflex infallible and adheres to the mouth-gag and tongue-forceps, while employing strychnia in $\frac{1}{60}$ to $\frac{1}{40}$ grain doses hypodermically. [C.L.L.]

4.—The recent literature on the subject of the **inoculation of malaria by mosquitos** is reviewed. The inference by observers regarding the sequence of events in the *Halteridium* and proteosoma, organisms in birds closely resembling the malarial organism in man, is as follows: The organism taken into the stomach of a mosquito leaves its blood-cell and throws out flagella. These flagella are set free, enter into another organism and act as fertilizing agents. The latter organism becomes motile and penetrates the stomach-wall. Here it develops within itself germinal rods corresponding to spores which produce a new generation of the organism. This is believed to be the case with the human malarial organism. When these spores get into drinking-water the question arises as to whether man is infected by drinking the water, or by the spores entering the larval forms of mosquitos and are by them finally conveyed to the person. The latter is thought to be the case. [A.G.E.]

5.—While there can be no doubt that in certain cases **hypnotism may be as serviceable in surgery as the usual anesthetics,** MacDonald does not believe that it is generally practicable. It is, however, interesting to note special cases under special conditions in which it has been useful. He reports a case of cancer of the breast which he saw removed by Dr. Schmeltz, of Nice, under hypnotic anesthesia and also a case of ectropion of the lower eyelid which was operated upon by the same surgeon without other anesthesia. Neither patient awoke during the operation or felt any pain. [C.L.L.]

6.—This author believes that up-to-date surgeons should **operate without rubber gloves,** this he believes will become true in time and that the advance will be hastened if the following method for the sterilization of the gloves is employed, as they can then be used repeatedly and can be put on readily. The hands are to be carefully sterilized according to any of the approved plans. Richardson prefers green soap, alcohol, oil of turpentine, 1:1000 sublimate, rinse in normal sterile salt solution and dry with sterile towel. Then put on gloves that have been sterilized as follows: First wash the gloves in soda solution, inside and out, and holding over a heater or gasflame, reversing once. Dust liberally the inside with dry-heat sterilized soapstone. Wrap each pair in a double layer of gauze, lay in a towel and place in a formic-aldehyde sterilizer for two hours. Wrap in sterile towel and mark with size. The sterilizer is a tin box with wire shelves in which gas is passed from paraformic aldehyd pastilles heated over an alcohol lamp. [C.L.L.]

Medical Record.

June 24, 1899. [Vol. lv., No. 25.]

1. Subacute Ataxic Paralysis and Combined Sclerosis—A Form of Spinal Disease Associated with Lethal Anemia and Toxemia. CHARLES L. DANA.
2. Miliary Tuberculosis of the Pleura Without Other Tuberculous Involvement of the Lung. EUGENE HODENPYL.
3. The Post-Febrile Insanities. ALLAN MCLANE HAMILTON.
4. Fibroma of the Abdominal Wall. C. JEFF MILLER.

1.—The cases are described as having **ataxia with rapidly increasing paralysis,** and with paresthesias of the limbs often followed by some pain. The course is rapid—from 6 months to 2 years. The cases frequently show anemia of the pernicious type, and are often seen in persons who have lead-poisioning, malaria or other intoxication. The first case here reported was that of a man of 47, whose history was unimportant until a year before he was seen, when he had numbness and slight pain in his legs and to some extent in his arms. Later he became ataxic, lost control of his sphincters, and with increasing loss of power ultimately became entirely paraplegic. He showed some mental confusion and had occasional hallucinations. There was no marked actual atrophy of the muscles. The tendon-reflexes were absent in the lower extremities. The cranial nerves were uninvolved. There was slight anesthesia, but no other sensory disturbance except marked ataxia. The symptoms increased and the man died of exhaustion. The postmortem findings are given in detail. They consisted of degeneration throughout the whole length of the columns of Goll and the direct and crossed pyramidal tracts. This was most marked in the posterior columns and in the cervical region. There was also marked sclerosis of the small blood-vessels. The condition is thought to be the result of an intoxication, and the reason that the columns of Goll and the pyramidal tracts are usually affected first in intoxications is in Dana's belief owing to the fact that they contain the long terminal filaments of the neurons far removed from nutritive influence. Other clinical cases are sketched. [D L.E.]

2.—Hodenpyl believes that **isolated miliary tuberculosis of the pleura** is more frequent than commonly taught. He has examined the small fibrous-looking nodules often seen on the surface of the pleura, and in 133 autopsies on adults, found in 41 of 91 cases not presenting general tuberculosis that these were present and were tuberculous in character. In several cases presenting no gross changes there were histological appearances of tuberculosis. There was in all these nodules a constant tendency to a fibrous change. No bacilli were found and no inoculation-experiments were undertaken, the diagnosis being based purely upon histological appearances, which, the author thinks, were sufficiently characteristic. He believes that these nodules may be of importance in causing disseminated tuberculosis and in converting pleurisy of other forms into the tuberculous variety. [D.L.E.]

3.—The **insanity of typhoid** commonly occurs during convalescence and usually subides as the evidences of intoxication disappear. It is generally of the exalted form. It

frequently varies from time to time; the patient may become violent or self-destructive. Hamilton has observed that malarial insanity commonly follows the tertian form of the disease. Sometimes it had marked periodic variations in intensity. Influenza in his experience may be complicated by insanity at any period, but usually when the patient has become much exhausted. He thinks there is a distinctly psychic form of influenza as well as gastrointestinal and other varieties. The subjects are usually apprehensive and suspicious. Melancholia was not so frequent in his experience as in that of Hutchins. Insanity from influenza occurs at any age, often in patients between 20 and 30 years of age. About 75% recover within a few months. Most febrile insanities have in general a fairly good prognosis. The treatment should consist of gastrointestinal antiseptics, and the free use of nutritious food, together with the usual symptomatic treatment. [D.L.E.]

4.—Miller reports 3 cases of **fibroma of the abdominal wall.** The abdominal wall is rarely the site of tumors, but fibromas constitute the predominating variety. Trauma seems to be the most important determining factor in every instance. They occur almost exclusively in women, and are limited to the period of sexual activity, and intimately connected with childbirth. Senn states that of 42 cases collected by Guerrein 39 were in women. Only 4 cases have been observed by Senn, all of which were in women. In the largest majority of cases the tumor makes its appearance soon after childbirth; and while any region of the abdominal wall may be affected except the umbilicus or median line, it is usually found in the iliac regions or sheaths of the rectus muscles, where the tissues are more liable to be injured during parturition. It is often difficult, and in some instances impossible, to ascertain the exact anatomic position of the tumor. According to Senn the primary starting point is most frequently near the peritoneum. Michaux states that the point of origin is not generally preperitoneal or subcutaneous, but in the fascia and muscles. [W.K.]

Medical News.

June 24, 1899. [Vol. lxxiv, No. 25.]

1. Fever in Aseptic Surgery. B. FARQUHAR CURTIS.
2. The Use of Thyroid Extract in Fibromata. Clinical Note. MALCOLM MCLEAN.

1.—The term **aseptic fever,** introduced by Volkmann, refers to the fever that accompanies the healing of wounds by first intention. It has been shown that a number of virulent pyogenic microorganisms may be introduced into a wound and yet that wound may heal by first intention, with or without any inflammatory reaction. Therefore a great many cases of so-called aseptic fever are simply cases of fever following a slight injection. But all cases of aseptic fever cannot come under this category, and then the rise of temperature is due to the absorption of blood and the tissue-degeneration, some claiming that fibrin is the active agent producing the fever, and others that it is nuclein. The diagnosis of a true aseptic fever is to be made by excluding other sources of fever, by its early appearance, by the character of the pulse, which remains normal, and by the fact that the patient has few subjective symptoms. [G.B.W.]

2.—McLean discusses the use of **thyroid extract in uterine fibromas,** and it is his opinion that much more extended observation, covering at least two years, is necessary to give a fair estimate of its value. It seems to be followed by distinctly beneficent changes in a sufficient number of cases to make it advisable, if not obligatory, for us to give our patients the benefit of its fair trial. Certain it is that in the majority of cases requiring intervention, we should hold ourselves ready to give that positive relief which can only come from a well-directed, well-executed modern operation. [W.K.]

Boston Medical and Surgical Journal.

June 22, 1899. [Vol. cxl, No. 25.]

1. Experimental Research Indicating that Paraxanthin-Poisoning is not the Cause of Epilepsy or Migraine. FRANZ PFAFF and JAMES J. PUTNAM.
2. Subsequent Histories of Arrested Cases of Phthisis Treated at the Sharon Sanitarium. V. Y. BOWDITCH.
3. A Case of Hysteria; Recovery after Prayer. S. G. WEBBER.

1.—Rachford, in 1895, had ascribed **migraine, migrainous epilepsy,** and other periodic affections of the nervous system to **paraxanthin-poisoning.** From the urine of the afflicted patients he had obtained a "final fluid" which was toxic to animals and which he believed contained paraxanthin in large quantity. He did not isolate the latter, however. At the suggestion of Putnam, Pfaff examined the urine of 4 cases of migraine and 10 of epilepsy for paraxanthin, but in none was paraxanthin found in sufficient quantity to justify the assumption that it was the cause of the toxic symptoms developed after injection of the final fluid into animals (mice). Moreover, no such toxic symptoms occurred when the fluid was freed from impurities, such as chlorids, nitrates, ammonium compounds, and other inorganic impurities. It is extremely difficult and tedious to free the final fluid from ammonium compounds—it is often necessary to wash the silver precipitates that are obtained in the method of isolation for 3 and 4 weeks continuously. In Dr. Rachford's own final fluid 17% of ammonia as impurity were found; after that was removed the fluid was no longer toxic to mice. Furthermore, a watery solution of ammonium chlorid containing ammonia in such quantities as they were found in Rachford's final fluid produced in mice symptoms identical with those of the fluid itself before precipitation of the ammonia. [D.R.]

2.—Despite the fact that the Sharon Sanitarium is situated near a large city, not far from the sea, at no special altitude and in the changeable and damp New England climate, the **results obtained in the treatment of phthisis** are very **encouraging.** Of 34 cases discharged up to a year ago 24 are living, in active work, and apparently well; 6 have died since leaving the sanitarium; in 3 there was a slight return of symptoms, but not sufficient to incapacitate them from active work; one has not been heard from lately. Bacilli were found in only 12: in the other the physical signs were similar to those which, under unfavorable hygienic conditions, are usually found to develop bacilli in the sputa later. [The absence of bacilli from the sputum in nearly two-thirds of the cases permits the thought to arise that a few at least were not tuberculous. But even if the number of the really tuberculous is less, the results are very encouraging.] The records of the cases are given in a comprehensive table. In every case effort was made to induce the patients not to return to the same conditions under which the disease developed. The chief factors in the treatment at the Sanitarium are insistence upon fresh air, judicious exercise, and good wholesome food; medicines are used sparingly, and merely as mild adjuncts to the general treatment. The results show that a larger percentage of cases of incipient phthisis can be arrested by sanitarium treatment than is possible by treating patients at their homes; that it can be done, moreover, near the great cities, and that lasting results can be accomplished if the patients are not allowed to go back to former unhealthful conditions. Bowditch hopes to see sanitariums established near all the large cities. [D.R.]

3.—A woman, 27 years of age, had convulsions which the writer considered **hysteroepileptic** in nature. [As consciousness was lost during the attacks and in the interval, when the fits were frequent, and as lips and tongue were bitten, it would seem as if there had certainly been an epileptic element in the case. Hysteroepilepsy and genuine epilepsy do at times coexist.] The left leg was paralyzed and anesthetic; sensation was also diminished in the left arm, the left side of the face, and the right leg and right side of the body. Under hypnotism the fits gradually diminished. Later they returned and occurred as often as from 15 to 25 times in the day; a persistent vomiting also set in and extended over a period of three years, during which the patient emaciated greatly. One day a feeling came over her "as if God would help her." She sent for her pastor to come and pray with her. As he was about to leave she rose from her bed and began to walk. The vomiting ceased. She was able to eat and gradually recovered. [D.R.]

Journal of the American Medical Association.

June 24, 1899. [Vol. xxiii, No. 25.]

1. President's Address. A. R. MITCHELL.
2. Supposed Increase of Cancer. EDMUND ANDREWS.
3. Varying Type of General Paresis. C. H. HUGHES.
4. Hemorrhage into Pons Varolii. AUGUSTUS A. ESHNER.
5. Pelvic Tuberculosis. AUGUSTUS P. CLARKE.
6. Dietetics of Obstetrics. C. S. BACON.
7. Gangrenous Ulcerations. SWAN M. BURNETT.
8. Etiology of Eclampsia. CHARLES B. REED.
9. Acute Infantile Diarrhea. J. O. MALSBURY.
10. Tetanus Treated with Antitoxin. HERMANN B. GESSNER.
11. Hydrochloric Acid. CHARLES D. AARON.
12. Acute Angina. AUGUST JEROME LARTIGAU and ANDREW MACFARLANE.
13. Experiments in Gastric Digestion. FENTON B. TURCK.
14. The Diphtheria-Bacillus. H. L. RUSSELL.
15. Amputation Through Hip-joint. CHAS. G. LEVISON.

2.—Andrews believes that errors that creep into the **mortality-statistics** of countries and cities are so great, and the errors in the census are known to be so numerous that **reliable statistics cannot be secured** from them regarding **the increase of cancer.** He shows that the average age at death in the city of Chicago has doubled within the last thirty years. As a consequence the proportion of deaths from cancer to the total number of deaths may have increased and yet cancer be less prevalent than it was formerly. All these factors have to be taken into account, which makes accurate knowledge on this subject difficult to obtain. [C.L.L.]

3.—Hughes shows that the **type of general paresis is changing;** that the symptoms are not as marked or acute, and that the rapid life of the present age, with all its improvements and tendencies to overwork or overplay, are causes that are making this a very much more common disease than heretofore. [C.L.L.]

4.—See PHILADELPHIA MEDICAL JOURNAL, June 24.

5.—See PHILADELPHIA MEDICAL JOURNAL, June 10.

6.—Bacon concludes that a **dietary adapted to a nursing mother** in childbed does not differ essentially from the mixed diet found suitable to the pregnant woman. If the appetite demands a larger quantity it might be desirable to increase the carbohydrates to 400 grams per day, thus increasing the caloric value of the ration about 450 calorics. With such a diet we restore the mother, as soon as possible, to a normal state, and avoid some of the disagreeable consequences of the starvation-diet that were formerly met with. [C.L.L.]

7.—The case reported shows to what extent **phagedenic ulceration** may extend after such severe traumatic injuries as were produced by human bites in this case. The bacteriological examination failed to detect any particularly virulent bacteria in the wounds. Under proper antiseptic care the wound healed rapidly and left little scar-tissue, although both eyes were destroyed by the ulceration before proper treatment was instituted. [C.L.L.]

8.—Reed would give as the etiology of eclampsia a toxemia, with a possible predisposing cause in hereditary iritability of the nervous system; a condition of the blood induced by the circulation therein of a poison or poisons, the nature of which at the present time cannot be determined. [C.L.L.]

10.—Gessner reports a **case of tetanus** that did well under antitoxin treatment, but died after the last dose, although but 40 c.c. were given altogether. He believes the death was due to exhaustion. [C.L.L.]

11.—Aaron advocates the administration of **hydrochloric acid** in capsules that are to be double in thickness of the ordinary capsule, or one size within the other, and are to be filled by the patient immediately before taking. [C.L.L.]

14.—Russell finds that the **diphtheria-bacillus** is frequently present in a virulent state in the mouths of convalescents and that it is possible for them to spread the disease after they have apparently recovered from it. [C.L.L.]

15.—Levison reports two successful cases by Wyeth's method of **amputation at the hip-joint** and summarizes the literature on the subject, collecting 16 additional cases to those reported by Wyeth with but 2 deaths. [C.L.L.]

Wiener klinische Wochenschrift.

April 20, 1899. [12. Jahrg., No. 16.]

1. A Review of 300 Abdominal Operations. EHRENDORFER.
2. A Case of Postpartum Prolapse of an Inverted Uterus. BRAUN VON FERNWALD.
3. Development of the Technic of the Cesarean Section. E. ROSSA.

1.—The most of these **300 operations** were in Insbruck, and were of all kinds. Ehrendorfer gives a general description of his operative methods. He used chloroform as the anesthetic, and took the usual antiseptic precautions, and out of the 300 there were only 11 cases of postoperative sepsis. Excluding the 41 cases of total extirpation of the uterus, there was a total mortality of 9.26%. [W.K.]

2.—Fernwald reports a case of **postpartum prolapse of an inverted uterus** occurring in a woman, 24 years of age, who had had a previous normal labor. The external diagnosis showed twins, which were both born with head presentation and the placenta delivered a half hour later. There was no traction on the umbilical cord. Suddenly, the fully inverted uterus was expelled from the vagina with considerable hemorrhage, and the patient collapsed. He succeeded in replacing it by using his fist, and checked the hemorrhage with tampons of iodoform gauze. Puerperium normal. No direct cause was found for the prolapse, but indirect causes may have been a weak constitution and a second pregnancy quickly following the first. [W.R.]

3.—Rossa says there are two means of **lessening the danger of the Cesarean section:** (1) by proper selection of cases, and (2) by good technic. He reports two cases in which he used the transverse fundal incision in women with rachitic pelves, both recovering, and states its advantages. In case of infection he prefers Porro's operation. One decided advance in the technic of the Cesarean section is the operating without compression to check hemorrhage. Another simplification of technic is in omitting any special treatment of the uterine cavity. [W.K.]

Centralblatt für innere Medicin.

May 20, 1899. [20. Jahrg., No. 20.]

Concerning the Eosinophile Cells, with a Special Consideration of their Presence in the Sputum. EMIL FUCHS.

Fuchs agrees with those who believe that the **eosinophile granulations arise from a certain form of phagocytosis,** some leukocytes ingesting red blood-corpuscles. He bases this view upon the fact that he has repeatedly seen eosinophile cells appear in large numbers in the sputum when it became hemorrhagic, while they had previously been present in but small numbers. They are very frequent in diseases with a hemorrhagic tendency. He has found eosinophiles in large numbers in tuberculous pleurisy and peritonitis, the exudates in these diseases being of course usually hemorrhagic. Since red-blood cells normally undergo destruction in the body, eosinophile cells appear normally in moderate numbers. There has been no attention paid to the decrease of the eosinophiles. Fuchs has observed this in typhoid fever, rheumatism, sepsis, pneumonia, tetanus, meningitis, and in phosphorus-poisoning in tuberculosis. He thinks this is probably the result of either high fever or of the action of the toxins. Eosinophile cells can be found in almost any sputum, and he does not think that they are of great diagnostic value, as he has found large numbers in ordinary bronchitis, though he thinks that they are most numerous in chronic cases. Neusser has expressed a belief that they occur in cases of bronchial catarrh from circulatory failure that are not complicated by emphysema. Fuchs, however, has found them in all emphysema cases. While others have reported their absence in whooping-cough he has found them in the three cases that he has examined. He has found the same decrease in the sputum in febrile cases that is present in the blood. In the sputum of tubercular patients he has found about the same percentage of eosinophiles as Teichmüller, *i. e.*, 66%, and he has also found that they are rare in advanced or febrile cases, or may be entirely absent. The prognosis cannot be based upon the number present, however, since in one case at least he has seen large numbers of eosinophiles with very rapid advance of the tuberculosis. [D.L.E.]

Original Articles.

THE CAVENDISH LECTURE ON THE ETIOLOGY AND DIAGNOSIS OF CEREBROSPINAL FEVER.*

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(From advance sheets courteously furnished by the Editor of the *West London Medical Journal*.)

I. SUMMARY OF THE FEATURES OF CEREBROSPINAL FEVER AS AN EPIDEMIC.—II. BACTERIOLOGY OF CEREBROSPINAL FEVER.—III. DIAGNOSIS.—IV. SPORADIC MENINGITIS.—V. NOTE ON TREATMENT.

IN practice we occasionally meet with a meningitis which is not tuberculous, which is not a complication of pneumonia or ulcerative endocarditis, and which is not a sequence of ear-disease or of injury, and which is not a terminal infection in some chronic malady. As the meninges of both brain and cord are diffusely inflamed, we label the conditions cerebrospinal meningitis. At intervals, in certain regions, the cases multiply, and we then speak of epidemic cerebrospinal fever. Until recently my experience, though somewhat varied, had been confined to a few instances in which the absence of the usual factors justified the diagnosis of the sporadic form of this disease. Within the past year a small outbreak in Baltimore has enabled me to study certain points in the etiology and diagnosis of this most interesting affection, and has thus determined my choice of a subject on which to address you.

I.—SUMMARY OF THE FEATURES OF CEREBROSPINAL FEVER AS AN EPIDEMIC.

Upon these I shall only touch very briefly.

a. One of the most fatal of all acute diseases, it fortunately takes a very humble position among epidemics as a destroyer. No fever attacks so few individuals in a community during its periods of prevalence; so that the general mortality may be but slightly increased. On the other hand, scarcely any known fever kills so large a proportion of those attacked. The recent epidemic in Boston illustrates this very well. Of 111 cases in three hospitals 76 were fatal, a mortality of 68.5%.

b. The outbreak occurs in certain waves or periods, of which the fourth during the present century is at present prevailing in the United States. For several years there have been local epidemics of the disease in widely separated regions, usually in villages and country districts; but in 1896, 1897, and 1898 a slight epidemic occurred in Boston, and in the latter year cases began to be recognized in Baltimore and other towns. From a recent collective investigation, made under the direction of Surgeon-General Wyman, of the U. S. Marine-Hospital Service (*Public Health Reports*, vol. xiv), we learn that cerebrospinal fever has prevailed during the past year (as a rule in a mild form) in twenty-seven States, and in the District of Columbia. It is not possible to say that the movement of troops last summer had anything to do with the spread of the disease. The limitation for a year or more to one district or city without spreading to adjacent towns, the localization even (as at present in Washington and Philadelphia) to special districts of a city, the recrudescence for several seasons in succession, are well-known features illustrated by the present epidemic.

c. Among specific diseases cerebrospinal fever stands in some points close to pneumonia. Sporadic cases of both occur in intervals of epidemic prevalence, though in pneumonia they are much more numerous, while epidemics of pneumonia, like those of cerebrospinal fever, are most striking in barracks, asylums, and jails. Even when not prevailing as an epidemic there may be remarkable house-epidemics of cerebrospinal fever. The seasonal relations are the same in both, and the two diseases may prevail together. The abrupt onset, the great frequency of herpes in both, the leukocytosis, "the almost identical characters of the fibrino-purulent exudate in the two diseases" (Netter), the frequent complication of pneumonia in epidemic cerebrospinal fever and of meningitis in pneumonia are additional points of contact. The degree of contagion is about the same in both diseases, and, lastly, it has been claimed that the organism described in cerebrospinal fever is only a variety or a degenerate form of the pneumococcus.

On the other hand, Leichtenstern, speaking against the view that the pneumococcus is the cause of epidemic cerebrospinal fever, says: "Pneumonia is a disease spread over the entire earth, and appears at all times, there being no land immune from it. Epidemic meningitis is very rare, and in many countries is still unknown. Croupous pneumonia attacks every age, the disposition increasing somewhat with increasing age, epidemic meningitis is a disease which affects children and young people; beyond thirty-five there is slight disposition to it. Croupous pneumonia has a typical course and a crisis; epidemic meningitis has no crisis. The complications of the two diseases are different, etc." (Quoted by Councilman, Mallory and Wright.)[1]

II.—BACTERIOLOGY OF CEREBROSPINAL FEVER.

Until within the past few years the etiology of cerebrospinal fever has been obscure, and a majority of observers regarded the organism found in the meningeal exudate as the pneumococcus, or a variety of it. More than twelve years ago, however, Weichselbaum described a diplococcus with special cultural peculiarities, which he regarded as the specific organism of the epidemic form of the disease. Little or no attention was paid to his communication until 1895, when his observations were confirmed by Jaeger. So little notice, indeed, had

* Read before the Society, June 16, 1899.

[1] "Epidemic Cerebrospinal Meningitis." A Report of the State Board of Health of Massachusetts. Boston, 1898.

they attracted that neither Ormerod in "Allbutt's System" (vol. i, published in 1896), nor Latimer in "Loomis and Thompson's System," published in 1897, mention Weichselbaum's organism. The work of Heubner,[2] in Germany, and more particularly the studies of Councilman, Mallory, and Wright, have fully confirmed the observations of Weichselbaum, whose organism, known variously as the meningococcus and the diplococcus intracellularis meningitidis, is now regarded as the specific cause of the disease. As the bacteriology of the subject is very fully discussed in the monograph by Councilman and his associates, and in the just issued article by Netter in vol. xvi of the "Twentieth Century Practice," I shall confine my remarks to an account of our experience in the study of the cases which have been in my wards during the past year. To Dr. Norman B. Gwyn, who has charge of the bacteriological work in my clinical laboratory, and to Dr. N. McL. Harris, bacteriologist in the pathological department of my colleague, Prof. Welch, I am under special obligations for their careful study of the cases during life and after death.

The meningococcus in cover-slips made from the exudate has usually a diplococcus form, and lies within the polynuclear leukocytes; hence the definition *intracellularis*. Many of the cells may be stuffed with them. They may also occur free. It stains with the ordinary staining reagents, and is decolorized by the Gram method. It grows best on Löffler's blood-serum, on which it forms "round, whitish, shining, viscid-looking colonies with smooth, sharply-defined outlines, which attain a diameter of 1 to 1½ mm. in 24 hours" (Councilman). In cultures it is usually short-lived; but Netter states that Germano has found that it resists desiccation, and has preserved its vitality to the end even of 90 days. He states also that Neisser has shown that the organism is transportable by atmospheric currents, even the most feeble, and that it is very susceptible to aerial convection. It is found in the cerebrospinal exudate, rarely elsewhere in the body; but it has been isolated from the blood, the pus from the joints, the pneumonic areas in the lungs and the nasal mucus.

The organism is feebly pathogenic for animals. Rabbits and mice resist subcutaneous inoculation. Huebner, and Councilman and his associates, have produced typical meningitis by inoculating cultures of the meningococcus beneath the spinal membranes of goats.

Our clinical and pathological experience with the organism is as follows: In 21 cases which I have seen, the lumbar puncture was made in 16. In 3 patients seen in consultation, the diagnosis seemed so clear that lumbar puncture was not made. In cases 1 and 2, both mild, the puncture was made, in one on the seventh day, in the other on the sixth; but no organisms were found. Cases 3 and 4 were admitted late in the disease, and it was not thought necessary to perform it. Of the remaining 14 cases, in 13 the diplococcus intracellularis was present on cover-slips and in cultures. In the remaining case its presence was doubtful on the cover-slips, and the staphylococcus grew in culture. Of the cases which came to autopsy, 5 in number, the bacteriologic results, as given by Dr. Harris, are as follows: Autopsy No. 1104; meningitis, meningococcus; the pneumococcus from a pneumonic area in the lung. No. 1189, a case with extensive arthritis, in which the diplococcus intracellularis was found in the blood and joint tissues during life, as well as from the meninges. Postmortem the meningococcus was separated in pure cultures from the cord and brain, and from the lung the pneumococcus and the bacillus lactis aerogenes; from the blood in the coronary arteries the pneumococcus. The other organs were sterile. In case 10 (autopsy No. 1247), on which laminectomy had been performed, the spinal meninges at the time of his death (about two months later) were perfectly normal. At the operation, the staphylococcus pyogenes grew from the culture. In No. 1314, a case in which laminectomy was performed, the meningococcus was isolated from the meninges, both during life and after death. The bacillus coli communis, the bacillis lactis aerogenes, and the staphylococcus pyogenes albus were also isolated; from a broncho-pneumonic area in the lung the pneumococcus and the staphylococcus pyogenes aureus, from the spleen the staphylococcus pyogenes citreus, and from a thrombus in the superior longitudinal sinus and from the pelvis of the left kidney the streptococcus septicus liquefaciens (Sternberg). This case had a diphtheric and hemorrhagic cystitis. No. 1364, a very protracted case, in which death occurred in the twelfth week, and from which the meningococcus had been isolated from the spinal fluid twice, from the meninges postmortem the streptococcus pyogenes and the bacillus coli communis were isolated; and the staphylococcus pyogenes aureus and the bacillus coli communis from the broncho-pneumonic areas in the lungs. In a fatal case outside the hospital, the meningococcus, the pneumococcus and the bacillus coli communis grew in cultures from the cerebral meninges. There was no focus of pneumonia in the lungs.

The following memoranda by Dr. Harris are of interest:—

"Cultural methods employed. In the first cases we followed the method recommended by Councilman; namely, the use of blood-serum 'slants.' Such was found to be almost useless on account of contaminating organisms, for, out of a series of 8 tubes, only 1 gave pure cultures.

"In the other cases the exudates and fluids were plated out in alkaline 5% glycerin-agar. This procedure gave entire satisfaction in that the growth of the meningococcus was quite vigorous, and that associated organisms in the exudate (Cases 1314 and 1324A) were readily separated and classified.

"Upon certain points our observations agree with those mentioned in Councilman's article.

"*a*. We have never seen, as Jaeger states, a capsule-formation, nor in any case unassociated with other pyogenic

[2] *Jahrbuch für Kinderheilkunde*, 1891, and the *Deutsche medicinische Wochenschrift*, 1897.

organisms were we able to stain the specific organism by Gram's method.

"*b.* The cases coming to autopsy at the height of the disease furnished upon cover-slip and culture abundant evidence of the presence of the meningococcus, whereas cases which succumbed late in the disease yielded feeble results, or, as in case 1364, no evidence at all.

"*c.* The biological features of our several cultures gave practically the same results as Councilman obtained, except that in a few cases, after carrying the organism through several generations, litmus milk was found to be slightly bleached, but with no evidence of acid formation.

"Regarding potato-culture, Councilman's statement of an invisible growth on this medium should be expanded by remarking that microscopic preparations invariably show evidences of moderate increase, and that the organisms are much larger than on ordinary media.

"At no time has a blood-serum culture been observed to bear any striking resemblance to a growth of pneumococcus on a similar medium.

"As in Councilman's experience, great variations in viability of the organisms was noted. But it is worthy of mention that when there is condensation water in the tube and growth present in it, the organisms as a rule will be found to be alive many days after life has ceased in the growth upon the surface of the medium.

"*Staining Reactions.*—Supplementary to Councilman's remark upon focal staining-points when using methylene-blue, it might be said that if old Löffler's methylene-blue solution is used, the coloration of that focal point is a decided violet-red.

"*Animal Experiments.*—Subcutaneous inoculation in rabbits and mice (white and gray house-mice) was resisted in every case.

"In rabbits inoculated below the dura mater, or into the ventricles of the brain, death occurred in all within fourteen days to six weeks, and in no instance were we able to find evidences of gross pathologic lesions, nor the presence of the meningococcus on cover-slip or culture. The animals were all greatly emaciated.

"Mice inoculated into pleural or peritoneal cavities died in from three to four days, in most cases with general septicemia.

"*Special Remarks.*—Regarding Jaeger's observation of the occurrence of chains of cocci in exudate or spinal fluid, it may be said that it has not been observed, but on blood-serum growths it was quite common to find chain-formation with the unstained light line of cell-division running parallel to long axis of chain. However, this feature is not by any means uncommon amongst the pyogenic staphylococci.

"Attempts to isolate the specific organism from any other site than the spinal fluid, and the meninges of spinal cord and brain, have in every case been attended with failure. This is especially noteworthy in case 1189, which presented arthritis. A large quantity of the seropurulent fluid was inoculated, incubated for three days, and the plates were found sterile, and yet cover-slips of the fluid showed considerable numbers of intracellular diplococci. The heart's blood of this case failed to give positive results at autopsy, although during life the organism had been isolated from the blood as well as from the joint lesion.

"Pneumonic or bronchopneumonic foci have always given the pneumococcus, either alone or with the pyogenic staphylococci.

"One case, No. 1314, brings out a possible source of error in the use of Gram's stain upon the cover-slip preparations of the exudate in cases where a secondary infection may be present. The cover-slips from the meningeal exudate in this case were examined by Gram's method before cultures were ready, and cocci were found which did not decolorize, thus causing some surprise, but it was cleared of doubt by finding the staphylococcus pyogenes albus in association with the meningococcus upon the agar-plate.

"Case 1325A is most interesting in that from the exudate on the cerebral meninges the meningococcus, the pneumococcus and the bacillus coli communis were isolated, and positively identified. A mouse was inoculated intrapleurally with 3 cc. of a twenty four hours-old blood-serum condensation-water growth, and succumbed upon the third day with a general infection.

"Another mouse received 5 cc. of a strong suspension in Durham's medium of a twenty-four-hours-old agar-agar culture of the pneumococcus, but showed no evidence of illness. The milk-culture of this organism when stained by Welch's capsule-stain exhibited well-defined capsules and stained by Gram's method."

Microbic Association in Cerebrospinal Fever.—Councilman, Mallory, and Wright state that "Mixed infections with other organisms were not uncommon. The pneumococcus was found seven times, once in connection with Friedländer's bacillus. Terminal infections with staphylococci and streptococci were occasionally found."

Netter refers to this point in the following terms: "In a very small number of cases observers have reported finding at the same time with the pneumococcus or the diplococcus the staphylococcus pyogenes, the streptococcus, the colon-bacillus, the bacillus proteus, and the capsulated bacillus. These microbic associations are always secondary, however, and we must refrain from regarding any but the two agents above described as the primary causes of cerebrospinal meningitis."[3]

In the report on the bacteriology of the postmortems by Dr. Harris, the frequency and number of microbic associations will have been noticed. Three points are of interest in this connection: In chronic cases, as 10 and 17 of our series, the diplococcus intracellularis may no longer be present; we have obtained it, however, for the first time on the 25th, 31st, and 41st days of the disease. Of the two cases referred to, No. 17 presented a most typical picture of the disease, and the diplococcus intracellularis was obtained in the spinal fluid on the 31st and 35th days. At the autopsy the meninges showed a moderate amount of exudate, and there was fluid (purulent) in the posterior horns of the ventricles. The diplococcus intracellularis was not found, but the streptococcus pyogenes and the bacillus coli communis were isolated from the meninges.

Case 10 is of particular interest, and I give here a brief summary of the history:—

A sailor, John F., aged 25, was admitted October 29, 1898. The illness had begun on October 26, with swelling and pains in the right ankle, and the next day the left ankle became swollen, and then the right hip. He was able, however, to walk to the hospital. On admission there were also redness and tenderness of the left wrist. For the first week we were very doubtful as to the nature of his trouble. The temperature was between 102° and 104°, and we rather suspected typhoid fever. On the 31st he complained of pain in the back and hips, and on November 1 it was noticed that his head was in a very retracted position. On November 4 he had retention of urine. On the 6th it was noticed that he could not move his legs. Lumbar puncture was then performed, and 2 drams of a thick creamy pus removed which showed cells and numbers of diplococci, some in cells, but a majority free and in groups. Dr. Cushing performed laminectomy, and drained away a large amount of purulent exudate, and irrigated the spinal meninges with normal salt solution. Cultures made from the fluid obtained by the lumbar puncture and at the operation grew the staphylococcus pyogenes aureus. From the history and symptoms the case was doubtless one of cerebrospinal fever, subsequently affected with the staphylococcus.

More frequently the pneumococcus has been found in association with the diplococcus intracellularis. In

[3] *Loc. cit.*, p. 193.

our series it was present only once (Case 13) in the fluid obtained by lumbar puncture. On the 5th day 20 cc., of a faintly cloudy fluid, were removed, and both organisms grew in culture. On the 7th day the pneumococcus was isolated from the blood. Netter found the pneumococcus associated with the diplococcus intracellularis (postmortem, I think, though not so stated) in 10 of 16 cases of cerebrospinal meningitis.

The third point is the occasional association of the tubercle-bacillus with the diplococcus intracellularis, but so rarely that it is not of much practical importance.

On the whole, then, our observations support those of Weichselbaum, Jaeger, Huebner, Councilman and others, that in epidemic cerebrospinal fever there is an organism with special cultural peculiarities which may reasonably be regarded as the exciting cause of the disease. Netter alone, among recent observers, seems to doubt this, and says that he only found the diplococcus intracellularis in 16 out of 39 cases, and in 10 of these the pneumococcus was present at the same time. His most recent statement in the "Twentieth Century Practice" (1899) is worth quoting: "Certain observers, and more particularly Jaeger and Huebner, believe that the diplococcus intracellularis is the sole pathogenic agent in epidemic cerebrospinal meningitis, and that the pneumococcus has no influence whatever in the production of true epidemic meningitis. Councilman is a little less emphatic, although he appears disposed to adopt this way of thinking. I do not, however, in any way accept this view. The pneumococcus can, without any doubt, cause meningitis, and in spite of Huebner's experience, the role of the pneumococcus has been most surely established experimentally. The frequent occurrence of pneumonia complicating meningitis and of meningitis complicating pneumonia, and the coincidence with meningitis of many other inflammations which may be excited by the action of the pneumococcus, imply that between pneumonia and meningitis there exists a relation which cannot be denied." He seems to think that the diplococcus intracellularis may be a degenerate form of the pneumococcus, and in support of this view cites: "Its intracellular position is evidence of a phagocytosis going on, the impossibility of cultivating most of the individuals, as shown by the small number of colonies obtained, its decolorization by Gram's method, and its usual innocuousness in animals. I would not, however, insist upon this opinion, nor lay too much stress upon the arguments just mentioned, for the question is only hypothetical as yet."

It does not seem to be altogether clear, from certain of Netter's observations, that he has been dealing with the meningococcus. Thus, in his communication (*Bull. et mem. Soc. Med. des Hôp. de Paris*, xv, p. 407, 1898) the coccus which he found in the 8 cases was rounded, usually in pairs, sometimes in short chains; at other times capsules were seen. They stained by Gram's method, and in bouillon long chains developed, and mice resisted infection when inoculated subcutaneously. He concludes, from these observations, that the meningococcus is nothing more than a degenerate pneumococcus. Dr. Harris, in a note on this, remarks: "Such conclusions are entirely unwarranted, or if his observations are correctly stated, he evidently had the veritable pneumococcus to deal with, and, by some strange mode of reasoning, concludes that he has the meningococcus in his series of cases, and that it is identical with the pneumococcus, though of a degenerate form!"

Netter's position is most illogical and confusing. Throughout the article in the "Twentieth Century Practice"—in many ways one of the very best in literature—he assumes that the specific disease, cerebrospinal fever, may be caused either by the pneumococcus or the diplococcus intracellularis. That a primary cerebrospinal meningitis may be due to the pneumococcus is universally acknowledged; but it is most unlikely that a remarkable specific affection, like cerebrospinal fever, should be caused by two different organisms. Toward the close the inconsistency of this view seems to impress him, for he says certain peculiarities "prevent us from concluding that the two diseases (pneumonia and cerebrospinal fever) are absolutely identical."

III.—Diagnosis of Cerebrospinal Fever.

Meningitis is not always easy to recognize clinically. Mortifying postmortem disclosures are even more common with it than with pericarditis. The unexpected meningitis of pneumonia, of Bright's disease, and of other chronic affections, teaches us how latent may be the process; on the other hand, who has not in typhoid fever and in pneumonia made a positive diagnosis of meningitis, and has found postmortem the cerebrospinal membranes perfectly free. Sooner or later the truth of Stokes' dictum is brought home to each one of us: "There is no single nervous symptom which may not and does not occur independently of any appreciable lesion of the brain, nerves or spinal cord." The anatomical classification of leptomeningitis is not very satisfactory, and, as I have stated, there is great lack of uniformity in the terms employed. The nomenclature of the Royal College of Physicians recognizes four groups—purulent, tuberculous, syphilitic, and cerebrospinal fever. An etiological classification, possible to-day in part, is of necessity incomplete. In the annexed diagram I have make a provisional grouping of the chief forms:

Acute Leptomeningitis.	Primary.	1. Of cerebrospinal fever.	(*a*) Sporadic. (*b*) Epidemic.	Diplococcus intracellularis.
		2. Pneumococcic.	Meninges alone involved or in a general pneumococcus infection.	Pneumococcus.
	Secondary.	1. Tuberculous ...	.....	Bacillus tuberculosis.
		2. Pneumococcic.	(*a*) Secondary to pneumonia, endocarditis, etc. (*b*) Secondary to disease or injury of cranium or its fossa.	Pneumococcus.
		3. Pyogenic.....	(*a*) Following local disease of cranium or a local infection elsewhere. (*b*) Terminal infectiou in various chronic maladies.	Various forms of staphylococci and streptococci.
		4. Miscellaneous acute infections.	In typhoid fever, influenza, diphtheria, gonorrhea, anthrax, actinomycosis and other acute diseases.	Typhoid-bacillus, influenza-bacillus, diphtheria-bacillus, gonococcus, etc.

The acute primary leptomeningitis in a large proportion of all cases follows an infection with the diplococcus intracellularis or the pneumonococcus. It will be a great gain if Still's observations (to which I shall refer later) on the posterior meningitis are confirmed. I do not know where Quincke's meningitis serosa should come in an etiological grouping. Of three cases diagnosed as such in our records, in one a micrococcus was isolated, but nothing further is stated as to its identification. It is highly improbable that, as Netter holds, cerebrospinal fever either in the sporadic or edipemic forms is caused by the pneumococcus. The body of evidence accumulated within the past few years in Germany and America is strongly in favor of the specific relationship of a definite, easily recognized organism, the diplococcus intracellularis. The pneumococcus may produce a primary meningitis, and pneumonia at certain seasons and in certain regions may frequently be associated with this lesion, but both clinically and bacteriologically this form can be distinguished from the disease under consideration.

While the possibility of the occurrence must be admitted, I have not recognized a primary meningitis caused by the pyogenic organisms[4] or by the tubercle-bacillus. The terminal meningitides I have placed among the secondary forms; and, as in the terminal pleurisies and peritonitides, a variety of organisms are found. Even in cerebrospinal fever the streptococci and staphylococci, always on the watch for a *locus minorus resistentiæ*, may drive out the original foe, as in cases 10 and 17 on our list.

To the secondary forms of meningitis in the table I shall not refer, except to call attention to the importance of the pneumococcus in this group also; nor can I discuss within the limits of this lecture the clinical features of the varieties of meningitis, and must confine my remarks to a few special points in the diagnosis of cerebrospinal fever, and to a consideration of certain sporadic forms of meningitis.

I.—*Certain Features in the Symptomatology of Cerebrospinal Fever.*—No other form of meningitis presents a symptomatology of the same fulness—general, cerebral, spinal, and peripheral features are present in almost every case. This results in part from the extent of the cerebrospinal involvement, in part from the very frequent implication of the nerves, and to some degree is a consequence of the very chronic course. I shall discuss only a few of the important symptoms.

a. Onset.—In striking contrast to other forms, particularly the tuberculous, cerebrospinal fever sets in abruptly. Without warning, while at work, or awakening the patient from a sound sleep, comes the pain in the head, etc. This peculiarity may also be met with in primary pneumococcic meningitis; but in the form secondary to pneumonia, and is that which arises in endocarditis, latency of onset is the rule.

b. Fever.—There is no constant type of fever in any form of meningitis. In cerebrospinal fever the pyrexia is very variable, and I have given here a few charts in illustration. There may be no fever at onset—as shown in Charts VIII and IX of the sporadic cases. Of our epidemic cases, all had fever on admission.

Irregularity in the fever may be present from the start. There is not a steady rise at first to a fastigium, but even on the third or fourth day the temperature may fall to normal. Chart I shows this extreme irregularity in a two-hours record. The remissions were

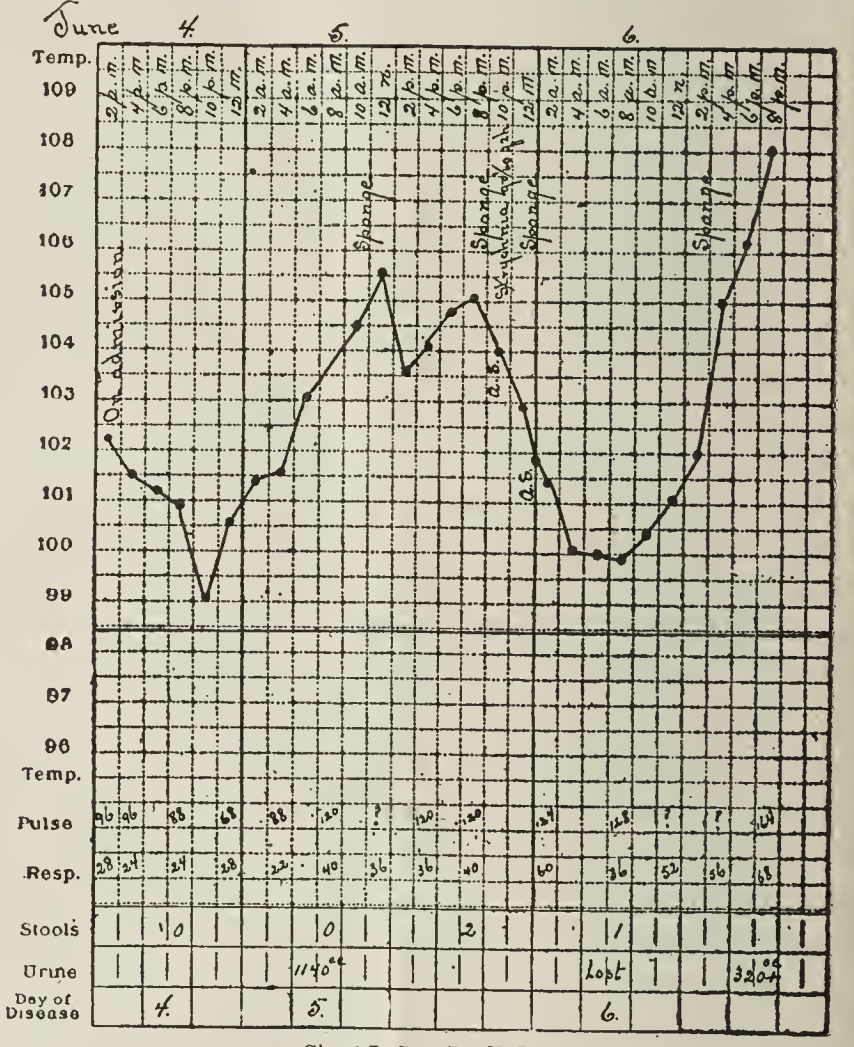


Chart I, Case 7. E. R.

very pronounced, and the temperature rose to 108° just before death.

In other cases the course is singularly like that of typhoid fever, and for days the two-hours temperature chart may not show a variation of more than a degree. This is well illustrated in Chart II from Case 17. This patient (as shown on the lantern slide) had the facial aspect of a case of typhoid fever. Chart III from Case 13 shows also a very steady fever with but slight remissions to the time of death on the fifteenth day. Chart IV from Case 15 presents a still more marked resemblance to a typhoid-fever curve, particularly in the daily remissions, giving the spiked chart with which we are all so familiar in the third week of the disease. Inter-

[4] The case of John Brooks (autopsy No. 1065) is of interest in this connection. He had an illness of eight weeks' duration, with obscure cerebral symptoms. On admission he had a urethral discharge. At autopsy there was found an extensive cerebral meningitis, with distention of the ventricles and slight meningitis of the dorsal cord. From the exudate and from the urethral discharge streptococci and staphylococci were isolated. The slight urethral secretion might readily have been overlooked, and the case regarded as a primary pyogenic meningitis.

missions, exacerbations, and great irregularities similar to those in tuberculosis, are very pronounced in the more chronic cases. Chart V from Case 16 gives the maximum and minimum daily temperature from the twenty-ninth to the seventy-ninth day. It will be noticed how variable is the time of the highest point of daily fever. On thirteen days the maximum temperature was in the morning—an inverse type, to which why some of the older writers regarded the disease as a manifestation of paludism. The chart of Case 8 is worth a passing comment. After a very steady temperature on the 9th, 10th, and 11th days the record on the 12th day was normal. On the 13th day there was a paroxysm without a chill, lasting from 10 P.M. on June 19 to 4 A.M. on the 21st. On the 14th and 15th days the temperature was normal. On the evening of the latter

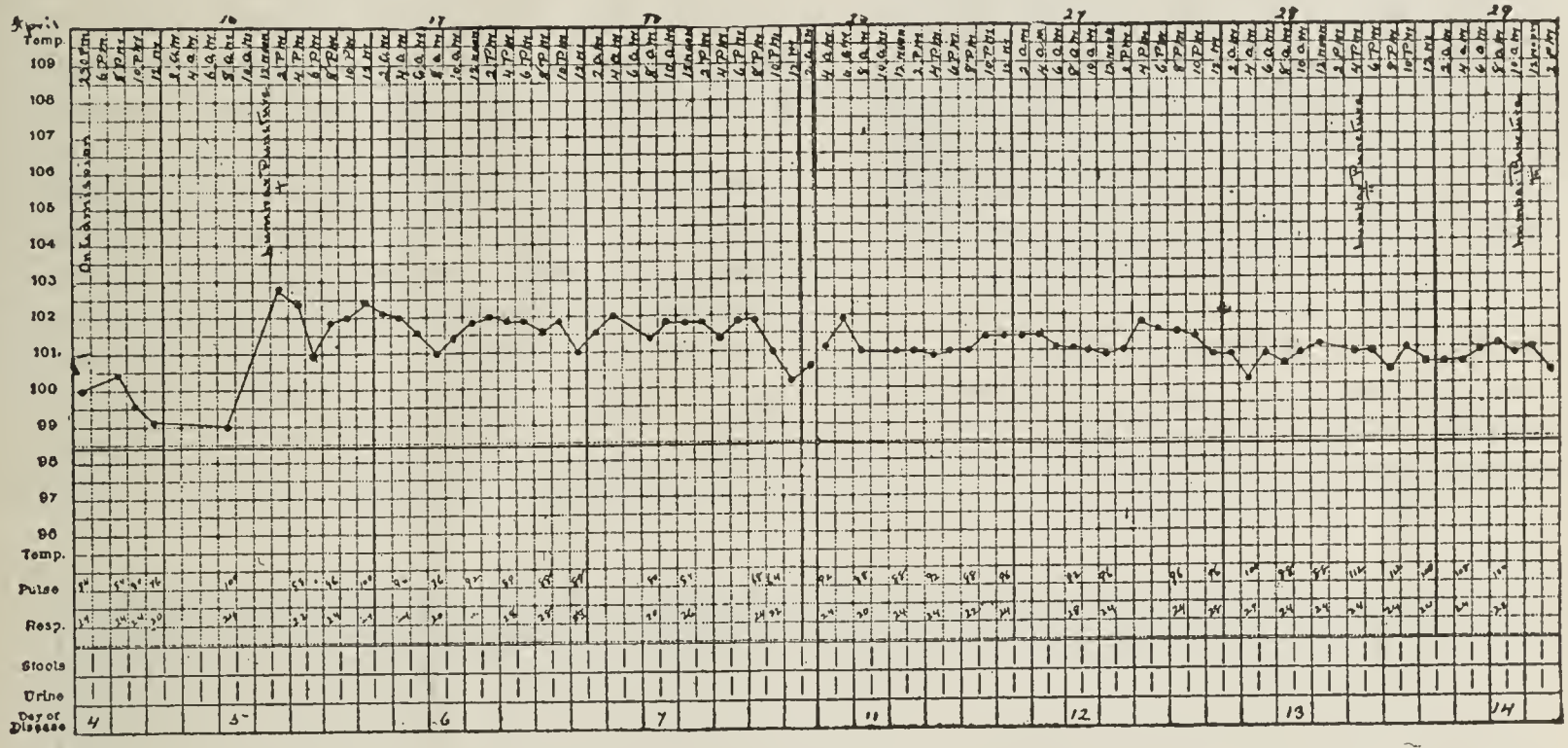


Chart II, Case 17. P. C.

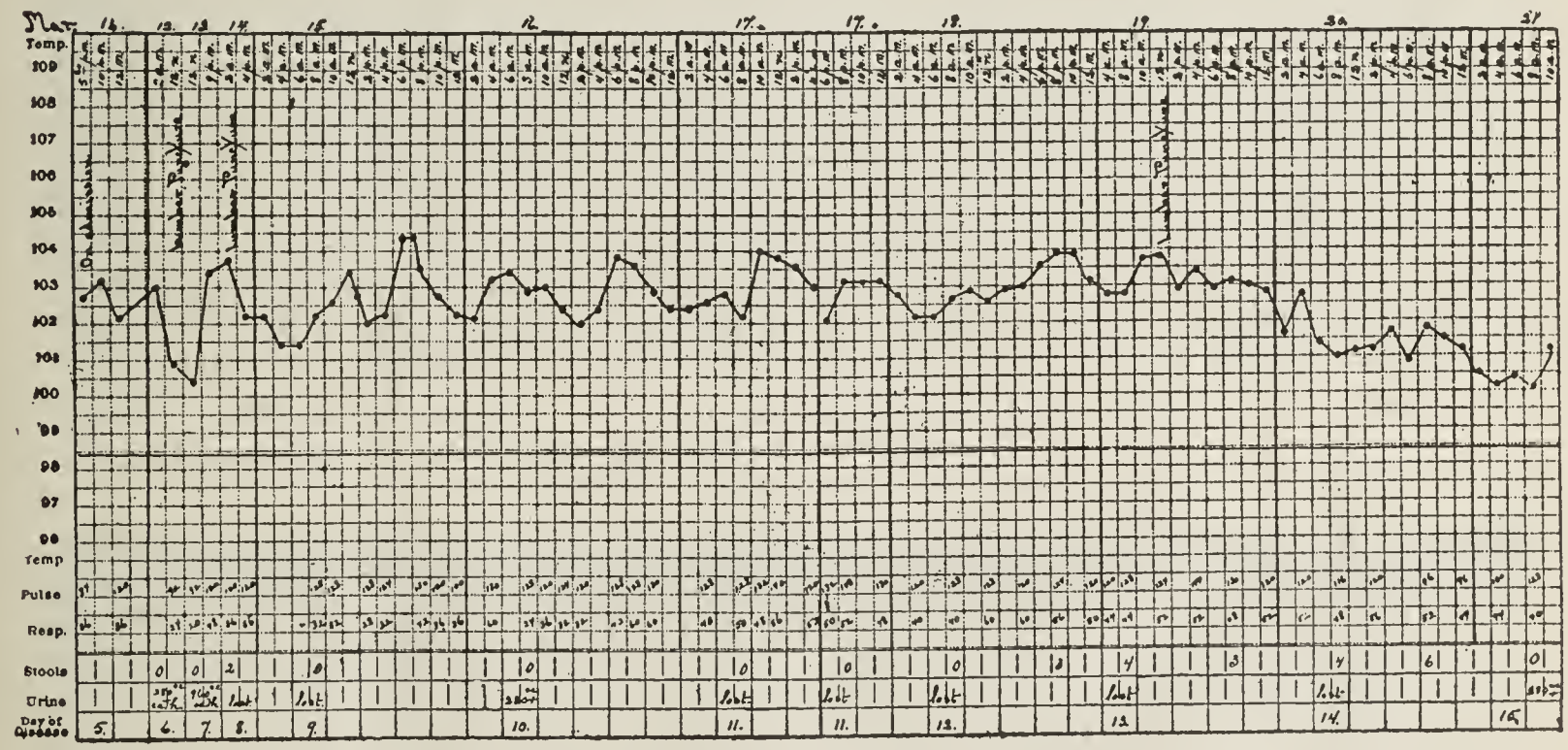


Chart III, Case 13. O. S.

many writers have referred, in this disease. The exacerbations are better shown in a two-hours record. In Chart VI from Case 15 the intermittent type is shown, but the paroxysms are readily distinguished from those of tertian malarial intermittent fever by their prolonged course.

In cases of this sort, when chills occur, the picture is very suggestive of malaria, and one can understand the fever rose, and the paroxysm lasted through the 16th day, and at 4 P.M. the patient complained of decided chilliness. On the 17th day no fever. At 10 A.M. on the 18th day the patient had a rigor, in which the temperature rose to 104.5°; the paroxysm lasted more than 30 hours. Then on the 20th, 21st and 22d days he had recurring attacks, 2 with chills; the 1 on the 22d, without chill, extended into the 23d day.

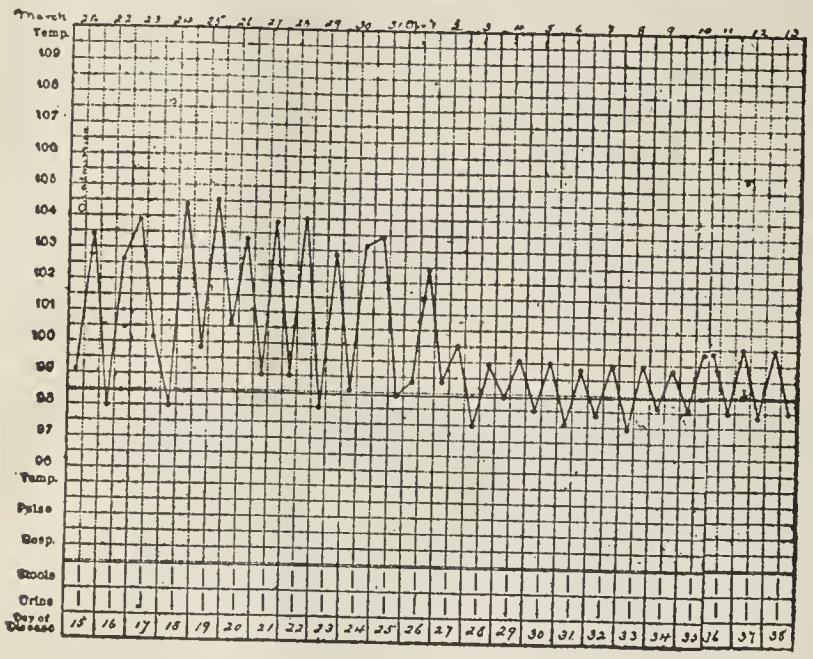


Chart IV, Case 15. J. N. M.

After this the patient's temperature remained normal, and he recovered rapidly. During these attacks he complained a great deal of pain in the head and back. The spleen was not enlarged. The blood was examined daily for the malarial parasites, but none was found. And lastly, Chart VII from Case 15 illustrates the relation of the lumbar puncture to the temperature. After the sixth, seventh and eighth puncture the fever dropped; after the twelfth it rose.

c. Skin-Rashes.—Various skin-rashes are common in cerebrospinal fever, and form an important feature in the diagnosis. Of 21 cases which I saw during the epidemic, in 13 a skin-eruption of some form or other was present. Herpes, of course, the most common, was present in 8 cases. A diffuse erythema about the chest and abdomen, and over the joints, was present in 4 cases. Petechiæ were noticed in 8 cases, extensive in only 3. In 3 cases a very remarkable and peculiar rash was present in the neighborhood of the joints, particularly over the extensor surfaces of the knees and elbows, and about the ankles. There was a diffuse, livid erythema of great intensity, on which pupuric herpes developed—a vesicular rash, the individual vesicles of which became filled with blood. As the erythema faded and the vesicles dried, they could

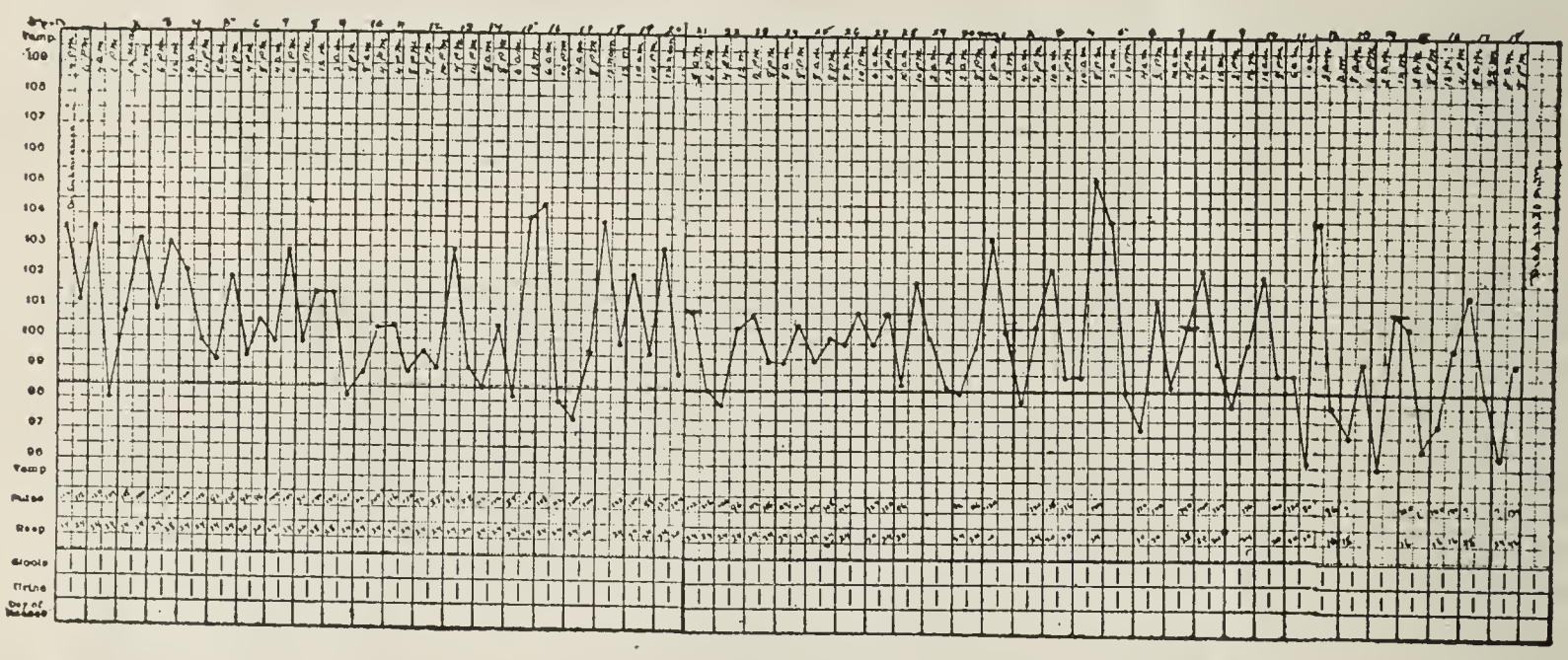


Chart V, Case 16. Chas. A. K.

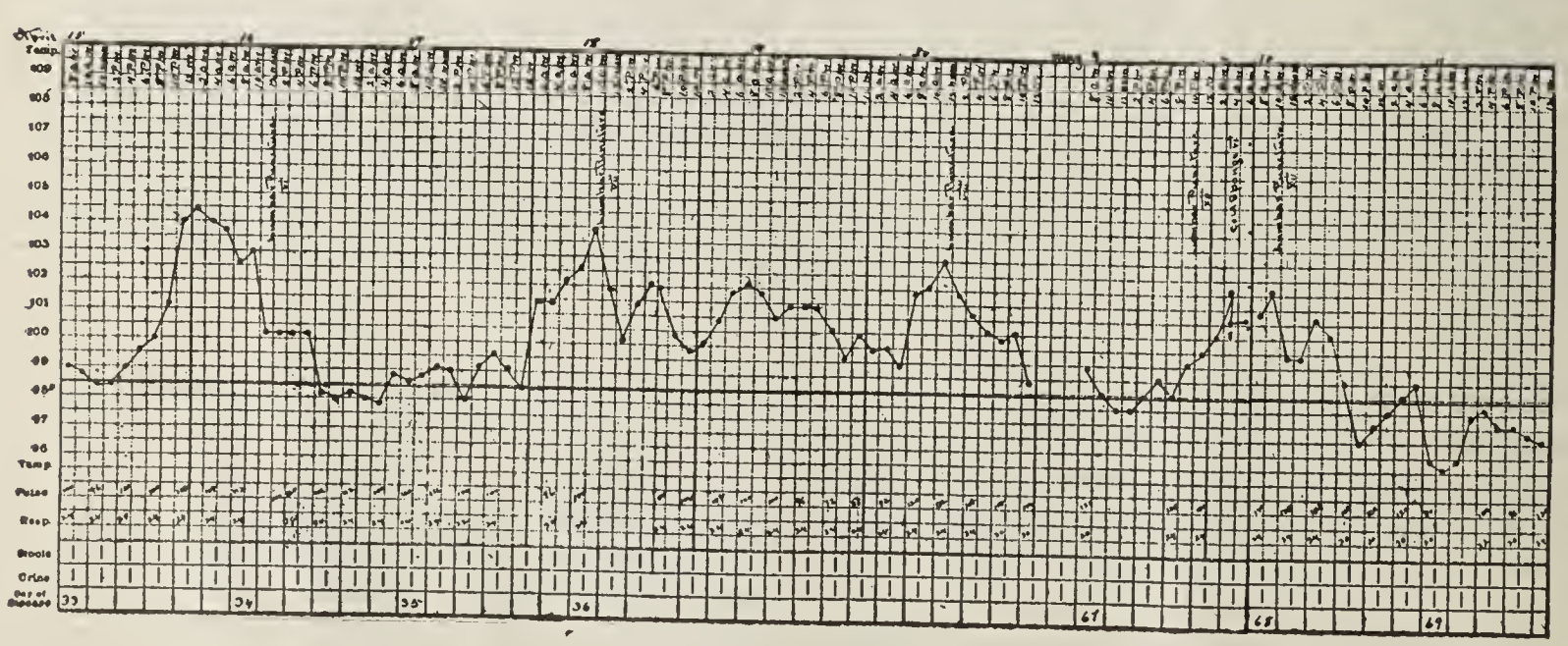


Chart VI, Case 15. J. N. M.

be felt as little nodular hemispherical bodies, which persisted for a week or ten days.

d. Blood.—A careful study of the blood was made in all of our cases. A leukocytosis was present in every instance. In four the first blood-count was made on the third day, and the leukocytosis was 25,900, 14,500, 40,800, and 32,000 per cm. The first blood-count was made on the fourth day in four cases, and the leukocytosis was 26,240, 31,800, 19,300, and 7,600 per cm. In only four cases did the leukocytes exceed 40,000 per cm., and the maximum count was on the ninth day in a fatal case, 47,000 per cm. The leukocytosis persists even in the most protracted cases. In a lad who died in the twelfth week of the disease the leukocytes were 23,000 per cm. shortly before death. As a rule there was no special reduction in the red blood-corpuscles. In one case a moderate anemia developed, and in the fifth week the red corpuscles were only 3,100,000 per cm. In one case the diplococcus intracellularis was isolated from the blood during life.

Leukocytosis has no special value in the differential diagnosis of the various forms of meningitis. I had an impression that it was not so constant in the tuberculous variety, but Dr. Parfitt analyzed the records in 11 of our cases and found that in only 3 was a leukocytosis absent. The lowest count was 6,500 per cm. Of 8 cases with leukocytosis there were 4 with 20,000 or more white corpuscles per cm. The highest count was in a child aged 8,—24,333 per cm. Altogether the leukocytosis seems not to be so high or so persistent in the tuberculous meningitis.

e. Arthritis, or more often periarthritis, much more common in cerebrospinal fever than in other forms, was present in two of our cases. In Case 7 the joint lesion came on with great rapidity, and by the fourth day he had a multiple suppurative arthritis, resembling an acute pyemia. The diplococcus intracellularis was isolated from the pus in the joints. In the other (Case 10) the disease began with arthritis.[5]

II.—*Kernig's Sign.*—Described by a Russian physician, and studied in Germany and France, this interesting sign has not attracted the special attention of English and American physicians, though J. B. Herrick, of Chicago, at the last meeting of the Association of American Physicians, spoke of its value. It has been present in all of our cases in which it has been looked for. It is, I think, an old observation that the subjects of protracted meningitis, particularly children, very often lie with the thighs flexed upon the abdomen, and with the legs in a state of partial contracture, so that they are with difficulty extended. To test for Kernig's sign the patient should be propped up in bed in the sitting position, then, on attempting to extend the leg on the thigh there is contraction of the flexors which prevents the full straightening of the leg. On the other hand, in the recumbent posture the leg can be fully extended. Many patients with meningitis are not in a condition to sit up, and the test can be equally well made by flexing the thigh on the abdomen, when on attempting to extend the leg, if meningitis be present, the limb cannot be fully extended, as shown in Fig. 1. Friis found the sign in 53 of 60 cases, and Netter in 45 of 50. It is stated to be present in all forms of meningitis when the spinal meninges are involved. The presence of the sign is no indication of the intensity of the spinal involvement, as it existed in a very marked degree in a recent case of pneumococcic meningitis, in which there was no positive exudate on the spinal meninges, only a turbid fluid. Netter's explanation of the phenomenon is as follows: "In consequence of the inflammation of the meninges the roots of the nerves become irritable, and the flexion of the thighs upon the pelvis, when the patient is in the sitting posture,

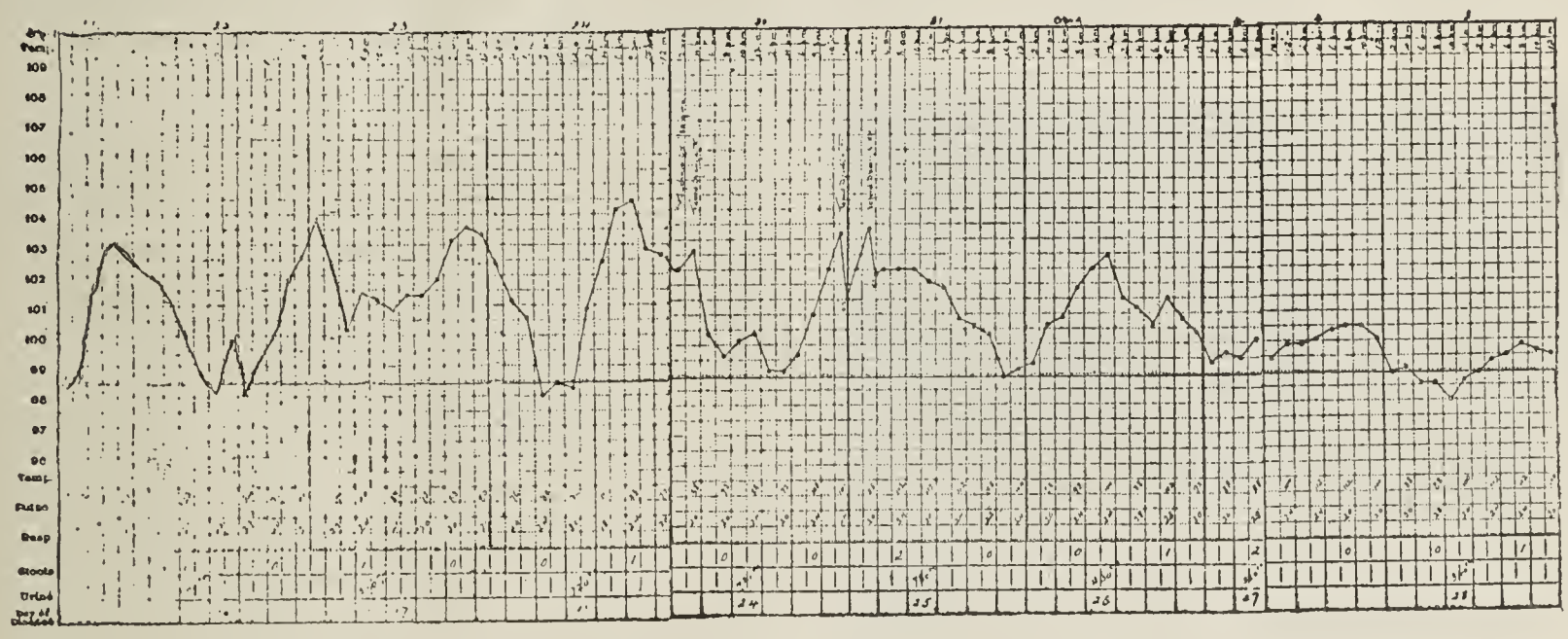


Chart VII., Case 15. C. A. K.

[5] A full report of these cases is given in the *Boston Medical and Surgical Journal*, December 29, 1898.

elongates and consequently stretches the lumbar and sacral roots, and thus increases their irritability. The attempt to extend the knee is insufficient to provoke a reflex contraction of the flexors while the patient lies on his back with the thighs extended upon the pelvis, but it does so when he assumes a sitting posture."

III.—*Lumbar Puncture.*—During the past ten years no single measure of greater value in diagnosis has been introduced than Quincke's lumbar puncture. We are now able in a large number of cases to make a prompt decision as to the existence of meningitis, and are further enabled to recognize the form of the disease. I shall not detain you with details of the technic, available in all textbooks, and recently considered at great length in an elaborate "Referat" by Neurath, in the *Centralblatt f. d. Grenzgebiete der Medizin und Chirurgie*, Bd. I. It is a simple, quite harmless procedure, and in a majority of the cases can be done without general anesthesia, or with the aid of a local freezing mixture. A dry tap is rare in cerebrospinal fever; the needle may be plugged with fibrin, or a

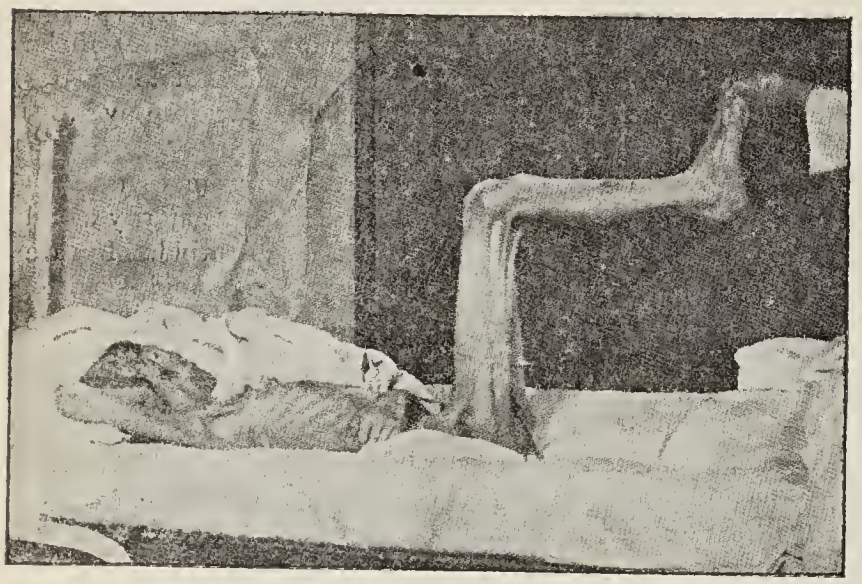


FIG. 1.—Kernig's sign, showing the strong contraction of the flexors on attempting to extend the leg.

nerve-root may come directly against the orifice. Puncture in the third or fourth interspace may be negative, while in the second a free flow is secured. In one of our early cases in which no fluid was obtained, the autopsy showed an exudate as thick as butter, with little or no fluid. A first puncture in a case is very often negative. Though simple, the technic is, like other procedures of the kind, bettered by practice. Very often at first a few drops of blood flow, then a clear or turbid fluid, either drop by drop, or sometimes in quite a strong stream.

The fluid may be clear, turbid, purulent, or more rarely a brownish yellow, or quite bloody. In a great majority of all cases when meningitis is present the fluid is turbid. In rare instances clear fluid may be obtained when meningitis exists, and in a protracted case the fluid may be turbid at one puncture and clear at the next. Several observers have noted that the fluid may become clear in the intermissions of the disease. A clear fluid may be obtained from a puncture in the second lumbar interspace, while lower down a turbid fluid may be withdrawn. I saw this possibility very well illustrated in a recent postmortem; the fluid in the lower dorsal and upper lumbar regions was perfectly clear, while that in the lower lumbar and the sacral regions of the canal was very turbid and contained numerous flocculent masses.

The fluid should be allowed to flow into a sterilized test-tube. When the fluid is at all turbid there is usually a slight sediment and a coagulation of fibrin. Cover-glass preparations are made either directly from the turbid fluid, or if the turbidity is slight and the cell elements few in number, after it has been centrifugalized. Cultures should be prepared at the time of making the lumbar puncture by allowing one or two cubic centimeters of the fluid to flow on to a Löffler blood-serum medium.

The amount of fluid obtained varies from a few drops to 130 cc. The samples in these flasks show the large amount which may be removed, one 126 cc., another 112 cc.

Wentworth claims that within certain limits there is some relation between the degree of turbidity of the fluid and the severity of the symptoms, and this was borne out by our more limited experience. Even in the most protracted cases the turbidity may persist. Only once was a clear fluid removed in an exacerbation. On several occasions a bloody fluid was removed in Case 18. In the wards at the same time was a remarkable instance of septic meningitis in which, after turbid fluid had been withdrawn at one puncture, at a subsequent one, before death, blood flowed from the needle, and postmortem there was extensive meningitis and a rupture of the basilar artery with hemorrhachis.

The number of the organisms found bears no constant relation to the intensity of the symptoms. In acute cases they are present, as a rule, in large numbers. The later the disease, the less likelihood is there to find the diplococcus intracellularis in the fluid; but we have found them in the second, third, fourth, fifth and seventh week. The following are some of the days on which the organisms were found: seventeenth day, fourteenth day, twenty-fifth day, thirty-first day, forty-first day, and nineteenth day.

Has the lumbar puncture any therapeutic value? Williams, of Boston, states that he has seen beneficial effects, and there are a few cases in the literature in which the severity of the symptoms were promptly mitigated by the removal of a variable amount of the spinal fluid. Wentworth (whose experience has been very large), speaking of these cases, says: "I have never seen any such cases, though constantly on the watch for them. A temporary relief, lasting for a few hours, has followed the operation in a few cases, but the same remissions frequently occur without any treatment." Netter says that he has seen convulsions, which

had lasted for a long time without intermission, cease after the withdrawal of only about two drams of fluid.

We have given this point our closest attention, and many times have performed the puncture directly for its supposed benefit. In Case 8 the note reads: "Much better after the first puncture; brighter every way." Case 9, puncture at 11 A.M.: "Patient's condition has greatly improved; the muttering has ceased, and the irregular movements are less marked." To Case 16 I may refer more fully. It was an example of the chronic form in which the patient lingered for nearly three months. The accompanying table has been prepared by Dr. Marshall, one of my house-physicians.

It gives the day of the disease, the amount of fluid withdrawn, the character of the exudate, the microscopical appearances, the culture results, the leukocytosis, and the effect (?) of the puncture on the temperature. The first puncture, made on the twenty-ninth day of the illness, was negative. From the second puncture 100 cc. of a yellowish turbid fluid were withdrawn, which contained pus-cells and intracellular cocci in abundance, and the cultures were positive. In all 17 punctures were made between the twenty-ninth and the seventy-fifth day of the disease, of which 14 were positive. A turbid pale yellow fluid was removed at each tapping. On five occasions 100 cc. or more were obtained, once 125 cc. and once 126 cc. Following the two first effective tappings the patient appeared better, the temperature dropped, and he seemed much brighter, but he soon became worse, and the fever rose. Following the sixth, seventh, eighth, and eleventh punctures the temperature fell, 4.5°, 3.8°, 4.2°, and 5.8°. There was no change in the general condition, though he sometimes was a little brighter, and the drop in fever followed so directly that it seemed only natural to attribute the good results to the lumbar puncture. The thirteenth puncture, however, was negative, yet the temperature fell 5.1°, and after the fourteenth tapping the temperature rose 2.6°. Evidently not the withdrawal of the fluid, but the peculiar character of the disease, already spoken of, was responsible for the remissions. The chart illustrates further the persistence of the leukocytosis, and the sterile characters of the fluid after the 44th day. I have here for demonstration the lumbar portion of the cord and its membranes. The position of the last puncture can be seen, and the repeated operations have caused a slight hemorrhagic pachymeningitis.

CASE XVI.—KRATZ.—LUMBAR PUNCTURE CHART.

Puncture No.	Day of Disease.	Amount.	Character.	Microscopically.	Cultures.	Leukocytosis.	Temperature.
1	29	Negative.	.....	.....	.....	.....	Unchanged.
2	31	100 cc.	Yellow; turbid.	Pus-cells; intracellular diplococci.	Positive.	17,400	Dropped 2·4°
3	35	125	Yellow; turbid.	.....	Positive.	25,300	" 1·0°
4	37	90	Pale yellow; turbid.	Pus-cells; no cocci.	Negative.	19,900	" 2·0°
5	40	85	Pale yellow.	Pus-cells; no cocci.	"	28,000	" 1·0°
6	44	126	Pale yellow; cloudy.	Intracellular; diplococci.	"	15,000	" 4·5°
7	46	100	Pale yellow; turbid.	Pus-cells; no cocci.	"	22,000	" 3·8°
8	48	50	Pale yellow; turbid.	Pus-cells; no cocci.	"	19,000	" 4·2°
9	54	30	Pale yellow; turbid.	Pus-cells; no cocci.	"	23,600	Rose 0·8°
10	59	Negative.	.....	.....	.....	.....	Unchanged.
11	59	100 cc.	Cloudy.	Pus-cells; no cocci.	"	.....	Dropped 5·8°
12	62	60	Cloudy; blood-tinged.	Pus-cells; no cocci.	"	18,000	" 3·4°
13	68	3	....	.....	"	32,000	" 5·1°
14	70	75	Cloudy.	Pus-cells; no cocci.	"	47,500	Rose 2·6°
15	73	Negative.	.....	.....	.....	23,000	Unchanged.
16	75	Negative.	.....	.....	.....	.....	Unchanged.
17	75	8 cc.	Cloudy.	Pus-cells; no cocci.	"	.....	Unchanged.

IV.—Sporadic Cerebrospinal Fever.

To what extent do isolated cases of cerebrospinal fever occur in the intervals between the epidemic prevalence? What is the nature of the primary suppurative meningitis which is met with from time to time in all communities? Neither hospital-statistics nor the ordinary death-returns give trustworthy answers to these questions. The diagnosis of meningitis is often doubtful, and it is very probable that a great many cases are returned as cerebrospinal meningitis which are the cerebral forms of typhoid fever or of pneumonia. It is surprising how much confusion there is in the diagnosis of the different forms, and the urgent need of a more accurate recognition of the varieties is well shown by the number of terms used in the tabulation of cases. Thus, not to speak of the tuberculous form, which is often spoken of as basilar meningitis, the terms most frequently used are acute meningitis, meningitis simplex, purulent meningitis, and septic meningitis. In a recently issued report on sporadic cerebrospinal meningitis from the Philadelphia Hospital by L. N. Boston (*Medical News*, May 20, 1899), exclusive of the tuberculous variety, the following names occur as designating the varieties of acute meningitis: leptomeningitis, basilar meningitis, pachymeningitis and basilar meningitis, basilar and leptomeningitis, hemorrhagic meningitis, and purulent meningitis.

To reach uniformity in this matter is not at present possible, but we may welcome the steps which have been taken towards separating the different forms of the disease.

In the last Census Report of the United States, the returns for the census year 1890, a year in which cerebrospinal fever, so far as I know, did not prevail to any extent in epidemic form, the number of deaths reported from cerebrospinal meningitis were 3,333, a large percentage of these during the first year of life.

From the Fifty-ninth Annual Report of the Registrar-General, 1896, I gather that the deaths from cerebrospinal fever in England from 1877 to 1896 (inclusive) have only once exceeded 50 per annum. There has been a great reduction in the return since 1887,—233 cases for the ten years ending 1896, against 406 for the previous decade. In Scotland there were only 6 deaths from cerebrospinal fever in 1895, and 5 in 1896. In Ireland there were 76 deaths from this cause in 1896, and the same number in 1897.

From the records of two large metropolitan hospitals I have gleaned the following figures:—At St. Bartholomew's, from 1860, cases with the diagnosis of cerebrospinal meningitis occur in the years 1872, 1888, 1889, 1890, 1892, 1893, 1895, 1896, 1897,—21 in all. In many years the word meningitis alone is used, in others the word spinal meningitis and meningitis simplex. Ormerod (*Lancet*, 1895, I) gives an exceedingly interesting report on 10 fatal cases from this hospital; 4 of them occurred between March and June, 1890, at which time epidemic meningitis prevailed in the eastern counties. At St. Thomas's since 1873 cases with the diagnosis of cerebrospinal meningitis occur in the years 1895 and 1896—7 cases in all. In the wards of the Royal Infirmary, Edinburgh, there were in 1891 three cases diagnosed as cerebrospinal meningitis, in 1892 two cases, in 1893 one case.

In the United States and Canada the occurrence of sporadic cases of cerebrospinal fever in the intervals between epidemics has long been recognized. In Montreal I performed postmortem on at least 3 cases of acute purulent cerebrospinal meningitis not associated with pneumonia or endocarditis, and not following otitis media or injury. As illustrating the liability to error, I may mention a case in which the diagnosis of cerebrospinal meningitis was made in malignant smallpox; in another instance, with the same diagnosis, the case was a very acute typhoid fever, fatal within a week. In Philadelphia, I saw only 3 cases.

At the Boston City Hospital, from 1880 to 1896, there were 39 cases diagnosed as cerebrospinal meningitis with a mortality of 59%. It is interesting to note that during the first five months of 1897, when the epidemic began, there were 42 admissions, a larger number than in the previous 17 years. That the disease lingers in a city indefinitely after an outbreak has been the common opinion of all students of the disease, and anyone who has had a large postmortem experience has met with sporadic instances of extensive suppurative meningitis, which he has not been able to regard as secondary to any existing condition. The Philadelphia records are interesting in this respect. As collected by Stillé from 1863, the figures illustrate very well the periods in which there were slight outbreaks, namely, 1864–65, and 1872–73. Pepper ("American Text-book of Medicine," vol. i, page 163) completed the figures to 1892,and Dr. Abbott has sent me the figures up to date. They show from 1884 a progressive decline in the number of cases, which may in part have been due to more careful diagnosis. From this year, when there were 124 deaths, there was a gradual decline, and in 1891 there were only 23 deaths. From that year the figures, as sent me by Dr. Abbott, are as follows: 1892, 22 cases; 1893, 35 cases; 1894, 18 cases; 1895, 17 cases; 1896, 7 cases; 1897, 10 cases; 1898, 24 cases; 1899 (to and including April 31), 89 cases. Here, again, it is interesting to see how quickly the epidemic prevalence of the disease is manifest. During 1898 the disease was not recognized as prevalent in Philadelphia. During the present year a number of cases have occurred, and the deaths during the first four months have been 89.

In Baltimore, the figures for the past six years are as follows: 1893, 59 cases; 1894, 26 cases; 1895, 27 cases; 1896, 32 cases; 1897, 22 cases; 1898, 70 cases; during this year, the prevalence of the disease was recognized as occurring in a mild form through the city. During the first four months of the present year there has been an increase, and the deaths for this period have been 27.

Sporadic Cerebrospinal Fever, at the Johns Hopkins Hospital.—In the spring of 1898, the first cases of the epidemic form were admitted to hospital, and in all 18 cases have been under treatment. Prior to this date, only 4 cases had been admitted, which we regarded as sporadic forms of cerebrospinal fever, 3 within a few days of each other, in 1893, and one, a chronic case, in 1892, which has been reported.[6]

CASE 1.—Patrick R. (Hospital No. 7233), aged 57, admitted May 1, 1893. The patient had been drinking heavily, and when admitted was delirious, mumbling and muttering to himself, and picking at the bedclothes, and he resisted actively any attempt to examine him. His friends stated that he had been in this condition for about a week. His temperature on admission was 97.5°, pulse 68, respirations 16. He had no skin-rash and no symptoms suggestive of meningitis, and we regarded the case as one of delirium tremens. As shown in the annexed chart (Chart VIII), he had no fever until the 5th, 4 days after his admission. There was then a rapid rise to 105°; the respirations increased from 28 to 40; the pulse rose to 112. Throughout the 6th the temperature remained high, falling on the morning of the 7th to 103°. The respirations rose to 48. He was a little cyanosed, could not be roused, and he died at 8 A.M. on the 7th.

The autopsy (No. 413), showed extensive yellowish purulent exudate over the hemispheres. There was a turbid exudate at the base and along the sylvian fissures; the ventricles contained an excess of cloudy fluid. The cord was not examined. Cover-slips showed rounded cocci in pairs, chiefly in the mononuclear and polynuclear cells. Cultures showed diplobacilli. The lungs showed slight bronchopneumonia and the pneumococcus was isolated.

CASE 2.—Wm. F., aged 27 (Hospital No. 7282), admitted May 3, 1893. The patient was apparently very deaf, and was noisy and delirious when admitted, and he had no friends from whom any history could be obtained. The temperature on admission was 99°, pulse 86, respiration 20. During the night he became very noisy and delirious, and the pulse was irregular. On the following morning examination of the thoracic and abdominal organs showed nothing of any special moment. The spleen was not palpable. The temperature was 99°, pulse 96, respirations 24. On the evening of the 4th and throughout the night the patient became very noisy and had to be transferred to the isolating ward. It was noticed

[6] *Johns Hopkins Hospital Bulletin*, 1892.

on admission that he was very deaf, and this seemed to increase. On the afternoon of the 4th temperature began to rise, and at 6 P.M. reached 102.5°. The pupils were equal; the pulse was 96, irregular. The patient resisted strongly any attempt to bend the head, and the neck was held very rigid. There was general hyperesthesia, and he cried out whenever he was touched. A petechial rash was noticed this afternoon for the first time over the abdomen. At 8 P.M. the temperature rose to 103° (Chart IX). He became very much worse; the pulse became more rapid, 112, very irregular, and he died a little after 2 in the morning.

Autopsy (No. 412). A purulent greyish-yellow exudate over the hemispheres, also along the pons and medulla, and the whole length of the spinal cord, which in the lumbar region reached a thickness of 8 mm. The ventricles were distended with a turbid yellowish fluid. In the posterior cornua there was a greenish exudate. Cover-slips from the meninges showed numerous leukocytes and large cells containing round diplococci. Pus from the ventricles showed

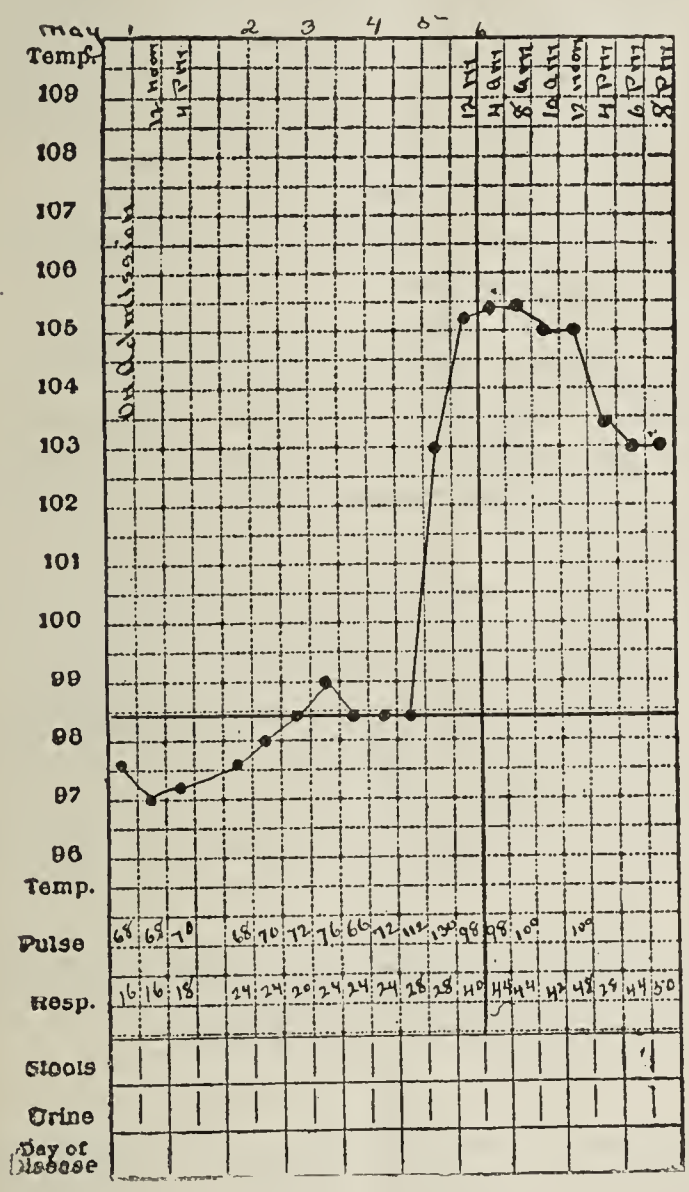


Chart VIII. P. R.

many cocci, single and in pairs, chiefly in cells. Some of the larger cells were packed with these cocci. Cultures were negative.* Inoculations of a rabbit and a mouse were also negative. At that time we had not recognized the diplococcus intracellularis of Weichselbaum, but the description of the organism, the position in such numbers within the cells, the failure to grow in cultures, and the negative results of experiments on animals, make it more than probable that we were dealing with this organism.

When these cases occurred the disease was not prevailing in Baltimore, and, except in New York, it was not epidemic anywhere in the country, so far as we could ascertain. Three days after the death of Case 1 a lad was admitted with a most remarkable family-history of the disease. The father, a very intelligent man, gave the following details of the cases :

Wagner Family.—I. A son, a young man of about 20 years, returned home on Monday, February 7, complaining of a terrible pain in his head. He had fever with much vomiting, and his head and neck were arched. He was very delirious, became rapidly worse, and died on Saturday the 12th. II. A sister who had helped to nurse her brother, was taken ill on Monday the 15th with similar symptoms, and died in four days. III. A second sister became affected in a few days and for two weeks was desperately ill; she then began to improve and is now well. IV. The mother, who was worn out nursing the children, was taken ill on March 17th and died in two days. She had slept in the same bed with No. V, who was admitted to the hospital.

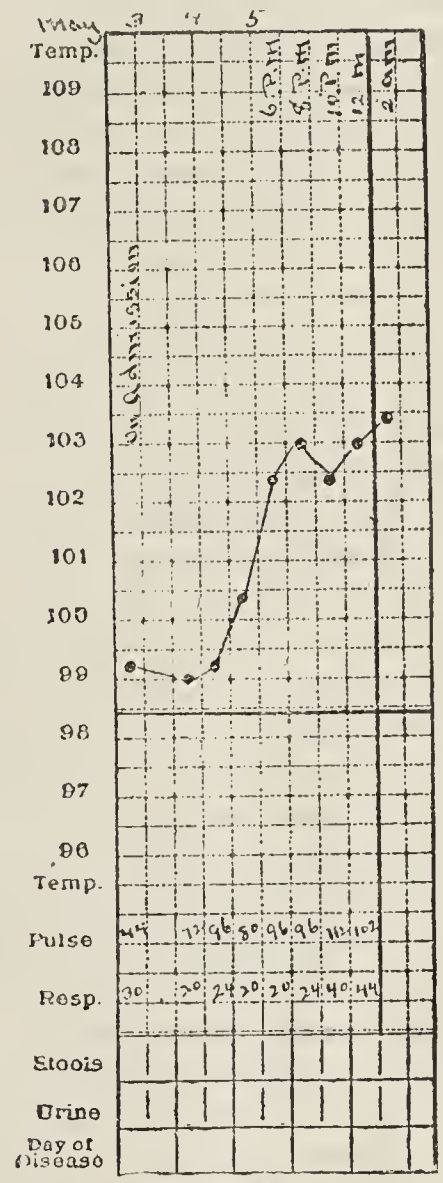


Chart IX. W. F. F.

Case 3.—W. W., aged 15, No. V of the Wagner family, was admitted May 12, in the eighth week of an illness which the doctor described as cerebrospinal meningitis, and of which his mother and a brother and sister had died. The patient presented a dull, heavy appearance, and for some days did not appreciate his surroundings and appeared confused. He had delusions and hallucinations, and thought he saw his mother and sister in the room with him. He had no fever, and there was no rigidity of the head or neck. The optic nerves looked normal. He improved gradually and was discharged well June 10.

I can find no parallel to this record in the history of sporadic cerebrospinal fever. The figures which I have given for Baltimore show that in the year 1893 a considerably larger number of cases occurred than in the four succeeding years, and the admission of these

three cases in rapid succession excited our interest, but from this time until the spring of 1898 we saw nothing further of the disease. In the history of the epidemic form it is not very uncommon to find two or three cases from one house. Netter refers to Sewall's report of six children attacked in one family at the beginning of the New York epidemic in 1872, and he quotes from Thorne Thorne the statement of Morcieca that in Malta seven cases occurred in a family of nine persons. Such facts speak strongly for the contagious nature of the disease. Under ordinary circumstances, however, it is exceedingly rare to find more than one case in a family, either in the sporadic or epidemic form, and I know of no case in our recent American experience in which a physician or nurse has been attacked, or in which cases have developed among other patients in a hospital. We know nothing of the conditions under which the disease assumes this family malignancy, as it may be termed. In this respect it resembles pneumonia, not highly contagious as a rule, but which may at times, in a family or institution, present a high degree of malignancy.

Bacteriology of Sporadic Cerebrospinal Fever. — In a number of cases of sporadic cerebrospinal meningitis the Weichselbaum organism has been found. The case reported by Stewart and Martin[7] is of peculiar interest, inasmuch as the epidemic form of the disease has not prevailed in Montreal for many years. It is to be noted, however, that the patient prior to her illness had been spending a few weeks in Boston, where the disease had been prevailing. An unusual point in this case was the occurrence of an acute purulent pericarditis in addition to the usual cerebrospinal lesions. The cultures showed the diplococcus intracellularis.

By far the most suggestive contribution to this question made of late years is by Dr. George F. Still,[8] of the Great Ormond Street Hospital for Sick Children. In a study of the form of meningitis known as the simple posterior basic of infants, he isolated from 7 or 8 cases a diplococcus which conforms in almost every particular with the diplococcus intracellularis. The frequency of this form of meningitis may be gathered from the fact that in 10 years there were at this hospital 49 fatal cases, verified by autopsy. The smallest number in any one year was 2, and the largest number 7. All of these cases were sporadic; none of them formed a part of any outbreak which could be considered epidemic. Clinically the disease presents certain differences from the ordinary type of cerebrospinal fever, attacking young children, chiefly in the first year of life, and as a rule, is very much more chronic, though there are forms of cerebrospinal fever which are quite as protracted. Skin-rashes are rare, particularly herpes. The most interesting point of similarity determined by Still is the periarthritic affections in certain of the cases of posterior meningitis, involving, as in epidemic form, the capsule of the joint, and the sheaths of the tendons. He determined also in one case the presence of the diplococcus in the exudate.

The problem is one which deserves the closest attention, and in every case of sporadic meningitis a careful bacteriological examination should be made for the meningococcus and the pneumococcus, as we are still ignorant of the proportion of cases due severally to these organisms. Two points remain for discussion, viz., the incidence of acute nontuberculous meningitis in hospital work, and the clinical varieties of the pneumococcic form.

Through the kind permission of my colleague, Professor Welch, one of his assistants, Dr. W. G. MacCullum, has analyzed from the pathological department of the hospital the cases of meningitis in which bacteriological examinations have been made.

The 25 cases may be divided into 4 groups:

a. Cerebrospinal fever—six cases (Nos. 412, 413, 1104, 1189, 1314, and 1362.)

b. Pneumococcic meningitis—eight cases (Nos. 384, 478, 619, 746, 989, 1082, 1151, and 1362).

c. Pyogenic meningitis, in which streptococci or staphylococci, singly or in association, were found—seven cases (Nos. 694, 1065, 1092, 1247, 1166, 1363, and 1364.

d. Miscellaneous—four cases, two of which (Nos. 854 and 1091) showed peculiar unidentified bacilli.

The pyogenic forms of meningitis do not concern us here; no case of primary streptococcus or staphylococcus meningitis came to autopsy. I have already referred to the chronic forms of cerebrospinal fever in which the pyogenic cocci may alone be present at the time of death.

The meningitis with which the diplococcus lanceolatus is associated, in many respects the most important variety, deserves a separate consideration.

PNEUMOCOCCIC MENINGITIS.

As the pneumococcus has long been recognized as the most important organism in the production of meningitis, the first question to be considered is how far sporadic cases of cerebrospinal meningitis are due to it. Of the 25 cases of meningitis in the pathological department of the Johns Hopkins Hospital, in 8 the pneumococcus was isolated from the exudate. Bacteriological statistics everywhere show the great importance of this organism as a factor in the causation of meningitis. Of 20 cases examined by Councilman, Mallory and Wright, there were 10 cases in which the pneumococcus was found, 8 of these secondary to other conditions, in 2 only primary. In 8 cases of secondary meningitis the streptococcus was present. Netter's experience is particularly interesting. To April, 1897, he had examined bacteriologically 61 cases of meningitis, with the following results: "Pneumococcus in pure-

[7] *Montreal Medical Journal*, March, 1898.

[8] *Journal of Pathology and Bacteriology*, vol. v, 1898.

ulture thirty-five times, the same associated with the streptococcus and with the staphylococcus each one ime, the streptococcus alone thirteen times, the diplo-coccus intracellularis meningitidis three times, the staphylococcus pyogenes aureus and the bacillus of Friedländer each two times, and the colon-bacillus, the nfluenza-bacillus, a fine bacillus, and a pyocyanic and saprophytic bacillus each one time." We may recog-nize three groups of cases of pneumococcic meningitis.

I. *The Meningitis is a Complication of Lobar Pneumonia.*—In Montreal my attention was called to the great fre-quency of this association, in 8 of 100 consecutive autopsies,[9] and since these observations I have had opportunities of studying a number of cases, though I have never met with so large a proportion. By far the most important contributions to the subject have been those of Nauwerck[10] and Netter.[11] Of the 29 cases anal-yzed by Nauwerck, in 4 the convexity of the brain was alone involved, in 16 both cortex and base, and in 7 the cortex, base, and spinal cord. Netter's study, the most complete that has yet appeared, contains an anal-ysis of 124 cases collected from the literature. In the recent monograph on pneumonia by Aufrecht,[12] 7 cases of meningitis were found in 253 autopsies, and of 1,501 cases of pneumonia in 10 the diagnosis of meningitis was made, in 3 of which recovery followed. Of the 8 cases of pneumococcus meningitis in the department of my colleague, Welch, in only 4 was the condition asso-ciated with lobar pneumonia.

II. *Pneumococcic Meningitis from Local Infection.*—In this exceedingly important group the infection may come from the nose or the adjacent sinuses, from the ears, or may follow an injury to the skull, or an opera-tion. In 2 of the 3 cases in the series analyzed by Dr. MacCallum there was fracture of the base of the skull. In the third, a child, aged 6, had suppuration of the nasal mucous membrane and adjacent sinuses. In this connection the importance of the pneumococcus is universally recognized, and many cases are on record of infection from an otitis media.

III. *Primary Pneumococcic Meningitis.*—A number of observers have isolated the pneumococcus in primary suppurative meningitis. The records cannot be re-garded, however, as entirely trustworthy, since it is only within the past few years that bacteriologists have learned to recognize the differences between the pneu-mococcus and the diplococcus intracellularis. Subse-quent study must determine in what proportion of cases of sporadic meningitis the pneumococcus exists, and in how many the diplococcus intracellularis.

The primary pneumococcic meningitis may develop in a person in good health, but more frequently there is a general pneumococcus-infection in a debilitated individual, or in one with chronic disease. The meningitis may be present alone, or, as is so common, in association with endocarditis. Of the cases examined in the postmortem-room of the Johns Hopkins Hos-pital, one (No. 989), a man aged 44, had a general infection with the pneumococcus and meningitis. Another case (No. 1206), with a general infection, acute endocarditis, and meningitis, is not included in this series, as a partial autopsy only was allowed, and but a small portion of the lumbar cord was examined.

Clinical Features of Pneumococcic Meningitis.

I shall now refer to certain clinical features of these three groups of cases:

a. Pneumonia with Complicating Meningitis.—Is the case one of cerebrospinal fever with pneumonia or of inflammation of the lungs with an added meningitis? This question does not often arise now at the bedside, as it is most exceptional for the meningitis of pneu-monia to present the symptoms of cerebrospinal fever, and in a dubious case occurring during an epidemic the lumbar puncture (as in a case to be referred to in a few minutes) may be relied upon to clear up any doubts. The most valuable clinical record of menin-gitis in pneumonia is to be found in Nauwerck's paper. The histories, 17 in number, are very full and complete, and in every case accompanied with a postmortem report. He has added a series of 12 cases from the literature, making 29 in all. All of the cases were above the twentieth year of age—a striking contrast to cerebrospinal fever, in which a large proportion of all the cases are in the young. A second point is the latency of meningitis in pneumonia, which is much more often recognized in the dead-house than in the wards. Netter states that fully one-half of the cases are of this latent type. Of the cases I saw in Montreal I remember but one in which the diagnosis was made during life. Huguenin, referring to this obscurity says: "We know no symptom which is constant in all cases or which may not be present in an identical manner in other conditions." Headache, early delirium, deepen-ing into unconsciousness, are present in all cases. This is a consequence of the more common involvement of the cortex of the hemispheres. As Leichenstern re-marks, the mind may remain clear throughout the course of a case of cerebrospinal fever. Spinal symp-toms are rare; in only 7 of the cases analyzed by Nauwerck was there rigidity of the neck muscles. Strabismus was present in one-fifth of the cases, ptosis only once. The importance of lumbar puncture cannot be too strongly emphasized. A recent case, which occurred while cases of cerebrospinal fever were in the hospital, illustrates this so well that I give an abstract of it:

Charles E., aged 52 (Hospital No. 26,417), was admitted May 6, 1899, with pneumonia of the right upper lobe of about

[9] "The Morbid Anatomy of Pneumonia," *Canada Medical and Surgical Journal*, May, 1885, and the Gulstonian Lectures on "Malignant Endocarditis," *British Medical Journal*, 1885, I.

[10] *Deutches Archiv f. klin. Med.*, Bd. xxix.

[11] *Archives Gênérales de Médecine*, 1887.

[12] Nothnagel's *Specielle Pathologie und Therapie*, Bd. xiv.

eight days' duration. He was in a semi-comatose condition, with a temperature of only 99°, respirations 32, pulse 108. There was a pneumonia of the apex of the right lung. The day after admission it was noted that his arms and legs were very stiff; Kernig's sign was well marked, and there was some rigidity of the neck. The patient, however, responded to questions. Lumbar puncture was made in the third interspace, and 5 cc. of a perfectly clear limpid fluid obtained. Lumbar puncture was made again on May 10, and 30 cc. of a perfectly clear fluid obtained, negative on cover-slips and culture. For the next three days he had a good deal of tremor. Kernig's sign was present, and there was still some rigidity of the arms and of the neck. The leukocytes ranged from 16,000 to 24,000 per cmm. On the 14th, lumbar puncture was performed for a third time, and a slightly turbid fluid obtained, from which on cover-slips the pneumococcus was obtained. The patient died on the evening of the 14th. The autopsy showed a pneumonia of the right apex, a very slight purulent exudate at the base, some turbid fluid in the ventricles, and a small amount of turbid cerebrospinal fluid, but no positive exudate on the spinal meninges. There was an ulcerative endocarditis of the aortic valve. The pneumococcus was isolated from the meninges, the heart-valves, and from the lung. A very interesting feature in this case was the normal temperature on the 11th, 12th, and 13th days of the disease, and the high temperature on the 14th and 15th days, ranging to 105° and 106°.

And lastly, a most important difference between the meningitis complicating pneumonia and cerebrospinal fever is the almost universally fatal course of the former. Nauwerck describes the complication as invariably fatal, and he is not able to convince himself that in any one of the reported cases of recovery in the literature, meningitis was actually present. Netter speaks somewhat more hopefully, and states that recovery may occur. He gives two cases from the literature, both in children. In one, a child of 5, in which the crisis occurred on the sixth day; the signs of meningitis were the presence, during the first few days, of headache, unequal pupils, and ptosis. Aufrecht, in his recent monograph, *loc. cit.*, also speaks of the possibility of recovery. Of 10 cases of meningitis in 1501 of pneumonia, 3 recovered. Netter,[13] in his article in the "Twentieth Century Practice," commenting upon the statement by Wentworth that pneumococcal meningitis is always fatal, states that "as early as 1887 I demonstrated, however, that its curability is one of the most evident characteristics of the pneumococcal meningitis." So far as I can gather, there is nothing in his essay to justify such a statement, since, as I have mentioned, he gives but two instances of recovery.

Personally, I have never recognized recovery in pneumonia complicated with meningitis, and the literature of the subject bears out strongly the view that one of the most striking differences between the meningitis of pneumonia and cerebrospinal fever is the almost invariably fatal termination of the former.

b. Pneumococcic Meningitis from Local Infection.—Two of the 3 cases in this group were surgical: one (No. 746) followed removal of the bones of nose and orbit; the other (1151) a fracture of the base of the skull, involving the cribriform plate of the ethmoid. In both, the pneumococcus alone was isolated from the exudate in the cerebral meningitis. In 2 of Councilman's 8 cases the infection followed fracture, in one otitis media. Cases of this group do not so often appear in the medical wards, but last year we were particularly interested in a case in which the infection started from the nose and accessory sinuses, though the possibility has to be considered of extension from the meninges. An abstract is worth quoting, and the picture (Fig. 2) shows a remarkable condition of cervical opisthotonos:

Anna C., aged 6 (black), admitted March 31, 1898. Her previous history was negative. Five days before entrance, directly after supper, she vomited and complained of headache; later in the evening she became delirious. Two days after the head was held stiffly, and she had much pain in the back of the neck. She had fever, rapid pulse, loss of appetite, and constipation. On admission she was conscious, but very irritable and difficult to examine. The head was arched back and could not be brought forward. The pupils were equal and reacted to light. There was a marked slight internal strabismus. There was nothing of moment found in the examination of the chest and abdomen. She was very tender in the suboccipital region, but there was no sign of disease of the cervical spine. Lumbar puncture on the 1st was negative. For the first week the condition remained about the same; the child could be roused, and answered



Fig. 2.—A. C. Pneumococcic meningitis—cervical opisthotonos.

questions, the strabismus persisted; there were no changes in the optic nerves. The temperature ranged from 100° to 104°. The arching of the head and neck continued; the eyes looked directly upwards (Fig. 2). On the 17th a rash appeared, a diffuse erythema over the face, neck, and chest, with papules. The rash faded in three days. The temperature ranged from 102° to 104°. On April 19 a profuse purulent discharge appeared from the nose, which showed the pneumococcus on cover-slips, but in cultures only the staphylococcus aureus grew. She could still be roused; the attitude remained as shown in the photograph. No optic neuritis Throughout the 18th the temperature dropped from 105° to 97° on the morning of the 19th, and continued about 97° until her death on the morning of the 21st. One of the most remarkable features was the retention of consciousness to within a week of her death.

The autopsy (No. 1082) showed exudate over the sulci of the hemispheres. The base, from just behind the optic commissure over the pons and lateral lobes of the cerebellum, was covered with a soft yellow exudate. The posterior surface of the spinal cord showed the same. The ventricles were much distended with a turbid fluid. There was suppuration of the mucous membrane of the nose, and of the ethmoidal and sphenoidal sinuses. Cultures showed the pneumococcus in the cerebrospinal exudate, and from the nasal pus the pneumococcus and the staphylococcus aureus.

c. Primary Pneumococcic Meningitis.—Future investigations will decide the proportion of cases of primary

[13] *Archives Generales de Medicine*, 1887, I., p. 273.

cerebrospinal meningitis due to the pneumococcus and to the diplococcus intracellularis; and it will be an exceedingly interesting study to determine whether there are clinical differences such as separate so decidedly the meningitis complicating pneumonia from the cerebrospinal fever. Judging from the bacteriological records given by Councilman, Mallory and Wright, and those of the Pathological Laboratory of the Johns Hopkins Hospital, the primary pneumococcic meningitis is rare in America—certainly much less infrequent than the secondary forms. Two of Councilman's 10 cases, both infants, one of 10 months, the other of 6 days, were primary. I cannot gather from Netter's statistics[14] how many of his cases were *primary;* nor without consulting the original can one say how many of the 13 cases of sporadic meningitis studied by Malenchini (quoted by Netter) belonged to this group. Of our 8 cases, as stated, only 2 were primary. One of these is worth quoting:

G. C., aged 44 (white), admitted at 6.30 P.M. on September 1, 1887, in an unconscious state. When seen by his brother on Saturday, the 29th, he was quite well. After going to bed on Sunday evening, the 30th, he had a severe chill. On Monday he was too ill to go to work. In the evening he became delirious, and ever since has had fever, has been restless, difficult to restrain, and very noisy. On admission the temperature was 105°; the pulse 136 and small. Dr. McCrae saw him a few minutes after he had been put to bed, and took very full and careful notes of the condition. The face was flushed and he looked distressed. There was no strabismus; the pupils were dilated and inactive. The head and neck were held stiffly, and the arms were held firmly flexed on the chest. There were no signs of pneumonia; the heart-sounds were clear. The abdomen was not distended, there were no rose-spots and the spleen could not be felt; there were no herpes. The skin had a diffuse mottling, but no purpuric spots were seen. There was no urethral discharge. The leukocytes were 13,500 per cm , no alteration in a differential count of 500. The Widal reaction was not present. At 10 P M. the temperature had reached 106° and he was given a bath at 80°, with ice frictions, which reduced the rectal temperature to 103°. At 11 P.M. the body seemed to be held much more stiffly. At 12 midnight he was much worse, and at 12.40 A.M. he died, about three days and three hours from the time of the initial chill.

The postmortem (No. 989) showed a diffuse purulent meningitis of the hemispheres; the base much less involved and the ventricles not at all affected. The cord unfortunately was not examined. There was a recent diffuse nephritis, and the urine in the bladder contained albumin and tube-casts. There was a general pneumococcus infection, no pneumonia or endocarditis, and the pneumococcus was separated in pure culture from the meningeal exudate.

V.—Note on the Treatment of Cerebrospinal Fever.

In our series of cases we have used no special drugs. Morphia has been freely given to control the pain. Ice sponging has been employed whenever the temperature reached above 102.5°. Our mortality, considering that the cases were, as a rule, quite severe, has been low, only 8 of 18 cases in the hospital, and 9 among the 21 cases which I have seen.

I have already spoken of the possible benefits in certain cases of the relief of pressure by the withdrawal of cerebrospinal fluid.

[14] "Twentieth Century Practice," vol. xvi, p. 193.

In 2 of our cases the spinal canal has been opened, drained and irrigated. Winter (*Lancet*, 1891), in tuberculous meningitis, removed the spinal process of the second lumbar vertebra and drained the spinal canal. Von Ziemssen first attempted to use local therapeutics to the membranes of the cord by injecting a weak solution of iodin in a case of meningitis; and later Sahli practised permanent drainage through a canula and catheter. So far as I know, an extensive laminectomy had not been done for acute spinal meningitis until our first case, Nov. 6, 1898, in which the operation was suggested and performed by Dr. Harvey W. Cushing, the first assistant in the surgical clinic of my colleague, Professor Halsted. The case has already been given in abstract under the section on bacteriology[15] as the one in which the staphylococci only were present at the time of operation. The spinal canal was thoroughly irrigated with salt-solution and a quantity of purulent exudate washed out. No change followed in the existing paraplegia. The bladder and the kidneys became infected, and he died about 2 months after the operation. The paraplegia persisted. At autopsy the spinal meninges were smooth and looked perfectly normal. It was impossible to say where the dura mater had been incised, and there were neither adhesions nor areas of thickening on the pia-arachnoid. There were extensive changes in the cord itself and in nerve-roots.

In Case 12 laminectomy was performed on the fourth day by Dr. Cushing. The patient was very ill, and the spinal symptoms were especially pronounced. A catheter was passed beneath the dura mater, and the membranes drained and irrigated with salt-solution. For several days he seemed much better. He developed a hemorrhagic cystitis and pyelonephritis, and died on the sixth day after operation.

Dr. Musser, of Philadelphia, has also had an unsuccessful case. Dr. Rolleston and Mr. Herbert Allingham have reported[16] a case of sporadic cerebrospinal meningitis, in which the patient recovered after laminectomy and drainage. On the principle of a desperate remedy for a desperate disease, the operation (which has been criticised adversely in an editorial note in the Philadelphia Medical Journal) seems justifiable in certain severe cases, in which, as in our first case, the spinal symptoms are very marked.

[15] And reported in *Boston Medical and Surgical Journal*, December 29, 1898.
[16] *Lancet*, 1899.

School for Tropical Diseases in Hamburg.—Acting on a proposal by Professor Robert Koch, the German Federal Government has decided to erect an Institute for research on tropical diseases in Hamburg. This town has been chosen in preference to Berlin on account of its harbor, from which sick sailors and passengers can be brought into the institute direct without railway traveling. Thirty beds are to be provided.

THE EXPANSION OF MEDICINE.[1]

BY E. H. BRADFORD, M.D.,
of Boston.

(An abstract from advance sheets by the courtesy of the Editor of the *Boston Medical and Surgical Journal.*)

AFTER an interesting historic sketch of American medicine and educational methods, Dr. Bradford said:

But the system of medical education is still defective, and does not tend either to economy of administration or to the production of the best and most scientific work. There are 130 medical schools in this country which are recognized as worthy to issue accepted diplomas. There are 10 in the city of Philadelphia; there are 10 in the city of New York; there are 8 in Baltimore, and 4 in Boston. There are 16 in Chicago whose diplomas are recognized and 7 unrecognized. There are 9 in St. Louis. In comparison with this it will be found that in the German Empire 20 universities are sufficient; in Austria and Hungary, including Croatia, there are 11. Manifestly many of the American medical schools could be spared. This is so evident that the medical schools in St. Louis are attempting to combine their energies and to form a consolidated institution. If there is an economy of administration in the union of small railroad corporations, the same principle can be applied to professorships of physiology, anatomy and pathology.

As there is practically no check on the number of medical schools, beyond the good nature of the community, the title of professor is not uncommon and its prevalence weakens its authority. The decision of a judge has weight, but the opinion of a professor may not excite even curiosity. Nor can it be said that the country lacks doctors. There are in England 28,000 medical men, in France, 17,738 practising medicine. In the United States there are said to be 116,000, or about one to every 600 inhabitants.

An examination of the catalog of the Harvard Medical School for the year 1875–1876 shows 44 foreign and 13 American books recommended to students for textbooks and for collateral reading.

In the year 1898–1899 it will be found that there are 85 American textbooks and 71 foreign.

At the beginning of the Revolutionary War there were only one book, three reprints and twenty pamphlets by American authors. To day there 7,000 books and reprints and a large number of pamphlets. There are 300 books and pamphlets written by American authors annually, and 5,000 journal articles. In 1879–1880, 10,334 books and journal articles were written in the United States in comparison with 7,476 written in England at the same time.

The most distinguished accomplishment of the medical profession in America is the development of the army medical department, which may be regarded not only as a product of our national existence, but of the profession from whose ranks the army medical department is recruited.

When the war against Spain came upon the country suddenly it was generally believed by a community ignorant of war that the great efficiency of the medical department of the Civil War could be immediately continued after a lapse of thirty years. It was after the list of sick in the summer camps, and the terrible condition of the Fifth Army Corps at Santiago, and the confusion of the first week at Montauk, that an excited people, inexperienced in the actualities of campaigning, hastily condemned the medical department. Not till the campaigns of this much-photographed and much-written war have been placed fully in the possession of the community, and the mistakes fully shown, can a critical analysis be made. This will be found to show that the work of the army medical department was not only not culpable, but, considering the difficulties under which it labored, of almost incomparable excellence. It will be found that previous experiences in war were lost upon legislators, and that the army medical department was cut down to the smallest possible point for our small army. It is beyond the possibility of any system to suddenly develop trained and experienced medical officers, and the proper selection of surgeons for an army of two hundred thousand men was impossible. It may be remembered that Surgeon-General Lovell, in 1817, wrote as follows: "An officer of the line may soon learn the duties of the field, and a surgeon be amply qualified for his profession, and both of them be worse than useless in the army. It is from a knowledge of minutiæ, which depend neither upon general regulations nor specific orders, that the experienced officer and surgeon becomes so much superior to the undisciplined recruit. It is almost entirely in order to acquire this kind of knowledge that a military establishment is kept up in time of peace, and it is an undoubted fact that in no department of the army is it so slowly acquired and, therefore, so deficient as in the medical. How severely this was felt during the greater part of the last war (1812) is too well and too publicly known to need comment."

It is in all probability largely due to the neglect of this common-sense principle that the deaths and the sickness in the summer camps were so great, for the evidence is clear that the sanitation and policing were neglected in the volunteer camp, both by the officers in charge and by the regimental surgeons, those regiments with efficient officers and discipline necessarily suffering from contiguity with ill-disciplined troops. When it is remembered that the marines at Guantanamo suffered no sickness, and that ten thousand troops were encamped at South Framingham without sickness at a time when typhoid and camp-disorders were prevalent at Camp Alger, Camp Meade, and Camp Thomas, it is clear that an unnecessary amount of sickness and death is to be laid to the score of someone. It would appear to be clear that it is not the army medical department which is to blame.

The campaign at Santiago will probably be recorded by the historian as a modern counterpart of the capture of Louisburg. There was the same gallantry on the part of the men; there was the same successful achievement of the impossible; there was comparatively, judging from the difference in the advance of the science of war, the same confusion. As we now read Parkman's pages, we condemn the mistakes and are proud of the gallantry of the troops, and it is probable that in a century from now, when war has become an exact science, and the art of keeping men efficient—the chief factor in war—has been perfected, the historian will be surprised at the blunders and incompetency shown by a War Department inexperienced in the perfected science of war.

"Inter arma silent leges," is certainly true of the sanitary laws in the first hurriedly-prepared campaign. We should be led to believe then the American Republic of to-day was incompetent to wage efficient war; but an assertion like this is met by a record strange even in this land of contrasts, namely, the remarkable efficiency of the Philippine expedition, conducted under the same war department and with volunteer troops. It may be said that after the second week

[1] The Annual Discourse before the Massachusetts Medical Society, June 14, 1899.

n September order was brought about, well-organized hospitals were established, and medical service brought to a high state of effieiency, which the profession ean well be proud of. It is to be remembered, to the eredit of the medical department, that if the army was supplied with out-of-late weapons, first-aid packages were furnished to the troops; they were drilled in their application and their beneficent efficiency thoroughly demonstrated.

The country will pardon the sufferings at Santiago as, perhaps, a military necessity, and even condone the bad equipment of the transports and the week of confusion at Montauk. The confusion may be regarded as the result of haste and ehanged plans, diffieult to avoid in war. The mortality statisties show, however, an undue mortality in the training eamps. The ehief mortality was in August and September, after practieal eessation of campaigning, and occurred chiefly in the eamps of troops never sent to the front.

COMPARISON OF MONTHLY DEATH-RATES (PER 1,000) FROM DISEASE.

Months.	1861–62. Mean Strength.	Number of Deaths.	Ratio per 1,000 of M. S.	1898-99. Ratio per 1,000 of M. S.	Number of Deaths.	Mean Strength.
May	16,161	18	1.11	.26	42	163,726
June	66,950	55	.82	.44	90	202,526
July	71,125	106	1.49	1.72	451	362,613
August	112 359	242	2.15	5.21	1,400	268,507
September	165,126	365	2.21	5.89	1,541	261,824
October	256,884	725	2.82	3.17	809	255,000
November	301,848	1,145	3.79	1.51	365	242,000
December	343,184	1,471	4 29	.84	201	240,000
January	352,760	1,593	4.52	.85	180	211,000
February	327,734	1,346	4.11	.87	156	180,000
March	328,878	1,575	4.79	.90	123	136,000
April	410,416	1,881	4.58	.71	80	113,000
Annual	229,452	10,522	45.86	25.73	5,438	211,350

But the two thousand deaths in the summer eamps will remain as a blot in American history. In explanation many excuses are offered. Training camps badly placed; general officers ignorant or negligent of sanitary laws; appointment of medical officers to important positions not sufficiently experieneed for their undertaking; incompetent regimental offieers and surgeons appointed by State governors, regiments sent to the eamp equipped for war only in their brass bands, ill-disciplined soldiers unacquainted with the elements of sanitary decency, are all mentioned and perhaps all are true. The American people have learned another lesson of the need of thorough preparation, which it is to be hoped will not be forgotten. The experience of the war has shown the great general ignorance of the elements of sanitation. The medical profession has eertainly a large field of endeavor in preaching what has been ealled the "Evangel of hygienic righteousness."

It is somewhat singular that a nation whose energies have been enlisted chiefly in the pursuits of peace should have eontributed so much to the science of war. The rifle was first used in battle by the American soldiers at the battle of New Orleans. The open order of attaek, hasty entrenchment by the advancing attacking column were productions of American frontier life and are developments of American arms, making war less destructive to human life.

If war is, as Shakespeare says "God's besom" to sweep away the refuse of the world, it will always be needed, and it will be the part of civilization to develop and humanize it. War was originally brute force. Napoleon made it the science of positions, and it should be the duty of our nation, which has done so much to humanize war, to make of it a perfected science of sanitation—the art of keeping men efficient—and the preparation for it a long study of the laws of health.

If the work in the army medical department is more than commendable, that of the navy is superlatively good. In the navy in the last war perfection seems to have been reached; the men not only were as healthy in war as in peace, but in all probability healthier than in the general run of eity life.

The marines at Guantanamo were kept in perfect discipline, the springs were guarded and no water was drunk except when sterilized, and although they were exposed to the same influences whieh overeame the soldiers, there was no sickness.

The report of the Surgeon-general of the Navy for the year of the Spanish war shows even better health than in times of peace.

To show what an advance this means, it is only necessary to compare the account of the sickness of the British fleet in the West Indies in 1726: out of a force which never exceeded 4,750 persons, two flag officers, 7 captains, 50 lieutenants, 4,000 men died in one year of various forms of sickness.

A statistical comparison of the Spanish War with other wars would be of interest.

The accompanying table prepared by Dr. Mosher, of Boston, of the principal wars of the century shows the relative position of the war in the mortality from disease in the list of other wars. The table shows the percentage of mortality in campaigns by the French and English and Americans in tropical countries.

DEATHS FROM DISEASE.

Walcherian (E.), 1809	23.33
West Coast Africa (E.), 1824	69.00
Mexican (U. S.), 1846	10.00
Mexican (U. S.), 1848	10.00
Crimea (E.), 1854	23.00
China (F.), 1862	11.80
Civil War (U. S.), 1862	4.00
Civil War (U. S.), 1863	6.00
Franco-Prussian (G.), 1870–71	1.43
Cape Coast (E.), 1873	17.30
Afghanistan (E.), 1878-80	9.37
Egypt (E.), 1882	7.21
Soudan (F.), 1883–86	28.00
Madagascar (F.), 1895	30.00
Chino-Japanese (J.), 1895	1.48
Spanish-American (U. S.), 1898-99	2.50
Manila Expedition (U. S.), 1899	.80

TABLE OF MORTALITY FROM DISEASE IN CAMPAIGNS IN TROPICAL COUNTRIES.

British Army. Name and Date of Campaign.	Died of Disease. Percentage of Strength.	French Army. Name and Date of Campaign.	Died of Disease. Percentage of Strength.
Soudan, 1889	0.06	Tonkin, 1884	6.0
Mashonaland, 1876–97	0.20	Tunis, 1881	6.1
Suakin, 1885	0.22	Mexico, 1862-63	7.1
Soudan, 1885–86	0.41	Tonkin, 1885	7.5
China (Talienwan), 1860	0.54	Dahomey, 1893	8.7
Ashanti, 1895-96	0.56	Tonkin, 1886	9.9
Egypt, 1882	0 57	Tonkin, 1887	10.6
*Manila Expedition, 1899, U. S. A.	0.80	Cochin China, 1863	10.7
Abyssinia, 1867–68	1.21	Soudan, 1887–88	11.6
Galeika Gaika, 1877–78	1.40	Cochin China, 1862	11.7
China Field Force, 1860	1.49	China, 1862	11.8
Matabeleland, 1896	1.65	Tonkin, 1888	13.3
Ashanti, 1874	1.74	Cochin China	14.0
Zululand, 1879	2.48	Soudan, 1885–86	20.0
Spanish American, 1898–99	2.50	" 1886–87	22.0
Chitral, 1895	2.51	" 1884–85	22.5
Nile, 1884–85	3.64	" 1883–84	28.0
Dongola, 1896	4.66	Madagascar, 1895	30.2
Afghanistan, 1878-80	9.37		

The English campaigns show figures that are better and figures that are worse than those of the Manila campaign.

Their mortality in one tropical campaign was down to 0.06%. In contrast to this the English mortality in the Afghanistan War run up to 9.37% and to-day averages in India 4 to 6% at a time of peace. Kitchener's Soudan campaign would seem to offer the most recent chance for comparison. When, however, the conditions of the two, the Soudan campaign of Kitchener and our Santiago campaign, are examined, they are found not to be comparable. For instance, the English troops were mostly seasoned natives, plus a small acclimated European contingent. Our men were green troops, not veterans, and anything but acclimated. The English had the same heat to contend with that our troops had, but they did not have the tropical rains—nor did they fight in a yellow-fever country. Notwithstanding all the advantages on the side of the English, typhoid broke out among them and followed them, and "the mortality during the campaign from enteric fever . . . will probably be found, when full reports are in, to be excessive."[2] One battalion lost 16%, "a formidable percentage, fully equalling that of some of our green volunteer regiments on their return from Cuba, where they had the special disorders of malaria and yellow fever also to combat."

So far in the Manila expedition the losses from disease are eighth-tenths of 1%. In 1824 the English lost from disease on the West Coast of Africa 69% of their men, "so that it became necessary to enumerate the strength each quarter, as the troops were cut off with such rapidity that few lived to complete one year in the command." At most 1% of our men died of disease in 1898, while during the years 1862-1865, 4 to 6% died In other words, to quote from Department Surgeon-General Smart: "Thirty seven years ago the flower of the manhood of this country, after months of deadly losses, suffered in April, 1862, more than twice the loss incurred in August last (our worst month), and, instead of going home on sick furlough, girded up their loins for the attack on Richmond by way of the Peninsula."

The other noteworthy figures of the tables are the figures of the American wars by themselves. There is a steady decline in the loss of death by disease. Ten per cent. died of disease in the Mexican War, 5 and 6% in the Civil War, and 2.5 in the Spanish-American War, and eighth-tenths of 1% in the Manila expedition. The mortality and sickness in the Austro-Prussian War was high, but the small loss in the Franco-Prussian War, 1.42%, is noteworthy, though it should be remembered that the campaign was not one of great hardship; but especially striking are the tremendous losses of the French in the Soudan campaign, 28%, and in the Madagascar campaign, 30%. These figures of the French losses were taken from a table comparing the losses of the French and English troops in recent campaigns in tropical countries The table showed that with the exception of the Afghanistan campaign of the English, which had a mortality of 9%, due to an outbreak of cholera, the most unhealthy of 18 English campaigns was healthier than the healthiest of 18 French campaigns.

The most unhealthy English was Dongola, 4.66%, and the healthiest French campaign was the Tonkin campaign with a mortality from disease of 6%. This fact and the tremendous mortality of the Madagascar campaign, 30%, led to an investigation.

This table shows, then, that the losses from disease in the Santiago campaign were relatively small, and that the losses of the Manila expedition will compare with the best. Our losses from disease in the field are open to but little criticism. Men, however, died from disease not only in the field but in the camps. Is our mortality open to criticism? The commission appointed by Surgeon-General Sternberg to examine this point reports that it is. The words of Dr. Vaughan are, "a mortality of 7% in camps which should be hygienic is rather high." "This could have been prevented had the Government been more careful in the selection of volunteer surgeons."

Further on in his paper on typhoid in our army camps he says: "I meant that the average volunteer surgeon was better than the average doctor in civil life. The point of the whole matter is that the medical officer is powerless unless the line officer will uphold him and follow his directions. . . . I think it is a shame and a crime that the line officers of our regular army have no education as to sanitary knowledge.

"How did the disease (typhoid) spread? There is no evidence that the water-supply in the larger camps was infected. . . . It may be said truthfully that the spread of this disease was caused by the improper disposal of excreta. The epidemic was not due to sending northern men to a southern climate; it was not due to the locality or to the massing of men in one place, but it was brought about by camp pollution. The men's feet carried the excreta, flies carried it to food, and thus it was spread."

The high mortality of our summer camps was due to poor policing and poor hygiene; one the fault of the army, the other the fault of defective sanitary education. The mortality of war does not depend upon missiles so much as upon neglect in sanitary care. The rifle of the enemy is not as deadly as neglected sinks and foul hospital bed-pans.

In comparison with this the mortality of the Spanish army in Cuba, 1897, is important.[3] The following figures are approximately correct for this year, 1897.

Deaths from yellow fever	6,034
Deaths from enteric fever	2,500
Enteritis and dysentery	12,000
Malarial fevers	7,000
All other diseases	5,000
	32,534

I can safely say that 10% of the 30,000 invalided home were destined to certain and early death. These enormous death-rates, it must be remembered, occurred in an army which at no time was properly cared for, and was always badly clothed and badly fed; exposed to all the dangers of a tropical climate, they succumbed easily.

Sick-percentages of the United States Army from 1840 to 1899 show marked improvement in the development of sanitary science: [4]

1840-1854	8-9	percent.
1862-1866	20.00	"
1887-1897	4-5	"
1898 (entire army)	3-5	"
1899 (Manila)	8-9	"

In regard to the health of the troops in Manila, General Otis writes in April: [5]

"I think that the health of the command will compare favorably with the British troops in India, there being only about 8 or 9% on *sick report* from all causes. The *mortality* of the British army in India averages from 4 to 6%, so that the percentage of sickness must equal, if not exceed, the percentage of sickness in our troops in Manila."

The philosopher of Chicago, viewing this country from

[2] *Journal of the American Medical Association*, December 10, 1898, p. 1426.

[3] *Medical News*, New York, lxxii, 592; W. F. Brunner, M.D., Sanitary Inspector, report to the Surgeon-General.

[4] *Journal American Medical Association*, April 22, 1899, p. 873.

[5] *Journal American Medical Association*, April 22, 1899, p. 873; *Forum*, May, 1899, p. 345.

behind his bar, shows contentment when he pronounces that "this is a great country, and the best of it is that we know it"; but that the medical profession may not fall into that condition of self-congratulatory complacency, which is often the initial stage of degeneration, our sanitary statistics may serve as a corrective.

In 1896, 75,000 deaths occurred in this country from typhoid. In 1898, 1,713 deaths from typhoid occurred in 3 months in Philadelphia.

Typhoid fever is, as is well known, not only a preventable disease, but it is prevented, as is shown by the statistics of Munich and Hamburg; and Berlin, formerly the abode of filth, now the cleanest city in the world, is now almost free from typhoid. A few statistics will make the facts of our sanitary deficiencies more clear.

DEATH-RATE FROM TYPHOID FEVER PER 100,000 POPULATION PER ANNUM, 1890-1895.[6]

	1890.	1891.	1892.	1893.	1894.	1895.	1896.	1897.
Albany	60	108	50	59	52	165		
Amsterdam	19	11	16	16	8			
Atlanta	149	119	87	66	43			
Baltimore	57	34	42	47	49	28		
Berlin	9	10	8	9	4			
Boston	32	33	25	26	23	32	33	32
Brooklyn	21	21	18	18	16	16		
Brussels	26	41	23	27	14			
Buffalo	44	56	38	37	62	28		
Cambridge	16	21	20	21	30	15	36	15
Chicago	83	160	103	42	31	32		
Cincinnati	67	62	40	43	50	36		
Cleveland	66	52	54	47	27	36		
Copenhagen	9	8	7	9	7			
Detroit	18	13	51	61	26	24		
Edinburgh	19	18	13	14	15			
Fall River	53	66	38	20	33	33	30	45
Glasgow	26	31	18	20	24			
Hamburg	28	23	34	18	6			
Hartford	60	73	82	50	51	58		
Lawrence	134	119	105	80	47	31	19	16
Liverpool	24	25	25	53	58			
London	16	15	11	16	15			
Lowell	160	96	90	62	60	39	40	19
Montreal	.....	.....	.....	20	20	23		
Munich	8	7	3	15	2			
New Haven	28	20	29	31	26	34		
New Orleans	20	23	21	15	28	41		
New York	21	22	14	20	17	17		
Paris	30	20	28	25	29			
Philadelphia	64	64	34	41	32			
Pittsburg	131	100	100	111	56	77		
Richmond	88	60	68	53	31	27		
Rome	35	36	26	34	30			
San Francisco	45	34	32	34	37	32		
St. Louis	34	30	37	103	31	19		
Toronto	80	90	40	40	20			
Vienna	9	6	8	7	5			
Venice	44	33	30	26	18			
Washington	89	86	72	72	72	69		
Worcester	17	21	18	33	32	25	16	15

The accompanying diagram showing the death-rate from typhoid fever in Massachusetts indicates how impure water-supply is related to the disease:

SUMMARY BY DECADES, 1856-95.

Period.	Death-rate from typhoid fever per 100,000.	Percentage of population not supplied with public water.	Period.	Death-rate from typhoid fever per 100,000.	Percentage of population not supplied with public water.
1856-65	92.9	75.44	1876-85	47.1	31.75
1866-75	80.8	58.94	1886-95	36.4	13.93

It will be seen that Boston is higher in typhoid death-rate than Amsterdam, Berlin, Brussels, Edinburgh, Glasgow, Hamburg, Liverpool, London, Munich, Paris, Vienna, and if this is true of Boston, what is to be said of Philadelphia?

Another means of indicating the medical intelligence of the community is found in the figures of infant mortality.[7]

[6] Prepared by the kindness of the Massachusetts State Board of Health.

[7] Infant Mortality in Massachusetts, S. W. Abbott, M.D. Journal of the Massachusetts Association of Boards of Health, vol. viii, No. 4, 1898.

INFANT MORTALITY IN DIFFERENT COUNTRIES.

DEATHS UNDER ONE PER ONE THOUSAND BIRTHS.

Countries.	Years.	Infant mortality per 1,000 births.	Countries.	Years.	Infant mortality per 1,000 births.
Ireland	1884-88	94	Italy	1884-91	192
Sweden	1881-90	97	Prussia	1886-92	207
Scotland	1885-90	120	Hungary	1884-97	212
England	1885-91	144	Austria	1886-87	246
Belgium	1881-91	159	Saxony	1886-92	281
France	1885-90	165	Bavaria	1879-88	287
Holland	1885-90	179	Massachusetts	1876-95	161

As Dr. Abbott says, "From this table it appears that the infant mortality of Massachusetts is greater than that of Sweden, Ireland, Scotland, England, and Belgium, but less than that of the other countries named in the table, that of Bavaria being greater than our own by 78%."

State sanitation has been brought in Massachusetts to a high state of excellence through the efforts of Drs. Bowditch, Derby, Folsom, S. W. Abbott and our own former president, Walcott. The work of the Massachusetts State Board of Health is to be compared with the best existing. This is also true of many of the boards of health of our cities, especially that of Boston, under Dr. Durgin, but unfortunately only to a limited degree of the State boards, and largely owing to the lack of proper legislative support. In the great State of Pennsylvania, the last grant for the Board of Health was only eight thousand dollars, exclusive of salaries of officials, for the coming two years' work. In New York State with its enormous wealth, the last annual appropriation was nearly one half less than that of Massachusetts, only thirty thousand dollars, and in most of the States the regular appropriation granted is barely sufficient to continue the work of the regulation of the practice of medicine necessarily assumed by the boards of health.

The importance of sanitary work cannot be overstated, and as it is clearly owing to a lack of public knowledge of the facts that it is defective in America, it is the duty of the medical profession to call attention to the matter. Obstacles may be imagined in the lack of interest on the part of the spoilsmen politicians—those whom Bismarck classifies as novarum rerum cupidi—but only eager for a chance for their own advantage. Politicians, however, even at their worst, are obliging tyrants, for they are certain to yield actively to determined public opinion. It is not difficult to awaken popular interest in improvements in laws relative to industrial hygiene, that is, the health of the working people, in their various trades, in which we are behind both Germany and England, in the establishment of contagious hospitals in which we are not as well supplied as in England, and in sanitaria for phthisis, in which America is less well advanced than Germany.

The importance of earnest efforts for the checking of tuberculosis is well expressed in this circular distributed by the German bureaus of health:[8] "Some estimate may be made of the financial benefit which such public hospitals for consumptives would bring to the people by the following calculations: Assuming that only one-seventh or one-eighth of the 90,000 persons between the ages of fifteen and sixty who die annually in Germany from tuberculosis—or in round numbers, 12,000—were subjected to treatment, and that of these three-fourths, or 9,000 were restored to health or ability to work, and thus remained alive and with their families for three years longer than would be otherwise possi-

[8] From circular from the Kaiserliches Gesundheitsamt.

ble; and estimating the wages of a man (in Germany) to be 600 marks ($150) a year, or say an average of 500 marks ($125) for each person between the ages of fifteen to sixty, then there would be a total gain of 3 x 500 x 9,000 equals thirteen and one-half million marks ($3,375,000) for those who were thus benefited. To do this would require an expenditure, say, of 400 marks ($100) for each of the 12,000 persons treated, without deducting interest on plant, or a total cost of about five million marks ($1,250,000). If now the interest on the estimated capital necessary to maintain 4,000 beds be added to this, or one million marks ($250,000) more, there would remain, after subtracting the total cost of six million marks ($1,500,000) for the annual treatment of 12,000 patients, a total yearly gain to the public of seven million five hundred thousand marks, or ($1,875,000). To this should be added the profit to the patients themselves in the pleasure of living, and the protection afforded to the children and families of those restored to health, to whom are thus preserved the support of the working father or care of the devoted mother for perhaps many years to come."

Our position in regard to mortality from phthisis is shown in the accompanying table, and also the need of strenuous endeavor to place ourselves in the front rank of public health. It is true that climate is a factor in the matter of tuberculosis, but rational treatment, proper environment, is probable of greater importance, and already sufficient gain has been shown to stimulate efforts which should place us with our wealth in the highest instead of the lowest place.

DEATHS FROM PHTHISIS AND PULMONARY TUBERCULOSIS PER MILLION INHABITANTS.

AVERAGE FOR YEARS 1887 to 1893 AND 1894.

Prussia	2,715	2,389
Massachusetts	2,518	2,230
German Empire	2,428	2,363
Ireland	2,124	2,092
Scotland	1,794	1,723
England and Wales	1,568	1,385
Italy	1,340	1,303

DEATHS FROM TYPHOID FEVER PER MILLION INHABITANTS.

AVERAGE FOR YEARS 1887 TO 1893 AND 1894.

Italy	688	442
Massachusetts	380	310
Ireland	228	205
Prussia	215	151
Scotland	194	176
England and Wales	191	166
German Empire	165	131

DEATHS FROM SMALLPOX PER MILLION INHABITANTS.

AVERAGE FOR YEARS 1887 TO 1893 AND 1894.

Italy	293	85
England and Wales	17	27
Prussia	3	2
Ireland	1	16
Massachussetts	2	13
Bavaria	2	0.3
Saxony	2	1
Scotland	5	31
German Empire	3	2

DEATHS FROM DIPHTHERIA AND CROUP PER MILLION INHABITANTS.

AVERAGE FOR YEARS 1887 TO 1893 AND 1894.

Prussia	1,456	1,473
German Empire	1,383	1,308
Massachusetts	721	740
Italy	665	506
Scotland	405	443
England and Wales	307	350
Ireland	228	201

It can certainly not be claimed that the country is incapable of scientific effort. And if this is granted, and there is no lack of ability in the medical profession, the lack of achievement in this country in research in the medical sciences is evidently a defect. If the bridge over the Nile at Atbara is given to Americans because they are the best bridge-builders in the world, and if more than half the new stars discovered in this decade have been found by American observers, why is it that in the recent scientific investigations that have revolutionized medicine—the discovery of germs, toxins, and antitoxins—America has taken almost no part? It is not that there is lack of energy or of ability in our profession or of wealth in our communities. The difficulty lies simply in the fact that the profession has not yet addressed itself earnestly to the problem of scientific medical research, but has been contented with the training of medical practitioners. So much is this true that the defect has hardly yet been realized, for as common-sense in the practitioner is the ideal striven for by the profession, so scientific research has been left to the efforts of others. Common-sense was of value in the days of rapid speculation. But of what avail is common-sense as a help to a patient dying of cancer, or tetanus, or hydrophobia? The world to-day is waiting for new research. Is the American profession to remain behind? The remedy for this condition is simple and lies with the profession. The public should be informed of the needs of the time—a public which has never withheld financial support where the want has been shown. Well appointed and well supported laboratories for medical research are needed in every community, at every medical school and every hospital. Our medical schools should be organized for a greater purpose than granting diplomas or licensing young practitioners of medicine.

THE LABORATORY OF HYGIENE OF THE VERMONT STATE BOARD OF HEALTH.

BY J. H. LINSLEY, M.D., Director,

of Burlington, Vt.

THE General Assembly of the State of Vermont in 1898 passed the following law: No. 115,—An Act relating to Public Health.

SECTION 1. The State Board of Health is authorized to establish and equip with the proper and necessary apparatus, utensils, and instruments a State bacteriological laboratory, for the chemical and bacteriological examination of water-supplies, milk and all food-products, and the examination of cases and suspected cases of diphtheria, typhoid fever, tuberculosis, malaria, and other infectious and contagious diseases.

SEC. 2. The State Board of Health shall appoint a director of such laboratory who shall hold his office for two years from the first day of December, 1898; and biennially thereafter said Board of Health shall appoint a director of such laboratory for a similar term. He shall keep a record of all specimens sent to him for examination by residents of the State, and examine these specimens without unnecessary delay. He shall, biennially, before the first day of January make a full report to the State Board of Health of all matters pertaining to the laboratory, and shall make such other and special reports as the State Board of Health may ask for. His salary and that of his assistant shall be fixed by the State Board of Health.

SEC. 3. The use of the laboratory and all investigations therein made shall be free to the people of this State.

SEC. 4. The sum of five thousand dollars is hereby appropriated for the purpose of procuring the proper and necessary apparatus, utensils and instruments for the equipment of such laboratory; and the sum of eight thousand dollars per year is hereby appropriated to pay the salaries, procure the necessary supplies, and to meet the other necessary expenses of said laboratory, which sums shall be expended under the supervision of the State Board of Health. The total annual expense of maintaining said laboratory shall not exceed the sum of eight thousand dollars.

SEC. 5. This act shall take effect from its passage.

Approved October 26, 1898.

In accordance with the provisions of this Act the State Board of Health established a State laboratory at Burlington, which began full operation January 1, 1899. It is conducted on practically the same lines as other State laboratories, as follows:

Upon the recommendation of the local health-officer of a town, some druggist (if possible) is appointed as agent. There are 60 such agencies in the State. It is the duty of the agent to keep in stock certain outfits, which are furnished by the State Board of Health, for the conveyance to the laboratory of material from patients suffering from disease. These outfits at present are for use in cases and suspected cases of diphtheria, typhoid fever, tuberculosis, and malaria. Water-collecting outfits are furnished direct from the laboratory upon the application of any health-officer of the State. All the outfits are numbered and an accurate record of their distribution is kept at the laboratory. The diphtheria-outfits are numbered from 1 to 599 inclusive, the typhoids from 600 to 1,199 inclusive, sputum-outfits from 1,200 to 1,799 inclusive, malaria-outfits 1,800 to 2,399 inclusive, and water-outfits 2,400 to 2,999 inclusive.

The record of each kind of outfit is kept in a separate book which is ruled, say for the typhoid-outfits, as follows: 630 $\frac{\text{S. 1-16-99}}{\text{R. 2-4-99}}$ Rutland. The line "S. 1-16-99" signifies that the outfit "630" was sent January 16, 1899 (to Rutland), and below this line the "R" indicates the date of the return of the outfit to this laboratory.

Each agent is provided with a book for the "Record of Distribution of materials received from Laboratory of Hygiene, Burlington, Vt." This record-book is ruled and arranged in the following manner:

No.	Diphtheria.	Typhoid.	Tuberculosis.	Malaria.	Doctor.	Returned to Laboratory.
630		x			Smith.	

(The above represents the arrangement of each page.)

On the inside of the cover of the book is pasted this slip:

"Directions for keeping Record of Distributions of Outfits."

Upon receipt of the outfits from the laboratory, put the number of each in the lefthand column.

When the outfit is called for, make an "x," or check-mark, opposite the number of same in the column under the heading corresponding to the kind of outfit delivered, *i. e.*, diphtheria, typhoid fever, tuberculosis, etc., together with the name of the physician obtaining the outfit.

When diphtheria-outfits are returned to the laboratory, after the receipt of a fresh supply, place the date of shipment in the column headed "Returned to Laboratory."

If any further information is required, communicate with

DR. J. H. LINSLEY, Director.

196 Main Street, Burlington, Vt.

As a comment on this method of recording the shipment and distribution of the outfits, I would state that since these record-books and outfits were first sent to our agencies—a period of six months—there has been no letter or word of inquiry as to the manner of keeping the books. An inspection of the books of several agents failed to reveal an instance of neglect on the part of the agent to account properly for the distribution of the outfits. This is considered very satisfactory in view of the fact that the matter was an entirely new one in the State, and that many of our agencies are placed at small, *general* country-stores.

In tracing the whereabouts of any outfits that have not been returned to the laboratory within a reasonable time, the following blank form is employed.

[Form 44.]

LABORATORY OF HYGIENE,
VERMONT STATE BOARD OF HEALTH,
196 Main Street.

Burlington, Vt., ...

....., Agent,
.....Vt.

DEAR SIR:

Our books show that the following outfits have been sent you and have not been accounted for:—

Diphtheria, Nos. .....
.....
Typhoid Fever, Nos. .....
.....
Sputum, Nos. .....
.....
Malaria, Nos. .....
.....

Please advise me where these outfits are or to whom they were given, by filling out the blank form on the back of this sheet.

Yours truly,

J. H. LINSLEY,
Director.

On the reverse side of this sheet is the following blank:

DR. J. H. LINSLEY, DIRECTOR,
LABORATORY OF HYGIENE.

DEAR SIR:

Our Record-Book shows the following distribution of outfits:

No..... to Dr.....
No..... to Dr.....
No..... to Dr.....
No..... to Dr.....
No..... to Dr.....
No..... to Dr.....
No..... to Dr.....
No..... to Dr.....
No..... to Dr.....
No ..... to Dr.....
No..... to Dr.....
No..... to Dr.....
No..... to Dr.....
No..... to Dr.....

Yours truly,

....Agent.

When a tracer of this sort is sent to an agent it is accompanied with a stamped envelope directed to this laboratory in which to enclose the reply. To illustrate:

At times an outfit is delivered to the laboratory with no mark whatever to show where it came from. Reference to our records informs us where the outfit was sent, and a letter of inquiry to our agent at that place will result in the desired information as to the identity of the sender of the unmarked package.

The agents receive no fee for their services, many of them considering it a distinct business advantage to be the medium of distribution between the laboratory and the members of the medical profession.

The State Board of Health pays the express charges on all outfits (with one exception) sent to the agents, and also on all those returned to the laboratory for renewal.

The exception noted is in the case of the water-collecting outfits. These consist of 1-gallon-bottles made to order with mushroom stoppers, and which are sent out properly boxed with full directions for collecting the sample of water, etc. It is a duplicate of the outfit used for this purpose by the Massachusetts Board of Health.

While the other outfits furnished by the laboratory may be obtained by any physician upon making appli-

cation to an agent, this one is only sent upon the request of local health-officers and the express charges are paid by the town, if the water to be examined is from the public supply, or by the party or parties interested, if the supply be a private one.

The cost of transportation of all outfits to this laboratory, excepting those already mentioned, is borne by the town or party sending the specimen.

DESCRIPTION OF THE OUTFITS.

The diphtheria-outfits are similar to those used by the New York City Municipal Health Department and some others, and consist of a wooden box with partition for holding two test-tubes, one containing the coagulated blood-serum and the other the sterilized cotton swab. It has been found necessary to renew the blood-serum in these tubes about once in four weeks. Suitable blanks for recording the data pertaining to the clinical history, etc., are enclosed in each box.

The typhoid-outfit consists of a "mailing box" containing a clean glass slide and two gummed slips, a tag envelope addressed to this laboratory, and a suitable blank. There are also two gummed slips put around the ends of the mailing case to keep the glass slide in place and protect it from dust.

The tuberculosis-outfit consists of a strong glass jar 3 inches tall, having a uniform diameter of $1\frac{1}{2}$ inches, without neck and having a thick bottom. The jars are furnished with the best quality of corks and each one is thoroughly sterilized after its receipt at the laboratory. A plain blank label is pasted on each jar. So far this outfit is modeled after that now used by the Health Department of New York City.

To convey this jar to and from the laboratory we had made some strong tin and board mailing-boxes having metallic screw caps, which have proved very satisfactory. A suitable blank accompanies this outfit.

The malaria-outfit consists of a small tin box containing four carefully cleaned square cover-glasses folded in a soft paper. A tag envelope addressed to the laboratory contains this box and also a suitable blank.

The typhoid fever and malaria-outfits may be sent by mail; the others not.

The blanks, accompanying the outfits, are printed on paper of different colors. Those for diphtheria are blue; typhoid, pink; tuberculosis, yellow; and malaria, orange. The employment of different colored paper for the blank-forms has been found exceedingly useful in preventing any confusion as to the nature of any particular blank without necessitating an actual inspection of the printed matter of the same.

The statistics of the work done are kept by the card-catalog system. The cards are kept in a cabinet, each drawer of which is labeled with the name of a county, also placed alphabetically. On the record-cards one side of the card contains the data derived from the blanks accompanying the specimens received at the laboratory, and on the reverse side is placed the facts determined by the laboratory investigation. Small tabs projecting from the top of the cards are marked respectively: "Diph.," "Typh.," "Tuberc.," etc.

Since the establishment of the laboratory in accordance with the provisions of the Act of the Legislature about 1,500 specimens have been examined and the number is rapidly increasing, as the citizens of the State realize the great usefulness and practical applicability of the institution.

On July next, commencing on the 10th and continuing for 4 days, the State Board of Health are to conduct a school of instruction for health-officers and members of local boards of health of this State, under the auspices of the laboratory at Burlington, Vt.

The scheme for this affair contemplates papers by well-known sanitarians from outside the State, as well as by members of the State Board of Health and local professional men. Various local health-officers have accepted invitations to discuss the different subjects, so that each paper will have very general criticism and review. The subjects to be presented include The Relation of the Public Health Laboratory to the Citizen; The Powers and Responsibilities of the Health Officers and Local Boards of Health; Public Water-Supplies and Sewerage, Including Drainage of the Farm; Sanitary Plumbing and House Drainage; Relation of Animal Diseases to Public Health; School-house Sanitation and Inspection of School-children; Isolation of Infectious Diseases; The Prevention of Diphtheria and Tuberculosis, Disinfection, Disinfectants and Quarantine; Adulterations and Dangers of Milk; The Menace of the Pig Pen in Country Towns; Water-Supplies and the Significance of Constituents as reported in the Chemical and Bacterial Analysis; and Discussion of the Widal-test for Typhoid Fever.

It is proposed to have daily demonstrations at the laboratory with the intention, to some extent, of familiarizing members of health-boards and others with the nature of the technical work done in public-health laboratories and demonstrating the really practical value of such work. In order to better to accomplish this result only a few persons at a time will be shown the demonstrations, so that each individual will be personally instructed.

There will also be exhibitions of proper and improper plumbing by means of glass pipes and rubber tubing arranged and in charge of a practical plumber. Colored water will be used as the circulating fluid, thus clearly demonstrating the movement of fluid in lines of plumbing. Disinfecting apparatus, filters, etc., will be shown and their use demonstrated. In short, it is hoped the meeting will prove a valuable stimulus to increased vigilance on the part of officers of health and a practical demonstration to all of the great value to the citizen and communities of the work of the public-health laboratory.

With her magnificently equipped laboratory and the inauguration of systematic public-health instruction Vermont proposes to be in the van in all matters pertaining to public hygiene.

Sarcoma of the Tongue.—Melchior Robert (*Revue de Chirurgie, April 10*), says that it is a comparatively rare affection, only 24 cases having been reported. Two forms are recognized, the ordinary interstitial variety and pedunculated sarcomas, of which only 4 cases have been reported, the one reported in this paper making the fifth. A woman 64 years of age was admitted to the hospital with a spherical tumor, the size of a large nut, situated 3 or 4 cm. from the end of the tongue, and attached to the tongue by a pedicle. The woman had been troubled with the growth for 2 months, having acute pain which increased progressively and was aggravated by the pressure of the teeth. During this time she had had difficulty in swallowing, and had lost flesh rapidly because of insufficient nutrition. The tumor was of a reddish-gray color, and there were several superficial ulcers which were discharging a bloody fluid. Excision of the pedicle was performed, and after the first few days the patient gained rapidly, and made a perfect recovery. On microscopic examination the growth was found to be a sarcoma. [M.B.T.]

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The celebration of the Fourth of July might appear to the illiterate and the uninformed as directed toward the destruction of life and property and the general discomfiture of the average American community. As though there were not enough unnecessary and avoidable noise the year through, the authorities in nearly all of the large cities of the United States and in many of the smaller ones sanction and seemingly encourage the discharge of detonating and conflagrating fireworks for the 24 hours from midnight July 3 to midnight July 4. Not a year passes that this mode of celebration is not attended with its quota of accidents, deaths, and fires. The inexperience and the enthusiasm of youth can scarcely longer be pleaded in extenuation of the barbarous practice. There are certainly other and better and more rational ways of manifesting patriotism, which consists in love of country and not in the infliction of pain and suffering on one's fellows, both sick and well, and in self-destruction.

Patriotism or Noise?—The Mayor of Philadelphia is to be praised for his effort to safeguard the nervous systems and lives of citizens, particularly of the sick, by his order in reference to the celebration of the Fourth of July. For something like a hundred years we have encouraged the young to think that patriotism means noise and that all celebrating is to be done by the most outrageous and nerve-shattering kinds that can be devised. This pestiferous stupidity has increased until for weeks prior and subsequent to "the day we desecrate" life in an American city for a weakened or humanly sensitive nervous system has become a torture to be escaped from at any cost. We hope the Mayor will succeed, if not this year then the next, in lessening this nuisance, and that other mayors and all really patriotic Americans will go and do likewise. The firecracker should no longer be allowed to ruin both patriotism and health.

The abolition of the term pseudo-tuberculosis, as virtually recommended by a committee of the Pathological Society of London, is a step in the right direction, whose extension to other conditions designated by the qualification "pseudo" is to be recommended. Counterfeit clinical conditions should not be given sanction, and the prefix "pseudo" might with advantage be eliminated from medical literature. A tubercle is, strictly speaking, a small swelling or nodule, and it has long been used in this sense, but with the discovery and isolation by Koch of the tubercle-bacillus and a knowledge of its pathogenic activity and pathologic manifestations, it became necessary to make a distinction between the specific lesion of this bacterium and the various nodules resulting from many other causes. To some of the latter conditions unfortunately the designation "pseudo-tuberculosis" has been applied, and it is now recommended that the use of this term be superseded by that of the terms "tubercle" and "tuberculosis" for the lesion and the disease respectively due to the tubercle-bacillus, and of the term "nodule" with the proper qualifications, such as glanders, aspergillar, syphilitic, etc., or merely glanders, aspergillosis, syphilis, etc., as descriptive of the respective lesions and conditions.

Tenement-House Reform.—None knows better than the physician the unhygienic character of the surroundings amid which, as a rule, the poor in large cities are compelled to live. It is therefore a matter of satisfaction to learn that the tenement-house committee of the New York Charity Organization Society has prepared and submitted to the Municipal Building Commission a series of ordinances relating to tenement-house construction, which, it is hoped, will promptly receive favorable consideration at the hands of the Municipal Assembly. The first ordinance suggested is aimed at "the dark, narrow, and unventilated air-shaft and the resulting damp, dark, unventilated rooms that open upon it," and provides that the shafts shall be not less than 6 feet wide in any part and have not less than 150 square feet in superficial area. The second provides that no tenement shall be more than 6 stories high; the third that the living-rooms shall have each at least 600 cubic feet of air-space; the fourth that there shall be at least one bathroom for every 20 families in every tenement, to which all tenants shall have access. A further ordinance provides that the walls of tenements shall be carried 3 feet 6 inches above the roof, so that the roof may be used as a playground. Still others provide against fire, and for escape in case of fire, and for light halls and rooms; and to increase the difficulty of evading the law. These propositions are all most practical, and so conservative withal, that here should be no delay or difficulty in their adoption.

Pseudoculture and Ruined Health.—Every intelligent physician has almost daily brought to his attention the disastrous results of overstudy in the young. We seem, as a people, to be utterly reckless of the plainest lessons of evolution and of physiology, which, if they prove anything, prove conclusively that sound health and enjoyable life depend, at least, upon a certain degree of muscular exercise and out-of-door life. In the young especially, play and physical activity are as natural as they are necessary conditions of normal growth. In the face of this, what is the trend of modern educational methods? Plainly, to sacrifice the body and its needs to a mental, or rather mnemonic, ideal, which, if it were either good or desirable, could not justify the physical ruination inevitably resultant. But when the educational ideal is far from good or desirable, we have the pitiable waste of both body and mind. We are delighted to see that, with increasing emphasis, physicians are warning the community against the fatal fashion. The first duty of a child, as Dr. W. Gill Wylie, of the New York Board of Education, pertinently says, is to grow. He wisely recommends that the amount of school-work required of girls between the ages of 11 and 15 should be much diminished. Pseudoculture, hysteria, and invalidism are not the best wedding-presents.

Emigration from Ireland—For years the cry in Ireland has been emigrate, emigrate. Strained political conditions, bad harvests, absentee landlords and corrupt local government have all had their share in causing the extraordinary exodus that has reduced the population of the country from 8,295,000 to 4,704,000 in 45 years. And now the medical students of Ireland, some of the most patriotic young men in the world, have begun to desert their country. At the last meeting of the General Medical Council the extraordinary drop in the receipts obtained from Irish fees caused the Council to ask the representatives of the various Irish colleges and corporations for an explanation, and the answer forthcoming was that Irish medical students have now begun to go to Scotland for their degrees and qualifications. A statement was made by Sir Christopher Nixon, representative on the Council of the Royal University of Ireland, to the effect that in Scotland the fees are lower and the examination easier, but this statement, which implied that the Scotch qualifications are cheap and nasty, was flatly contradicted by Dr. D. C. McVail, Scotch representative of the Crown. As a matter of fact many of the Irish fees *are* higher than the Scotch ones, but the discrepancy is not large enough to account for the exodus. Students are imitative people, and some Irish lads having set the example of qualifying in Scotland, others, no doubt, have followed them; but what started the emigration is difficult to say. The methods of teaching in Ireland have so long enjoyed high repute that it is difficult to believe that desire to obtain better tuition has influenced the Irish student. It behooves those responsible for Irish medical education to make close inquiry into the matter.

The utility of the antitoxin in the treatment of diphtheria is well illustrated by the statement made in the Annual Report of the Board of Health of the City and County of San Francisco for the year ending June 30, 1899, that, as a result of the free distribution of the antitoxin among those certified by the physicians in attendance as unable to procure it at their own expense, the statistics show a marked decrease in fatalities among those affected with diphtheria. The good accomplished is all the more impressive by reason of the fact that the majority of the cases were, as a rule, among the very poorest classes in the tenement-house districts, where the surroundings were almost invariably unfavorable, and in consequence almost every case was extremely severe. Among 144 cases thus treated there were 16 deaths, a mortality of 11.11%. These figures merely prove for California what has been proved in New York, and in Chicago, and in Europe, and wherever the antitoxin has been properly used, that this agent is capable of halving the former mortality from diphtheria, and they enforce the necessarily much-insisted-upon fact that if animal-experimentation had resulted in nothing more than the production of the antitoxin of diphtheria it has amply justified its practice. A handful of guineapigs weighs lightly in the balance when offset by thousands of human lives saved and much suffering averted.

The Use and the Abuse of Alcohol.—The question of the use and abuse of alcohol is as old as man himself, and while perhaps we have gained clearer conceptions concerning it, we are yet far from a solution of the problems involved. That alcohol is essential to the welfare of mankind will hardly be contended, but that it can be used wisely and well, even the extremists must allow. As an article of diet, it must be considered a luxury, while as a therapeutic agent it is in intelligent hands capable of performing well-recognized and well-defined functions. The mere fact that it has always been used in some form or other since time began, while not an infallible guide, is an index that it supplies some need of the race. Man in his modern not less than his primitive state has been influenced by instincts that have often proved to have a sound scientific basis, and it seems not likely that a practice such as the use of alcohol should have survived so long without some justification, screened from our ken though it be. Of the capability of alcohol for evil all well-informed persons know, and there need be no elaboration here. Most agencies for good are not incapable of harm and in proportionate degree. What the remedy shall be for the prevention of the abuse and

its injurious effects without sacrifice of the good is not of easy determination. Attempts at prohibition have been invariably attended with failure, while governmental control and the dispensary-system have yielded a measurable degree of success; but the one sure and permanent way of correcting the evil is by education of the people, by putting them in possession of a knowledge of the uses of alcohol properly employed and of its dangers and effects when abused. The question must be discussed upon scientific grounds and with tangible arguments. The offence is not sin but vice, and as such is not to be committed without physiologic penalty.

Cerebrospinal Meningitis.—Dr. Osler's admirable presentation of this subject in his recent Cavendish lecture (published in the last number of the Journal) accentuates if it does not solve some of the more urgent problems in this disease. The main questions, from Dr. Osler's standpoint, are pathologic ones. Unanimity seems to have been almost reached among bacteriologists, and the opinion prevails that the organism in the epidemic cases is the diplococcus intracellularis of Weichselbaum; the one partially dissenting voice being that of Netter, who does not deny this particular bacillus but claims that it is merely a degenerate form of the pneumococcus. Surely the modern doctrine of "degeneration" can go no further than this! Osler evidently does not assent to Netter's view; but is, nevertheless, strongly inclined to give great prominence to the role of the pneumococcus in causing a certain form of purulent meningitis. This pneumococcic meningitis may be either primary or secondary, the latter form following lobar pneumonia or focal suppuration in the nose or ears. The chief problem now awaiting solution is to determine the identity of the infecting agent in the sporadic cases of cerebrospinal meningitis. A great variety of bacilli and cocci have been found in purulent meningitis (both epidemic and sporadic), such as the diplococcus of Weichselbaum, the pneumococcus, the streptococcus, the staphylococcus, the colon-bacillus, the anthrax-bacillus, the tubercle-bacillus, and even some others of less-known significance. We are usually assured confidently by bacteriologists that some of these (as the streptococcus, staphylococcus, and colon-bacillus) are merely complicating organisms, and not the essential ones. To the mind of the nonbacteriologist, however, the reason for such confidence is not always clear, and the subject remains involved in considerable confusion. As the ground is cleared it may yet be found that sporadic cases are not all caused by one and the same organism; and such, we suspect, will yet be the solution. Clinicians and pathologists in the meantime should bear in mind the extreme importance of searching for any focus of primary infection, such as a circumscribed pneumonia, an endocarditis, or a suppurative bone-disease, especially in the nose or ears. Sporadic cases occur not infrequently in this city, and, if properly observed, might help to clear up an interesting question in pathology.

Dr. Osler refers, with cautious approval, to surgical intervention in cases of cerebrospinal meningitis—a subject which we criticised rather freely in this Journal a few weeks since. His own observation of two cases can scarcely convince him of the utility of laminectomy, for both patients died. In one of these patients extensive changes were found in the *cord* as well as in the membranes—a fact which goes to justify our criticism that the disease-process in purulent leptomeningitis is not confined to the subarachnoid sac, but may and does invade the medullary substance in both brain and cord; in other words, may be sub-pial; and in no case (even if purely subarachnoidal) could a thorough drainage *probably* be secured. Still, we will not condemn the operation without further trial.

Tincture of Fat-free Digitalis.—There has been much discussion upon the subject of the pharmacology of digitalis, and much disparity of opinion as to the activity of the drug. The difficulty is due in part to the obstacles that surround the separation of the numerous active principles and to the fact that some of these are soluble in water, while others are soluble in alcohol. It thus comes about that the tincture and the fluid extract on the one hand, and the infusion on the other, possess quite different physiologic activities. The drug differs further, in accordance with the period of gathering and in accordance with its source, the English leaves being generally considered superior to the German. It is a matter of common clinical observation that digitalis often causes so much gastric disturbance, sometimes with nausea and vomiting, that occasionally its use must be dispensed with. Although numerous substitutes have been suggested, none has yet been found capable of supplanting digitalis. The disagreeable effects referred to are noticed particularly after the use of the tincture. Believing them to be due, in part at least, to the fixed oil of the leaf and its free acid, Mr. Joseph W. England, chief druggist to the Philadelphia Hospital, some years ago undertook the preparation, by means of benzine exhaustion and spontaneous evaporation, of a fat-free tincture, and he details, in the July number of the *American Journal of Pharmacy*, some of the results of its use. The preparation was found to be not less efficacious than the official tincture, and free from its nauseating effects. Comparative observations appeared to show that when given either by the mouth or under the skin both the primary and the maximum effects were manifested earlier, and the pulse-reduction was slightly greater when the fat-free tincture was used than when the official tincture was used, while the duration of the effects was much the same in both instances. No especial difference in the time of absorp-

tion was observed between hypodermic injections and administration by the mouth, although the pulse-reduction appeared to be greater after hypodermic injection of the fat-free tincture, though not extending over any greater length of time. The hypodermic use of the fat-free tincture proved perfectly free from irritating properties in contrast with the official tincture.

Reviews.

The International Medical Annual and Practitioner's Index. A Work of Reference for Medical Practitioners. 8vo, pp. 758. New York: C. B. Treat & Co., 1898. Price, $3.00.

This is an interesting and comprehen-ive summary of the most important progress in medicine during the past year. It represents the analysis and condensation of 32 able collaborators dealing with as many subdivisions of the subject. The main portion of the work has to do with new remedies and new methods of treatment; practical x-ray work, and electrotherapeutics receiving special consideration. An atlas of the bacteria pathogenic in the human subject is a useful feature, as are also notes of American Legal Decisions and a brief section on Sanitary Science. Like good wine, the *Annual* improves with years. Its illustrations are well chosen and well executed.

War Correspondence (Hispano-American War). Letters from DR. NICHOLAS SENN, Chief Surgeon United States Volunteers, Chief of Operating Staff with the Army in the Field. Reprinted from the *Journal of the American Medical Association.* Pages 278. Chicago: American Medical Association Press, 1899.

This little volume contains a series of communications by Dr. Senn, beginning with his service in recruiting volunteers, and continuing throughout the period covering the important events of the Spanish-American War in Cuba. There are altogether twenty-one letters, which deal, among other things, with the subject of floating hospitals; the medical department of the army in the Cuban campaign; the qualifications and duties of the military surgeon; the invasion of Porto Rico from the medical standpoint; typhoid fever in the Porto Rican campaign; the wounded of the Porto Rican campaign; the frequency of cryptorchidism and its results; experiences in military surgery after the battle of Santiago; the surgery of Camp Wickoff; empyema in Camp Thomas; nurses and nursing in war, and relief societies. These letters are interesting and instructive, not only from a scientific, but also from a historic point of view, and their reproduction in the present form is to be commended.

Laboratory Work in Bacteriology. BY FREDERICK G. NOVY, Sc.D., M.D., Junior Professor of Hygiene and Physiological Chemistry, University of Michigan. Second edition, revised and enlarged. With frontispiece and 76 illustrations. 8vo, pp. 563. Ann Arbor: George Wahr, 1899. Price, $3.00 net.

This book is intended for the student and seems admirably to subserve the purpose for which it has been written. The arrangement of the subject-matter conforms closely to that followed in the Hygienic Laboratory of the University of Michigan. Those methods only are described that have withstood the test of practical experience. Many of the methods and some of the apparatus are original. Illustrations of bacteria and descriptions of cultural peculiarities have been omitted, inasmuch as the student is expected to learn these from personal observation. The work is divided into 15 chapters under the following headings: Form and classification of bacteria; size and structure of the bacterial cell; the life-history of bacteria; the environment of bacteria; the chemistry of bacteria; the microscope; the hanging drop; simple staining; gelatin and potato media, cultivation of bacteria; the nonpathogenic bacteria; bouillon, agar, milk, and modified media; the incubator and accessories; relation of bacteria to disease, methods of infection and examination; the pathogenic bacteria; yeasts, molds, and streptothrices; examination of water, soil and air; special methods of work.

Clinical Lectures. De ivered before the students of the Imperial Moscow University, by G. A. ZACHARIN, M.D., late Professor (Emeritus) of Clinical Medicine and Director of the Tnerapeutical Faculty of the Clinic of the Imperial Moscow University; Honorary Member of the Imperial Academy of Sciences of St. Petersburg. Translated from the fifth Russian edition, by ALEXANDER ROVINSKY, M.D., Member of the Massachusetts Medical Society. Pages xvi, 487. Boston: Damrell & Upham, 1899.

These lectures represent the expressions of a clinician who had exercised a profound influence upon medicine in Russia for more than thirty-five years. They consist not in a mere series of consecutive addresses, but in the important parts of a large number delivered at different times, and these are supplemented by a consideration of the importance of the clinic in medical education; of bloodletting; of the use of calomel; of syphilis of the lungs and of the heart; and of the treatment of fever. Among other subjects discussed are abdominal diseases and functional disturbances of the nervous system, with especial reference to the internal use of mineral waters; rheumatism and gout; diseases of the kidneys; forms of anemia; thoracic and infectious diseases; and cholera, with particular regard to treatment. In a separate section balneotherapy is discussed in a practical manner. The volume contains a good deal of useful information, presented in the colloquial style of the clinical lecture, and thus in an interesting and readable form.

A Textbook of Practical Obstetrics. By EGBERT H. GRANDIN, M.D., Gynecologist to the Columbus Hospital; Consulting Gynecologist to the French Hospital, etc., with the collaboration of GEORGE W. JARMAN, M.D., Gynecologist to the Cancer Hospital; Instructor in Gynecology in the Medical Department of the Columbus University; etc. Second edition, revised and enlarged. Illustrated with 64 full-page photographic plates, and 86 illustrations in the text. Philadelphia, New York, Chicago: The F. A. Davis Company, 1899.

In the preface to the second edition the authors state that they have made a thorough revision of the first edition, eliminating such portions as were subject to adverse criticism and adding considerable new matter in the hope that they might make it the leading exemplifier of practical obstetrics from the modern standpoint.

The book is arranged under four heads. Part I includes the diagnosis, differential diagnosis, duration, hygiene and pathology of pregnancy, and the diagnosis of the presentation and position of the fetus. Part II includes the mechanism, clinical course and management of normal and abnormal labor, and the care of the new-born infant. Part III treats of obstetric surgery, asepsis and antisepsis, dystocia and its determination, artificial abortion and the induction of premature labor, forceps, version, symphysiotomy, Cesarean section, embryotomy, surgery of the puerperium and ectopic gestation.

The book covers a large field, but concisely and as thoroughly as possible in the space allowed each subject. The presswork is excellent, but the illustrations are open to criticism. The photographic plate on page 67 is neither artistic nor instructive, and just why the authors, who have the privileges of six different hospitals, should have introduced into their somewhat ambitious book photographic plates of a manikin is to the average person unexplainable.

On the whole, however, we cordially recommend the book and feel sure it will prove a worthy addition to obstetric literature.

Correspondence.

THE TREATMENT OF COLLES' FRACTURE.

By EDWARD A. TRACY, M.D.,
of South Boston, Mass.

To the Editor of The Philadelphia Medical Journal:—

Pray give space for a few words on Colles' fracture. In a paper read before the surgical section of the American Medical Association, in Philadelphia, 1897 (published in the *Journal* of the Association, November 20, 1897), the treatment of Colles' fracture was thus formulated:

"*First*, reduction, not always easy; *second*, protection by a simple retentive appliance while correct reunition of the bone takes place; *third*, passive motion of the fingers and thumb from the first day, and of the wrist, carefully, from the fifth day."

I believe surgeons who treat Colles' fracture in this manner will agree with J. B. Roberts that this injury is "satifactory to treat." Surgeons who follow the textbook methods (except Moullin's—translated by the late J. B. Hamilton) will often enough have a result that should make them feel grateful that such a disease as rheumatoid arthritis exists.

GEOGRAPHY AND ETHICS.

To the Editor of The Philadelphia Medical Journal:—

We laymen hear a great deal from physicians about professional courtesy. It is difficult sometimes to induce a doctor to treat one's infirmities until he obtains the permission of his predecessor in the case. Beautiful perhaps in theory, this strained politeness seems often to the patient to be carried to ridiculous if not dangerous lengths.

It is apparent, however, that his professional courtesy, while it has its rules, boasts its exceptions also; and the exceptions seem to be as much without reason as the rules themselves. Why, for instance, when it is not allowable to treat the patient of another who resides in the same town, is it permissible to the city physician to leave his own practice in the hands of an assistant, and, combining business with pleasure, invade the bailiwick of his country brother, set himself up in some summer hotel and attempt to steal the short, rich harvest with thoughts of which his poor confrère has solaced his long midnight journeys over unbroken roads to the bedsides of the sick during the winter months? Or is it *not* permissible? and are those who did it guilty of unprofessional conduct which lowers them to the plane of the quacks who advertise through the newspapers rather than through their wives and daughters, who roam the hotel corridors and tell their suffering fellow guests how lucky they are to be taken ill just while Dr. —— is there for his well-earned vacation? W. B. McV.

SCHOOL HYGIENE.

By JOHN S. KIRKENDALL, M.D.,
of Ithaca, N. Y.

Resident Fellow of the New York Academy of Medicine; Ophthalmologist at Willard State Hospital for the Insane.

To the Editor of The Philadelphia Medical Journal:—

In your issue of January 21, 1899, page 116, there appears an article on "School Hygiene," which, it seems to me, contains many points for criticism as well as praise. First, careful, painstaking examination of 1,000 school-children in the city of Buffalo is truly a commendable work, and a step in the right direction, and the result obtained, as mentioned, is not surprising. But, may I ask, do enlightened ophthalmologists to-day consider myopia the only and great danger, a result of school-life?

I believe that myopia is better known of, and more known about, and is better controled than any other defect of vision, which is a result of higher civilization. Well-treated myopes are the best students in our schools in every way, as a rule, morally, physically, and mentally. Their close work is devoid of effort, and, when uncomplicated, they are attended without neurotic symptoms. They are always bright and ahead in their classes, simply because they have the best effect of civilization, and their education is acquired with a the minimum loss of nervous energy.

I concur with the author as regards correct light, proper desks, etc., but do not believe that myopia is the great bugbear to be dreaded compared with the astigmatisms and heterophorias causing neurasthenias, resulting in the broken-down constitutions and the tingeing of offspring with their hereditary tendency.

Myopia rarely passes undiscovered, but the many other errors of refraction which could be detected by a competent oculist are left uncorrected, as a result of which our land is filled with sanitariums and State hospitals for these neurasthenics.

An article appeared in *The Outlook*, February 29, 1896, in which the author had spent all his force on the myopic eye, and its readers, I fear, never construed it as below:—All children are born far-sighted or hypermetropic, adequate to meet the demands of uncivilized life, the natural environment of mankind, primarily. The evolution of the eye does not keep pace with the evolution of civilization, hence the manifold manifestations which are the result of this defect on the part of nature. Children are sent to school, forced to use their eyes for close work (convergence) when they were made for distant vision (parallelism), causing constant spasm of the ciliary and extrinsic muscles, with pressure upon this plastic eyeball, warping it out of shape, producing astigmatisms, heterophorias, anisometropias, and myopias, the last of which, I believe, is the best, if we want our children bright and less liable to nervous troubles. It is the only one that is discoverable by the teacher, hence is always cared for, and if by a competent oculist, relief is sure to come.

It would be as sensible, almost, to punish a myope to make him recognize figures upon a distant blackboard without glasses, as it is to punish any of the other ametropes and make them receive converging rays. There is no way of detecting these latter conditions except by skilled examinations, and when left uncorrected, the child is sure to suffer from nervous bankruptcy with its thousands of manifestations.

The statistics in this article show that at the end of village school-life in Germany, 2% were myopes. These 2% forge ahead, adding themselves to others whose eyes yielded in the same way, make the sum total in the primary schools of 7%, and they, forging ahead of the others and adding themselves to the next batch, swell this number in the grammar school to 10%. All this time many of the poor hyperopes and astigmatics, who have developed heterophorias with neuroses, have fallen in the wake, the fortunate myopes still leading, adding to their number the slow yielding ones, which

do not manifest themselves until college-life, making the sum total 20% to 26%, the same thing repeating itself, and we find in the universities that the myopes reach the great (bugbear) per cent. of 40 to 60.

Now, what does this all mean? It simply means that the poor (?) myopes who were able to see things at close range without effort, carry perfect pictures to the brain and deposit them, and were able and did remember them indefinitely, but the thousands of hyperopes and astigmatics saw every thing with the greatest effort, and if the eyes chanced to have a different refraction, the spasm of the ciliary muscles became extreme, the adjacent or extrinsic muscles pulling the eyes out of parallelism causing headaches, pain in back of neck and under shoulder-blades, carrying head to one side, thereby causing curvature of cervical spine, and, I believe, compensatory curve below, which is too often attributed to faulty desks. Chorea, and the many other manifestations of neurasthenia which are direct results of eyestrain, are due to the extreme push of our graded schools. If we must have higher civilization, or must use our eyes for convergence instead of parallelism for which they were made, why not change their construction by the adjustment of suitable or proper glasses at the onset of school life, with yearly changes thereafter if needed to meet this new demand upon the function of this organ, thereby removing the cause before the effects accumulate and become fixed or permanent. I repeat, if we must have civilization, uncomplicated myopia even of high degree is the best effect upon this one organ which is put to the greatest test, although it seems to have been the greatest bugbear of school-life.

Before leaving the subject, I must speak of our kindergarten schools, which, I believe, though at present very much modified, sow the seeds of much future nervous trouble. If the teachers of these little cherubs could have a spring and autumn term where they could teach nature-studies at a distance of 20 feet or more, not allowing convergence on the part of these yielding plastic eyeballs, many of the cases of acquired astigmatisms and anisometropias, as well as myopias, could be averted or nipped in the bud.

I am in favor of a competent oculist being appointed with a fixed salary to examine yearly the children of every public school of our civilized land.

COLD BATHING IN TYPHOID.

BY ROBERT EDES, M.D.,
of Boston, Mass.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

THE article by Dr. Woodruff on the Cold Bath in Tropical Fevers, having special reference to Typhoid in the Philippines, published in your issue of May 27, touches on several points which have an application much wider than even that interesting region. Contrasting the undoubted efficacy or even indispensableness of cold bathing as judged by himself and other experienced practitioners in the tropical climate of Manila, with the somewhat slighting estimate of it expressed in his quotation, where the cold plunge-bath is placed upon the one side and cold sponging upon the other, and noting also the great difference in the symptoms of the same disease as seen in the moderately warm and dry atmosphere of Montana and the perpetual dogday steambath and the moisture-saturated air of the Philippines, he emphasizes the importance and the reasonableness of a vigorous abstraction of heat from the hyperthermic body of the typhoid patient.

While admitting freely, that when we have to deal with diseases which have in themselves a strong natural tendency to recover, favorable statistics are to be received with a certain amount of reserve, yet it seems to me that their verdict in regard to some form of cold abstraction in severe typhoid and other fevers is almost as emphatic as it is in regard to vaccination for instance, the value of which still appears to a few minds unproved, although to most it is as conclusively proved as anything can be which is incapable of a mathematical demonstration.

The cold treatment—and for the sake of the generalization we may leave out the word "water"—is now accepted nearly over the civilized world as a part of the management of typhoid. Exactly how essential it is there is still some difference of opinion, but few would leave it out altogether from the treatment of severe cases seen in the early stages, in which this, like other methods, can do its best work. We know that nearly all the mild cases and a considerable proportion of the severe ones, if moderately well nursed, will recover without treatment directed especially to the pyrexia. What is left to antipyretic treatment then is increase of comfort and decrease of the length of the disease and of its mortality. This it seems to me that it is capable of accomplishing and has accomplished. It does not in the least interfere with the cleansing or disinfection of the intestines, with feeding or with stimulation, or indeed with any medication which may be thought to act more specifically upon the poison of the disease. How it may be in regard to some antitoxin yet to be discovered remains to be seen. It may of course be possible that such an antitoxin would require a febrile temperature for its development, but that is in the future. But my special interest in Dr. Woodruff's emphatic statement of the necessity for the cold sponge-bath lay to a considerable extent in the light which it throws upon the theory of the bath.

As originally used and explained by Jackson and Currie and later by Brand and his followers, nothing could be simpler than the reasoning in its favor, *i. e.*, if the body is too hot it is good practice to cool it.

But this does not satisfy all its advocates, and with the rise of modern theories of immunism and of the therapeutic function of hyperthermia they have felt it necessary to call in other and less well-defined activities, especially a tonic action on the nervous condition.

Now it seems to me that such observations as Dr. Woodruff's make an important addition to the previously well-known arguments in favor of the older and simpler theory, that the acknowledged advantages of cold bathing are largely due to the actual cooling of the body, that is a reduction of temperature in the great heat-forming viscera of the trunk and in the nervous centers. They go some distance in reconciling the discrepancies of observation and opinion as to the importance of this particular element, *i. e.*, of the cooling as distinguished from the stimulation.

Of course if we admit that fever is really a therapeutic agent, *i. e.*, if a high body-temperature is nature's means of destroying toxins and bacilli, it behooves us to be very careful how we counteract it; but even then we certainly have it forced upon our observation in many ways that too high a temperature, like many other therapeutic agencies applied in too intense a form, may be disastrous to the host as well as to the parasite, or kill the patient as well as the microbe.

Many observations, even up to the most recent, show the changes which may be produced in the functions of most essential organs by a rise of temperature unconnected with

any toxic influence, and if this is too great or too prolonged, the organic changes which may be found in muscles, or, most important of all, in the nervous centers.

The heart within certain limits beats more rapidly as temperature rises, but beyond a certain point undergoes a heat-paralysis. The ameboid movements of the white blood-corpuscles undergo similar changes showing the influence of heat upon pure protoplasm. Nerve-cells soon show structural changes both in fever and in artificial hyperpyrexia.

Thermic fever or sunstroke appears to be a pure paralysis of the heat-regulating centers, allowing an uncompensated accumulation of caloric in the interior of the body and, so far as is known, is dependent upon the ingestion of no external poison unless it be alcohol, which conduces to a much more easy paralysis of all the vasomotor arrangements, but is certainly not directly responsible for the more acute and dangerous symptoms. The fact that therapeutic interference with the rise of temperature is less necessary in warding off these pathologic consequences in some cases than in others is one of the reasons why some writers have underestimated its importance in all.

Dr. Woodruff's observations show that this is in part due to the varying extent in which nature can give her assistance under the various physical conditions to which the patients are subject.

Although the cooling of a homogeneous mass of matter is a simple thing, susceptible of exact measurement, it is not so with reference to the human body, in which the cooling is due to conduction, radiation, and evaporation of fluids from the cutaneous and mucous surfaces; in which all these processes are subject to the control of the nervous system, and in which an important part of this system—the heat-regulating apparatus—is either partly paralyzed, as in sunstroke and rheumatic hyperpyrexia, or merely set for a higher range, as in typhoid. The direct radiation of heat and the cooling by evaporation in the cooler and dry air of Montana may be entirely sufficient either alone or with the aid of cool sponging to keep the temperature within safe limits, while the greater heat and almost complete saturation of a tropical atmosphere render these two factors almost entirely inoperative, so that nothing but direct conduction in the cold bath is sufficient.

Still more emphasis is placed upon the difference between the cooling of an inert mass and of a complex mechanism by the statement of Dr. Woodruff as to the greater efficacy of the gradually cooled bath.

Some of the earlier apostles of the cold-bath treatment stated the relative efficacy in heat-withdrawal of the various forms of baths as follows: Cold plunge, 4. Gradually cooled, 3. Cold pack, 2. Cold sponging, 1.

It is obvious, of course, that these are mere rough approximations and, even at that, not applicable to all cases under all conditions.

The fact that cold applications to the skin may stimulate the production of an unknown and probably widely varying quantity of heat, while of course withdrawing a part of it, is very disturbing to all calculations, but it is highly probable, to say the least, that this action must be in proportion to the degree of cutaneous stimulation; and this stimulation depends more upon the sharpness of contrast and suddenness of change than upon the lowest degree of cold reached.

Thus it may easily happen that the gradually cooled bath, taking the heat-regulating apparatus as it were stealthily and unawares, may ultimately produce a greater reduction of the temperature of the whole body than the sudden plunge which rouses the skin to its physiologic function of protecting the interior of the body against a fall.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Dr. William H. Finn Exonerated.—Dr. William H. Finn, against whom a charge of criminal malpractice was recently made, has been completely exonerated. The prosecutrix was summoned before the grand jury, which body, after hearing her story, promptly ignored the bill. At no time of the proceedings was Dr. Finn heard, but he maintained that he had a complete defense against the charges.

Bradford County (Pa.) Medical Society.—The following is the program of the meeting to be held in the Court House, Towanda, July 11: Quarterly business meeting at 11 A.M. Headache as a symptom of eye diseases, by Dr. C. L. Stevens, of Athens; Headache as a symptom of renal diseases, by Dr. J. W. Chamberlain, of Wyalusing; Headache as a symptom of diseases of the alimentary canal, by Dr. A. S. Blair, of Ulster; Headache as a symptom of uterine and ovarian diseases, by Dr. I. R. Schoonmaker, of Sayre; the discussion to be opened by Dr. T. B. Johnson, of Towanda.

Franklin County (Pa.) Medical Society.—The annual summer outing and banquet was held on June 15 at Buena Vista Hotel on South Mountain. About thirty physicians and their wives and lady friends were in attendance. Papers were read by Drs. Thomas S. Cullen and J. C. Bloodgood, of Johns Hopkins' Hospital, Baltimore, Md.; Dr. Braden Kyle, of Philadelphia; J. E. Kempter, of St. Thomas, Franklin county, Pa. A banquet was served at 8 o'clock in the evening. Toasts were responded to by Drs. T. H. Weagley Marion, D. F. Unger, of Mercersburg; A. Barr Snively, of Waynesboro. Impromptu speeches were made by Drs. Cullen Bloodgood, of Baltimore, and J. O. Skinner, of Chambersburg, Pa.

Vital Statistics of Philadelphia for the week ending July 1, 1899:—

Total mortality		420
Children under 5 years of age		158
Diseases.	Cases.	Deaths.
Cholera infantum 36, gastroenteritis 16, cholera morbus 2		54
Pulmonary tuberculosis		45
Heart-disease 36, inflammation of the heart 4		40
Marasmus 17, inanition 16, debility 2		35
Apoplexy 16, paralysis 10, softening of the brain 2		28
Nephritis 20, uremia 8		28
Convulsions		18
Inflammation of the brain 16, congestion of the brain 3		19
Pneumonia 15, congestion of the lungs 1		16
Diphtheria 14, membranous croup 1		15
Carcinoma 14, tumor 1		15
Senility		13
Casualties 8, burns and scalds 5		13
Peritonitis		10
Typhoid fever	53	7
Scarlet fever	30	2
Cerebrospinal meningitis	1	1
Smallpox	11	0
Pertussis 6, suicide 5, cirrhosis of the liver 4, drowned 4, abscess 3, cyanosis 3, insanity 3, diabetes 2, bronchitis 2, appendicitis 2, teething 2, dropsy 1, dysentery 1, gastric fever 1, puerperal fever 1, hemorrhage 1, poisoning 1, tetanus 1.		

Pennsylvania State Live-Stock Sanitary Board.—At the meeting held June 29, it was arranged that $40,000 should be set aside for the purposes of the Board for the fiscal year beginning June 1. Dr. Leonard Pearson, State Veterinarian, reported that during the past year 1,000

cattle were condemned as tuberculous, and appraised at $25,519.66. Of this amount Montgomery County received $2,873.50; Chester County, $2,395.50; Washington County, $2,037; Bucks County, $1,252; Lycoming, $1,450; Dauphin, $1,112; Westmoreland, $1,100; Lebanon, $945, and York County, $952. Dr. Pearson reported a fresh outbreak of anthrax in Jefferson County and several outbreaks of rabies. The Board reorganized as follows: President, Governor Stone; vice-president, Professor John Hamilton, Secretary of Agriculture; treasurer, Major Levi Wells, Dairy and Food Commissioner; secretary, Dr. Pearson.

Pittsburg (Pa.) Academy of Medicine.—At a meeting held May 29, DR. THEODORE DILLER reported a case of **sudden recovery from a long-standing melancholia** in a woman of 34. The condition came on in 1891, when she was placed in an institution. She had delusions, was apathetic, and indifferent to surroundings, was not paralyzed, but did not walk. On May 16, 1898, went to bed as usual and the following morning all her previous symptoms had vanished. She has remained perfectly well ever since. The case illustrates the difficulty of prognosis in a given case. The tendency to dementia in melancholia is less than many other form of insanity. Dr. Diller also reported 2 cases of **cerebrospinal meningitis**. Councilman considers the meningococcus intracellularis the true cause of the disease, while Flexner believes that the micrococcus lanceolatus is frequently the causative agent. The epidemics of Lonaconing, Md., and Lancaster County, Pa., were referred to. In the latter there were 105 cases with 75 deaths. In the cases reported lumbar puncture was not resorted to, but he believed the diagnosis could be made from the suddenness of the onset, the severity of the headache, the erratic temperature, delirium alternating with stupor, and optic neuritis, In discussion DR. E. H. SMALL reported a case with symptoms somewhat resembling Dr. Diller's cases. The Widal reaction was present, but clinically the case did not resemble typhoid. DR. SINGLEY reported a case not typhoid in which a positive Widal reaction was reported. He stated that the dried-blood method, the only one commonly used outside of hospitals, does not give accurate results for the reason that it is practically impossible to regulate the degree of dilution.

DR. F. F. SIMPSON reported a case of **melancholia in a physician.** DR. WILLETS spoke of several cases of cerebrospinal meningitis and thought that the examination of the eye was of little diagnostic value. DR. HECKEL stated that as a rule the pupil is contracted in this disease. Diplopia is sometimes seen due to paralysis of one of the external recti muscles. Regarding the differentiation of such cases from syphilis, he thought that a frequent error was made in concluding that all symptoms subsequent to a history of specific infection, were due to syphilis. Because a patient has had syphilis it does not follow that he may not have other manifestations of disease. DR. E. H. SMALL related the case of a man admitted to the hospital in a stupor and who later died. Autopsy revealed a meningitis of brain and cord. Closing the discussion, Dr. Diller stated that he believed Dr. Small's first case was one of cerebrospinal meningitis. His second one brought to mind the old hospital question of a patient comatose upon admission—Is it alcoholism, opium-poisoning, uremia, or diabetic coma? To these we should add cerebrospinal meningitis. It is too true that we are prone to ascribe to syphilis any symptoms whatever if a specific history can be obtained. Optic neuritis is of no practical significance in the diagnosis of cerebrospinal meningitis except in so far as it denotes a gross intracranial lesion.

DR. F. F. SIMPSON read a paper on **Postoperative hyperemia and inflammation of the kidneys.** Acute toxic hyperemia and parenchymatous inflammation were presented for discussion, special reference being asked to these conditions resulting from the elimination of chloroform and ether (used for general anesthesia), and intensified and modified by the imperfect elimination of postoperative poisons. On the other hand, cases were cited illustrative of the fact that the removal of the underlying pathologic condition often relieves a preexisting nephritis.

Philadelphia Pediatric Society.—At a meeting held June 13 DR. L. C. PETER presented a patient, a boy 9 years old, of marked nervous temperament and antecedents, who for two years had been affected with **rumination.** At first the habit was voluntary, but later the food would be regurgitated without any effort on the boy's part; it would then be swallowed, to be again regurgitated, this going on for an hour until the acid reaction (due always to free hydrochloric acid) made the taste sour. Recovery ensued under the use of tonics, sedatives and suggestion. Conclusions are: (1) Rumination in children is a neurosis associated with idiocy and, as in adults, with a profoundly neurasthenic condition; (2) it is under the control of the will; (3) prognosis is good.

DR. PETER also presented a boy, 7 years of age, with typical **muscular pseudo-hypertrophy.** The muscles of the calves and thighs were much enlarged as were the supra- and infraspinatus; while those of the shoulder-group and of the arms were atrophied. No similar case has occurred in the family.

DR. J. C. GITTINGS and DR. C. F. JUDSON, in an article on **alveolar catarrh** in children, quote Douglas Powell, of London, who describes this condition as follows: Proliferation of alveolar epithelium and an infiltration with leukocytes blocking the alveoli, ending in resolution or proceeding to distinctive and permanent changes in the lung-structure. Five cases of alveolar catarrh are reported. The symptoms in brief are as follows: Malaise, irregular fever, slight loss in weight, and at the apex of the lung increased vocal resonance and tactile fremitus, impaired or dull percussion note, prolonged and harsh expiration, sometimes bronchial in type, and fine moist rales. The process is distinctly localized, running a subacute or chronic course and ending in resolution. It is differentiated from bronchopneumonia on the one hand, by its course and localization, not originating from a general bronchitis, and from a tuberculous process by the absence of sweats, hemoptysis, or marked loss in weight, and by the favorable termination in a few weeks or months, apart from any change in hygiene or climate. It is inferred that alveolar catarrh may originate and run its course without the agency of the tubercle-bacillus, that it offers a suitable nidus for the reception and growth of tubercle-bacilli; and that its recognition as a clinical entity is warranted by the above clinical signs. The importance of alveolar catarrh lies in its relation to preventive medicine.

DR. ALBERT WOLDERT, by invitation, presented a case of **urticaria pigmentosa** following chickenpox. The patient, a child 11 months of age, had enjoyed good health until 3 months of age, when he suffered from an attack of varicella. About two weeks after recovery the mother observed some small reddish blotches on the chest anteriorly. A week later similar blotches appeared on the abdomen; a few days later upon the thigh and later upon the anterior surface of legs. About a week after the development of the rash upon the abdomen spots were also seen upon the neck posteriorly; a few days later upon the dorsal region of the chest, and afterwards upon the posterior surface of the legs. The first appearance of the rash was in reddish blotches (not elevated), remaining red for a period of about one week when they changed to a light brownish tint, salmon or fawn color, and after persisting for eight months may be observed at this time. The rash is uniform and consists of macules, maculo-papules or wheals with a marked tendency to become confluent. In this case itching is not a distressing symptom. The special features of the case seem to be its rapidity of onset, that itching is not prominent, and the marked tendency of the rash to become confluent. Cases have been reported by Morrow, Fox, Stelwagon, and others. All told, about 60 cases have been reported.

DR. T. P. TWADDELL reported a case of **Henoch's purpura.**

DR. C. F. STRETCH exhibited a boy of 13 months who had been brought to the dispensary with **scorbutic symptoms** consisting of pain on movement or handling of the

legs, a petechial eruption, peevishness, and fever. The gums were not spongy nor bleeding. For the five months previous the child had been fed on an artificial food mixed with water, but with no milk, and the symptoms had been developing for a month. A change to cow's milk and orange-juice effected a speedy recovery.

NEW YORK.

New York State Laboratory for the Study of Carcinoma.—Dr. H. R. Gaylord has been appointed director of the laboratory, which is situated in Buffalo.

Yellow-Fever Serum.—Some popular interest has been aroused by the announcement made in the daily newspapers by Quarantine Officer Dr. Alvah H. Doty, of the discovery of a serum which is prophylactic and possibly a curative of yellow fever. So far the announcement has been confined to the lay-press, but it is said that the discovery will shortly receive preliminary announcement in one of the medical weeklies and will be followed up in the *Journal of Experimental Medicine*. Dr. Doty's first statement was that the Quarantine establishment had been prosecuting experiments with the bacilli found in several cases of yellow fever which were under treatment on Swinburne Island in 1897. The actual work was done by Dr. C. B. Fitzpatrick, an assistant bacteriologist of the City Department of Health. Cultures were made of the germ found in the yellow-fever cases on Swinburne Island, and a serum developed by use on horses. Dr. Fitzpatrick feels convinced that he has succeeded in isolating the same germ and antitoxin as that found by Sanarelli in Montevideo to which the name antiamarillic serum has been given. According to Dr. Fitzpatrick's statement the germ is to be known as bacillus icteroides, but it is scarcely to be distinguished from bacillus coli communis, which it greatly resembles in the aspect under the microscope and its acceptance of the staining. In fact, according to this investigator, it would not have been considered anything but the bacillus coli communis had it not been for its marked presence in cases distinctively under the poison of yellow fever. As is commonly the case, the lay-press was impressed by the authority of the Quarantine Officer who announced this discovery and published the news at once as the discovery of a new and valuable remedy. With a single exception all the papers were enthusiastic on the subject and heralded the new discovery. One of the evening papers conducted independent investigation and with medical advice prepared an article on the subject. In this it was shown that the discovery was by no means new, that at best it amounted to no more than a repetition in New York of the work done two years ago by Sanarelli in Uruguay, and that it was by no means certain that the serum had value in yellow fever.

Opticians Protest.—The Optical Society of the State of New York met in executive session on Tuesday, June 27, at the Fifth Avenue Hotel. The principal object of the meeting was to perfect the affiliation of the various local societies throughout the State into a general State body, the principal affiliating societies being those of New York City, Syracuse, Rochester, and Buffalo. At the same time there was a warm discussion of the recent action of the American Medical Association at the Columbus meeting (published in the Journal) and of the American Institute of Homeopathy at Atlantic City. The Columbus resolution was introduced by Dr. J. L. Lautenbach, of Philadelphia, and is to the following effect:

"*Resolved*, That it is the opinion of the American Medical Association that opticians are not qualified by their training nor are they legally qualified to perform the work of the oculist, and they should not be the consultants of regular physicians. Further, it is resolved that all physicians are requested to call their brother physicians in consultation, thus discountenancing the growing pretences or assurances of the optician and his brother, the graduate optician, or, as he is beginning now to call himself, the 'ophthalmotrician.'"

The resolution of the optical society reads that "The society views with regret the unprofessional and unscientific attitude of those medical societies in adjacent States who are led by designing eye-specialists to adopt resolutions tending toward the estrangement of opticians and physicians. This society believes that the honorable occupation of an optician entitles him to the same courteous consideration at the hands of medical men as that now accorded to those following dentistry and other mechanico-scientific callings." While the Optical Society took this action in relation to the limitation of their trade at the upper end, no consideration was given to the encroachments at the lower limit, where the greater amount of harm accrues to the users of aids to vision. Of 8 department stores in New York chosen at random in the busiest retail shopping-district, 6 conduct an optical department, 3 of which advertise the services of graduate opticians. At any of the 6 establishments spectacles may be bought over the counter at the choice of the customer, one number after another being tried until a fit is found. Practically the only difference between the stores which have opticians and those which have not is to be found in the presence on the counter of more or less imposing mechanical test appliances which are seldom used. The glasses most commonly sold are those for simple myopia or simple presbyopia. Cases of astigmatism by itself or complicated with lens-deformity are met with the statement that the stock of that kind of glass has just been sold out and a cautious recommendation to some eye-clinic. On the day that the Optical Society was protesting against the action of the medical societies an actual count along four blocks of Fulton Street and the two adjacent blocks on Broadway, showed 9 venders of glasses whose stock was carried in barrows or boxes slung by a strap around the neck. These venders carried only a single line of glasses, those for "old sight." A tenth vender was omitted from the count because he dealt only in smoked and tinted glasses without refracting qualities.

NEW ENGLAND.

Yale Medical School.—Dr. Charles S. Minot, of Harvard University, delivered the annual address, June 27, his subject being: Knowledge and Practice.

Another Bequest to Harvard University.—The will of the late Dr. Calvin Ellis brings to the Harvard Medical School the handsome gift of $400,000. By the terms of the will the bequest must be used for the benefit of the departments of anatomy, physiology and pathology. Dr. Ellis was dean of the Harvard medical school for many years and long a professor. He was always dissatisfied with the salaries of the professors in anatomy, physiology and pathology. His bequest now raises them to $5,000 a year, and he stipulates that when this limit is reached the remaining income shall be divided among these departments.

Harvard University Hospital.—The liberal bequest of James Stillman, of New York, to Harvard University is to be applied to the erection of a hospital, which it is expected will be ready for occupancy early in the fall. The site chosen is near that of the Cambridge Hospital, and commands a

broad view of the Charles River. The building will be known as Stillman Hall. It will consist of three buildings closely joined together, with room for enlargement as may be necessary. The administration building will have three stories, the first containing the offices, reception-room, and dining-room, and the other two divided between single rooms and large wards. The first and second floors of the rear buildings will be given to patients, and the third floors to nurses and servants. The basement will contain the heating and ventilating apparatus, laundry, laboratory, cold-storage rooms, etc. Students who are able to pay for medical care will do so, and may have their own physicians; others will be treated by the medical visitor. Not only the actually sick, but those suffering from overexertion, or overwork, may find a temporary home there. Mr. Stillman defrays the cost of the land and the building, and guarantees the expenses for four years.

Harvard Alumni Association. — Major-General Leonard Wood, U. S. V., was the guest of honor at the annual banquet of Harvard Alumni Association, June 27. His fellow guests were President, Eliot of Harvard University, Dr. Edward H. Bradford and Dr. Herbert L. Purrell, of Boston. A body of naval surgeons was present, including Dr. Geo. F. Winslow, medical director of the Charlestown Navy Yard; Dr. J. G. Ayer, of the Naval Hospital at Chelsea; Dr. J. G. Gatenood, U. S. N., U. S. S. Lancaster; Dr. G. Rothganger, surgeon of the Marietta, and Dr. C. A. Crawford, surgeon of the Wabash. Referring to the profession as he had seen it in Cuba, Gen. Wood said: "I have had the good fortune during the past few months to see something of the men of the medical profession. I did not see a coward among them, or a man shirking his duty during the yellow-fever epidemic, or in the hospitals of the province. It was only the other day I received a letter from a young medical house-officer who said he hoped he would not have yellow fever. He volunteered, however, to take charge of some cases, and died within 48 hours. The medical profession of Cuba are taking hold of the work and are helping us all they can."

Dr. E. H. Bradford in his remarks complimented General Wood as a student of promise, and said he was one of the best house-officers he ever had. "I only wish I had the ear of President McKinley," he said, "to inform him that Gen. Leonard Wood can be trusted in any emergency."

CHICAGO AND WESTERN STATES.

The Lane Lectures of the Cooper Medical School, San Francisco, which were founded by the late Dr. C. L. Lane, are being delivered this year by Dr. Nicholas Senn, of Chicago, the following being the subjects: June 28, Introductory; June 28, Traumatic Shock; June 29, Prophylactic Hemostasis; June 29, Treatment of Hemorrhage; June 30, Treatment of Hemorrhage; June 30, Gunshot Wounds; July 1, Wound Infection; July 1, Treatment of Wounds; July 3, Compound Fractures; July 3, Technic of Modern Amputations.

Sanitation in Cleveland, Ohio.—The Cleveland City Council on June 19, 1899, passed an ordinance, introduced by Dr. George C. Ashmun, "to prevent and limit the spread of certain dangerous infectious diseases in and by street cars." The first section provides: "That any person or persons, while riding in or upon any street car within the city, who shall spit, expectorate or in any way deposit upon the floor, seats, or other parts of any street car in use for transporting passengers any secretion, excretion, or discharge from the lungs, throat, mouth or nose shall be deemed guilty of a misdemeanor." Section 2 provides a penalty for each offense of a fine of not less than $1.00 or more than $10.00 with costs of prosecution. The third section put the ordinance in force as soon as it was enacted. It is hoped that in addition to ridding the street cars of that intolerable and disgusting nuisance, the American expectorator, this legislation will have an educating influence upon the public in regard to the care necessary to avoid the needless spread of infectious diseases.

Cincinnati Academy of Medicine.—At the meeting held June 19, DR. M. A. BROWN demonstrated two blood-specimens, illustrating **mixed malarial infection.** Intercorpuscular crescents and the ordinary tertian parasite were both present, and the patient had symptoms characteristic of both the tertian and estivo-autumnal forms of the disease. DR. P. S. CONNER gave a detailed description of **wounds made by modern bullets.** The old bullets were heavy, round, slow, and their effect was of a *smashing* nature. The modern bullets are long, thin, pointed, light, and have a high velocity; their effect is *perforating*. At a range of, say 1000 yards or more, the modern bullet, however, has no greater momentum than the old.

The "smashing" effect of the old bullet was enormous; the wound of entry was often small, but the wound of exit was usually very large. The tissues about the wound of entry were violently contused, and often became gangrenous. Suppuration was rendered almost certain by the devitalizing influence of the large, heavy missile. The modern bullet may make a large or a small wound of entry, but the wound of exit is never as large as that of the old bullet. The modern bullet devitalizes the tissues little or not at all, so that healing is rapid and suppuration and gangrene very rare. The old bullets exerted what was termed an "explosive" effect on the soft, solid organs, *e. g.*, the brain, and did an enormous and extensive damage; they scarcely ever "lodged." The modern bullet, contrary to all expectations, "lodged" in the body in a surprisingly large proportion of cases. Reports are at variance, but some give the proportion of lodged bullets as high as 30%. This was not due to poor powder of the Spaniards, for this was tested and found to be as good as American powder. In some cases the lodging may be explained by the fact that the bullets had first struck some intervening substance, such as twigs, tree-trunks, rocks, etc. Dr. Nancrede offers the real reason, viz., that after a long range the new bullets rapidly lose their momentum and consequently their perforating power.

Deflection of the bullets after entering the body was reported as not uncommon, and in certain cases the bullet had not struck "end on," but had twisted or turned in transit.

Regarding the fatality of modern wounds, this is notoriously low. Perforation of a joint or of the abdominal cavity, instead of being an indication for, is in reality a contra-indication to, operation. The knee-joint was perforated 20 times during the Cuban campaign. All these cases recovered without operation.

Flesh-wounds healed with amazing rapidity. The "first-aid package" proved itself immensely valuable. Suppuration was very scarce.

The Cleveland (Ohio) Medical Society met in quarterly special meeting on June 23, and listened to an address by DR. JOHN B. DEAVER, of Philadelphia. Dr. Deaver spoke on **Intestinal obstruction following abdominal section either immediately or remotely.** He prefaced his remarks by detailing the histories of 8 selected cases that illustrated his text. Intestinal obstruction following operation is due either to paresis, the result of sepsis or traumatism, or to mechanic causes. The latter form causes 2% of deaths after abdominal section, and wherever suspected to exist indicates invariably immediate reopening of the abdominal cavity to free the adhesions. Most commonly the

ntestine is adherent to a fixed surface that has been denuded of its peritoneum. Peristalsis then causes kinking and obstruction. Two coils of bowel may adhere, in which case obstruction is often due to bending over the pelvic brim or the edge of an adherent omentum. Rarely bands of adhesions may be found running in various directions, and occasionally a portion of bowel has been included in a ligature. Postoperative paresis or septic peritonitis are the only conditions with which mechanic obstruction can be confused. The latter may be distinguished by its more sudden onset, by the absolute constipation with inability to pass flatus, the late occurrence of vomiting, the lack of correspondence of temperature and pulse with the evident gravity of the case and the absence of all septic symptoms. Cases of acute abdominal pain, with absolute constipation and nausea, following an abdominal operation even if at some interval demand immediate incision. As to preventing the formation of adhesions an early operation in a case in which it is indicated has decided advantages over a late one. Operation should be expeditious, the viscera should be handled as little as possible, and air should be kept out of the abdominal cavity as much as possible. After symptoms of mechanic obstruction have continued for 24 hours the results of secondary operation are not favorable. In these cases, of course, appendicitis must always be thought of as perhaps owing to the frequent ill-advised use of opium, it is more often called intestinal obstruction than any other intraabdominal ailment. All stumps should have peritoneum drawn over the raw surface, and the peritoneum should not be injured with irritating solutions.

In the discussion that followed DR. C. A. HAMANN noted the occurrence of obstruction from the ring of constriction left after an operation for strangulated hernia. This ring frequently sloughs, adhesions form and obstruction results. Such cases have rise of temperature for some time following operation. DR. A. F. HOUSE asked whether the dry or the wet aseptic method of abdominal operation was most likely to be followed by formation of adhesion. DR. HUNTER ROBB remarked that septic infection was most common cause of obstruction. He thoroughly cauterizes all pedicles and stumps before returning them to the abdomen, and thinks that has some influence in preventing the formation of adhesion. In every case he places 300 to 500 cc. of salt-solution in the abdominal cavity before closing up and thinks that also has a beneficial effect in this respect. DR. F. E. BUNTS expressed surprise at the fact of obstruction occurring so late (even several years) after operation. He commended the speaker for maintaining that the surgeon should refuse to operate in any case which has passed into the hopeless stage, and thought all surgeons should pay more attention to this point. He could not see how the placing of a small amount of saline solution in the abdomen could have any effect in preventing the formation of adhesions, as it is all absorbed in a very few hours. DR. W. H. HUMISTON said he either covered all stumps and denuded spots with peritoneum, or if time for this was lacking he cauterized with a 95% solution of carbolic acid. In his experience packing with iodoform gauze had had unfavorable results. DR. DUDLEY P. ALLEN said his experience with obstruction due to mechanic causes was very limited, the septic form being much more common. He did not favor immediate interference unless the obstruction was certainly absolute, as he had seen cases of partial obstruction recover under small doses of opium with rectal feeding. Cathartics aggravate the condition. Ordinarily he used nothing in the abdominal cavity when operating and did not think this favored adhesions. If he used anything it had been sterile water. He agreed with the speaker that it was important to handle the intestines as little as possible and to be expeditious. DR. M. ROSENWASSER had had little experience in these cases. Where the mechanic obstruction was not complete tentative measures sufficed as a rule, but when it was complete early operation was imperative. DR. DEAVER in closing said he had had no experience with the cautery in abdominal work. He thought dry gauze in contact with the peritoneum more likely to disturb the endothelium than wet gauze. Undoubtedly where only partial obstruction existed the surgeon might delay incision, give very small doses of opium, and feed by the rectum. It is often difficult at once to distinguish the complete from the incomplete obstruction and in such a case he would advise immediate incision.

SOUTHERN STATES.

College of Physicians and Surgeons, Baltimore, Md.—Dr. E. N. Brush, superintendent of the Sheppard and Enoch Pratt Hospital, has been elected professor of mental diseases.

Medical Association of Georgia.—Resolutions respecting the rank of the Surgeon-General, U. S. Army. The following resolutions were unanimously adopted by the Medical Association of Georgia at the annual meeting held in Macon, April 19 to 21:

WHEREAS, The position of the Surgeon-General of the United States Army involves great and grave responsibility, the direction of vast interest, the highest order of professional skill and learning and executive ability, and

WHEREAS, The number of officers and soldiers under the direction of the Surgeon-General in an army organized as is the Army of the United States is greater than the command of a division commander,

Be it Resolved, By the Medical Association of Georgia, That it is the sense of this body that the Surgeon-General of the Army should have the rank, pay and allowances of a Major-General.

Resolved, That the Medical Association of Georgia requests all the Medical Societies of the United States to join in this appeal.

Resolved, By the Medical Association of Georgia, that copies of these resolutions be transmitted to the President of the United States, the Honorable Secretary of War, and our Senators and Representatives in Congress with the request that all cooperate in attaining the end sought; and further that copies be also sent to the American Medical Association, and all other Medical Societies in the United States with the request that they join in this memorial to Congress and urge prompt action upon this subject by our National legislative authorities.

Orleans Parish (La.) Medical Society.—At a meeting held June 10, DR. DYER related his experience with **Calmette's antivenomous serum in leprosy.** He stated that in 1893, Carreau, of Jamaica, reported the case of a leper who had been bitten by a snake. The wound healed in eight weeks and the lesions of leprosy had entirely disappeared. Dr. Dyer then concluded to make a therapeutic use of the antivenomous serum in leprosy. He mentioned that the *New Orleans Medical and Surgical Journal*, of October, 1897, contains his article, which was read at the same time at the International Leprosy Congress in Berlin, giving a detailed account of his five cases thus treated. The serum used came from Prof. Calmette's laboratory at Lille. Two cases are apparently cured; they both have occupation, and no recurrence whatever has ever been noticed. In two other cases he had good results but no cure; the patients, through fear of publicity, did not submit themselves regularly to the treatment. In these cases Carreau's suggestion of administering potassium chlorate was followed. As high as 330 grains were administered daily, but as good results were subsequently obtained by giving 10 to 30 grains 3 or 4 times per diem. The potassium chlorate probably acts by liberating oxygen, increasing red blood-corpuscles, and tissue-resistance against the bacillus. The serum is still in use and further reports will be given. DR. DABNEY spoke of several dogs fatally bitten by rattlesnakes. He cited the case of an Indian who would saturate himself with whisky and allow himself to be bitten by a rattlesnake. This happened once too often and ended fatally, the venom having no doubt been directly introduced into a vein. The best antidote for snake-bite is large quantities of whisky or brandy.

DR. STORCK stated that he had read that only one in ten cases of rattlesnake-bite was fatal. Physalix had used the serum of eel, decoction of mushrooms and fish's blood with equally good results. DR. FRAZER, of Edinburgh, administered internally the bile of serpents as a protective and prophylactic. The more venomous the serpent furnishing the bile, the lesser the quantity of bile to be used. DR. WATKINS extolled the use of infusion of ipecac in dysentery, the bruised root, 1 to 2 drams to ½ pint of water and used as an enema; it acts as a sedative and produces copious evacuations.

DR. C. J. MILLER related the case of a multipara (colored), 40 years old, on whom he had peformed **abdominal hysterectomy for uterine fibroid** and found also an ovarian fibroid; the latter is infrequent and the coexistence quite

rare. Dr. Miller also related a case of **vulvar epithelioma** (diagnosed microscopically) in a colored woman, 23 years old, originating in the fourchette (usually the clitoris), involving both labia majora. The diseased tissue was excised, necessitating a plastic operation. Special attention was called to the age of the patient.

MISCELLANY.

Leper Colony in Cuba.—The San Lazaro Leper Hospital now contains 370 inmates. Energetic measures are being taken to gather all afflicted with the disease who remain outside. Under the old management inmates were allowed to come and go about as they pleased. Present conditions are a wonderful improvement. Everything is clean, the sanitary arrangements are excellent, and the inmates are well fed. The steady increase in numbers has led Senor Capote, Secretary of Government, to ask General Brooke to appropriate $2,000 to enable a continuation of the work, which is in charge of the Sisters of Charity.

Obituary.—DR. HENRY G. W. SPENCER, Watertown, N.Y., in Minneapolis, June 27, aged 78 years.—DR. FREDERICK W. FABRICIUS, acting assistant surgeon, U. S. Army, at Santiago, Cuba, of yellow fever, June 25.—DR. ALEXANDER H. ROBERTSON, Sherwood, Md., June 25.—DR. JAMES O'REILLY, New York, June 26, aged 71 years.—DR. WESLEY C. EARL, Buffalo, N. Y., June 19, aged 64 years.—DR. S. H. KEYS, Monongahela, Pa., June 24, aged 40 years.—DR. D. C. STRONG, Chetek, Wis., June 20, aged 73 years.—DR. JOHN ISHAM, Louisville, Ky., June 22, aged 40 years.—DR. A. G. MCCONKEY, Modesta, Ill., June 13, aged 28 years.—DR. FRANCIS J. FELLA, Toledo, O., June 17.—DR. HENRY S. MCELMURRAY, Charleston, Mo., June 16, aged 28 years.—DR. FRANCIS E. NOBLE, Jersey City, N. J., June 29, aged 65 years.

Health-Reports.—The following cases of smallpox, yellow fever, cholera, plague and leprosy were reported to the Surgeon-General of the U. S. Marine-Hospital Service, during the week ended July 1, 1899:

SMALLPOX—UNITED STATES.

			Cases.	Deaths.
INDIANA:	Evansville	June 10–17	1	
KANSAS:	Kansas City	June 16–23	2	
LOUISIANA:	New Orleans	June 10–17	1	
MASSACHUS'TS:	Boston	June 24	2	
"	Fall River	June 21	Total to date, 34 cases.	
MINNESOTA:	Appleton	June 16	To date, 12 cases.	
"	Worthington	June 16	5	
MISSOURI:	Farmington	June 19	Reported.	
"	St. Joseph	Oct. 26–April 29	56	1
"	St. Louis	June 19	9	
NEBRASKA:	Omaha	June 10–17	2	
NEW YORK:	New York	June 17–24		2
PENNSYLV'NIA:	Philadelphia	June 24	2	
"	Pittsburg	June 10–17	1	
PORTO RICO:	Ponce	June 10	1	
OHIO:	Cleveland	June 3–17	13	1
"	Columbus	June 16–23	1	
"	Massillon	June 17	1	
SOUTH CAROLINA:	Greenville	June 10–17	1	
VIRGINIA:	Newport News	June 24	683	14
"	Norfolk	June 22	822	14
"	Portsmouth	June 22	344	5
WASHINGTON:	Spokane	June 17	4	

SMALLPOX—FOREIGN.

			Cases.	Deaths.
BELGIUM:	Antwerp	June 3–10	3	1
BRAZIL:	Rio de Janeiro	May 5–19	60	20
CUBA:	Nuevitas	June 16	1	
EGYPT:	Cairo	May 22–June 3		4
ENGLAND:	London	June 3–10	1	1
GREECE:	Athens	June 3–10	18	7
INDIA:	Bombay	May 23–30		9
"	Madras	May 13–26		3
RUSSIA:	Moscow	May 27–June 3	34	7
"	Odessa	June 3–10	6	3
"	St. Petersburg	May 27–June 3	25	5
"	Warsaw	May 27–June 3		1
SCOTLAND:	Glasgow	June 3–10	1	
TURKEY:	Smyrna	June 3–10		1

YELLOW FEVER—FOREIGN.

BRAZIL:	Rio de Janeiro	May 6–19	34	17
CUBA:	Habana	June 8–15		1
MATANZAS:	Matanzas	June 20	1	
"	Santiago	From outbreak to June 26, 35 cases, 11 deaths. All but 4 were among troops.		
MEXICO:	Tampico	June 3–9	2	
"	Vera Cruz	June 8–22		79

CHOLERA.

INDIA:	Bombay	May 23–30		2
"	Madras	May 20–26		5

PLAGUE.

INDIA:	Bombay	May 23–30		124
"	Madras	May 20–26		1
PERSIA:	Bunshir	June 8	1	

LEPROSY.

TEXAS:	Eagle Pass	June 30	1	

Changes in the Medical Corps of the U. S. Army.

QUINTON, Captain WILLIAM W., assistant surgeon, will proceed to Camp Young, Guanajay, Cuba, for duty at that camp.

WILSON, Captain WILLIAM H., assistant surgeon, will proceed to the Presidio for duty at the camp of recruits.

FAUNTLEROY, First Lieutenant POWELL C., assistant surgeon, will proceed to the Philippine Islands on the transport "Sheridan," to sail June 22.

BLAKE, JOHN C., hospital steward, will report to the commanding officer of the two light batteries, Seventh Artillery, for duty with that command en route to the United States. Upon arrival there he will avail himself of one month's furlough, with permission to apply for an extension of two months.

ACKLIN, MURRAY, hospital steward, will report to the commanding officer of the two light batteries, Seventh artillery, for duty with that command en route for the United States. Upon arrival there he will avail himself of two months' furlough, with permission to apply for an extension of two months.

GREENLEAF, Colonel CHARLES R., acting assistant surgeon, is announced as sanitary inspector of the camps of the returning volunteers.

JONES, EDWARD, hospital steward, is transferred from Fort Myer to Fort Brady to relieve Hospital Steward SAMUEL H. LEOPOLD.

LEOPOLD, SAMUEL H., hospital steward, will be transferred from Fort Brady to San Francisco for assignment to duty.

TWIGG, ASHFORD, hospital steward, Fort Douglas, will be sent to Presidio. He will report to the commanding officer of the Twenty-fourth Infantry for duty with the hospital-corps detachment of that regiment which is to take station in the Philippine Islands.

GLENNAN, Captain JAMES D., assistant surgeon, leave granted for 7 days is extended 5 days.

MCGLOIN, PATRICK, hospital steward, U. S. Army hospital ship "Missouri," will be sent about July 1 to San Francisco, Cal., for assignment to duty.

SHILLOCK, Captain PAUL, assistant surgeon, so much of a former order as directs that he be relieved from duty at Fort Grant, on the arrival at that post of Major EDWIN F. GARDNER, surgeon, is so amended as to relieve him from duty at Fort Grant at once, and to direct him to report to the commanding general, department of California, San Francisco, Cal., for temporary duty.

KENNEDY, Captain JAMES M., assistant surgeon, so much of a former order as directs him to report to the commanding officer Fourth Cavalry, for duty, is revoked, and he will report to the commanding general, department of California, San Francisco, Cal., for assignment to duty.

APPEL, Major DANIEL M., surgeon, is granted leave for two months, to take effect as soon after July 1, as the U. S. General Hospital at Savannah, Ga., is closed.

Changes in the U. S. Marine-Hospital Service,

for the seven days ended June 29, 1899:

SAWTELLE, H. W., surgeon, detailed as inspector of relief stations of the third and fourth class. June 27.

WOODWARD, R. M., passed assistant surgeon, upon being relieved by A. R. THOMAS, passed assistant surgeon, to proceed to Washington, D. C., for assignment to duty. June 26.

THOMAS, A. R., passed assistant surgeon, upon being relieved by G. T. VAUGHAN, passed assistant surgeon, to proceed to Reedy Island Quarantine Station and assume command of the Service. June 26.

HALLET, E. B., acting assistant surgeon, granted leave of absence for two days from July 4, 1899. June 27.

WALKLEY, W. S., acting assistant surgeon; granted leave of absence for three days from June 28, 1899. June 26.
BRUNNER, W. F., sanitary inspector, granted leave of absence for three days from June 28, 1899. June 23.
GODMAN, J. C., sanitary inspector, granted leave of absence for seven days from June 27, 1899. June 23.
THURSTON, E. J., hospital steward, to proceed to New York, N. Y., for special temporary duty. June 26.

PROMOTION.

PETTUS, W. J., passed assistant surgeon, commissioned as surgeon. June 26.

APPOINTMENT.

TOWNSEND, FREDERICK, of Michigan, to be acting assistant surgeon, U. S. Marine Hospital Service, for duty at Sault Ste. Marie, Michigan. June 23.

Changes in the Medical Corps of the U. S. Navy, for the week ending July 1, 1899:

BELL, W. L., assistant surgeon, detached from the Naval Hospital, Mare Island, Cal., and ordered to the "Philadelphia."
ODELL, H. E., assistant surgeon, detached from the "Philadelphia" and ordered to the Naval Hospital, Mare Island, Cal.
BOGAN, F. M., assistant surgeon, ordered to additional duty at the Boston Navy Yard.
BRODRICK, R. G., passed assistant surgeon, ordered to Washington, D. C., July 6, for examination for retirement, and then ordered home to wait orders.
ROSENBLEUTH, J. C., passed assistant surgeon, detached from the "Buffalo," when put out of commission, and ordered to the "Vermont" immediately.

Foreign News and Notes.

GREAT BRITAIN.

London Hospital Medical College.—The new buildings that have recently been completed, will be formally opened, July 18, by Lord Knutsford.

Sir Henry Thompson, Bart., and Sir Felix Semon have been elected honorary presidents of the International Medical Congress to be held in Paris in 1900.

Irish Medical Association.—The annual meeting, which was well attended, was held in Queen's College, Cork, June 20, under the presidency of Sir Thornley Stoker.

A third edition of **Sir William Broadbent's** excellent book, "Heart Disease, with special reference to Prognosis and Treatment," is announced by Messrs. Baillière, Tindall & Cox to be immediately forthcoming.

University of Edinburgh.—Professor Edward Albert Schäfer, the well-known professor of physiology in University College, London, has been unanimously elected professor of physiology in University of Edinburgh.

Sir William MacCormac, Bart., K.C.B, president of the Royal College of Surgeons of England, has been elected an Honorary President of the thirteenth International Medical Congress, to be held in Paris in August, 1900.

Prof. Osler, F.R. S., delivered the Cavendish lecture upon the "Etiology and Diagnosis of Cerebrospinal Fever" before the West London Medico-Chirurgical Society on June 16. The Philadelphia physician's powers of observation and logical mind are much appreciated in England, which, by the way, is the land of his medical education, so that great weight will necessarily be attached to his pronouncement upon a rare and obscure disease.—[*Correspondent*]

Mason University College, Birmingham, England.—Dr. R. F. C. Leith, assistant physician to the Royal Infirmary of Edinburgh, and lecturer on pathology and bacteriology at Surgeons' Hall, Edinburgh, has been elected professor of pathology and bacteriology. Mr. J. T. J. Morrison, senior surgeon for out-patients to the Queen's Hospital, Birmingham, and senior police surgeon of Birmingham, has been elected professor of forensic medicine, in succession to Dr. R. M. Simon.

The new Professor of Physiology in Edinburgh University is, as we predicted in the JOURNAL it would be, Prof. Edward A. Schäfer. Good as were the credentials of many of the other candidates, Prof. Schäfer's claims to have any physiological appointment which he would like to have are undeniable and were recognized as such by the electors who chose him unanimously. His removal to Edinburgh will be a distinct loss to University College, London, where he has for sixteen years been Jodrell professor of physiology.

The Weir Legacy to the Dublin Hospitals.—Mr. James Weir, for years a merchant of Dublin, where he accumulated a fortune of over $1,000,000, died recently, bequeathing one half of his estate to his relatives, and the remainder to the hospitals of Dublin. It became necessary to ascertain the legal interpretation of the word hospital, and this having now been secured, 38 hospitals of Dublin and its vicinity will now share in over $500,000. The sums apportioned among the various hospitals have not been made public, but they are thought to vary from a few hundred dollars to $25,000.

An Expedition to Sierra Leone.—According to the *British Medical Journal*, as at present arranged the expedition of the Liverpool School of Tropical Medicine will leave for Sierra Leone early in August. The party will be headed by Major Ronald Ross, I.M.S., director of the school, who will probably be accompanied by Mr. H. E. Annett, the demonstrator, and possibly by some volunteers. The first point to which it is proposed to give attention is the identification of the mosquito which acts as host to the malarial parasite in Sierra Leone. When this has been accomplished the breeding-places and habits of the mosquito will be studied with a view of devising means for checking its multiplication.

The delivery of the **Croonian Lectures of the Royal College of Physicians of London** was commenced on June 20 and continued on June 22 by Dr. Bradbury, Downing Professor of Medicine in the University of Cambridge. Professor Bradbury was learned and exhaustive, but truth to say his first lecture was very stiff to listen to, though it will be easier of comprehension when presented in printed form. His subject, as already announced in the JOURNAL, was "Some Points Connected with Sleep, Sleeplessness and Hypnotics," and the first lecture was concerned with the physiology of sleep, concerning which neurologists working in one direction and psychologists working in another have of recent years had much to say but not much definite result in the way of ascertained fact to record. Professor Bradbury contented himself in the main with summarizing the views of both schools of observers. In the second lecture, in which he gave at length the results of his researches into the pharmacology of certain hypnotics, he showed himself a logical thinker and a broad-minded chemist.

The British Sanitary Institute.—The eighteenth congress will be held in Southampton, August 29 to September 2. There will be three sections: Sanitary Science and Preventive Medicine, presided over by Sir Joseph Ewart, M.D., St. And.; Engineering and Architecture, presided over

by Mr. James Lemon, M. Inst. C.E.; and Physics, Chemistry, and Biology, presided over by Professor Percy F. Frankland, F.R.S. There will be also eight special conferences, viz.: Municipal Representatives; Port Sanitary Authorities; Medical Officers of Health; Medical Officers of Schools; Engineers and Surveyors to County and other Sanitary Authorities; Veterinary Inspectors; Sanitary Inspectors; and Domestic Hygiene. The president of the congress is Sir. W. H. Preece, K.C.B., F.R.S., Pres. Inst. C.E. Mr. Malcolm Morris will deliver the inaugural lecture, and Bailie J. Dick, chairman of the Health Committee, Glasgow, will deliver the popular lecture. In connection with the Congress a health-exhibition of apparatus and appliances relating to health and domestic use will be held as a practical illustration of the application and carrying out of the principles and methods discussed at the meetings.

Preventive Inoculation Against the Plague.—The Royal Society of London had recently before them a very successful orator in the person of Mr. W. M. Haffkine, C. I. E., late assistant to the great Pasteur and now bacteriological research officer to the Indian Government and the author of some of the most important of modern methods of prophylactic treatment. Professor Haffkine, whose title of professor is due to the fact that he was assistant professor of physiology at Geneva some 10 years ago, stated the recognized theories with reference to the immunity against attack conferred under certain circumstances and to certain degrees by the inoculation of derivatives from microbial virus, and then gave some striking figures in support of anti-cholera and anti-plague inoculation as practised by himself with the sanction and aid of the British Government in India. The case-mortality in hospitals from plague he claimed to have been reduced by 50%, but he did not assert that the immunity gained by inoculation lasted more than a year. Professor Haffkine made no vague or extravagant propositions, and as far as possible backed his words by carefully prepared statistics. His clearness and modesty of assertion much impressed his hearers. He is, by the way, a Jew, and in the present state of continental feeling will not be likely to sever his connection with England, where anti-semitic prejudice has no hold upon the more responsible classes.

The Society of Members of the Royal College of Surgeons of England has seized upon the intention of the Council of the college to apply for a supplementary charter to repeat in a memorial to the Council the claims of the members of the college to a share in the government of the college. The supplementary charter is to be applied for in celebration of the centenary of the old charter (see PHILADELPHIA MEDICAL JOURNAL, May 6, p. 979, where the story of this charter is told with some fulness); and the view of the Society of Members, that if any change is to be made, a radical change in the constitution of the corporation would best meet the justice of the case, is precisely the view which we took in these columns when we said: "If the college desires to celebrate the centenary of their charter in a just, as well as a popular fashion, they should obtain powers to supplement it with a clause giving all their members a vote for their governing body." By far the largest source of the income of the college is the members' payments; at every annual meeting of fellows and members of the college for 15 years a proposal that members, like fellows, should have a vote for the Council election, has been carried practically unanimously; a petition in favor of this reform has been signed already by 5,000 members, while a poll of the fellows on the question showed no absolute majority against it. Under these circumstances there can be no doubt on which side justice lies.

CONTINENTAL EUROPE.

University of Würzburg.—Dr. Julius Stumpf de Werneck has been appointed extraordinary professor of forensic medicine.

Dr. Mazzoni, to whose intervention recently Pope Leo XIII owes his restoration to good health, has been appointed by the Pope to be his surgeon-in-chief.

Military Academy of Medicine of St. Petersburg.—Dr. N. Kravkov has been appointed professor of pharmacology to succeed the late Professor Kostiourine.

University of Berlin.—The new Pathologic Institute was formally opened June 27, with appropriate ceremonies. Dr. Martin Mendelsohn has been appointed extraordinary professor of internal medicine.

Insanity in Paris.—Paris is becoming justly alarmed over the increase of insanity: in 30 years the annual number of cases of insanity has increased from 7,805 to 21,700. The cause in 25% of these cases is alcoholism.

Professor Raymond, the successor of Charcot, as clinical professor of nervous diseases at the Hôpital de la Salpêtrière, has been elected a member of the French Academy of Medicine, to fill the vacancy caused by the death of Professor Laboulbène.

French Association for the Advancement of Science.—The next annual meeting will be held at Boulogne, September 14 to 21. A subsection on medical electricity has been formed and will meet for the first time in connection with the annual congress.

Dr. Lassellette has just been sentenced in Paris to two months' imprisonment for "imprudent homicide." The doctor had operated upon Mad. T. for a voluminous fibroma of the uterus; a few hours after the operation the patient died. The autopsy revealed a pair of hemostatic forceps in the cavity of the uterus.

A monument to the memory of the late Professor H. Bamberger, one of the most distinguished internists that ever held a chair in the University of Vienna, has been completed by the sculptor Kauffungen, and has been erected in the court of the University. The unveiling ceremonies will take place soon.

A remarkable case of syphilitic inoculation has just been revealed at the Hôpital Saint Louis, Paris. The patient, in recounting the history, said that during a fight he had "butted his adversary in the face with his head and had received a scalp wound, by coming in contact with his enemy's teeth." The result was an initial lesion at the seat of the wound and swelling of the glands of the neck; later on, all the classical symptoms appeared.

Sausage in Paris—Test for Horse-Meat.—Horse-meat is becoming a common adulterant for sausage and bologna, the following test has been adopted to detect its presence. The test is based upon the fact that horse-meat contains glycogen and other meats do not. The test-solution is made by dissolving 2 grains of potassium iodid and 1 gram of iodin in 10 cc. of water. The meat to be tested is boiled in water, the solution filtered and evaporated to $\frac{1}{3}$ its original bulk (if there is the possibility of the presence of starch,

cetic acid is added), and a few cc. of the test-solution gradually poured in; a red coloration indicates the presence of horse-meat.

A Central Bureau of Information for American Physicians in Paris.—It is announced that Dr. Frederic Gerin Lajoie, an American surgeon, resident in Paris, has obtained the necessary authority from the Directeur de l'Enseignement Superieur and the Dean of the Faculty of Medicine to establish a Bureau de Renseignements, or information office, at No. 21 Rue de l'Ecole de Médecine. His idea is to provide visiting American physicians who come to Paris to study the French systems of practising medicine with every detail of information which would facilitate the object of their stay in Paris.

The Dreyfus Case in the Lyons (France) Medical School.—According to the *British Medical Journal*, the Dreyfus *affaire* has been the occasion of serious disturbances in the medical school of Lyons. Prof. Augagneur had taken an active part in manifestations in favor of Captain Dreyfus and President Loubet, and the students attending his lectures had expressed their sympathy with him in this line of conduct. The next day the Professor's lecture-room was invaded by a mob of persons, for the most part not belonging to the school, who made such an uproar that it was impossible for him to lecture. The Dean has posted up a notice, dated June 10, to the effect that the course of surgical pathology will be suspended till further orders.

Compensation for the Slaughter of Tuberculous Animals in France.—According to the *Lancet*, in France animals found to be tuberculous are slaughtered under the official regulations and the carcasses are seized, an occurrence which has become much more common since tuberculin has been employed for the early diagnosis of tubercle in animals. The law of April 13, 1898, has provided for the payment of compensation to the owners of animals sacrificed in this way in the interests of public health. The compensation is on the following scale: (1) When the tuberculosis is very extensive, one-third of the animal's value at the time of slaughter; (2) when the disease is localized, three-fourths of this value; and (3) when the carcass of an animal slaughtered by official order is found to be free from tubercle, the full value of the animal as above. In all cases the price of the meat and offal sold by the owner, with the permission of the *maire*, is deducted from the compensation above mentioned. Compensation must not exceed 200 francs for one-third of the animal's value and 450 francs for three-fourths of its value.

Assassination of Dr. Enrico Bondi.—Dr. Enrico Bondi, the chief of the medical clinics of the Santo Spirito Hospital, of Rome, Italy, was assassinated, June 13, by a patient who had recently been discharged from the hospital. The patient had been admitted to the hospital 4 years ago for tuberculosis. He was always an ill-tempered, violent, and ungrateful inmate, and to such extremes had he lately gone, that it became necessary to separate him from the other patients. Toward the end of May, he was discharged improved. Readmission being denied him, he vowed vengeance. It is stated in the *Lancet* that he purchased from a blacksmith the largest nail that he could secure, choosing the rustiest one, that the wound might be formidable, had it sharpened that it might be a stiletto, and lay in wait for Dr. Bondi. Meeting him on the bridge that spans the Tiber, near the Castle of St. Angelo, he assailed him, inflicting a deep wound in the neck, and severing the great vessels of that region. Dr. Bondi died at the end of an hour and a quarter. He was but 42 years of age, most gracious and beloved. He had had already a most distinguished career, and the promise of a still more distinguished future. The funeral procession, composed of thousands of citizens, was almost a mile long.

Cataract-Extraction in a Lioness.—Professor Gustavo Pisenti, of the University of Perugia, has lately had a thrilling experience in extracting a cataract from a powerful lioness about 3 years old. The animal was placed in a suitable cage in the middle of the menagerie, and the first difficulty was the administration of an anesthetic. The intervals between the bars of the cage were filled up with cotton-wool, and a large packet of gauze, impregnated with chloroform, was placed in the cage, the door of which was then closed with a shutter. In about a quarter of an hour a reconnaissance was cautiously made, and the illustrious patient was seen lying stretched out, apparently in a condition of deep coma. She was then dragged out of the cage, bound and gagged. She was next placed on a table, but before the operation could be begun she suddenly awoke, and struggled violently, rolling on to the floor, where the medical men "with admirable coolness, but not without intense emotion, which might easily be seen in their countenances," held her down, while the animal's head was wrapped in a towel steeped in sulfuric ether. The lioness, however, managed to free herself from the gag and partly from her bonds, and gave a roar, which made the majority of the spectators beat a hasty retreat. But the ether overcame her, and Professor Pisenti, with great pluck, dragged her into the cage again, where the anesthetic *coup de grâce* was given by means of another packet of gauze steeped in chloroform. The beast's head was pulled out through the door of the cage and securely held in position. Professor Pisenti then operated with brilliant success. We have no doubt that the professor had a more "serious time" than Artemus Ward had in getting into the uniform of the days of his youth, and we congratulate him heartily on having escaped a counter-operation by his formidable patient. A curious feature of the scene was the excitement produced among the other animals —zebras, bisons, leopards, wolves, hyenas, monkeys, etc.—in the menagerie, who all inhaled some portion of the anesthetics with which the air was saturated.—[*British Medical Journal.*]

General Practitioners in Surgical Cases.—We read in the *Lancet* that the professional competence of general practitioners has been gravely called in question by a judgment pronounced in a law-court of Charlottenburg, a suburb of Berlin. A general practitioner being asked to see a child who had fractured his femur called in a surgical specialist who applied a bandage and made no further attendance, but left the after-treatment to the general practitioner. Evidently the bandage was too tight, a fact which escaped the notice of the general practitioner; gangrene set in, amputation became necessary, and the general practitioner was thereupon prosecuted. The court, after having heard the opinion of several medical experts, adjudged him not guilty for the following curious reasons: (1) That the disastrous issue of the case was not attributable to the general practitioner but to the specialist who had been consulted and who had left the control of the bandage to a general practitioner; and (2) that the court was of opinion that a general practitioner without special surgical training ought not to be allowed to have charge of severe surgical cases. The *Deutsche medicinische Wochenschrift*, in discussing the circumstances, rightly points

out that this decision impugned the reputation of the medical profession in general, and was, moreover, at variance with medical ethics, for it would have been an infringement of medical etiquette if the surgeon had continued his visits without having been asked to do so by the medical attendant of the family. The article goes on to remark that this decision tended to induce the public to abstain from consulting general practitioners when surgical questions were involved, and that the medical societies ought to protest against the suggestion of the law-courts that none but specialists were competent to attend surgical cases.

MISCELLANY.

The Fourth Italian Congress of Laryngology, Otology, and Rhinology will be held in Rome in October of this year, under the presidency of Dr. G. Gradenigo. The questions proposed for discussion are the following: The propagation of tympanomastoid infection; the pathologic physiology of the olfactory nerves; parasyphilitic and post-syphilitic affections of the larynx.

Obituary.—DR. CAUTERMAN, at one time president of the Belgian Medical Federation.—PROFESSOR SERAFINO BIFFI, for many years president of the Societa Freniatrica Italiana and well known as a writer on mental diseases.—DR. FRANZ GROH, formerly professor of surgery in the now defunct Medico-Chirurgical Institute of Olmütz, aged 77 years.—DR. ALEJANDRO TORRES PUIG, formerly president of the Spanish Medico-Chirurgical Academy.—DR. PAUL VOGELGESANG, medical superintendent of the Berlin Municipal Institution for Epileptics, aged 41 years.—DR. JOSEF AICS, a well-known neurologist of Cologne, aged 39 years.

The Fourth International Congress of Psychology will be held in Paris, August 20 to 25, 1900. The following are the officers: President, Professor Ribot; vice-president, Professor Richet; general secretary, Professor Janet, and treasurer, Professor Alcan. There will be 7 sections, in which the questions to be discussed will be as follows: (1) Psychology in its relations to physiology and philosophy; (2) experimental psychology and psychophysics; (3) pathologic psychology and psychiatry; (4) psychology of hypnotism and suggestions; (5) social and criminal psychology; (6) comparative psychology; (7) anthropology and ethnology.

Strawberries and Gout.—The *Lancet*, quoting *Nature*, states that a writer speaks of the cruel medical tyranny which banishes the strawberry from the diet of the gouty and quotes what Linnæus had to say about the curative properties of this delightful fruit. This great naturalist was persuaded to take strawberries during a severe attack of sciatica with the result that a sweet sleep ensued and when he awoke the pain had sensibly subsided. On the next day he ate as many strawberries as possible and on the following morning the pain was gone and he was able to leave his bed. Gouty pains returned at the same date in the next year, but they were dispersed as soon as Linnæus was able to get strawberries. Although strawberries are forbidden to the gouty by some authorities, by others they are permitted, the fruit being regarded as a useful food for gouty persons on account of its richness in the salts of potash, soda and lime, and its cooling, diuretic and laxative qualities. The analysis of the strawberry shows it to be particularly rich in soda-salts, and in spite of the high percentage of water this fruit excels all other common fruit in the amount of mineral salts. The chemistry of the strawberry therefore would teach that this fruit is likely to be beneficial in gouty states.

The Thirteenth International Medical Congress will be held in Paris from August 2 to 9, 1900. We read in the *British Medical Journal* that the official program of rules, regulations, and preliminary agenda has just been issued from the central offices in the Rue de l'Ecole de Médecine. M. Lannelongue is president of the Congress, and Dr. Chauffard is the secretary-general. National committees have also been formed in each country to further the work of the Congress. Among other advantages, members will be entitled to receive a digest of the proceedings of the Congress and the printed report of the section to which the member belongs. In the general assemblies, as well as in the sectional meetings, the English, French, and German languages may be employed, though French is adopted as the official language in all international relations. Members who propose to attend the Congress should give very early notice of their intention, as the time coincides with the holding of the Universal Exhibition, and it is the middle of the tourist season. It is anticipated, therefore, that very great difficulty may be experienced in obtaining accommodation for those who postpone their applications. The sections are grouped into 5 classes. The first class contains the subjects auxiliary to medicine, namely, Comparative and Descriptive Anatomy, with M. Milne-Edwards as president; a section of Histology and Embryology under the control of MM. Ranvier and Balbiani; Physiology under M. Chauveau. The second group of sections is directly connected with the medical sciences, and includes Pathology, with the subsections of Bacteriology and Pathologic Anatomy, and Internal Pathology. A section dealing with Children's Medicine, Therapeutics, Neurology, Psychiatry, Dermatology, and Syphilography. The third class includes the surgical sections: General Surgery, the Surgery of Infancy, Urinary Surgery, Ophthalmology, Laryngology and Rhinology, Otology, Stomatology. The fourth class embraces Obstetrics and Gynecology, and the fifth class Public Medicine, with the subsections Legal Medicine, Military Surgery and Medicine (including Epidemiology and Hygiene in the army), Naval Medicine, and Colonial or Tropical Medicine.

The Treatment of the Abdominal Viscera Through the Colon.—(*Proceedings American Medical Association*) Dr. Fenton B. Turck read a paper which embodies the results obtained by a large number of experiments upon dogs and of subsequent clinical observations, all of which go to show that the colon, by virtue of its close proximity and intimate physiologic relations to other organs, offers very great advantages for the treatment by means of hot-water lavage. The temperature used in Dr. Turck's colonic lavage is usually high, 55° C. or 131 F., but this temperature was used only after experiments had shown not only that it did not endanger the patients, but that it also proved immeasurably more effective than water at lower temperatures. The paper covers the effect of colonic lavage at 55°C. upon (1) the heart and circulation; (2) upon the blood, producing particularly quite a marked leukocytosis; (3) effect upon the gastrointestinal tract; (4) upon the kidneys; (5) the liver; (6) upon the temperature of skin, stomach and intestines; (7) the pelvic organs; (8) the effect upon elimination, autointoxication, and (9) general metabolism. The effects, according to Dr. Turck, are quite remarkable. The paper deals largely with the technic of the treatment and the results show that there is produced in animals (1) increase in blood-pressure; (2) increase in the number of leukocytes; (3) Increase in the urea-production and excretion; (4) increased matabolisms; (5) increased elimination. Interesting facts developed in the treatment of patients are also presented.

Society Reports.

AMERICAN NEUROLOGICAL ASSOCIATION.

'wenty-fifth Annual Meeting, held at Atlantic City, N. J., June 14 and 15.

FIRST DAY.

THE meeting was called to order by Dr. James Hendrie Lloyd, of Philadelphia. DR. W. BLAIR STEWART, of Atlantic City, delivered the address of welcome on the part of the egular medical profession of the city and of the Atlantic City Academy of Medicine. The **annual address** was delivered by the president, DR. LLOYD. DR. HUGH T. PATRICK, of Chicago, exhibited water-colors showing the **fundus appearances in two cases of amaurotic family idiocy.** The following papers were then read and discussed:

Isolated finger-paralysis, by DR. WILLIAM BROWNING, of Brooklyn. The patient was a vigorous man, over 70 years old. At intervals of 1½ years the intensors of the right, middle, and ring fingers became suddenly paralyzed, each attack occurring at the instance of muscular effort. The condition remained unchanged until death some years later, when the autopsy showed destructive lesions of the corresponding muscles and tendons. DR. DERCUM, of Philadelphia, said that in view of the fact that we know so little about the senile changes that take place in the tendons the question in this case was, Did not the break in the tendon occur simply as the result of muscular effort when the tendon was weakened by senile changes?

The Unity of the Acute Psychoses.—DR. PHILIP COOMBS KNAPP, of Boston, Mass., stated that there are several forms of melancholia, differing so much in type as to suggest different diseases, but that melancholy seems rather a symptom than a disease by itself. The existence of mania, acute paranoia, and many other acute mental diseases, is questioned, most writers disagreeing in their classification. A symptomatic classification of mental diseases is often fallacious and unsatisfactory. Alcohol may cause a number of different types of psychosis. The acute psychoses are often of toxic origin, may attack healthy persons, may cause death by exhaustion, recover completely, or may end in dementia or chronic delusions. They were regarded as probably one affection under the general heading of Meynert's amentia. DR. MILLS considered that, in assuming such a position, Dr. Knapp was asking us to take a step backward; that these diseases, melancholia, paranoia, and mania, are so distinct, clinically, pathologically, and etiologically, that there is no ground upon which to base such conclusions as those given in the paper. He thought that there was no doubt that the forms of these diseases were at times too much elaborated, but at the same time he believed the proper tendency was in the direction of a clearer differentiation, rather than a grouping of these affections. DR. DERCUM agreed with Dr. Mills, and said that because a patient who develops melancholia passes through a series of vague symptoms that resemble neurasthenia, is not sufficient reason to say that the two diseases are the same. He suggested that this period of transition might be called neurasthenoid, for it was not a true neurasthenic condition. DR. COLLINS said that he thought Drs. Mills and Dercum had misunderstood Dr. Knapp's position; that, as he understood it, Dr. Knapp recognized the different symptomatology in the ordinary classification, and that he was right in stating that there was probably a unity in the anatomic features of these diseases; that, so far as we know, they are all due to a degeneration of the neurons, and that his argument was in line with the most advanced work. He believed, however, that for the sake of treatment it would be better to retain the present classification which had been made only after many years of labor in the direction of differentiation. DR. W. G. SPILLER thought that we should not at present attempt to make a classification upon an anatomic basis, though the day may come when such a thing may be possible. In closing, DR. KNAPP said that he thought his opponents had taken a somewhat peculiar position in that they disagreed with him without impugning his argument. He considered the object of differentiation of these diseases to be for the purpose of diagnosis and treatment, but he believed that after all even these must be based upon the actual cause and anatomic changes that occur.

Tumor of the medulla presenting ataxia and astereognosis as the most prominent early symptom, by DR. F. X. DERCUM, of Philadelphia. This was a case of chondrosarcoma springing from the occipital bone on the right side and pressing upon the medulla, the greatest pressure being in the region of the lower olive. The patient presented at first ataxia of the right arm with the preservation of tactile, presure, and temperature senses, together with the loss of muscular sense, loss of the sense of position of the limb, some disorder of cutaneous localization and diminution of the pain-sense. The patient also presented complete astereognosis of the right hand, which the author ascribed to the changes in the various senses above detailed.

Gliosarcoma of the middle fossa of the skull, with photographs and specimens, by DR. MORRIS J. LEWIS, of Philadelphia. The patient, a school-girl, aged 11, was admitted into the Philadelphia Orthopedic Hospital and Infirmary for Nervous Diseases in January, 1899; family and personal history good. In August, 1898, after extraction of lower right molar, she had considerable pain, quickly followed by rightsided earache, and in 3 weeks by right facial palsy, which soon became total. Four months later a trophic ulcer appeared on the cornea. On admission there was complete right facial palsy presenting the reaction of degeneration, the tongue was protruded to the right, sense of taste destroyed on the right side of the tongue, except at tip and base where it was impaired, sensation being destroyed over the posterior two-thirds. The fundus of the right eye could not be seen on account of cloudiness of media, but a commencing optic neuritis was detected, which rapidly increased. The second, third, fifth, sixth, seventh, eighth, and ninth nerves on the right side were more or less implicated, but absolutely no symptom referable to the trunk or extremities could be detected. Violent headache and retraction of the head made their appearance before death, which occurred 40 days after admission, treatment being of no avail. The autopsy revealed a large gliosarcoma filling the whole of the middle fossa of the skull, with erosion of the sphenoid and temporal bones and protrusion of the mass into the pharynx. The right temporal lobe of the brain was completely hollowed out by pressure.

Tumor of the pituitary body, by DR. GEORGE L. WALTON, of Boston. The patient, a physician, 26 years of age, first came under Dr. Cheney's care with unilateral hemianopsia (right) and asthenopia (left). Optic atrophy followed with increasing loss of vision in both eyes. Later homonymous hemianopsia appeared, and still later achromatopsia in the otherwise unaffected half field of the right eye. Muscular weakness, apathy, intense headaches and somnolence appeared and increased. A striking feature of the case was the fact that the patient always had certain peculiarities of growth suggestive of akromegaly. Autopsy by Dr. Mallory showed angiosarcoma of the hypophysis with disappearance of portions of the sella turcica. Certain remains of normal gland-tissue were found. Conclusions: first, congenital peculiarities of growth resembling those of akromegaly may indicate defective structure of the gland, later the seat of new growth; second, the persistence of even a small amount of healthy gland-tissue suffices to fairly carry on its function; third, the combination of general symptoms of new growth with loss of one or both temporal fields and optic atrophy practically establishes the diagnosis of tumor of the pituitary body; fourth, hemiachromatopsia is not necessarily of central origin.

Tumor of the brain, by DR. JAMES HENDRIE LLOYD, of Philadelphia. The growth sprang from the membranes on the left side of the pons and medulla and had made pressure backward on the under surface of the left lobe of the cerebellum. The seventh and eighth nerves of that side and the sixth nerves of both sides were in a position to be affected by the pressure. From the symptoms the tumor had been localized without difficulty before death. The fifth nerve was never involved and there were no distinct cerebellar lesions, such as ataxia and forced movements. In one other tumor seen recently by Dr. Lloyd in almost this exact location forced movements were prominent and the seventh nerve escaped. A difference in the size—the tumor in the second case being smaller—and a slight variation in location was

sufficient to make these striking differences in the clinical picture of the two cases.

Asthenic bulbar paralysis with report of a case, by DR. WHARTON SINKLER, of Philadelphia. The principal features of this affection are as follows: The disease appears usually before 30 and may occur so early as 12 to 15 years, showing perhaps a slight preference for the female sex. It begins gradually and without apparent cause, but there may be quite rapid increase in the symptoms and a fatal result within a few weeks. An early and most important symptom is the fatigue usually shown in those muscles whose nerve-centers are in the medulla, pons or crura. The first symptom may be drooping of the lids and diplopia, or else difficulty in mastication, speaking or swallowing. Involvement of the trunk and limbs usually occurs later, although the disease may begin in those parts. A permanent paralysis follows in those muscles that are continually in a state of chronic contraction, such as the levator palpebrarum, muscles of expression and the masseters. About 15 autopsies have been made and in none have microscopic changes been found in any of the tissues. Most writers suggest the theory of infection by toxic materials, although none can say whether the poison is elaborated in the body or taken from without. It is essentially an affection of the motor system and there is atrophy of the muscles. In the case Dr. Sinkler related two brothers of the patient had nystagmus and tremor of the head and two of her children had been affected in the same way, so that he considered this suggestive of a predisposition to lesions in the nervous system.

Report of a case of asthenic bulbar paralysis, by DR. JOHN PUNTON, of Kansas City. Dr. Punton also reported a case of this disease and stated that in the early stages there is great difficulty in making the diagnosis from hysteria, and that later in its development it is sometimes difficult to determine from true degenerative bulbar paralysis and from pseudobulbar paralysis. Only 34 cases have heretofore been reported. DR. COLLINS thought it was very important to bear in mind the necessity for differentiating this affection from hysteria, and referred to two cases in which such an error of diagnosis had occurred. He stated also that he did not believe that the exhaustibility of the muscles by the faradic-current test, as pointed out by Jolly, would be corroborated by future investigations. In a case under his own care the muscles are exhaustible on certain days, but on other days no more so by the faradic than by the galvanic current. DR. SPILLER thought that in the case reported by Dr. Punton one would have to consider very carefully whether the diagnosis should not be one of pseudobulbar paralysis. DR. THOMAS reported a case at present under observation in which the patient arises in the morning in pretty good condition, but in the course of a half-hour her voice gives out, and though she begins to eat her breakfast well enough, the muscles of mastication become gradually weaker and weaker. In closing DR. PUNTON said he considered very carefully the point referred to by Dr. Spiller, and had come to the conclusion that his case belonged in the asthenic group of bulbar paralysis.

SECOND DAY.

Purulent encephalitis and cerebral abscess in the newborn resulting from infection through the umbilicus, by DR. GUY HINSDALE, of Philadelphia. The case occurred in a male child weighing 12 pounds at birth and delivered after a labor of 40 hours. Pus followed the expulsion of the placenta, and the child died at the end of 13 days with symptoms of meningitis. The brain was covered with a fibropurulent exudate with abscess in the left frontal lobe and innumerable hemorrhages with destruction of infiltrated nervous tissue. The bacteriologic examination showed a bacillus of the colon-group, probably the bacillus coli communis.

Two cases of muscular dystrophy, with necropsy (one of the facioscapulohumeral type) reported clinically by Duchenne, of Boulogne, Landouzy and Dejerine, by DR. WILLIAM G. SPILLER, of Philadelphia. The mother and elder brother of the first patient had muscular atrophy. in the patient the alteration in the muscles of the face was said by the mother to have begun when the boy was 3 years old. Muscular atrophy was seen in the trunk and lower limbs when the patient was 5 years old, and in the upper limbs between the sixth and seventh years. Duchenne saw the boy in 1868 for the first time, when the latter was 9 years old, and the face then presented the characteristics so well described later by Landouzy and Dejerine. Contractures of all the limbs became very great before death. When the patient was about 33 years of age necropsy showed intense muscular atrophy, involving all the facial muscles except those of the eyes and the muscles of mastication. The central and peripheral nervous system was normal. The muscular atrophy in the second case was not hereditary; it began quite acutely in the lower limbs when the boy was 8 years old and extended to the trunk and upper limbs, the patient becoming almost completely paralyzed. The face was not affected. The patient died at the age of 20, and the muscles were found to be intensely atrophied, but the nervous system was normal. Dr. Spiller discussed the subject of muscular atrophy in general, and gave as his conclusions, first, that cases of muscular atrophy occur which present the well-known localizations regarded as characteristic of the different forms of muscular dystrophy. In the large majority of these cases the spinal cord and peripheral nerves are normal. Second, in other rare cases, presenting the clinical features of muscular dystrophy, the nervous system is more or less involved. Third, the histologic changes in the muscles are not pathognomonic of any form of atrophy. Fourth, it is proper to regard muscular dystrophy as a disease usually distinct from spinal muscular atrophy, but transitional forms connect the myopathic and myelopathic types of atrophy. DR. THOMAS said that from a review of the literature he had been led to exactly the same conclusions that Dr. Spiller has just expressed. He referred to the cases which he reported last year, and said that while they may later develop muscular dystrophy, he did not believe they would. Under electrical examination the affected muscles gave no response to any amount of current, while the other muscles of the facial group gave the normal response and these symptoms, together with congenital dulness of hearing, seemed to make the diagnosis pretty clear.

Facial paralysis of unusual distribution, probably congenital, by DR. F. W. LANGDON, of Cincinnati. The patient was a large, well-developed man, who had never closed the left eye from the time of birth. Examination showed the absence of the left occipitofrontalis, pyramidalis, both upper lip elevators and the risorius. The lagophthalmos was due to absence of the mesial half of the left orbicularis palpebrarum. The external half of this muscle responded promptly to volition, faradism and galvanism, while the paralyzed muscles failed to respond to either current. There was no ear-disease, nor defect of hearing or taste. The lagophthalmos had been considerably improved by electric treatment and it was proposed to supplement this by a plastic operation to diminish the palpebral fissure and elevate the lower lid so as to enable the patient to close the eye and thus relieve the constant annoyance due to conjunctival irritation. DR. LESZYNSKY reported a case seen this past winter in which there had been facial paralysis involving all the branches and in which recovery had occurred in all except the orbicularis palpebrarum, which is usually the first muscle to recover. He said that he had reported two or three cases in which the paralysis had existed for two years or more and yet the faradic irritability was normal. DR. THOMAS said that he had seen two cases of congenital facial paralysis that recovered. DR. LANGDON, in closing, said that one point of interest in his case was that the patient had been an attendant in asylums and had come in contact with a number of neurologists, none of whom seem to have noticed that he had a facial paralysis.

Sensory disturbances in hysteria and epilepsy, by DR. E. D. FISHER, of New York. Richter, of Berlin, in the *Arch. für Psych.*, Band 31, reports 78 cases of hysteria, 47 of epilepsy, and 8 of hysteroepilepsy, in which sensory disturbance, either temporary or permanent, was found in 83% of the cases of hysteria and 63% of those of epilepsy. Hemianesthesia was more frequent in hysteria than in epilepsy, but in both, general or bilateral anesthesia was not infrequent. The author found the anesthesia very often permanent and existing independent of any seizures, and reported the following cases: Case I. Female, aged 17, diagnosis epilepsy. Complete anesthesia to all forms of sensation over the middle of forehead, both shoulders, dorsal surface of hands and extensor surface of forearms. Case II. Female,

aged 24, diagnosis, hysteria. Complete anesthesia in very similar situations to the previous case. In both these cases the condition was permanent and independent of seizures, so it is evidently of central origin, probably cerebral. He suggested in the light of these cases and the literature of the subject, the advisability of examining all cases of epilepsy more carefully. Dr. Knapp said that he had occasionally noted the presence of the sensory disturbances described by Dr. Fisher in both epilepsy and hysteria, and he thought they would be more frequently found if careful comparative tests were made.

Anomia and paranomia, with some considerations regarding a naming-center in the temporal lobe, by Dr. Charles K. Mills, of Philadelphia. The details of the case of a man who was unable to recognize objects by sight, hearing, touch, taste, and smell were first given. The main features of this case are as follows: The patient, after an apoplectic seizure, developed a peculiar form of aphasia, apparently without any preceding paralysis or any other symptoms of focal lesion, like visual blindness, hemianopsia, etc. When examined by me about 9 years after the onset of the aphasia, he had almost complete inability to name persons and objects which he was able to recognize through all his special senses. He had also a marked form of paralexia or paranomia. When he attempted to read, although he understood what he was reading, he repeated an absurd formula of a few phrases. He had limited spontaneous speech, even using short sentences without concrete nouns correctly. He could write many single words correctly, sometimes misspelling, however. He held his pen or pencil correctly, and wrote such words as he did write with ease and firmness. He was not a motor agraphic. He was not word-blind nor letter-blind. He could not repeat a few letters (w, x, l). Summaries of several somewhat similar cases with autopsies were given. In a case of Rosenthal of verbal amnesia without verbal deafness, an old focus of softening was found in the second and third temporal convolutions, the first temporal having been entirely free from disease. The case recorded by McConnell and the writer is another which, in spite of the criticisms made upon the meagerness of the report, affords partial evidence in favor of the theory. It was not, as intimated by Collins, simply one of the optic aphasia of the Germans. The case *was* one of optic aphasia, but it was more than this. Körner (*Centralblatt f. die Grenzgebiete der Medizin u. Chirurgie*, Band 1, No. 1, Jena, December, 1887, p. 5), in a critical digest of the literature of aphasia, says that our knowledge of the disturbances of speech resulting from abscess of the temporal lobe has been much increased. Oppenheim, Pick, Menasse, have observed optic aphasia in addition to amnesia resulting from this lesion. In this optic aphasia the patients see distinctly an object presented to them, but are unable to name it until they find the missing word by touch or hearing. Oppenheim observed three cases of optic aphasia. In the first, an instrument penetrated the skull during an operation on the ear, and probably injured the anterior part of the occipital lobe. The optic aphasia was only transitory. In the second case, optic aphasia, with right hemianopsia, was the first sign of a tumor in the left parietal lobe, which almost entirely separated the temporal from the occipital lobe. In the third case, a tumor was situated in the basal part of the occipitotemporal convolutions. Dr. Mills believed that the evidence was sufficient to warrant the view that destruction of a region more or less concentrated or diffused, and probably midtemporal in location, will cause the phenomena observed in cases of anomia and paranomia. While this is true, it does not follow that these speech-disturbances cannot be produced by lesions in other locations. Most of the regions, destruction of which will lead to inability to name persons and objects, have been summarized by Bramwell in his most interesting paper on "A Remarkable Case of Aphasia" (*Brain*, pt. 83, 1898, p. 343): "Inability to name objects and persons may be due either to (*a*) destruction of the 'naming' center; (*b*) destruction of the nervous fibers which pass from that 'naming' center to the motor vocal speech center; or (*c*) destruction of the motor vocal speech center by which these impulses are emitted." To this enumeration I would add that anomia or paranomia with associated phenomena would also be produced by destruction of the sensory percept centers and tracts leading from these centers to the naming or concept center.

A case of internal hemorrhagic pachymeningitis in a child of 9 years, with changes in the nerve-cells, by Drs. William G. Spiller and J. McCarthy, of Philadelphia. The child was an idiot. She had never had convulsions, and was not paralyzed, but presented signs of rachitis and congenital syphilis. About a year previous to her death, she began to emaciate, and this emaciation was extreme at the time of death. At the necropsy, a new membrane was found, adherent to the under surface of the dura over the entire convexity of the cerebrum, and two or three ounces of fluid blood escaped when the membrane was incised on the left side. Comparatively little attention has been paid to the existence of internal hemorrhagic pachymengitis in children, and that no case in a child as old as this one has been recorded, though several writers speak of the condition as occurring in early infancy. Intradural hemorrhage produced in animals leads to the formation of an intradural vascular membrane, and they were convinced that one cause of internal pachymeningitis might be intradural clot. The changes in the nerve-cells consisted of tumefaction and chromatolysis. As no motor paralysis had been observed during life, notwithstanding the existence of these cellular alterations, these findings confirm the view now held by some that changes in the chromophilic elements of the nerve-cell are not necessarily indicative of disturbed function.

After an executive session, the Society adjourned.

THE AMERICAN PROCTOLOGICAL SOCIETY.

First Annual Meeting, held at Columbus, Ohio, June 6 and 7, 1899.

The President, Dr. Joseph M. Mathews, of Louisville, Ky., delivered an interesting address setting forth the **importance of giving rectal diseases special study.** He said, "It is a notorious fact that there is more quackery practised in the diseases of the rectum than in any other department of medical practice. This state of things is to be deplored. After an experience of twenty years in this work, I wish to say that these important and most serious affections should be entitled to a separate and special consideration; and who will dare to say that those who practise them are not entitled to the privilege of forming themselves into a society? Nothing will contribute more to the advancement and to the elevation of this long-neglected subject than this contemplated organization. The principal part of our knowledge must ever come from comparing our own observations with those of others; then how apparent to all must be the utility which the Society of Proctologists will afford in opportunities for the mutual communication of thought and action."

Dr. Tuttle read a paper in which he stated that the term **pruritus ani** has for the scientific physician only a vague significance, but for its victims it is portentous with evil. He stated, after enumerating many of the characteristic symptoms, that it should be dealt with, first constitutionally, second locally. He said that he was not a believer in pruritus ani essentialis. The constitutional condition upon which the theory of this disease is founded he admits, and reckons it an important element, but insisted that there is always an exciting cause for the disturbance, and upon this cause will depend the physical appearance of the parts; and that we know full well the diseases which cause these physical changes in the parts, and these diseases occurring in the dysesthesic patient instead of causing pain produce itching until the irritation and scratching of the parts produce pain. Among the causes enumerated were oxyuris vermicularis, colitis, sigmoiditis, catarrhal diseases of the rectum, and uricemia. These pathologic conditions are the ones which he has found most often in obstinate and obscure cases. To the scientific physician all treatment must be based upon his conception of the pathology of the case; remove the pathologic cause, treat the disease and not the symptom. Nitrogenous diet, alkaline diuretics, salicylic compounds, and hot baths compose the general routine of treatment. Local applications of carbolic solutions, larkspur, black wash, salicylic acid, chloral hydrate, extract conii, camphor, cocain, tar, etc., may all be used in one form or another. Having determined the variety and type of the disease pro-

ducing pruritus, it is not difficult to manage, and in most cases we may confidently expect a radical cure.

DR. EARLE, of Baltimore, read an interesting paper upon **A modification of Whitehead's operation for hemorrhoids.** After reviewing usual methods of operations for removal of hemorrhoids, he described his own method, which consists of clamping the tumors by sections, beginning at an incision in the fourchette, where primary incision was made to determine the depth at which to place the clamp. After removing the tissue above the clamp by piecemeal, a continuous suture, beginning at the primary incision, was inserted around the clamp. When the first section has been cut away and sutured, the clamp is removed and the suture drawn taut, and the clamp again put in position until the whole anal circuit has been treated. He stated that he had given this method a thorough trial, and unhesitatingly said it is the safest, easiest, and by far the best method that he has ever tried. The operation is practically bloodless, and healing by first intention is secured. The convalescence is complete at the end of the week. Dr. Earle demonstrated his method of operating at St Anthony's Hospital.

DR. THOMAS CHARLES MARTIN, of Cleveland, discussed, in a very interesting manner, **the act of defecation.** He said that a knowledge of the anatomy of the rectum was necessary to form an appreciation of the physiology of defecation. The bundles of circular fibers which constitute the muscular element of the rectal valve belong to the same mechanism and have the same function as those which form the ental sphincter. It is the function of the normal rectal valve to beneficently retard the descent of the feces, and it is obviously true that it may be the especial property of the valve in certain other than normal conditions to maliciously obstruct the descent of the feces. His experience convinced him that a perfect knowledge of the rectal valve constitutes the key to an understanding of obstipation, rectal stricture and their sequelæ.

DR. A. B. COOKE, of Nashville, read an exhaustive paper on the subject, **Constipation, considered from the standpoint of the proctologist.** He defined constipation as a diseased condition of the alimentary canal characterized by a modification of the function, which results in the pathologic retention of fecal matter. He stated among the causes: (1) those springing from the violation of hygienic law; (2) defective innervation, expressed either in atonicity of the muscular coats of the intestine, or in decreased secretion; (3) sluggishness of the bowel function; 4) the habitual use of purgative medicines; (5) mechanical obstruction; (6) painful affections of the anus. The relations between constipation and diseases of the rectum are intimate and noteworthy, in that either may be cause, effect, or both, with reference to the other. Rectal reflexes came in for a fair share of consideration. In conclusion, he stated as his conviction that, in a large proportion of cases, constipation either originates in or is maintained by causes located in the distal 10 inches of the intestinal tract. If this be true, the notorious inadequacy of ordinary treatment is at once accounted for, and the duty of the proctologist in the premises becomes obvious.

DR WILLIAM M. BEACH, of Pittsburg, presented the subject of **rectal adenomata.** He defined an adenoma as an hypertrophy of gland-texture. He noted briefly the nature of these growths and the value of the proctoscope in their early diagnosis and treatment. He said there are two principal types of adenomas, (1) the gelatinous, composed of elements of mucous membrane; and (2) the mixed variety, consisting of mucosa and submucous cellular tissue. The adenoma with a long pedicle is benign, while growths with a broad base tend to malignity. After discussing symptoms and complications, he said by means of the old methods of examining the rectum it is well nigh impossible to locate these growths of the upper rectum; that the newer proctology substitutes exact methods in diagnosis and treatment of nonmalignant adenomas that are most gratifying to both the patient and surgeon. In conclusion he said that (1) the rectal adenoma may be hard or soft, and contain the constituent elements of the mucosa and submucosa; (2) these growths are benign and malignant; (3) that benign in their origin, they may become malignant; (4) early recognition is of first importance, which is made possible by the newer methods of inspection.

DR. J. R. PENNINGTON, of Chicago, discussed **the post-operative treatment of hemorrhoids.** He stated that the success of a rectal operation depends quite as much upon the after-treatment as upon the operation itself. He uses a tampon made by taking a piece of $\frac{5}{8}$-inch rubber tubing, about $4\frac{1}{2}$ inches long, and wrapping it with sterilized gauze until it is as large as desired, then covers this tent with a special rubber covering. Before introducing the tampon he blows nosophen powder over the field of operation. It is introduced through a bivalve speculum. Among the advantages claimed for the rubber-covered tampon over the gauze dressing, are: (1) It is neater: (2) it is painless, as the granulations cannot and do not penetrate or adhere to the rubber covering as they do to the gauze or wool dressings; (3) the tender granulation-sprouts are not broken off during its removal; hence there is little or no hemorrhage, which leaves the wound better fortified against septic infection, and the healing process is greatly enhanced; (4) there is practically no pain during defecation, a point which seems to us, who have seen patients suffer almost unto syncope during the first movement of the bowels, after the removal of gauze dressings, of very great importance.

The following papers were read by title: **Surgical treatment of non-malignant stricture of the rectum,** by DR. JOSEPH B. BACON, of Chicago; **The proctoscope as a factor in the diagnosis and treatment of simple ulceration of the rectum,** by DR. LEON STRAUS, of St. Louis; **A consideration of the various forms of ulceration of the rectum,** by DR. LEWIS H. ADLER, JR., of Philadelphia; **Rectal carcinoma—excision and subsequent colotomy,** by DR. B. MERRILL RICKETTS, of Cincinnati.

[From our Special Correspondent.]

MASSACHUSETTS MEDICAL SOCIETY.

Held at Boston, Mass., June 13 and 14, 1899.

(Continued from Vol. III, page 1401.)

SECOND DAY.

The **Annual Address,** by Dr. E. H. BRADFORD, surgeon at the Children's Hospital, Boston, was the principal event in the second day's program. The subject was **The growth and expansion of medicine in the last century,** published in the JOURNAL for July 1, 1899.

During the morning there were several other papers of interest:

DR. J. H. MCCOLLOM and DR. E. G. CUTLER gave a **lantern-slide demonstration of smallpox;** DR. J. H. WRIGHT, pathologist at the Massachusetts General Hospital, **a demonstration of parasites in the blood and tissues in malaria;** DR. J. H. CURRY, assistant-surgeon U. S. A., pathologist to the army hospital at Savannah, Ga., read a paper on **Blood-examinations in typhoid and malarial fevers;** DR. E S. BRACKETT, of Boston, who saw service at Santiago, gave an able paper on **The conduct of volunteer aid in foreign territory.** DR. CLARENCE J. BLAKE, of Boston, in a paper on **A hospital clearing-house,** urged the need of some system of interchange of records between hospitals as a means of protection against vagrants and mendicants who apply for treatment without sufficient reason. Lieut.-Col. WILLIAM H. DEVINE, late major and brigade-surgeon, U. S. V., read an interesting paper on **Improvements in army medical service.** During the Spanish war he had charge of a field hospital, and is now medical director of the 2d brigade of the Massachusetts militia. His recommendations are as follows: That a professorship of military medicine be established in every reputable military college; that until such time as professorships are established, the State provide a course on the required subjects; that physical examination of officers and men be mandatory; that troops at State encampments conform as nearly as possible to the routine required in the field; that every medical officer receive a commission. This pertains to contract surgeons as well as others, and that they be amenable to discipline; that one or more men in every company be detailed for regular instruction in the ambulance corps; that one medical officer be selected in each regiment or brigade for his surgical ability; that a corps of

trained female nurses be organized in every State; that division-hospitals in the broad sense be abolished, and that small brigade and division hospitals be established for special cases, such as surgical or contagious; that the volunteers follow as closely as practicable the regime of the regular army, so that when called into service together the two branches may work in harmony; that, in addition to the present instruction in first aid in case of injuries, a course in the prevention of contagious diseases be established; that a reserve staff of medical officers who have served in the National Guard be formed in each State to act if the other force of surgeons is not ample.

At the next meeting of the councillors DR. EDWIN B. HARVEY, who is also secretary of the State Board of Registration, was reelected president of the Society. The other officers chosen were: Vice-president, Charles M. Greer, of Boston; treasurer, Edward M. Buckingham, of Boston; corresponding secretary, Charles W. Swan, of Brookline; recording secretary, Francis W. Goss, of Roxbury; librarian, Edwin H. Brigham, of Brookline.

At 2 o'clock 600 physicians partook of the annual dinner. Addresses were given by Governor Roger Wolcott, of Massachusetts; Rev. Dr. McKenzie, of Cambridge; Attorney-General Hosea M. Knowlton. After the dinner the party took a trip down the harbor, and visited the quarantine-stations, antitoxin-plants and other points of interest.

Gout with Embolism of the Posterior Tibial Artery by an Atheromatous Plate.—F. A. Packard (*Virginia Medical Semi-Monthly*, May 26, 1899) tells of a woman, aged 62, who was admitted to the hospital with pain and swelling in the legs and foot. She had first been troubled with pains in her joints 21 years previously, and each succeeding winter had added to the pain and stiffness. Her fingers were deflected, the interphalangeal joints were much deformed, and there were subcutaneous deposits of soft tophaceous material. The peripheral arteries were decidedly thickened, and the radials were calcified. In spite of various forms of treatment, her condition remained unchanged for about 6 months, when sharp, sudden pain was felt in the left leg, as though she had been struck. It increased in severity, in spite of soothing applications, and 48 hours after the onset reddish-blue blotches appeared, and the foot was very cold. The pulse could not be felt in the dorsalis pedis artery, the bluish spots increased in number and size, blebs formed, and the toes became black and shriveled. The whole foot was of dusky-red color, and a distinct line of demarkation formed at the level of the middle of the instep. The patient was transferred to the service of Dr. W. Joseph Hearn, who amputated the leg just below the knee. On dissection of the leg, the posterior tibial artery was found completely occluded with a firmly organized thrombus, in which was imbedded a spicule of calcareous material. The patient did well for a few days, but the flaps sloughed, and she died from exhaustion, 20 days after operation. At the necropsy, large calcareous plates were found in the aorta, and in places portions had evidently been detached. It is believed that the calcareous embolus arose from the arch to the aorta. [M.B.T.]

Ectopic Gestation; Rupture; Hemorrhage; Operation and Recovery. Dr. J. M. Elder (*Montreal Medical Journal*, June, 1899) says the unusual feature of the case reported lies in the fact of its occurring within four months of delivery and during lactation. With one slight interval, too, the patient had menstruated regularly, and was menstruating at the time of the present illness and operation. The rupture occurred while the patient was hanging up clothes, and was followed by severe pain across the lower abdomen and a faint feeling and persisting vomiting. She had three loose watery stools inside of two hours. When first seen she presented a typical picture of collapse from hemorrhage. There was pain on pressure over the left iliac region, no marked abdominal distention, though there was dulness on percussion in both flanks; pulse 130, small and compressible; temperature 97° F. She was given ¼ of morphia sulfate and $\frac{1}{120}$ atropia before being sent to the hospital for operation. This so masked the symptoms of hemorrhage that the only symptom was a pulse of over 130. The operation disclosed a severe hemorrhage, which was checked by clamping the broad ligament. The patient recovered rapidly and gained flesh during the convalescence. [C.L.L.]

The Latest Literature.

British Medical Journal.

June 17, 1899. [No. 2007.]

1. Clinical Remarks on Amputation of the Lower Jaw. SIR WILLIAM STOKES.
2. On the Treatment of Abdominal Palpitation. SIR WILLOUGHBY WADE.
3. On the Dissemination of Cancer of the Breast and the Necessity for its Treatment by extensive Operation. HAROLD J. STILES.
4. The Probable Parental Form of the Sharp-Tailed Filaria Found in the Blood of the Aboriginals of British Guinea. C. W. DANIELS.
5. On the Method of Operating for Umbilical Hernia, whether for Radical Cure or when Strangulation has Occurred. HOWARD MARSH.
6. Myxedema Treated with "Colloid" Material. ROBERT J. M. BUCHANAN.
7. Pulsating Tumor in the Submaxillary Region. P. BLENNELL FENWICK.
8. Acute Thyroiditis; Suppuration; Operation; Recovery. R. H. PHILLIMORE.
9. Tropical Edema on Shipboard. ALFRED COLEMAN.
10. Plexiform Neuroma of Eyelids with Ptosis; Excision; Ptosis Relieved by Panas's Plastic Operation. RUSHTON PARKER.

1.—Stokes reports a case of **amputation of one-half of the lower jaw,** done to remove a cystic sarcoma of that bone. The tumor had been developing for 5 years and on examination was found to extend externally from behind the angle of the jaw to within an inch of the symphysis. Internally it encroached greatly on the mouth. The patient made an excellent recovery from the operation, the wound healing by first intention. [G.B.W.]

2.—Forcible pulsation of the abdominal aorta during an attack of **abdominal palpitation** is believed to be due to high tension in the abdominal circulation, whatever be the condition of the somatic circulation as tested by the radial pulse. Wade employs nitroglycerin with good result in these cases, $\frac{1}{200}$ of a grain at night is often sufficient. This drug was used in one case where alarming hematemesis had followed an attack and there was no return of the hemorrhage. [A.G.E.]

3.—Stiles discusses the dissemination of **cancer of the breast** and the necessity for its treatment by extensive operation. The nitric-acid method is dissected, clinical and pathologic evidence with routes of local dissemination are detailed, and after careful study he concurs with Watson Cheyne that his firm conviction is that the patient's chance lies in the first operation. If this fails, either from imperfect removal of the disease or on account of the extent of the disease in the first instance, further operation, however extensive, is seldom successful. [W.K.]

4.—Daniels found during a postmortem two worms in the subperitoneal connective tissue which he thinks to be the **parental form of the sharp-tailed filaria.** They are differentiated from the varieties before found by a smaller head, larger body, and the absence of caudal cuticular appendages. Its habitat seems to be in the connective tissue and thus will be difficult to find. He suggests the retaining of "filaria Ozzardi" as the name for the new species.

5.—Marsh suggests a few modifications in the treatment of **umbilical hernia.** An elliptical incision is made around the tumor, so as to include the redundant skin. The sac is separated from the subcutaneous fat and opened in the median line. Adhesions existing between the intestine and the omentum or sac are torn through; if this is not easily done, the attached portions of sac and omentum may be safely exsected after ligature or clamping. The omentum is tied off in strands at the *neck* of the sac and removed. The sac is cut away at a level with the ring. The edges of the neck of the sac are then united with a strong buried catgut suture, and the external wound closed. [G.B.W.]

6.—Buchanan's patient was a man of 54, with **well-marked myxedema.** Treatment was begun in January, 1898, by giving thyroid material in "palatinoid" form, each one being equivalent to 5 grains of fresh gland. One was

taken at night, the dose being gradually increased to 4 in 24 hours, then reduced to 2, and by June to 1. No symptoms of thyroidism arose. The result was a rapid disappearance of all symptoms and a return to normal health. At the time of writing (May, 1899) the man was in excellent condition, taking a daily dose of one or two palatinoids of the "colloid" material. [A.G.E.]

7.—This **pulsating tumor** proved at the operation to be a mass of pulsating varicose veins, probably originating from the lingual vein. The exciting cause of the tumor was a blow on the chin received 10 years before. [G.B.W.]

9.—Coleman, while on a sea-voyage, **found a supposed gain in flesh to be edema.** This occurred while in the tropics, and passed off when cooler latitudes were reached. Several passengers were affected in like manner. They were mostly persons debilitated by long residence in a hot climate. Coleman was from England, but was in poor health. [A.G.E.]

10.—This case of **plexiform neuroma** occurred in a man 45 years of age. The left eye only was involved, but both lids were hypertrophied and pendulous. The first two operations relieved the hypertrophy, but left behind a condition of complete ptosis. The third operation was that devised by Panas for the relief of ptosis, and consisted in bringing the upper lid under the action of the occipito-frontalis. Two more operations were necessary to remedy a few slight failures, but the ultimate result was fairly good, the patient being able to raise the lid at will. [G.B.W.]

Lancet.

June 17, 1899. [No. 3955.]

1. Fragments of Pathology and Therapeutics. W. HOWSHIP DICKINSON.
2. The Diagnosis of Certain Notifiable Diseases. F. FOORD CAIGER.
3. Physical Diagnosis in the Insane. JAMES F. GEMMEL.
4. On "Chronic Venereal Sores," or "Ulcerating Granuloma," with an Illustrative Case. J. MAITLAND and JAMES GALLOWAY.
5. Some Cases of Malignant Diseases Associated with Ovarian Tumors. JOHN D. MALCOLM.
6. On the Danger of High Altitudes for Patients Affected with Arteriosclerosis. TH. FINDLATER ZANGGER.
7. Evolution of the Lines of Sight. CHALMERS PRENTICE.
8. On the Effects of Primula Obconica on the Skin. ROBERT KIRK.
9. A Case of Irreducible Scrotal Hernia (in an old man) containing the Appendix Vermiformis; Operation for Radical Cure. W. H. BATTLE.
10. A Case of Perforation of the Bladder causing Peritonitis and Death. R. LANE JOYNT and ARTHUR STANLEY GREEN.
11. A Case of Ankylosis of the Right Temporo-maxillary Articulation; Excision of the Right Condyle; Recovery. FREDERICK PAGE.

1.—The subject of Dickinson's second lecture is **Remarks concerning diet.** The value of much water at times and of little at others is impressed. One patient with diabetic coma received 456 ounces by intravenous injection in two operations within 32 hours. After receiving 106 ounces she was conscious for 25 minutes. After 350 ounces more she was conscious for 8 hours. A boy tapped 10 times for ascites with no effect was limited to 6 ounces of water, a few small pieces of ice, and 1½ ounces of brandy in 24 hours. Complete and final cure followed this method. **Concentrated foods** are regarded as additions to the essential diet, not as substitutes for it. He uses them to help make up loss by suppuration, but only as a superaddition to a diet abundant in other respects. In typhoid fever and the "typhoid state," milk, beef-tea, sugar and arrowroot are recommended. In extreme conditions the milk and beef-tea may be peptonized. In intestinal obstruction the whey of milk, filtered beef-tea, sugar, alcohol, and malt liquors are the best foods. Lecture third deals with **superficial treatment of deep disease.** Poultices in pneumonia, etc., are an abomination. A light jacket of cotton-wool is the best application to the chest in pneumonia. Irrational means of superficial bleeding to relieve deep congestion are denounced. If we wish to deplete the lung, the liver, or the brain, it must be by way of the general circulation, whether by venesection or otherwise. He is a total disbeliever in the sorbefacient action of iodin when used externally, and states that the painting of enlarged glands is always useless and generally injurious. [A.G.E.]

2.—Caiger considers the **diagnostic points in some of the infectious fevers.** Diagnosis of scarlet fever rests upon: (1) the length of incubation; (2) the fact that the attack is usually ushered in with a combination of sore-throat, headache and vomiting; (3) the association of a characteristic puncto-erythematous rash and faucial inflammation with a characteristic appearance of the tongue; (4) a pulse which at an early stage of the attack is often characterized by undue rapidity; (5) a temperature which usually conforms to a well-recognized type; (6) the occurrence of characteristic desquamation; (7) supervention of one of the well-recognized complications of scarlet fever. The utility of the **bacteriologic test in the diagnosis of diphtheria** is thus summarized: A negative result after careful examination of material taken from the throat, and of the culture derived from it, on at least two occasions may be held practically to exclude diphtheria. A positive result after examination of a throat presenting a definite follicular exudation or from the larynx without visible exudation on the fauces may be regarded as sufficient evidence of diphtheria. The presence of short bacilli (suggesting diphtheria-bacilli) in the nasal discharge alone, even though attended with isolated spots of exudation on the tonsils, cannot be held to be distinctive unless confirmed by inoculation into animals. The series of cases in which the **Widal test** was used are summarized. Of 309 cases examined, 206 were proved to have been enteric fever either by undoubted clinical or postmortem evidence, and 103 were decided not to be enteric fever. Of the 206 cases the blood-serum gave the reaction in 201, though in 7 of these it was not very complete. In the 103 other cases the reaction occurred in only 1, and that was a case of typhus fever. [A.G.E.]

3.—Gemmel mentions cases to show the **difficulty of diagnosis in the insane.** A case of purulent meningitis was supposed to have arisen from suppurating gums caused by carious teeth. Necropsy showed extension to the ventricles of the brain, they being filled with a dirty yellow fluid. A case of **phlegmonous gastritis** gave absolutely no symptoms except an attack of vomiting the day before death. The differential diagnosis between volvulus and stricture is dwelt upon at length. [A.G.E.]

4.—The case described by Maitland was that of a Hindoo of 30, who had a **sore in the right groin.** There was no induration of the base, the sore having resulted from the bursting of a bubo which had been preceded by a lesion of the glans penis. The surface was raised, of a dirty pink color, and somewhat waxy. Hairs protruded from the surface. Very little discharge was present and the edges showed no sign of either breaking down or healing. The surrounding area was purified by dressings for a month and then the affected skin cut out. Occasionally the disease is less chronic. The general health of the patient is rarely affected. The oral cavity has been involved in some cases. Maitland's experience leads him to believe that the disease is contagious, autoinoculable, and in the majority of cases of venereal origin. There seems to be no connection between it and syphilis, being entirely unaffected by antisyphilitic remedies. Mixed cases doubtless exist. A point of particular interest is that even in long-standing cases all the structures of the skin are not destroyed. The disease appears to be confined to young adults, or the middle-aged, and limited to the colored races. Complete excision of the sore is the most effective treatment. [A.G.E.]

5.—Malcolm reports a series of cases in which **malignant disease was associated with ovarian tumors,** and concludes that the removal of an ovarian tumor should be advised whenever its existence is diagnosed. The dangers of the formation of adhesions, of twisting of the pedicle, of the occurrence of pregnancy, of the development of suppuration, etc., should urge the surgeon to immediate action. But of all the arguments in favor of early operation, the possibility that the tumor may be malignant, or that it may become malignant, seems to be the most forcible and urgent and at the same time the least considered. [W.K.]

6.—Rapid change from one altitude to another with a

ifference of 3,000 to 4,000 feet is considered dangerous to hose suffering from arteriosclerosis. Even in a normal condition of the circulatory organs, a health-seeking trip to high ltitudes should be made in two or three stages with a day r more rest at each. Patients with arteriosclerosis should ot attempt a residence at a high altitude without medical dvice. Mountain railways are positively dangerous to an nsuspecting public, as many persons between 55 and 70 consider themselves healthy when they have advanced sclerosis nd perhaps contracted kidney. Patients suffering from rteriosclerosis, at whatever altitude they may be, should be ept on an almost vegetarian diet with sufficient mineral vater, such as vichy and seltzer. Walks should not be taken luring the heat of the day, even at mountain resorts. [A.G.E.]

7.—Prentice has made a careful study of **the angle of he "lines of sight."** Examinations of large numbers f animals, 1,800 North American Indians and aboriginal African negroes, and of the new-born babes and adults of ivilized peoples, have been made. In the first class mentioned the optic axes are, as a rule, widely divergent. In he aborigines there was a general tendency of the eyes to liverge. When men of civilization are reached, the general endency to diverge seems to have changed into one of convergence. This is not due to anatomic shortness of the nternal muscles, but to a tonic, fixed spasm, or innervation f them. It is a functional convergence which, observations how, changes into divergence in blindness or death. In the arious pursuits of civilization, with the eyes fixed on near bjects, convergence is maintained by the excessive use of rain-energy or nerve-strain. A change of scene into the pen country may benefit these overworked people more by elieving this strain than by giving them a "change of air." Prentice concludes that the eyes of man are in a state of evolution as yet incomplete, requiring nerve-energy or eyestrain to bring about normal vision. This strain is variable, epending, to a great extent, on the development of the external muscles, which require stretching to bring the eyes nto line. How much energy this takes from other functions, and how it affects the economy, even to the shortening f life, is impossible to calculate. [A.G E]

8.—Kirk records the **effect of primula obconica** when very lightly rubbed on the arm of a myxedematous patient as causing intense itching, followed by a crop of vesicles and an ulcerated surface. On his own arm but little effect could be obtained, and that only when the surface was scarified as for vaccination, and the leaves and flowers bound on over night. [A.G.E.]

9.—The case reported was an instance of an **appendix occurring in an inguinal hernia** alone except for a mass of omentum, with which it was closely connected. In both femoral and inguinal hernia the vermiform appendix s usually accompanied by the cecum, or other portions of bowel, and the rarity of this and the other cases consists in he fact that the appendix was the sole occupant of the sac. The hernia was painful, and could not be reduced. There was no reason for suspecting the presence of any portion of he bowel in the swelling, and the appendix was only found in he process of dividing the healthy parts of the omentum in removing the hernial portion. [C.L.L.]

10.—The patient entered the hospital with symptoms that pointed to **intestinal obstruction and subsequent peritonitis;** he, however, refused operation. The postmortem showed a perforation of the bladder through an old car, which had probably resulted from tuberculosis or from a series of injuries to the pelvis, which he had previously sustained. The only method of diagnosis was exploratory operation, which was refused. [C L.L.]

11.—The patient had **ankylosis,** the result of suppurative inflammation. Excision of the condyle resulted in free novement. This the author considers the best operation in such cases. [C.L.L.]

New York Medical Journal.

July 1, 1899. [Vol. lxx, No. 1.]

. Three Steps in the Tuberculous Process in Children. DAVID BOVAIRD, JR
. Shadowgraphs of the Intestinal Villus of the Cat. J. W. HARTIGAN.
. On the Importance of an Operation in the First Stage of Thrombosis of the Sigmoid Sinus (following Acute Purulent Otitis Media), with a Report of Three Cases. GORHAM BACON.
4. Comparative Test of Mixed-Fat Emulsion and Codliver Oil at the Hospital for Ruptured and Crippled, New York. W. J. MERSEREAU.
5. The Christian Scientists; What Shall we Do with Them? F. JULIAN CARROLL.
6. Excision of the Right Superior Cervical Ganglion of the Sympathetic for Glaucoma, with Report of Case and Review of Literature of the Surgery of the Cervical Ganglia. JAMES MOORES BALL, EDWIN C. RENAUD, and WILLARD BARTLETT.

1.—Bovaird discusses **the primary lesion, early clinical manifestations, and complications, and terminal lesions in tuberculosis of children.** His observations were made in the New York Foundling Hospital. Seventy-five cases of tuberculosis were found in 665 autopsies; 60 of these showed infection by the respiratory tract; 8 by either respiratory or intestinal tract; 7 by respiratory tract (record as to intestines incomplete). Of the early evidences of tuberculosis but 2 are of importance, and they suggest the possibility of the disease, but do not differentiate it. These are (1) progressive emaciation, not explained by any other disorder; (2) continued elevation of temperature similarly conditioned. Tuberculous meningitis was found in 22 cases. [A G E.]

2.—The **superiority of shadowgraphs over the ordinary photomicrograph** is shown by plates. Transparencies are made from photomicrographic negatives and their projection on a screen is then photographed. [A.G.E.]

3.—Bacon reports 3 cases, in which he has operated at an early period in **thrombosis of the sigmoid sinus** with success. He urges early operative interference. He emphasizes particularly the following points: The impropriety of giving antipyretics in all cases of otitis media, as they mask the symptoms and prevent early recognition of sinus-thrombosis. The value of bacteriologic examination of the secretion from the external auditory canal in all cases of suppurative otitis media. The recognition of pneumococci or streptococci shows the seriousness of the infection and makes prognosis graver. The importance of operating at the earliest possible stage, after a diagnosis has been made. The use of normal salt-solutions during the operation for sinus-thrombosis, or immediately following it. [C.L.L.]

4.—Mersereau gives the results of a test made for the purpose of determining **the comparative values of mixed-fat emulsion and codliver-oil** in children suffering from tuberculous lesions other than those of the lungs. Both were given solely as *foods*, not as specifics. The results are strikingly in favor of the emulsion, the children of that group showing a decided gain over those in the oil-group in weight, local condition, activity, color, and general condition. [A G.E.]

5.—The position of **Christian Scientists as a menace to the commonwealth** is emphasized. The duty of physicians to hasten their downfall by something more than a passing disapproval is also urged. [A.G.E.]

6.—The authors report the first case of **removal of the cervical sympathetic superior ganglion for glaucoma,** which was successfully performed, and which has, up to the time of reporting, produced the results which were expected, relieving pain and reducing the intraocular tension. The beneficial results are produced by inhibiting vaso-constriction, hence the dilatation of the arteries, the lessened blood-pressure, and the decrease of extravasation. It inhibits secretion, hence the decrease of aqueous humor. It inhibits iris-irritation, hence the contraction of the pupil, with opening of the canals in the iris-angle, and consequent easy flow of aqueous humor from the eyeball. The circumbulbar unstriped muscles, which have been in a state of tonic contraction, are allowed to relax, and the normal venous circulation in the tunics of the eye is restored. [C.L.L.]

Medical Record.

July 1, 1899. [Vol. lvi, No. 1.]

1. Notes on the Treatment of Yellow Fever with the Blood-Serum of the Bacillus Icteroides and its Preparation. CHARLES B. FITZPATRICK.

2. A Further Contribution to Exclusion of the Intestine. FREDERICK KAMMERER.
3. A Grooved Perineal Canula to be Used as a Guide in Performing Perineal Sections in Cases of Urethral Obstruction. RAMON GUITÉRAS.
4. The Ill-Effects of the Röntgen Rays as Demonstrated in a Case Herewith Reported. DAISY M. ORLEMAN.
5. Cystoscopy and Ureteral Catheterization in Women. EDWARD NICHOLAS LIELL.
6. How to Retain Your Grip on the Practice of Medicine. SIDNEY DAVIS.
7. Foreign Bodies in the Throat. HERBERT J. HOPKINS.
8. A Case of Akromegaly. A. HYMANSON.
9. A Unique Case of Pityriasis Versicolor. WILLIAM S. GOTTHEIL.

1.—Fitzpatrick treated horses by injecting them with the filtrate of cultures of the **bacillus icteroides** of Sanarelli. A reaction consisting chiefly of weakness followed. One horse lived, and after continuing the injections from January to October its blood-serum was used on a guineapig that had previously been infected with cultures of the bacillus icteroides. The result was prolongation of the animal's life for several days beyond that of a control-animal. The following May (1899) the serum proved more effective, animals injected with 3 cc. of culture dying, while others that had received from 10 to 14 cc. of the serum lived. At present the serum is still active in preventing the lethal effects of the culture and to about the same degree as mentioned. [D L.E]

2.—Kammerer reports a case of **fecal fistula** resulting from an appendicitis in which the adhesions were so dense and extensive that it was impossible to separate them as there was extensive involvement not only of the cecum, but also of the small intestine, while there were extensive abscess-cavities and diverticula extending in one instance up to the diaphragm. Openings had been made both anteriorly and in the lumbar region, but without success in closing the fistula. An abdominal incision was therefore made with the intention of removing the appendix and draining the abscess; this, however, was found impossible. He therefore did an incomplete exclusion of that portion of the intestine joining the ileum to the transverse colon by an end-to-side anastomosis by means of the Murphy button. The result was very gratifying, as the fistula ceased to discharge almost entirely and the patient gained fifty pounds in weight. The exclusion was then made complete by dividing the colon above the anastomosis which was found to be perfect. Six feet and over of large and small intestine were excluded by the operation. The fistula healed and the patient has for some time been perfectly well, with no bad symptoms. The writer would advise that in all cases the partial exclusion be performed before the complete, as thus it gives time for the bowel to become accustomed to this condition. [C.L.L]

3.—Guitéras describes a modification of a grooved **perineal canula,** which he has shown previously and has used with great convenience in cases in which he had found difficulty in entering the bladder by the perineal route in cases of complete stricture. He thinks its employment would be found particularly valuable in cases of impermeable stricture with retention, requiring immediate radical operation. In cases of ruptured urethra, of extravasation of urine, of extensive urinary abscess, of perineal celulitis, and of fracture of the pelvic bones with injury to the urethra. [C.L.L]

4.—Orleman reports a serious case of **injury during a Röntgen-ray examination,** which was a personal experience. The injury was the result of 3 exposures at 10 inches distance from a tube that was energized by a coil on 110 volt circuit. It was apparently a trophic lesion of the terminal nerve-fibers, and the result not of the x-ray *per se*, but of the electricity which surrounded the apparatus and tube. A section of tissue removed shortly after the accident shows a chronic inflammation characterized by the development of dense fibrous tissue in abundance. Although it is impossible to avoid such accidents in all cases, they can be prevented with a great degree of certainty by the use of a conducting screen of aluminum, which should be placed between the patient and the tube, and connected by a grounding wire to a convenient gas pipe, while the tube should be at a distance from the patient. The treatment advised is general, to build up the system and increase the vitality. The part should be kept at rest by means of a splint, if it is a limb, while local applications are made. Massage twice daily was found very valuable in keeping up the circulation of the limb. [C.L.L.]

5.—Liell emphasizes the value of **cystoscopic study of the diseased bladder in women** if absolute knowledge is to be obtained. He believes that this with catheterization of the ureters, with separation of the urines, is one of our most efficient means of determining at an early period the condition of the kidneys. [C.L.L.]

7.—Hopkins advocates a systematic search of the pharynx, larynx, posterior nares, esophagus, and trachea in cases of **suspected foreign bodies.** The laryngoscope and horse-hair probang are very valuable aids, while in certain cases emetics are of assistance. [C.L.L.]

8.—The case of **akromegaly** occurred in a woman of 39. She had the usual appearance of the face and hands, showing marked enlargement of the face; the chin being prominent, the hands large and spadelike, the sternum was broad, the ribs thickened, and the shoulder-bones large. The mental processes were very slow. She showed no improvement upon either thyroid extract or pituitary extract, the former causing some temporary change for the better but being followed by decided symptoms of intoxication. There was an appearance of edema in parts, the skin was coarse, and radiographs showed thickening of the soft parts as well as of the bones, so that Hymanson is inclined to believe that in this case, as well as in some others, there was probably a combination of akromegaly with a myxedematous condition. [D.L.E.]

9.—It is taught by many authorities that **pityriasis versicolor** does not occur on the palms. This case is evidence that such teaching is not correct. The patient, a physician, presented a dark brown scaly macular eruption on the left palm without involvement of any other portion of his skin surface and microscopic examination showed the presence of large numbers of the microsporon purpur. The color of the eruption was peculiar in that it was exceedingly dark, almost black. [D.L.E.]

Medical News.

July 1, 1899. [Vol. lxxv, No. 1.]

1. A Collective Investigation of Yellow Fever in the Island of Cuba. D. T. LAINÉ.
2. Crural Thrombosis Following Aseptic Celiotomy. HENRY C. COE.
3. Otitis of the Exanthemata from the Standpoint of the Pediatrician and General Practitioner. J. HENRY FRUITNIGHT.
4. Permanent Separation of the Amnion and Chorion in the Mature Afterbirth. Forming Double Fetal Sacs. J. B. NICHOLS.

1.—Lainé analyzes the replies to a series of inquiries to local medical men in Havana in regard to **yellow fever.** It appears difficult to make a positive diagnosis, and only a peculiar grouping of ordinary symptoms can be spoken of as pathognomonic. These consist essentially of remission between the first and second period, albuminuria, jaundice, hemorrhages, headache, backache, and congestions. It appears that malaria and yellow fever may occur together. Sternberg's treatment is very rarely employed, partly because salivation is feared. The general mortality is apparently about 23%, but is extremely variable. Lainé concludes that the fiebre de borros is nothing but a mild form of yellow fever occurring in natives, and acclimatization fever is essentially the same thing occurring in immigrants. The most dangerous portions of Havana are those that were frequented by the arriving Spanish soldiers. No satisfactory preventative precautions have as yet been suggested, but it seems likely that the disease can be banished by proper sanitation. [J.S]

2.—See PHILADELPHIA MEDICAL JOURNAL, page 1202, Vol. III.

3.—Fruitnight calls attention to the **frequency of otitis media in the acute exanthemata,** having observed it in about one-third of 500 cases, particularly in children with a tuberculous, rachitic, or syphilitic constitutional taint. In regard to the treatment, the nose and throat should be carefully cleansed, and if the membrane bulges, an incision should be made. Afterward, the external ear should be cleansed by

peroxid and warm water, and dressed with an alcoholic solution of boric acid. [J.S]

4.—Nichols describes a case in which a placenta was found to exhibit the abnormity of having the **amnion entirely separate from its chorion,** so that the fetus was surrounded by two separate sacs. Seven other cases on record of this abnormity are referred to. [W.K.]

Boston Medical and Surgical Journal.

June 29, 1899. [Vol. cxl, No. 26.]

1. The Expansion of Medicine. E. H. Bradford.
2. The Non-retarding Action of Combined Hydrochloric Acid on Starch-Digestion. A. E. Austin.
3. Location of the Right and Left Borders of the Heart by Distance from the Median Line. Francis H. Williams.
4. Chrysarobin a Specific for Warts. G. W. Fitz.

1.—See Philadelphia Medical Journal, July 1, 1899.

2.—Austin, in a previous investigation, showed that both vegetable and animal albumins were capable of combining with the free hydrochloric acid of the gastric juice, and that the acid thus combined had no hindering action on the diastatic digestion of **starchy food** in the stomach, and that the **larger part of such food was digested in the stomach by the ptyalin of the saliva** before the free hydrochloric acid accumulated sufficiently to prevent the action of the salivary ferment. In the present communication a number of experiments are reported confirming his former statements. The experiments were made on a student who had the ability of regurgitating his food *ad libitum*. In the first experiment the subject partook of an ordinary luncheon; in the second, of a breakfast of starchy food; in the third, of starches and albumins (milk, eggs). In one, the salivary action was paralyzed with atropin; and in several others, taka-diastase was administered. The first appearance of free hydrochloric acid after an Ewald-Boas test-meal was also determined. The **conclusions** are as follows: (1) When a nonalbuminous test-meal is given, free hydrochloric acid makes its appearance at the end of 20 minutes after eating, and at the end of a half hour the amount of free hydrochloric acid equals that of one or two hours after eating, when albuminous foods are taken. (2) Under normal conditions, the ptyalin of saliva digests most of the starchy constituents of food in the stomach within one or two hours; this digestion takes place before free hydrochloric acid accumulates in the stomach to such an extent as to interfere temporarily with the diastatic action of saliva on starchy food. Those portions of starchy food which remain comparatively undissolved and pass over to that portion of the digestive canal where they are acted upon by the pancreatic diastase, constitute a very small portion of the starchy food taken. (3) The administration of isolated diastase considerably enhances the digestion of starchy food in the stomach, even under normal conditions. (4) The elimination of the supply of the ptyalin of saliva in the stomach will cause marked retardation of starchy digestion in the stomach. (5) A maldigestion of starchy food, due to the deficiency of the diastatic power of saliva, can be regulated by the administration of isolated diastase. (6) The impression held by many that the diastase of saliva becomes nonactive 15 or 20 minutes after eating is totally erroneous. [D.R.]

3.—Williams recommends that the right and left **borders of the heart** be designated with reference to the **middle line,** rather than by designating their relations, as is the custom now, to the border of the sternum and to the nipple-line. In women the nipple-line is too indefinite, and in men the position of the nipples varies considerably. The distance of the nipple from the median line in different subjects may vary as much as $1\frac{3}{8}$ inches. [D.R.]

4.—**Warts** on the feet, for which Fitz recommends **chrysarobin,** are readily distinguished by their location (usually on the plantar aspect of the foot) and by their bleeding from a central vertical bundle of papillæ, arranged like a pepper-box, and ordinarily projecting somewhat above the pared surface. This central bundle of papillæ is surrounded by a thickened area of skin, penetrating to a greater or less depth, and an outer painful zone of inflamed skin. Before using the chrysarobin, the wart is thoroughly pared until there is profuse bleeding, and the solution then applied to the denuded surface. This is done nightly. In most of the cases the chrysarobin produced little or no effect before the end of the first week, except that the pain became less and the wart did not increase. In the second week the progress was generally rapid. In the third week nearly all were cured. In a series of 8 cases there was no failure. Two apparent failures were traced to difficulty in paring the wart, and as soon as this was remedied by sandpapering, the cure progressed favorably. [D.R.]

Journal American Medical Association.

July 1, 1899. [Vol. xxxiii, No. 1.]

1. The Ophthalmic Section. Chairman's Address. Casey A. Wood.
2. Practice of Medicine Section. Chairman's Address. Frank Billings.
3. Action by Toxic Agents. U. S. Davis.
4. Oblique Inguinal Hernia. Alexander Hugh Ferguson.
5. Prostatic Hypertrophy. Ramon Guitéras.
6. Estimation of Hemoglobin. B. M. Linnell.
7. Angina Pectoris. J. D. Morgan.
8. Tubercular Pelvic Peritonitis. Charles C. Allison.
9. Diseases in Schools. Lambert Ott.

1.—See Philadelphia Medical Journal, June 24.
2.—*Ibid.*, June 10.
3.—*Ibid.*, June 10.
4.—*Ibid.*, June 17.
5.—*Ibid.*, June 17.

7.—Morgan studies the literature of this subject in relation to the etiology of the disease, and reports a number of cases both fatal and in which the patient has apparently recovered from the series of attacks and has obtained absolute freedom. He says it would seem from the facts at hand, clinic, pathologic, and physiologic, that whereas sclerosis of the coronary arteries or aorta, or dilation of the heart, etc., is found in a large number of cases of **angina pectoris,** yet attacks of true angina may occur in patients who are entirely free from organic disease of the heart, and, vice versa, we may find most extreme calcareous conditions of the coronary arteries to exist with no obtainable history of cardiac distress and dying of a complaint entirely foreign to angina pectoris. He tends to the belief that the disease is the result of a toxic condition of the blood that alters the nutrition of the heart, its muscles becoming poisoned by the toxic material which a poor circulation permits to remain in the tissues. [C.L.L.]

8.—Allison finds in this **pelvic manifestation of tuberculosis** which bears a direct relation to the circulatory changes and the lymphatic engorgements which occur with greatest frequency during the functional activity of the genital system. [C.L.L.]

9.—See Philadelphia Medical Journal, June 10.

American Journal of Obstetrics.

March, 1899.

1. The Physical and Moral Effects of Absence of the Internal Female Sexual Organs: with Remarks on Congenital Sexual Malformations in the Female. Paul F. Mundé.
2. Puerperal Infection. Julius Rosenberg.
3. Post-Operative Insanity. George H. Rohé.
4. Post-Operative Insanities and Undetected Tendencies to Mental Disease. Henry M. Hurd.
5. The Advisability of Using Catgut in Surgery, and an Ideal Method of Preparing it. C. C. Frederick.
6. A Method of Preparing Catgut. Barton C. Hirst.
7. Hysterectomy following Double Ovariotomy for Malignant Adenoma. C. M. Baldy.
8. Two Cases of Obliquely Contracted Pelvis with Abnormal Mechanism of Labor. Edward P. Davis.
9. Simulated Peritonitis in an Hysteric Woman. George Wythe Cook.
10. A Case of Multiple Pregnancy. Jennie G. Drennan.

1.—Mundé discusses the **physical and moral effects of the absence of the internal female sexual organs,** and reports several interesting cases of congenital sexual malformations in the female. Curiously, nature does not appear to pursue any system or order in these errors of development; and a person who is physically and morally, so far as the latter attributes can be judged, a perfect woman, may still lack the one essential factor of femininity, the ovaries, and instead possess the organs which stamp the individual a man. Mundé has observed 27 cases of various types of malformation. He is induced to believe that in those women in whom examination fails to reveal the internal organs of generation, and who possess a perfect feminine figure and attributes, there is somewhere in the abdominal or pelvic cavity a perhaps infinitesimally minute ovarian trace which preserves their femininity, although it is insufficient to cause ovulation or menstruation. He also discusses the influence of the removal of the ovaries on the fully developed female body and character, when it is performed either for disease of those organs or for the purpose of arresting menstruation, and has never observed a case in which, after the woman has attained her full physical and psychical development, any positive alteration has been produced in her by the removal of her ovaries. Nor has any marked diminution of sexual desire been observed, although frequently women confessed that they had no particular sexual desire before operation, and many have reported increased sexual desire after the removal of diseased organs. [W.K.]

2.—Rosenberg discusses the causation, mode of infection, and prophylaxis of **puerperal infection.** This infection is not dependent upon one specific microorganism, but may be produced by various types of bacteria; the one most commonly met with and responsible for the most serious cases is the streptococcus pyogenes. The other forms of bacteria are also found. All investigations tend to prove that puerperal infection is due, in the vast majority of cases, to the introduction of infectious material into the woman's system through unclean hands and instruments. In regard to the value of antistreptococcic serum, the testimony for and against its use is most perplexing. The future will show whether in the serum treatment we possess a valuable factor in combating pronounced puerperal sepsis, or whether it will form another addition to the many remedies which for a time aroused great hopes but were soon relegated to the vast graveyard of useless remedies. The rarest form of infection is pyemia, in which the bacteria enter the venous circulation from the endometrium or from ulcers of the cervix or vagina. In this form operative treatment is useless as the infection is beyond reach, having spread throughout the body. Good results have followed the use of ointments containing the soluble silver salts as suggested by Credé. [W K.]

3.—Rohé discusses the various forms of **mental disturbance after operations** and advises the following treatment: Primarily, attention should be fixed upon all possible sources of toxemic infection; that these should be searched for, and when found, removed if possible. Nutrition demands constant attention. Easily digested food in sufficient quantity must be provided, and the physician should satisfy himself that the patient gets it at the proper times. Forcible feeding is rarely necessary, but many patients require urging to eat. Such a one is liable to suffer in the hands of a careless nurse or attendant. Stimulants are often necessary, especially in cases with much fever. The insomnia and delirium can often be overcome by warm baths; but if the usual hygienic means of producing sleep fail, hypnotics must be resorted to. Of these, opium is to be preferred on account of its stimulant properties. Chloral, hyoscin, and paraldehyd are not recommended, the former on account of its depressant effect upon the heart, and the two latter because they interfere with nutrition. Next to opium, strophanthus and strychnin are often of great value to tone up the depressed heart. The bowels should be kept open by mild saline purgatives. Tincture of chlorid of iron in large doses is often of value. Under proper management recovery is often remarkably rapid. Ovarian extract has been used with supposed benefit in a case of removal of the ovaries and appendages. [W K.]

4.—Hurd believes that when **mental disease** has developed **subsequent to an operation,** it will often be found that the patients had a strong hereditary tendency to insanity, derived from an insane, an intemperate, or a neurotic ancestry. This is especially true in case of so-called relapsing or circular insanity, in which the patient has had a cycle of depression and elation, each condition covering a period of months or even a year or two. It is not at all uncommon with these patients, while in a state of depression, to complain of vague abdominal pain, to suffer from a variety of subjective symptoms referable to the uterine system. Such hypochondriac fancies often occupy the thoughts of such patients to the exclusion of all other ideas, and the moral pressure which they bring to bear upon friends, relatives, and family physician to secure surgical attention is very great. Let every surgeon study his patient as a sick human being and not as a surgical case only. [W.K.]

5.—Frederick believes that thoroughly sterilized catgut is the best ligature-material and should be employed by all operators who have the best interests of their patients at heart, and who desire to bring surgical technic and surgical convalescence as nearly to the ideal as possible. He prefers gut prepared by the formalin process, and considers that for thorough sterility, complete tensile strength and ease of preparation, it is the ideal method. [W.K.]

6.—Hirst reports a method of **preparing catgut** which gives him best results. The catgut is prepared by soaking in benzine for 12 hours to eliminate the fat. It is then dried on a piece of blotting paper, and then soaked in sterile water in order to make it receptive and absorptive, after which it is immersed in a 5% solution of formalin over night, about 14 hours. It is then washed in sterile water to remove the excess of formalin, and stretched on a form such as Edebohls used for chromicized gut, and is allowed to dry for 4 or 5 days in a well-heated room until absolutely dry. It is then wound on a conveniently large wooden spool, so that the coils will not cross each other, and is finally put in a 10% solution of glycerin in absolute alcohol. It is then sterilized for 45 minutes to an hour in a metal cylinder with a tight screw-cap, which is put in an autoclave sterilizer and kept at 240° F. In this way the catgut is made absolutely sterile throughout. The formalin soaks into its interior and not only makes it aseptic but antiseptic. Microorganisms cannot be cultivated on catgut treated with formalin. [W.K.]

7.—Baldy reports a case in which **hysterectomy** was performed for primary adenocarcinoma arising from the mucous membrane. the patient having submitted to a double ovariectomy several months previously. He advocates the removal of the uterus in those cases in which it is necessary to remove both ovaries, as it is well known that many of the diseases which eventually require the removal of both appendages have in their incipiency attacked the uterus and not infrequently have left it permanently impaired. It is equally a fact that impaired tissue is prone to take on degenerative changes, especially if there is a tendency toward such a development. No excuse, then, can be offered for an opposition to the removal of tissue already diseased or useless, and with many possibilities and probabilities of future diseases. [W.K.]

8.—Davis reports two cases of **labor in obliquely contracted pelves.** The prognosis for delivery in an obliquely contracted pelvis, where the deformity is considerable, is very bad. Writers agree in forbidding efforts at delivery by version or forceps where the deformity is considerable. Winckler reports a successful delivery by forceps in a pelvis not highly contracted, while Lusk induced labor at 29 weeks of gestation in an obliquely contracted pelvis and delivered by version a child which gasped but did not breathe. In high grades of contraction delivery by abdominal section is always indicated. Symphysiotomy is not available in these cases, because the opening of the pubic joint will not correct the deformity. The cases reported serve to illustrate the pathology of the condition and its influence upon the mechanism of labor. [W.K.]

9.—Cook reports a case of **simulated peritonitis** in a hysterical woman. The patient was apparently suffering from a violent perforation peritonitis, her symptoms and previous history justifying such belief; but an enema of four ounces of asafetida dissipated the disagreeable symptoms. [W.K.]

10.—Drennan reports an interesting case of multiple pregnancy in which there were three male fetuses with two placentas. [W.K.]

Edinburgh Medical Journal.

February, 1899. [N. S., Vol. v., No. 2.]

1. A Retrospect of a First Series of 110 Abdominal Sections for Pelvo-abdominal Disease. F. W. Haultain.
2. The Involution of Life—A Scheme of Pathology. Robert Maguire.
3. The Vis Medicatrix Naturæ. W. B. Ransom.
4. A Research Into the Bacteriology of Typhus Fever—Preliminary Notice. Andrew Balfour and Charles Porter.
5. Repeated Ectopic Pregnancy in the Same Patient with Account of a Case Where Two Gestation-Sacs (One a Lithopedion) Were Successfully Removed from Either Side at One Operation. James Haig Ferguson.
6. On the Relation of the Nervous System to Disease and Disorder of the Viscera—Disorders of Visceral Motion. Alexander Morison.

1.—Haultain gives a retrospect of **110 cases of abdominal section for pelvo-abdominal disease,** death occurring in 2 cases. The largest ovarian tumor removed weighed 83 pounds. The patient herself on recovery weighed but 1 pound more, which solved the previously doubtful question as to whether the patient had been removed from the tumor or vice versa. Perhaps the most interesting case in this group was one in which there was a rudimentary uterus, not larger than the terminal phalanx of the little finger, and a total absence of fallopian tubes. The cyst was intraligamentary, pelvic, and sessile. From the absence of the usual landmarks of the uterus and tubes, the enucleation was considerably complicated; the pedicle, if such it might be termed, having to be formed by the infundibulopelvic ligament. Suprapubic cystotomy was done in 3 cases; in each instance for the removal of new growths from the bladder. The method of urethral drainage, using a No. 20 soft rubber catheter, was adopted, and he considered it most agreeable and comfortable for the patient. In technic he aimed to secure three primary essentials; (1) asepsis; (2) control of bleeding; (3) precaution against injury to the hollow viscera. When pus or other foreign fluids escape into the peritoneal cavity, irrigation with 1 to 40 boroglycerid solution was used. [W.K.]

2.—Maguire, in concluding his article on the **involution of life a scheme of pathology,** selects a number of conditions in which the new law proposed serves as an aid to a proper diagnosis and correct treatment. [S.M.H.]

4.—Balfour and Porter made a research into the **bacteriology of typhus fever** during the recent epidemic in Edinburgh. They studied postmortem 7 fatal cases. In every case a diplococcus was found. In 6 the blood from the heart, spleen, and the lung was examined. In 4 of these the diplococcus was present in each organ. In 1 of the others it was present in both spleen and lung, while in the remaining one it was found only in the lung. In the seventh case the examination was limited to the spleen. They succeeded in isolating and studying the diplococcus. Microscopically it appeared as a well-marked diplococcus. It had no capsule and possessed Brownian movement. It stained well with carbol-fuchsin, and gentian-violet, and retained the stain by Gram's method. It sometimes tended to occur in chains, tetrad formations, and small clusters, but generally it was found as a separate diplococcus. It grew rapidly in broth and milk and was easily cultivated on agar, blood-serum, Löffler's blood serum, and potato. In jelly-streak and stab-preparations its colonies generally appeared within 3 days; when kept at a temperature of 18° C. liquefaction took place in from 5 to 8 days. On agar the appearance was characteristic, being copious, white and irregular at the margins. The growth was somewhat similar on blood-serum and streak-jelly. In stab-jelly it was faint, appearing as small dots along the needle track. On potato it was copious and cream-colored. It was readily plated on agar jelly, the growth being diffuse and spreading. It grew more slowly when plated on nutrient jelly, appearing as small pin-head colonies. There was no gas-formation in glucose jelly. The most favorable temperature for its development and growth was 37° C. They further made an examination of the blood in living cases by means of films, hanging drops, and broth-cultures made direct. Nineteen cases were thus examined. Of these, in 15, ranging from the fourth to the fourteenth day, large numbers of diplococci were found after the broth had been incubated at 37° C. for from 12 to 48 hours. The diplococcus was the only organism present and it presented the same characters as the diplococcus found postmortem. In the films and hanging-drop specimens the organism was usually found separate and free from plasma. The remaining 4 cases were convalescents, but even in them, with 1 doubtful exception, the same result was obtained. [S.M.H.]

5.—Ferguson describes a case of **repeated ectopic gestation** in the same patient, in which the two gestation-sacs, one a lithopedion, were successfully removed. There has lately been reported a considerable number of cases of repeated tubal pregnancy in the same woman, but laparotomy performed twice on the same case is mentioned by only 14 operators. The chief cause of extrauterine pregnancy is some mechanical obstruction, most likely from some perisalpingitic or perimetric adhesions causing obstruction of the tube by formation of peritoneal bands. In this case there was no question of the existence of longstanding perisalpingitis and cellulitis. Some authorities advise the removal of both tubes and ovaries, owing to the frequency of recurrence, for the desquamative salpingitis, which is the cause of the extra-uterine gestation in one, without doubt exists in both tubes. [W.K.]

March, 1899. [N. S., Vol. v, No. 3.]

1. Treatment of Ozena with Special Reference to Cupric Electrolysis. P. McBride.
2. On the Relation of the Nervous System to Disease and Disorders of the Viscera—The Disorders of Visceral Motion. Alexander Morison.
3. The Causation and Rhythm of the Crescendo Murmur of Mitral Stenosis. E. M. Brockbank.
4. Vaginal Hysterectomy for Cancer. J. Halliday Croom.
5. The Inebriates Act of 1898. G. R. Wilson.
6. Clinical Considerations in Chorea. J. Purves Stewart.
7. The Function of the Decidual Cell. W. E. Fothergill.
8. Urinary Antisepsis. A. A. Warden.

1.—McBride reports 8 cases of **ozena treated by cupric electrolysis.** The strength of the current used varied from 3 to 10 miliampères, rarely exceeding the latter. Cocain was generally used, and after cleansing the nostrils a copper needle attached to the positive pole was inserted into the anterior or middle turbinated, sometimes into the tissues lining the middle meatus, while the platinum needle was passed into the septum. Each sitting lasted about 10 minutes. Of the 8 cases 4 were practically cured for long periods extending to 18 months; in 1 there was marked improvement; in 1 apparent cure lasting some months with recurrence; while in 2 there was improvement for a few weeks only. He believes that in cupric electrolysis we have a valuable therapeutic resource, probably the most valuable that has been suggested for ozena. [S M H.]

2.—Morison concludes his lectures by a brief discussion of the **effect of the study of the minute anatomy of the brain upon psychology and metaphysics.** He does not believe that these will be in the least affected by such studies, and holds that the sense of the mystery and sanctity of life will remain intact. He draws particular attention to the visceral nature of the brain, and the fact that it may be influenced by disease of any other viscus. Its functions are receptive and retentive, or connective and executive. He believes with Descartes, that impressions received from various sources are unifiable into simple conceptions in some portion of the brain, but he does not think that we have discovered the position of this part. Morison then calls attention to the differences observed in the cortex of the different parts of the brain, and believes, in particular, that the differences shown by the temporosphenoidal lobe may furnish a clue to the characteristics of the receptive and retentive or connective and executive organules of the brain, and he, therefore, in order to gain more light upon the subject, carefully studied the structures concerned in olfaction. As a result of these observations, and of some consideration of the anatomy of the temporosphenoidal lobe, he concludes that the peculiar cells found in the latter situation have to do with sensory perception, and that the polymorphous cells are probably motor in character. He believes there is some sort of a histologic basis to memory which has a peculiar organule, just as motion has a peculiar organule. He, there-

fore, assumes a specific organization or specialization in function. He then digresses slightly, and argues that thought is not consciousness, but that the latter is life manifest in the brain as motion, and both are based upon irritability. He concludes that a prim consciousness existed before thought, and makes a few applications of his remarks to certain mental conditions. [The anatomic premises utilized by the author appear inadequate to justify the rather abstruse conclusions. J.S.]

3.—The presystolic or original and orthodox view as to **the causation and rhythm of the crescendo murmur of mitral stenosis** is that the murmur is due to the extrusion of blood through the stenosed aperture under pressure by the auricle aided by the aspirating force of the ventricle during the period of diastole of the heart; in most cases it suddenly ceases at the moment of the production of the first sound of the heart. It manifests a heightened intensity at its close due to the contributory impulsive force of the auricular systole; the first sound which terminates it is usually very short and abrupt and is due chiefly to the sudden tension of the tricuspid valve and of the walls of the right ventricle. The early systolic theory of the production of this murmur, the one which Brockbank accepts, is that the murmur arises from blood escaping through the mitral valve before it is closed by ventricular systole and that it is early ventricular systolic in rhythm. He expresses his idea as to the production of this murmur in the following words: The true crescendo murmur of mitral stenosis is of early systolic rhythm and is formed by blood regurgitating through the stiff jaws of the stenosed valve whilst they are abnormally slowly closing under the rising force of intraventricular pressure generated by the earliest phase of the ventricle's contraction. The accentuated first sound of the heart which terminates a crescendo murmur is due to the impact of the walls of the rigid thickened orifice of the valve. The arguments given in support of this theory are as follows: An apparatus is contrived to show the method of production of the murmur. It consisted of 2 syringes coupled together by a tube. The auricle syringe was simply a ball syringe with inlet tube and valve and a short valveless outflow-tube which was connected with a tube running into the other syringe. The tube represented the auriculo-ventricular ring, and the second syringe, the ventricle. This latter syringe consisted of an old type of Glover's lithotripsy evacuator, part of which was formed by a glass chamber. Into the free end or head of the glass chamber the auriculo-ventricular tube screwed so that about 1 inch projected into the chamber and an equal amount remained outside. To the outer end of this tube the auricular tube was fixed; on the inner end imitation stenosed valves were placed where their behavior under different conditions of water-pressure could be clearly watched. Experiments with this instrument were carried out under water in order to keep all air out of the apparatus. The object was to see whether a crescendo murmur could be produced by forcing blood from the auricle syringe into the ventricle or in the opposite direction. To hear the bruits the chest-piece of the binaural stethoscope was applied to the glass chamber under water. A study of this apparatus showed that it was quite impossible to produce any bruit of varying pitch and nothing at all resembling a crescendo murmur whilst the water was being forced from the auricle into the ventricle syringe through the stenosed valve, but the moment the current of water through the valve was reversed by compressing the ventricular syringe very fair imitations of blubbering, ascending pitch murmurs were obtained. The vibrations of the valve producing this sound could also be seen through the glass of the apparatus. When the amount of force used in driving the water from the ventricle into the auricular syringe was increased the murmur assumed a crescendo character, rose in pitch and terminated abruptly with a thud comparable to that of the completion of a crescendo murmur in mitral stenosis. This experiment showed, in addition to the method of production of the crescendo murmur, the probability of the abrupt first sound of mitral stenosis being caused by the impact of the walls of the closing rigid valve, as a clear note of impact could be heard when the sides of the rubber valve were seen to be forced into collision by compressing the ventricle syringe. As to the origin of the force which produces the crescendo murmur, any theory which explains its production must hold good in whatever condition the left auricle may be found, and it must be remembered that this murmur not uncommonly occurs in cases in which the auricle is dilated and abnormally weak, under which conditions it would be quite incapable of producing a vigorous murmur. On the other hand there is no question as to the ability of the left ventricle to produce such a murmur as that of mitral stenosis. The time occupied in the production of these murmurs is only a small fraction of a second. Less than half the duration of ventricular systole fully covers the period occupied by it. Though of short duration, these murmurs may vary in length. The more rigid and stiff the valve, the longer will closure be delayed, and therefore the longer will the crescendo bruit be produced at the valve. The extreme of this condition is a rigidity which cannot be overcome, with the consequent development of the ordinary systolic murmur of regurgitation. The rapidity of development of intraventricular blood-pressure also influences the length of the murmur. The earlier the stage of ventricular systole at which an intraventricular blood-pressure sufficiently high to close the right valve is developed, the shorter will be the crescendo murmur, and vice versa. The rapidity or slowness of the heart's action also affects the duration of this murmur. The quicker the contraction of the ventricle the shorter will be the crescendo murmur under otherwise similar conditions, and vice versa. The ascending pitch and crescendo characteristics of the murmur of mitral stenosis are accounted for by the fact that in mitral stenosis the peristaltic contraction is too feeble in its onset to close the stiff, immobile jaws of the valve, but sufficiently strong to force blood to regurgitate through them into the auricle and to give rise to the commencement of the crescendo murmur. The more forcible contraction of the rest of the ventricular wall develops sufficient intraventricular blood-pressure to close the valve, thus finishing off the crescendo murmur, which is terminated abruptly by the snap of the closing valve. It is, according to Brockbank's idea, likely that the time occupied by the different phases of the heart-beat in mitral stenosis is practically the same as in the normal state of affairs. [To be continued. S.M.H.]

4.—Croom tabulates 14 cases of **vaginal hysterectomy for carcinoma of the uterus.** All of the patients recovered except one, who died from sepsis some days after the operation. The immediate risks of the operation, when undertaken in circumstances at all favorable, are small. A case, to be not only immediately, but also remotely successful, must necessarily be attacked in its most early stage. A very early carcinoma of the body of the uterus will, under ordinary circumstances, give an expectation of life for the patient of 18 months to 3 years; with sarcoma, the expectation is distinctly longer. Therefore, in ascertaining the value of any operation whatever, the first question to decide is, whether or not that operation can prolong the patient's expectation of life? And, obviously, the second question is, whether it prolongs her expectation of life or not, will it relieve her symptoms, and give her an easier death than she would have had if no operation had been undertaken? [W.K.]

Münchener medicinische Wochenschrift.

April 11, 1899. [46. Jahrg., No. 15.]

1. The Influence of Bodily Exercise upon the Temperature in Health and in Sickness. PENZOLDT and BIRGELEN.
2. Group-Agglutination and the Retention of Bacteria Coli in Typhoid Fever. PFAUNDLER.
3. Extraction of Alexin from Rabbit Leukocytes, with Blood-Serum of Other Animals. LASCHTSCHENKO.
4. Concerning Localization of Psoriasis on Vaccination-Scars. BETTMANN.
5. Concerning a Case of Ascites Chylosus.
6. The Treatment of Ozena with Citric Acid. HAMM.
7. Further Practice in Appendicitis. DOERFLER.
8. Prohibition of the Unrestricted Sale of Trusses. BEBERFELD.

1.—Penzoldt and Birgelen have studied the **influence of exercise on the body-temperature** of healthy and sick individuals. The persons under observation walked a fixed distance in a given time, the temperature being taken, in the rectum, before starting, and immediately on their return. Previous to the walk all the individuals rested for a time. In earlier observations Penzoldt and his pupils had found

that in afebrile cases of beginning tuberculosis, exercise produced a **rise of temperature** up to 38° C. (100.4° F.) and over, and had considered this, with certain limitations, one of the early signs of tuberculosis. The present study shows that the "test-walk" of an hour, as a diagnostic sign of incipient tuberculosis, has a restricted value, since rises in temperature similar to those in tuberculosis are seen in convalescence from acute diseases, in obesity, and in anemic and chlorotic persons. These sources of error being eliminated, the test is of value in **distinguishing pulmonary tuberculosis from chronic bronchitis.** Therapeutically, the authors' observations are of significance. They prove that temperature-elevations above 38° C. (100.4° F.) after the test-walk are pathologic, and that exercise, even when of moderate vigor and duration, is harmful and improper for tuberculous patients, whose disease has not been arrested. They recommend that in tuberculous, anemic, and convalescent persons the influence of the exercise should be controled by careful rectal temperature-estimations immediately after the exercise. [The article is to be continued. D.R.]

2.—The absolute specificity of Gruber's serum-reaction agglutination can no longer be maintained. The typhoid-bacillus is often agglutinated by foreign serum, and the normal serum of adults agglutinates a whole series of pathogenic and nonpathogenic bacteria. Pfaundler himself has shown that the colon-bacillus is agglutinated by homologous serum, *i. e*, serum coming from the same individual as the bacillus, and that the agglutination is the more powerful the older the individual, whence he infers that the serum acquires this property during the course of life, probably in consequence of scarcely-noticed, symptomless disease-processes in the intestine. Quantitative estimations made on a large scale have shown that not only the infecting organism, but often also its related species are agglutinated by the serum. The farther removed a species is from the infecting organism, the less powerful is the agglutination. There is a relative specificity in the reaction—only the maximal reaction, that obtained with the most dilute serum, is asolutely specific. Pfaundler designates the agglutination which occurs in species related to the infecting organism as **group** or **family agglutination.** The majority of typhoid-serums examined by him agglutinated the colon-bacillus, even in considerable dilution; occasionally, the strength of the agglutinating power was higher for the colon than for the typhoid-bacillus itself. Similar observations have been made by Stern and Biberstein, who attributed the colon-agglutination to a secondary colon-infection, but Pfaundler would explain it as a phenomenon of group-agglutination, and cites a number of arguments in favor of this view. Regarding the instances in which the colon-agglutination was stronger than that of the typhoid-bacillus, it must be remembered that only the isohomologous reaction [*i. e.*, the reaction of a serum on the bacillus obtained from the same individual] can give the true value of the typhoid-agglutination in any given case. The method of **serodiagnosis** receives a number of important limitations through these various observations. In the first place, the serum physiologically contains agglutins for certain microorganisms; the group-agglutination also suggests caution; and, finally, the method may lead to errors in localizing disease processes. Thus, when the serum of a child suffering from gastrointestinal disorder strongly agglutinates the colon-bacillus, one might be inclined to attribute a pathogenic role to the latter. Yet it is possible that the intestine, diseased from other causes, merely permitted the passage of the colon-bacillus through its wall, into the bladder for instance, the bacterium in the latter organ, changing from a saprophyte to a parasite, and giving rise to the development of agglutins. [D R.]

3.—Van de Velde has shown that a substance discovered by him—leukocidin—as well as distilled water and dogs' serum, is capable of extracting bactericidal substances from the leukocytes of rabbits' blood. Whether the bactericidal substance is an alexin, and whether its excretion by the leukocytes is a vital process, he did not determine. Laschtschenko's experiments were directed to solving these problems. By means of the injection of aleuronat-emulsion he obtained an exudate rich in leukocytes. The latter, separated from the fluid by centrifugalization, were treated at 37°C., with the blood-sera of various species of animals. After another centrifugalization, the fluid free from leukocytes, the so-called "extract," was tested with respect to its bactericidal properties, which were also compared with those of the blood-serum of the animal from which the serum used for the extract had been obtained. The extract made by the action of dogs' serum on rabbits' leukocytes was **more strongly bactericidal** than simple dogs' serum. This increase in bactericidal power manifested by the serum after contact with the leukocytes of rabbits is due to **alexins,** since warming the extract to 55° or 60°C. for ½ hour causes the disappearance of the bactericidal property; dilution with distilled water diminishes it, while the addition of physiologic salt-solution has no effect. Other animal serum beside that of dogs has likewise the power to extract the alexins. Serum which has been warmed to deprive it of its own alexins and its globulicidal property has still the power to extract alexins from leukocytes. The author believes that a secretion of alexins by the living leukocytes occurs when they, the leukocytes, are acted upon by serum. The serum of other animals exerts a **biologic stimulus** on the rabbits' leukocytes which forces them, *intra vitam*, to secrete alexins. Alexins could not be extracted with physiologic salt-solution; nor was it possible to extract alexins from the leukocytes of dogs and guinea-pigs with the serum of different animals. [D R.]

4.—An extensive **psoriasis** began in the region of the **vaccination-marks** a few weeks after the pustules had healed. The patient, a 12-year-old boy, had always been healthy, and there was no psoriasis in the family. Bettmann does not think it necessary to assume that "psoriasis-erreger" entered with the vaccine-lymph or afterwards; the vaccination was merely an accidental circumstance determining the localization of the disease. [D.R.]

5.—Ceconi reports a case of **chylous ascites** in a patient with cirrhosis of the liver and chronic peritonitis. The abdomen had to be tapped frequently—the fluid contained red corpuscles, leukocytes, fatty granules and fat-drops, and blood-pigment. Serum-albumin, globulin, chlorids, sugar, phosphates, fat, fatty acids, and cholesterin were present. Albumoses were discovered once. On one occasion the patient received a diet rich in fats, and at the aspiration a fluid containing a much larger quantity of fat was obtained. The author considers this a valuable test of chylous ascites. At the autopsy a little fluid was found in the peritoneal cavity, which was not chylous but clear—this change might have been due to the fact that during the last days of life the patient consumed scarcely any food. [The author apparently repudiates this view, but from the context we are inclined to think that his repudiation of it depends on a typographical error.] Extensive reference is made to the literature, and the fact is mentioned that there are chylus-like exudates that are free from fat. Nearly all exudates into serous cavities contain a little fat—from 0.12 to 0 30 pro mille; but at least 1 5 parts pro mille of emulsionated fat are necessary to render a serous fluid milky. The milkiness of exudates that are not chylous is probably due to albuminous granulations. In nephritis the blood-serum may present a condition of milkiness. Buchner observed a similar phenomenon in the serum of experimental animals and attributed it to the action of cold. It is probable that cold also plays a part in rendering the fat-free exudates milky. [D.R.]

6.—Hamm recommends **citric acid** as a deodorant **in ozena.** The nose is rinsed thoroughly every morning, and the citric acid (citric acid and milk-sugar, equal parts) is blown in with a powder-blower three times daily. The disagreeable odor disappears almost immediately, there is also a lessening of secretion. [D.R]

Wiener klinische Wochenschrift.

April 27, 1899. [12. Jahrg., No. 17.]

1. The Treatment of Gangrene in Diabetes Mellitus. Gussenbauer.
2. Cystic Goiter Emanating from Papillary Cystadenoma of the Thyroid Gland. G. Kapsammer.
3. Concerning the Franzenbad Mineral Marshes. E. Ludwig, K. Hödlmoser, and Th. Panzer.

1.—Diabetic gangrene is observed with relative frequency. The skin of the inner side of the thigh of diabetic patients is often the seat of an eczema, which causes the patient to scratch or rub the parts, or varicose ulcers may

be present, and these breaks in the skin allow the entrance of infectious agents. Sometimes the infection comes from incising corns, in other cases there is narrowing of the arteries, most frequently of the femoral artery in the adductor canal, giving rise to thrombosis; or there may be chronic obliterative endarteritis. The symptom-complex varies with the case. This form of gangrene is not the direct result of the sugar contained in the blood, the tissue-fluids, or tissue itself, or in changes in the circulatory apparatus or disease of the nervous system. In the less serious cases, particularly in the beginning, the treatment may be followed with success, the line of demarcation forms and the dead tissue is removed. In the severer cases treatment is usually without result and the diabetes causes such general disturbances of nutrition that the septic infection is rapidly fatal. In the treatment of these cases the gangrenous areas must be removed if possible. In case the pulse is felt in the popliteal and posterior and anterior tibia arteries and the gangrene is limited to a toe or the soft parts on the dorsum or plantar surface of the foot, these parts may be removed, cutting far from the diseased tissue, and after arresting hemorrhage iodoform gauze is applied without pressure. If there are symptoms of embolus, thrombosis or endarteritis and the pulse cannot be felt in the arteries, amputation should be performed; its location depending upon the extent of the gangrene and the condition of the arteries. The most unfavorable cases are those in which the gangrene has extended above the foot and lymphangitis or periphlebitis have supervened. A number of illustrative cases are reported. [M.B.T.]

2.—A case of **cystic goiter** is reported, occurring in a man, 58 years old, which took its origin from a papillary cystadenoma of an accessory thyroid gland. The walls of the cyst showed an arrangement which did not conform to that of any growth thus far described. [M.B.T.]

May 4, 1899. [12. Jahrg., No. 18.]

1. Resection of the Cervical Sympathetic in the Treatment of Glaucoma. T. JONNESCO.
2. Two Cases of Chorion Epithelioma. F. SCHLAGENHAUER.
3. Concerning the Influence of Nutritive Enemas Upon the Secretion of the Gastric Juice. J. ZIARKO.

1.—Jonnesco has resected the cervical sympathetic 8 times for glaucoma, and in most cases sufficient time has elapsed to judge of the merits of the procedure. It has been known for some time, as the results of physiologic experiments on animals, that section of the cervical sympathetic produces dilatation of the bloodvessels of the eye and consequently lessens intraocular pressure. The results in the operations performed have shown that there is decided lessening of the intraocular pressure. Iridectomy has a curative effect only in acute nonhemorrhagic glaucoma, while in the chronic forms there is either no effect or the results are transitory. **Resection of the superior ganglion of the cervical sympathetic** is thus indicated in exactly those cases in which iriodectomy is powerless to give relief; in cases in which nervous disturbance is a chief factor causing the trouble. The operation may be performed through an incision either before or behind the sternomastoid muscle. Incision in front of the muscle is selected for the resection of the superior ganglion through which all the ocular fibers pass. The incision begins at the angle of the upper jaw and extends downward along the border of the muscle, the muscle is drawn backward and outward, a grooved director is passed under the deeper layer of the aponeurosis and this is divided, the jugular vein is then laid bare and is drawn outward and backward, exposing the internal carotid artery on its inner side; the artery is drawn forward avoiding the vagus and in the space thus formed the superior cervical ganglion is found; it is isolated on the grooved director, seized with forceps and the afferent and efferent fibers are divided and the ganglion is pulled away. Jonnesco performs the double-sided operation complete in 15 minutes. After the operation there is congestion of the face and eyes and the nose, giving rise to free nasal secretion and tears. The permanent symptoms are: narrowing of the pupil, sinking of the eyeball, drooping of the upper eyelid, and narrowing of the palpebral slit. [M.B.T.]

3.—Ziarko has made some experiments to determine whether rectal feeding stimulates the secretion of the gastric juice, Winternitz having asserted that rectal feeding in round ulcer of the stomach was injudicious, inasmuch as it tended to produce an increased secretion of hydrochloric acid in the stomach, whereby the causal conditions bringing about the ulcer would be maintained. The gastric contents were obtained from 10 patients, 2½ hours after a nutrient enema, and it was found that not only was there **no increase in acidity, but a distinct reduction.** The experiments, therefore, favor the use of nutrient clysters after hemorrhages in peptic ulcer. The cause of the reduction in acidity after the enema is not easy to determine. It probably depends on a reflex inhibition of the secretory centers of the stomach. The accumulation of mucus that occurs lessens the acidity of the residual contents. [D.R.]

Centralblatt für innere Medicin.

May 27, 1899. [20. Jahrg., No. 21.]

Contributions to the Hematology of Functional Neuroses (Hysteria and Neurasthenia). J. LUXENBURG.

It has been the custom previously for those investigating the blood to take subjects of **functional nervous diseases** as instances of individuals with normal blood. This of course in many cases is unjustified, and the author has carried out his investigations in 40 cases in order to get a more definite knowledge as to whether blood-changes accompany the functional neuroses even when there is no secondary anemia. He decides that in spite of the frequent anemic appearance of these individuals they, as a rule, show no anemia. There is commonly no hydremia, the watery constituents of the blood being generally normal. The number of red cells is frequently much increased, probably as the result of the vasomotor changes that occur so readily with these patients, and the effect of the examination itself is probably active in causing the vasomotor changes. The count of the red cells was repeatedly above 6,000,000, and once was greater than 7,300,000. The leukocytes were very frequently diminished. In many cases they were down to near 3,000. The sedimentation of the blood showed marked changes, chiefly attributable to changes in the fibrin-content of the blood in all probability, and this was rendered more probable by the fact that estimations of the amount of fibrin in some of the cases showed marked variations above and below the normal. [D.L.E.]

June 3, 1899. [20. Jahrg., No. 22.]

On the Question of Eosinophilia. J. PIOTROWSKI and KARL ZALESKI.

The authors first present a review of the various theories concerning the origin of eosinophilia, and especially devote their attention to brief reviews of the most important Polish work in this connection. They are thoroughly in sympathy with Ehrlich's view that **the various forms of leukocytosis are the result of the action of special chemotactic substances,** and the chief point in the paper is a severe criticism of the work recently published by Klein in the same journal in which he advances evidences to prove his belief that the eosinophilic granulations come from the ingestion of portions of destroyed red blood-corpuscles by neutrophilic leukocytes. They justly say that this theory leads Klein to mold facts into such form that they fit the theory instead of making his theory fit the facts. Were this true one should always find a very marked eosinophilia in the neighborhood of hemorrhages; and after all injuries in which there is an internal hemorrhage of any degree—such as fractures, contusion, infarcts, and hemorrhages into the lung-tissue—eosinophilia should appear. On the contrary, there is usually not even a leukocytosis of any form under such circumstances. There is no eosinophilia with croupous pneumonia when there is a large mass of blood poured forth into the lungs. On the contrary, eosinophiles are seen in large numbers in the sputum in asthma, while there is at most but slight hemorrhage in the tissues with this condition. They grow somewhat cynical over Klein's statement that when one cannot find any evidence of hemorrhage to explain the eosinophilia he must believe that other causes as yet unknown prevent the leukocytes from taking up the portions of the red blood-cells, and they say quite properly that Klein's argument against Ehrlich's theory is merely negation without proof. [D.L.E.]

Practical Therapeutics.

Under the charge of
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Whey in Infant-Feeding.—Ashby (*Edinburgh Medical Journal*, April, 1899), advocates the use of whey as a diluent for milk in infant feeding. He remarks that "humanized milk" has been manufactured on a large scale by mixing cream, milk, sugar and water in various proportions and sterilizing.

He doubts very much if the manufactured article, which is mostly overheated to make it keep for months, is as good a food as can be made at home by mixing cream or milk and whey and using the product fresh. When whey is made in the manufacture of cheese it should contain as little fat as possible, as the fat is wanted for the cheese. But when whey is to be used as a food, at least some of the fat should be retained and not rejected with the curd. This may be effected by thorough agitation of the curd before straining.

Perhaps the most ready way of preparing whey for infant-feeding is to use Hawksley's sterilizing apparatus, as the temperature can be regulated. Place 30 oz. of good fresh milk in the bottle, raise the heat to 104°, add two teaspoonfuls of Benger's essence of rennet, and set aside for a few minutes. When curdling has taken place, thoroughly break up the curd by stirring and shaking the bottle; then strain through fine muslin or a colander. In this way 22 or 23 oz. of an opalescent fluid is obtained, which should be heated to 160° for 20 minutes, to destroy the rennin. It may require a further straining, as more curd is apt to form on heating. Whey so prepared contains: proteids, 97%; fat, 2%; salts, 6.1%; the amount of fat is much larger than in whey prepared by simply draining the whey off the curd without agitation. The whey prepared by centrifuging, in Gerber's acid butyrometer, contains 1.75% to 2% of fat.

Whey so prepared with or without 2 or 3 drams of milk-sugar to the pint, makes a useful food for newborn infants that have to be artificially fed or for infants that suffer from chronic vomiting, or have liquid, green, and curdy stools. They will gain weight and be more comfortable than when taking diluted milk. A weak "humanized" milk may be made by adding 10 oz. of fresh milk to 20 oz. of sterilized whey, and adding ½ oz. of milk-sugar. To make a "humanized" milk more rich in fat, use "top milk" in the same proportion. Let a quart of fresh milk stand in a covered glass jar in a cold place for 4 or 5 hours; remove the upper 10 oz. by skimming; add this to 20 oz. of sterilized whey with ½ oz. sugar-of-milk.

If these mixtures are made with perfectly good fresh milk, the analysis will give something like the following results, but exactness cannot be expected, inasmuch as the amount of fat in milk and the time it takes to cream vary:

	Proteids.	Fat.	Lactose.	Salts.
Human milk, average	1.75	3.5	6	.3
Whey	.8	2	4.5	.6
Milk, 10 oz. Whey, 20 oz. Lactose, ½ oz.	1.75	2.5	6	.6
Cream, 8%, 10 oz. Whey, 20 oz. Lactose, ½ oz.	1.75	4	6	.6

It is well to add a grain or two of soda bicarbonate to render the mixtures neutral or slightly alkaline.

It is often convenient to give dyspeptic infants whey at first, or even to dilute the whey with a solution of maltose or barley-water, as such infants cannot always digest so much as 2% of fat in their food. As they improve, add milk to the whey, or "top-milk," as their digestive powers gain strength.

The advantages of whey over a solution of lactose as a diluent, are that it has "antiscorbutic" properties, and contains soluble proteids and fat. Dr. Ashby has frequently found infants improve and gain in weight after whey has been substituted for sugar-water or barley-water as a diluent for milk. But more than the average intelligence is wanted in the nursery to carry out details.—*Medical and Surgical Review of Reviews*, London.

Camphoric Acid for Night-sweats.—Coston (*Therapeutic Gazette*, March 15, 1899) states that he has used this remedy in many cases and always with the very best results. After the defervescence of fever in typhoid cases, when the nervous centers are in so debilitated a condition that they do not properly innervate the body during sleep, the patient loses more from the profuse perspiration than he gains by the sleep. In these cases a dose of 20 or 30 grains of camphoric acid will act so well that no sweating will occur and the patient will awake refreshed rather than exhausted. It is not a remedy whose beneficial effects last only a few hours, for, as a rule, he has not had to give the second dose for several days, and never on the same night. The drug should be given an hour before the sweating is expected to begin. It is best given dry on the tongue and washed down with half a glassful of water or sweet milk. It does not dissolve in water, and the alcoholic solution is so intensely bitter that very few patients can tolerate it.

The Local Treatment of the Joints in Persistent Rheumatism.—The swelling of the synovial membranes and ligaments in retarded convalescence or chronic cases taxes the patience of both the sick and the physician. Vesicatories kept on for half an hour, and frequently repeated, the wet bandage or pack snugly applied so as to compress gently; compression by bandages or collodion, gentle massage; the galvanic current daily applied, find their indications in many and various cases. Iodin will come in for its share of usefulness. Besides the internal administration of the iodids (potassium or sodium, or both combined, in doses of 5 to 20 grains daily), the external applications will be found beneficial. The official ointment will act through the gentle handling and kneading necessitated by its use. Solutions of potassium iodid in glycerin will act better, but are inferior to the lanolin ointment. Superior to all, however, is the application, twice daily, of one part of iodoform in from 8 to 15 of collodion or flexible collodion. It is brushed over the swollen part copiously, and allowed to dry while the limb is kept absolutely at rest for 10 minutes. Only such scales as get detached spontaneously may be removed; otherwise the next application is made on top of the preceding ones. Very old cases, with chronic effusion into the joint, require aspiration and washing out.—Jacobi in *Therapeutics of Infancy and Childhood.*

The Uses of Rectal Injections of Water.—Von Mering (*Die Therapie der Gegenwart*, April, 1899) calls attention to the value of rectal injections of plain water or normal saline solution in a great number of diseases where the body suffers from a deficiency of fluid. Recent research has shown that water is not absorbed, or is absorbed very slightly in the stomach. The professor concludes from his own experiments that absorption by the stomach is governed by the physical law of osmosis, while absorption by the intestine is a vital process. When the motor-function of the stomach is at fault, fluid is not passed into the intestine, and the organism suffers. The tissues become dry, the quantity of urine is diminished, and there is great thirst. Some of the most distressing symptoms of pyloric obstruction and of extreme motor weakness with dilatation can be relieved by giving an enema of ¾ pint of tepid saline solution, morning and evening, and ordering the patient to retain it as long as possible. The tissues then receive their proper supply of water, and this is a great aid to recovery. These enemas should also be used in carcinoma, if the stomach is being washed out frequently, and in simple ulcer as a routine part of the rectal feeding; in fact, whenever the stomach needs rest or rectal feeding is necessary. In diabetes, frequent enemas of a 1% solution of sodium bicarbonate not only relieve the thirst, but, by causing less fluid to be swallowed, prevent the diabetic gastric dilatation, which is so frequent, and through the alkali perhaps ward off diabetic coma. The debility caused by the sweats of phthisis is occasionally an indication for the enemas. In acute and chronic diarrhea, the intestine may be simply irrigated with a weak astringent solution, but a better effect is sometimes produced if the patient can retain and absorb most of the fluid. Finally, the introduction of water *per rectum* is indicated after serious hemorrhage, when it will often replace successfully intravenous or subcutaneous injections. When much blood has been lost, rectal absorption is unusually rapid, and 1¾ pints of normal saline solution may be injected immediately, which may be repeated every 3 hours.—*Medical and Surgical Review of Reviews*, London.

Original Articles.

ADVICE TO GONORRHEAL PATIENTS.[1]

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"ONLY a clap" the average patient reports, when he seeks advice for the disease itself. "Only a clap," he is surprised to find later, was the starting-point for grave disease in himself, his wife, his child, or in others who may or may not be near and dear to him. Worse yet, many physicians still say "only a clap" when the infection is brought to their notice.

In the light of modern investigations, this is an inexcusable state of affairs. The cause of this light disposal of the endemic lies partly in the perfunctory manner in which the subject was, up to a few years ago, taught in medical colleges. One or two lectures were delivered on the disease; a few witticisms were thrown in to make the brief discourses attractive, perhaps a salacious anecdote, too, was added to fasten an etiologic point upon the student. This was all he recalled, except, possibly, that efforts to cause the disease to subside should be made with a series of internal drugs and of injections, tried in succession, without a distinct idea of the purpose of any one of them.

Neither optimism nor ignorance lay at the bottom of this cursory teaching. It must have been offered in the hope that when gonorrhea was evident as the essential starting-point or cause of other diseases, the students would be struck thereby.

The consequence was the flippant "only a clap" which there is so much reason to deplore.

Its reflex upon the public is consummate ignorance, even in otherwise highly educated men. If laymen are at all informed upon the subject, it is through the writings of advertising quacks. These are not slow to take advantage of the public lack of information. In pamphlets, often of considerable literary merit, they seek to attract sufferers who can pay them, but who cannot distinguish between the garbling of scientific facts and the assertions of the advertiser. No field of charlatanry is so lucrative, consequently it is the one most sought by despoilers of the public.

The physician, whose lines are fortunately so cast that the majority of his patients are among the educated classes, is surprised to find himself placed by many a new patient with the self-styled "specialists in men's diseases." Only when patient and physician become acquainted, does the former learn that he is not in the hands of a vulgarian, fitted only to handle the filthy outcome of libidinousness. He then expresses regret, that at the universities many impracticable things were necessarily taught for mental development, while taboo rested upon all knowledge of the generative apparatus and the dangers to which the most important animal function is exposed.

In medical schools this ignorance is now being fought. Those who graduated during the past 5 years, went forth at least better armed than were their predecessors. But in America alone, there are over 100,000 physicians who graduated more than 5 years ago. Unless they gave special study to the subject, they are not prepared to consider genitourinary cases with due seriousness, except as time furnishes sad experience. These 100,000 practitioners would have very little experience, if they do not see at least 10 cases of gonorrhea annually. Thus the health and lives of certainly 1,000,000 men are exposed to an unduly light consideration of a grave disease.

It is manifestly the duty of the specialist to aid the general practitioner with the results of his special study and experience. All writings on the special subject are naturally directed to instruction in diagnosis and to remedial measures. Those instructions which must be given to the patient are regarded as in the possession of every one, hence many sad results occur from omission of this detail.

So manifest has this become, that the editor of one of our greatest publications[2] deemed it necessary to say: "It is time that the public came to know from some source that an attack of gonorrhea means more than a hard cold." An endeavor will here be made to supply this demand. The language employed may seem elementary, even to crudeness. This very crudeness is offered physicians as the outcome of what has been found practical in a rather extensive experience.

CAUSE OF GONORRHEA.

The disease is produced by the entrance into the urinary channel of a microbe which its discoverer, Neisser, of Breslau, called the gonococcus. This microbe feeds on the healthy tissues, and in so doing also renders them diseased.

MODE OF INFECTION.

Almost invariably gonorrhea is acquired by sexual intercourse with a person whose genital organs are infected with the disease. The principal exception to this rule is when gonorrhea affects children. Then it is usually due to criminal filthiness on the part of the nurse or mother who, having clap, touches the child's genitals after handling her own. No matter how small the quantity of discharge that may adhere to her fingers, it will suffice to carry the disease to the little one.

Another mode by which children become victims to gonorrhea, is too horrible to contemplate. But as refusal to consider a matter because of its criminality will never stamp it out of existence, the fact must be

[1] Written from notes taken by T. M. Townsend, M.D., of a clinical lecture delivered before the genitourinary class at the New York School of Clinical Medicine, March 9, 1899.

[2] THE PHILADELPHIA MEDICAL JOURNAL, February 25, 1899.

aced that there are monsters in human shape who ape little girls, thinking thus to rid themselves of clap. How such an atrocious idea originated is incomprehensible. The fact is that while so murdering the innocent child, the fiend but makes his own condition the worse.

The assertion that a man can catch gonorrhea on a water-closet need not be discussed here, except to concede that if he have a very large foreskin or a very wide meatus,[3] such a thing may be remotely possible. If the patient insists that he had no other means of acquiring gonorrhea, it may be well to charitably assume that he has forgotten the contagious incident.

Development of Gonorrhea.

When the microbes of gonorrhea have entered the mouth of the urinary channel, these microbes feed on the upper layer of the lining of the channel. As they feed they multiply. If, as some authors assume, one pair of these gonococci become two pairs in 30 minutes, and if the patient did not pass his urine in 9 hours (as over night) his urethra would contain 268,544 pairs of gonococci.

If these gonococci obtained all their nourishment on the upper layer of the anterior urethral lining, the damage might be less than it is. But, once having destroyed this, they go farther for food. They sink into the tissues of the urinary channel itself; they invade the glands that empty into it. Nature from the very first, trying to get rid of the irritation, sends more blood to the region. This blood is destined to repair the injured part, and to increase the moisture of the channel, in the hope of thus carrying off the irritation. But the gonococci are too tenacious of their feeding-ground, and while thousands may be killed, they increase in numbers too rapidly to be so vanquished. The blood-products are destroyed in the unequal struggle, and run from the penis in the shape of a discharge with some of the gonococci that are so carried off.

This discharge may be limited to the anterior urethra, which is closed off from the posterior urethra by a strong muscle, called the compressor or shut-off muscle, whose province is to hold back the urine until the proper time for voiding the bladder arrives. In most cases, this strong muscle, the compressor, does not suffice to keep out the gonococci. If they traverse it, still more serious conditions menace the patient.[4]

It will be evident, even from this crude description, that the discharge in gonorrhea does not come from an ulcer, a sore within the urethra, but that the whole urinary channel, being attacked by the gonococci, is practically in the condition of one sore along its whole length of 5 to 6 inches, from its mouth at the head of the penis, to its end at the compressor muscle.

[3] It is astonishing how many highly educated persons are ignorant of the veriest outlines of genital anatomy. Therefore it will be well in advising patients to speak of the "mouth" or "opening" of the penis, instead of the meatus; "head of the penis," instead of glans, etc.

[4] In reading this very bare outline of pathogenesis of gonorrhea, the physician is requested to remember that it is so given for the convenience of those who are not accustomed to explaining the disease to patients.

Complications and Consequences of Acute Clap.

Many complications can quickly result, prolong the disease, increase the suffering and augment the danger, unless gonorrhea is properly treated when the very first symptoms appear. The most frequent complication is posterior urethritis. As the posterior urethra is practically a part of the bladder, it is easily understood how the disease can progress into it. It is true that the lining of the bladder, owing to its different construction, does not, if healthy, furnish food for gonococci, but if it have ever so slight a diseased spot before the gonorrhea begins, that spot suffices as a means for affecting the whole bladder.

Into the posterior urethra the generative organs empty. Infection of the posterior urethra may, therefore, cause the testicles to be infected. This may terminate in loss of the testicles by the production of an abscess or occlusion of the canals of the epididymis, seminal vesicles, or prostate, resulting in loss of power to perform the sexual act, or inability to beget children. THE PHILADELPHIA MEDICAL JOURNAL for February 25, 1899, says on the subject:

"Benzler, investigating gonorrhea and sterility, followed the histories of 3,000 soldiers of the German Army who were infected with gonorrhea during their time of service. Out of 474 authenticated marriages of those who had been affected with simple gonorrhea, he found that 10% were without children after 3 years of married life; of 111 marriages of men who had had epididymitis of one testicle, 23.4% were sterile; of 24 marriages of men who had had epididymitis of both testicles, 41.7% had no children, and 52.5% had only one child. Unfortunately, sterility is only one of the many evils following gonorrhea."

The bladder, if invaded by gonococci, may admit them through the ureters to the kidneys, causing death from the destruction of these organs. If the disease is allowed to progress, gonococci can be taken up from any part of the genitourinary organs into the general circulation. As a consequence, the patient can have gonorrheal rheumatism, or inflammation of the heart, or of the brain itself. The two last-mentioned consequences of clap are almost sure to end in death.

Symptoms of Clap.

It is held by some eminent authorities that clap first manifests itself by a persistent tendency to think of and to handle the penis. This is probably an error; the tendency is due not to clap, but to fear of infection from illicit intercourse. From 2 to 10 days after such sexual relations, a trifling watery, slimy oozing presents at the mouth of the urethra, whose lips are slightly swollen and reddened. This discharge then rapidly grows in quantity. It becomes milky-white, yellowish-white, yellow, greenish-yellow, and, as the gonococci invade the deeper tissues, the discharge may become mixed with blood.

From the first there is a sense of tickling at the tip of the penis; this soon changes to a burning sensation, and as inflammation advances a scalding pain accompanies each act of emptying the bladder.

If the gonococci traverse the compressor and the posterior urethra becomes inflamed, every drop of urine that enters it sets up intense pain. The attempts at urination become more frequent, and with the increased action of this region the inflammation grows more severe. It soon results in the discharge of pure blood after each urination.

When the patient's vital resistance is good, and gonorrhea does not take on the severe form, the above symptoms may be slight; the discharge may not be copious, and the suffering comparatively insignificant or entirely absent. This occurs only exceptionally.

Persistent and painful erections may set in at any time, especially at night. The extensibility of the urinary channel is diminished, because it is thickened by the inflammation; consequently, the other parts of the penis can swell and enlarge, with which the urethra (urinary canal) does not keep pace. This drawing upon the urethra not only produces severe pain, but also curves the penis. The urethra at its bottom feels like a thick, tightly-drawn cord. The pain is so frightful, that in desperation patients have laid the penis on a table and struck it a severe blow "to break the cord." If, as a result of such brutality, a dangerous bleeding does not carry off the sufferer, a great part of the penis will not be likely to take part in erections again. Then, for the rest of his life, the patient will be tortured by sexual desire without being able to gratify it.

The tearing of the urethra, as above described, can also lead to escape of urine into the tissues (urinary infiltration) with consequent blood-poisoning. Should, through luck, none of these conditions result, the torn urethra will be the site of severe stricture and all the dangers that are associated with it.

The other direct complications and consequences of clap are not nearly so frequent as those mentioned above. Among them, it will suffice to mention inflammation of the head of the penis and the foreskin, "venereal" warts, abscess of the penis and gonorrheal bubo.

Chronic Gonorrhea.

Unless prompt, early, and proper treatment is employed, clap becomes chronic. It is then so persistent and the harbinger of so many ailments, that it merits separate consideration.

Its mildest form shows itself in the ability to press a whitish drop from the urethra in the mornings, and in the urine carrying with it thread-like strips (Tripperfäden) of varying dimensions as to length and breadth.

Patients in this state have no pain or other discomfort from the disease. Yet Ricord, in his forcible manner of putting things, said: "When some day I reach hell, I expect my penitence to be that of eternally being besieged by souls importuning me to cure their chronic claps."

Since Ricord's time science has materially advanced, and chronic clap has come within the domain of curable diseases.[5] The anxiety of patients to be cured of chronic gonorrhea is not due, as a rule, to the very slight discharge they can see in or press out of the meatus mornings, nor to the filaments they observe in the urine. The presence of the disease-provokers in the genitourinary organs, or of the toxins (poisons) they produce, affect the nervous system, rendering the patient not only depressed, but also incapable of in any degree enjoying life, or of properly doing his work.

And even after the external manifestations have passed, so long as the genitourinary organs remain infected, so long will the patient's nervous system suffer therefrom.

Much familiarity with and study of this subject justifies the assumption that if the generative organs of unexplained suicides were examined microscopically, they would be found to harbor gonococci.[6]

Self-infection from Gonorrhea.

How many men have become hopelessly blind from touching their eyes with fingers soiled by gonorrheal discharge? Statistics on the subjects are not available at present. The fact, however, is well known, that the smallest conceivable amount of fresh or dried gonorrheal discharge, carried to the eyes, may destroy them within 48 hours, though they be promptly and vigorously treated.

Similarly, if the discharge is not taken up at once as it leaves the urethra, the patient continually reinfects this canal.

To avoid these and other dangers physicians teach the patients to freshly cover the glans after each urination with absorbent cotton, wet in corrosive-sublimate solution 1 to 6,000; and to wash the hands carefully and thoroughly after each handling of the genitals. The cotton that has once been used is thrown into the water-closet, or, better still, burned, lest in some manner another touch it and become contaminated.

Infection of the Innocent.

The fact that many men lose their lives, their eyes, and their minds from gonorrhea, should suffice to stamp clap as certainly far worse than a mere cold. But that innocent women and children are daily sacrificed to this microscopic Juggernaut, makes clap *the most dangerous disease with which humanity has to contend.*

The infection is insidious, and in most instances the person who infects the innocent, does so unconsciously.

To illustrate with an example familiar to all physicians. A man, years ago, acquired clap and apparently was cured. This occurred before the microscope and the urethroscope were as familiar instruments of precision as they are to-day. Long after any signs of disease are observed, he marries. His wife becomes ill from the seed that fructifies her. It has carried into her body some of the gonococci that for years lay dormant in

[5] Valentine: "Chronic Gonorrhea; Its Scientific Treatment." *Clinical Recorder*, January, 1898.

[6] Valentine: "When May Gonorrheal Patients Marry?" *American Medico-Surgical Bulletin*, September, 1895.

er husband's genitals. Reaching virgin ground, they nd new food and develop vigorously. The innocent voman has clap.

The gonococci not only multiply prodigiously, but, n search of more food, traverse the womb and tubes hat connect it with the ovaries. She is very fortunate ndeed, if it does not become necessary to cut out her vomb and ovaries, to give her a chance for existence. Existence it must be called, for "life" it is not, unless n incomplete, sickly woman can be said to live.

If, however, the young wife's lower genitourinary rgans alone remain infected, that is, if the gonococci lo not ascend through the womb, a terrible danger confronts the babe at its birth. The probability is that while it comes through the mother's vagina its eyes will be infected. If this is not discovered at once, or, better still, if preventive measures are not used, when any child is born, the child of infected parents will have its eyes hopelessly destroyed ("rotted out" is a forcible but good term) before it is a week old.

Many examples like the above are within the knowledge of every practitioner, even though he does not devote himself to genitourinary work exclusively.

Indirect Infection.

However, not only direct infection can destroy the eyes. The following cases, quoted from an able article by Dr. Tomás Norriega, of Mexico,[7] illustrates one such means of infection:

Mr. X., a married man, aged 30 years, in good health, free from blennorrhagia or any other ailment, arose from his berth one morning, and, as was his custom, washed his face and hands in the lavatory of the Pullman car; 2 days after, he felt the first symptoms of purulent ophthalmia, on account of which he came to consult the physician who related the history to me. The patient was treated with all the care and energy which the case required, and in spite of the efforts of my skillful and intelligent colleague, the right eye was lost.

A careful examination of all the circumstances of this case showed conclusively that neither the patient nor his wife had gonorrhea and that the disease could have had no other entrance to the system than through the lavatory of the car. As in this case, there doubtless are other cases whose origin remains unknown, either because the patient is ignorant of the possibilities of being infected during a journey, or because the physician, being sure of his diagnosis, is more interested in effective treatment than he would be in making an investigation into the etiology of the disease.

A young man, Z., born in one of the ports of Mexico, had a brother suffering from blennorrhagia. One day the latter bathed the affected parts. The brother habitually used the same wash-basin; in consequence of this he contracted purulent ophthalmia in both eyes, and became blind. He came to the City of Mexico and consulted several physicians, but the case was incurable.

To prevent such a sad result, it would be well if public wash-basins and the atrocity of the roller-towel were abolished on railroad trains, in hotels, etc. It will be better to travel unclean and unrefreshed, than to go through life blinded by the carelessness of another. If the public objects to the removal of these conveniences, it should be protected by a large placard, conspicuously exposed over every such wash-basin, and worded as follows:

[7] "The Contagion of Venereal Diseases on Railroads," *Journal of the American Public Health Association*, October, 1896.

This Basin is Dangerous.

Do not use it, unless the porter has, in your presence:
1. Vigorously scrubbed it with boiling water and soap,
2. Thoroughly mopped it out with a clean towel soaked in hot solution of corrosive sublimate, 1 to 1,000, and
3. Thoroughly washed it with boiling water.

If you neglect this, you may become *incurably blind* within 48 hours.

Apparent Immunity.

All that has been said about the danger of infection by clap, may apparently be controverted by two men, one who exercised no sexual restraint whatever during a long life, and never acquired gonorrhea, and by another, who has had many attacks of clap, married later in life, whose wife bore him several children and who despite the husband's many gonorrheas remained in perfect health.

The man who never was infected may have had the luck to escape sexual connection with infected women. This is hardly likely with a sensualist. The probability is that the man was always in so good physical condition that he could resist ("throw off") the infection. But, *per contra*, may be offered a recent experience, which sets his evidence entirely aside. A brief sketch of the case will be permissible:

I, aged 65, contractor, married; father of 3 healthy children. Since his fifteenth year, even after his marriage, he has been a decided sensualist. For the entire 50 years, he cohabited with at least one woman a day. He was not constant to any one, until 3 months before he came for advice. Then he took a long voyage with a young widow; they were in each other's company constantly during these 3 months. At the end of this term he was taken with a distinct gonorrhea in its severest form. Examination of the widow revealed that she had no visible discharge. A very slight discharge was evoked, however, by the use of sterilized tampons. This discharge contained gonococci. Questioning her brought forth that she had had a light attack which was diagnosed as "leukorrhea," a short time after her marriage, 10 years before. She also confessed to having had more or less protracted intimacies with three men, after her husband's death and before her relations with I. None of her other lovers had been infected.

This case merely shows that I, for some reason, was in a "susceptible" condition, at the time he contracted this gonorrhea, and that his supposed immunity was a thing of the past. Therefore, however long a man may escape gonorrhea, his immunity is only fancied, and he may fall a victim to the disease at any time, while he continues his life of immorality.

The women who are not infected by their husbands are numerically much greater than the men who never acquire gonorrhea. Indeed, so great is the number of women whose husbands have had gonorrhea and who are not contaminated by them, that one is tempted to think that they are immune to the disease. Unfortunately "the wish is father to the thought."

But one example will suffice to recall many others to older practitioners.

II, aged 48, merchant, had some difficulty of urination, due to apparently beginning enlargement of the prostate. When 18 years of age he acquired gonorrhea, which subsided, at all events left no evidences of disease as far as he could recall. He married when 24 years old His wife bore him 2 children, both of whom are in good health. A month

before coming for advice his wife was taken ill with pains in the abdomen.

Some of his prostatic juice expressed during examination revealed the undoubted presence of gonococci. A few weeks later it became necessary to remove his wife's ovaries, which had rapidly become large cysts. Gonococci were found in abundance in the contents of the cysts.

Omitting further details, the facts show that this man, who for 30 years had not had a single symptom of the disease appreciable to him, infected his wife after 24 years of married life. During that term his semen must certainly have carried gonococci into her genitals; during that term, too, they did not find a favorable culture-medium in her. Through some reduction of her strength, as may have been incidental to the approach of the menopause ("change of life"), the resistance of her tissues to the gonococci may have been lessened, and she became infected.

These two cases suffice to show that there is no real immunity from gonorrhea.

DIRECTIONS DURING TREATMENT.

Whether gonorrhea be acute or chronic, the following rules should be observed:

Urination.—The patient should refrain from urinating for as many hours as possible before visiting his medical adviser. This will enable the physician to judge of the amount and character of the discharge, to obtain specimens thereof for microscopic examination, and to judge of the shreds, flakes, filaments and granules in the urine, so necessary for a complete diagnosis. As "floaters" in the urine are likely to be dissolved, and as the urine is prone to undergo chemical changes within a very short time, the specimens brought in bottles for examination in gonorrhea are generally useless.

Food.—No class of food has any appreciable effect upon gonorrhea, except as it affects the digestion or general constitution.

Drink.—The patient must positively abstain from all stimulants, except he be in a very low physical state, and then a glass of light claret may be allowed at meals. Carbonated drinks (the mineral waters sold as Vichy, seltzers, ginger ale, soda water, sarsaparilla, root-beer and the like) are all irritants to the genitourinary apparatus, and must be absolutely forbidden.

Coffee and tea seem to exercise no effect on gonorrhea.

The patient should drink very large quantities of water to dilute the urine and thus render it less irritating to the inflamed surfaces.

Exercise.—In uncomplicated acute gonorrhea, the patient should take the exercise necessary to keep himself in as good a general condition as possible.

Sexual Intercourse.—He who has gonorrhea and cohabits, not only commits a crime against others, but against himself as well. Even cohabiting with a prostitute is no less a crime; an innocent person may be infected through the next man with whom she cohabits. If the patient is so callous to his moral duties as to be indifferent to this, he should at least remember that if he cohabits he irritates his own genitals, prolongs his disease, and makes it more likely to invade the deeper tissues.

Suspensory Bandage.—Every patient having gonorrhea should wear a well-fitting suspensory bandage to support the testicles lest they be involved in the disease.

Autoinfection.—The danger to the eyes has been outlined. As a perfect precaution, the patient should use special small towels for his hands, and either burn them at once, or, if economy commands, throw them into a strong bichlorid solution immediately after use. Under no circumstance should the same towel upon which he has dried his hands be used for his face.

Patent medicines, secret or proprietary preparations, "favorite prescriptions."—No argument should be necessary to dissuade patients from risking their lives with these, whatever the claims of those who advocate them. Large numbers of people with chronic gonorrhea and its complications have been enticed by advertisements or bad advice to use them, consequently they crowd the waiting-rooms of the genitourinary specialists. If they had at once subjected the daily varying condition of acute gonorrhea to well-informed practitioners, they would not need the services of the specialist.

Prevention of Gonorrhea.—If the most imperious of impulses could in all people be limited to the purposes of procreation, gonorrhea would in time cease to scourge the world.

If, while people will cohabit, the systematic examination of the woman could be effectively made immediately after each and every sexual intercourse, the extension of gonorrhea could be prevented. The futility of the registration of prostitutes, is therefore too evident for discussion. It may and does in a small measure, reduce the dangers of infection, but it by no means gives safety to those who buy favors of her "whose footsteps take hold on hell."

As to medicinal preventives, the only one which seems to exercise any effect, is the instillation of a few drops of a 2% silver nitrate solution into the meatus, immediately after each suspicious intercourse, before the erection has entirely subsided. But its positive efficacy is far from proven.

This paper, even without doing approximate justice to those who have labored and are laboring on the subject, might be indefinitely extended. Enough has, however, been said to draw the following conclusions:

1. The importance of gonorrhea as a disease, the necessity of its prompt, early treatment, and its dangers to the one infected and to others, should be impressed upon the patient, fortified with such explanations as his intelligence and education admit.

2. Witticisms regarding gonorrhea, besides being in bad taste, are likely to cause patients to view it in a trivial light.

3. Clap, if properly treated from the very beginning of the first manifestations of the disease [8] is bereft of most of its dangers, and is, in many instances, cut short.

4. The complications of clap may arise early in the disease and may prove fatal to the patient.

5. Clap can render man incapable of sexual intercourse and unable to procreate children.

6. A man may believe himself cured of gonorrhea, marry, and many years later infect his wife.

7. It is the duty of a person with clap to see that he carries no infection to another person, or to any article from which another can become infected.

8. No inborn or acquired immunity to gonorrhea exists.

9. Patent medicines, secret preparations, and "favorite prescriptions" are useless and dangerous in clap, as in any other disease.

10. Clap is not a self-limiting disease, *i.e.*, it does not "run its course," but requires active treatment, no matter how mild the attack.

11. No patient should be discharged as cured until it is proven that he can no longer convey the disease to others.[9]

12. The only means of preventing clap is in education. The outlines of the physiology and pathology of the genitourinary organs should be taught in boys' high schools, in literary universities, and by evening lectures to the working people.

The experienced practitioner may be amused at the elementary style of this article. He will be struck with the unscientific tone of the barest outlines of pathology. But if he were counselled to give his patient the scientific details in full, or to submit to him controversial points, he might as well offer an untranslated Chinese work on astronomy, unless, of course, his patient happens to be a lettered Chinaman.

The effort is to show so far as possible, how to instruct one uninformed in medical matters. In pursuing it, there is the continued struggle to avoid technical language.

If I have placed before my colleagues in convenient form, an easy means of securing the intelligent cooperation of their patients, the purpose of this paper has been attained.

ELECTRICAL HEATING APPLIED TO STEAM STERILIZATION AND THE PRODUCTION OF DRY HOT AIR FOR THERAPEUTIC PURPOSES.

By CHARLES LESTER LEONARD, A.M., M.D.,
of Philadelphia.

The distinct advance made in modern surgery by the substitution of aseptic for antiseptic methods has been almost as great as the change wrought by antisepsis itself. The general diffusion of this improvement has, however, been hindered by the costliness of the most efficient form of apparatus for its production. Steam sterilization under pressure is the most effectual method known consistent with the preservation of the materials sterilized. Not only is the apparatus very costly, but its maintenance and repair are important items. In its present form it is out of the reach of the majority of individuals and can only be employed in large public or private institutions.

An efficient, economic method that would produce steam sterilization under pressure by apparatus the initial cost and repair of which were small, would help in the advancement of surgical methods. If, in addition, that apparatus could be readily employed by the individual in private houses or offices, the majority of surgeons would be greatly benefited.

The general employment of electricity for lighting and power, and the wide distribution of this form of energy throughout the country, supplies a force which can be readily adapted to this purpose. With it we can produce heat within the sterilizing chamber at a distance from the source of energy, we do away with all external apparatus, and the consequent cost for construction, maintenance, and repair is reduced.

The pressure generally employed for sterilization is 15 pounds, or steam at a temperature of 250° F. This temperature, and temperatures far above it, can be produced within the sterilizing chamber by electricity at very small cost. Three hundred and seven degrees Fahrenheit, with the addition of water and the steam formed from it, will produce pressure of five instead of the two atmospheres now employed. Heat generated within the sterilizing chamber is far more efficient and consequently more economical than when generated by outside sources, a greater part of the heat produced being utilized.

The employment of the present form of apparatus necessitates the maintenance of a steam-producing plant throughout the entire year, or the use of gas in Bunsen burners. Neither method is economical, since much of the heat produced is wasted in transmission. Electricity is now a commercial product and can be obtained at a reasonable cost in almost any locality from electric light or power companies. The amount required to produce sterilization is small, it is all utilized, no more being required than that used in the actual process. On the other hand, steam produced in a boiler for sterilizing purposes must be maintained under pressure ready for use all the time.

The facility with which this method will produce sterilization in an apparatus that is self-contained and in which power can be applied that is obtainable from an outside source, places it within the reach of every one. It can be employed by the individual as well as a hospital and is economical in both instances.

Sterilization produced in this manner is as applicable

[8] Valentine: "The Irrigation-treatment of Clap." *International Journal of Surgery*, September, 1898.

[9] Valentine: "Recurrent Gonorrhea," *Atlanta Medical and Surgical Journal*, September, 1898; "The Proof of Cure in Gonorrhea," *Clinical Recorder*, April, 1898; "Residual Gonorrhea in Women," *American Journal of Surgery and Gynecology*, May, 1898.

to the bacteriologic laboratory as it is to surgical dressings. The same principle can be employed for sterilization by dry heat, the heat being produced within the sterilizing chamber, while the electro-thermostat governs its amount.

The accompanying is simply an illustration and was made from my original drawings to show the general principle involved in my method of applying electric heat to steam sterilization. To one thoroughly acquainted with steam-sterilizing apparatus its defects will be self-evident. A separate electric heater is not essential, as an insulated electrode can be introduced into the receptacle for water within the sterilizer in a similar manner to the steam pipe now employed. My original idea was simply to heat the water by electric resistance and the heat it produces.

The sterilizing chamber is similar to that now employed. In fact those now in use can be altered to suit this method. The insulated heating-plate is placed on the floor of the chamber within a receptacle which contains the required amount of water; the articles to be sterilized are introduced in the usual manner, and the sterilizer closed.

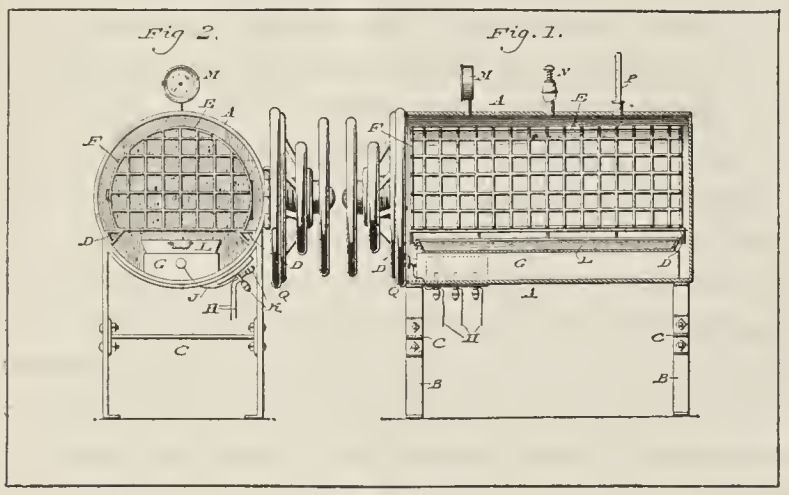


FIG. 1.—Steam Sterilizer heated by electricity.

The electricity is turned on and as soon as steam is seen to issue from the safety-valve, which has purposely been left open, we know that the chamber is filled with steam. The valve is then closed and the temperature and pressure allowed to rise till they have reached the desired point. The current is now regulated so that the desired amount of pressure is maintained for the time required for sterilization. When this time has elapsed the safety-valve is thrown open and the water drawn off. Here an additional advantage of this method is seen, by again turning on the electricity dry heat is produced and the sterilized materials thoroughly freed from moisture. The same apparatus can be arranged for dry hot-air sterilization of articles that will withstand the temperature of 450° F. which is required. By a suitable arrangement of switches the amount of current employed is regulated to the exact needs of the process, no more is used than is necessary, no energy is wasted.

The cost of the electricity required to run the sterilizer under normal conditions is estimated by a competent electrical authority as under 7 cents per hour, where electricity costs 7 cents per kilowatt hour.

Although the electrical method of transforming and transmitting energy from the coal beneath the boiler, is in general more expensive, for the purposes proposed where that energy is required in small quantities, for a short period and where it can in this form be more easily transmitted and advantageously utilized, it is no more expensive, and when obtained from a commercial source for the use of the individual it is less expensive and of greater utility.

AN ELECTRICAL DRY HOT-AIR APPARATUS.

The value of dry hot air as a therapeutic agent has been established. It has also been shown that dryness and the power to absorb moisture are essential to full physiologic action. An apparatus to be efficient must produce a volume of dry hot air with a range of temperature that can be rapidly or slowly produced. Although very high temperatures are not useful in all cases, they certainly have their uses and value. With absolute dryness and a volume of air always in circulation, much higher temperatures can be employed without injury and the effectiveness of the treatment increased.

The many forms of apparatus now upon the market are wanting in one or other of these qualities, while the vapors arising from the process of combustion employed are unpleasant for the patient. In the majority, if not in all of them, absolutely dry hot air is not secured, as they do not have sufficient circulation to carry off the moisture evolved. They depend upon thick coverings that surround the part to absorb the moisture. A critical observer has demonstrated that the temperature within these coverings is 150°–175° F. below that registered by the thermometer in the hot chamber. Another feature, which is detrimental and makes the process tedious for the patient, is the half-hour that must elapse before they reach the temperature required for the treatment.

The apparatus described was made according to my ideas last December and was designed to overcome these defects. Although it is yet undeveloped it has demonstrated its efficiency and illustrates the value of the principle. Within the past fortnight an article in the February number of the London *Practitioner* has come to my notice in which an apparatus heated by electric-resistance wires is described. It differs, however, materially in principle, and the method of applying the heat is defective, as no volume of hot dry air is kept in circulation to absorb moisture from the skin.

In my apparatus[1] the process of heating secures

[1] Neither apparatus is patented, although there are certain patents on the production of heat which are owned by the Shannon Hardware Co., of this city, who made the hot-air apparatus on my suggestion, and from whom further particulars can be obtained regarding its cost, etc.

absolutely dry air. The temperature can be raised slowly or rapidly. In 10 to 12 minutes 300° of heat can be secured, while I have seen 500° reached in 15 minutes. The volume and dryness of the air assure rapid absorption so that blankets are unnecessary. Temperatures of 300° F. and over can be borne upon the bare skin, while a thin wool covering, to promote rapid absorption and evaporation, permits the temperature in later treatments to be carried above 400°.

It is not my purpose to enter into the best method of giving the treatments or their uses. It is undoubtedly true that, whether we desire a gradual rise after a certain temperature is reached or not, an apparatus that will rapidly reach a high temperature and then maintain it or gradually increase the heat, will be of greater utility and convenience to patient and operator than one by which a tedious wait is necessary. This apparatus is capable of these modifications, the temperature can be rapidly or slowly raised, readily kept at an even temperature or any modification produced that the operator may desire.

The resistance-plate is placed on the floor of the apparatus. Sufficient space is allowed for the free en-

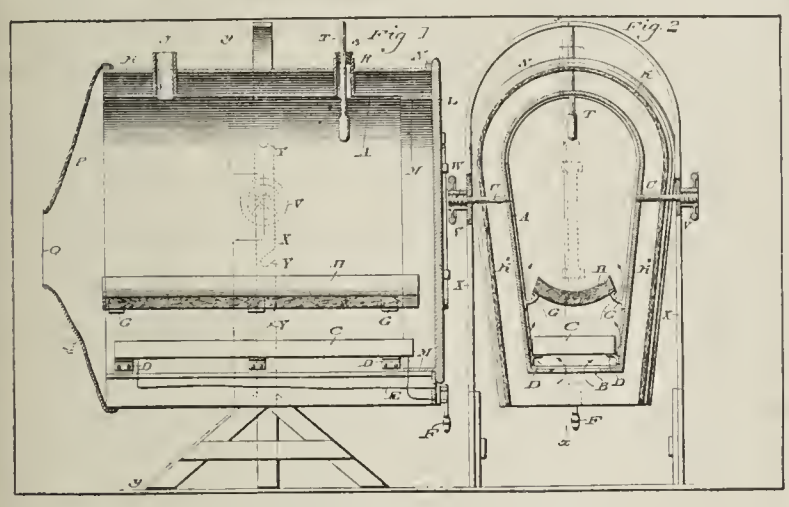


FIG. 2.—Electrical Hot-Air Apparatus.

trance of air which is rapidly heated and passes out through flues above. An outer jacket of asbestos may or may not be employed, it is not essential. It, however, prevents radiation, and the heated air beneath it can be the source from which the air is taken that enters the hot-air chamber. By a series of switches different areas of the heating-plate are cut out or thrown in circuit and the amount of heat controled.

In comparing this apparatus with other forms, its efficiency and convenience must be considered. The shorter time required to get it ready for use must be taken into consideration, since the relative amount of energy required and the cost of heating are decreased thereby, as well as the saving in time to patient and operator.

Either form of apparatus can be used on the ordinary electric lighting circuit such as is employed in this hall or in private residences. It can be made for either the alternating or direct circuit, and for any voltage. The amount of electricity used is, on the average, 880 watts per hour, if it is maintained at the extreme heat; the lower temperatures usually used are maintained with very little amount after being once reached. Where electricity is furnished at the rate of 7 cents per kilowatt per hour the cost would be under that amount. There is no danger to the patient or operator from the electricity, its only function is the production of heat by its conversion in the resistance-plate.

MEMBRANOUS LARYNGITIS.[1]

BY GEORGE B. KALB, M.D.,
of Erie, Pa.

IN my opinion the disease known as membranous croup is always diphtheria, the physical properties of the pseudomembrane differing somewhat from those of the pharyngeal form of the disease because of the character of the anatomic structures involved. The constitutional symptoms differ also, for the absorptive power of the larynx is less than that of the nose and throat where the lymphatics are more numerous. This is often demonstrated by the constitutional effects seen after the application of cocain to the upper air-tract, these effects being most marked when the nose is the point of absorption and least when the larynx.

My personal experience with antitoxin began in the fall of 1896. Previous to that time I had seen about 25 cases of membranous croup, about one-half of which were intubated. Of these, 4 recovered, 2 with and 2 without intubation, giving a mortality of 84%. Since that time I have treated 16 cases with antitoxin, 9 of which were intubated. One of these died with and one without intubation. Mortality, 12½%—or, in other words, without antitoxin, the mortality was 84%; with antitoxin the recoveries were 87½%. The use of antitoxin was practically the only point of difference in treatment.

The diagnosis was positive in each case, often verified with the laryngoscope. In about 25% of the cases the trouble began in the larynx, in about the same number, in the pharynx and larynx, apparently simultaneously, while in probably one-half the pharynx was first involved. In only one or two cases was there no evidence of membrane in the pharynx at all; true in some cases the patch was so small that it would have escaped detection altogether had it not been looked for carefully. The cases were usually associated with pharyngeal diphtheria in other members of the same family. Two of the laryngeal cases occurred three weeks apart in sisters. The patients' ages ranged from 6 months to 12 years. The pharynx and larynx both were extensively involved in the youngest child, and when first seen it was moribund from toxemia, not from obstruction. It died in 4 hours. This case might

[1] Read before the Medical Society of Erie Co., Pa., March 7, 1899.

fairly be left out in making the mortality-rate, but it has been included.

The youngest child intubated was 18 months old. This was also a fatal case, possibly due to the fact that the initial dose of antitoxin was only 1,000 units. That was the last case of membranous croup under my care that received less than 2,000 units as an initial dose. This amount was given to a 10-months child with no sequel referable to the serum excepting recovery.

The younger the child, other things being equal, the more severe the symptoms. The 12-years-old boy did not seem to be very greatly distressed for want of breath, although the larynx was very extensively involved, as shown by the pieces of membrane he coughed up, one of them being an almost complete cast of the larynx and trachea, showing beautifully the impress of the tracheal rings.

The first symptom of the disorder is usually hoarseness, followed in the order given by croupy cough, aphonia, croupy inspiration, croupy expiration, recession of the soft parts of neck, chest, and epigastrium; and, lastly, cyanosis. A sudden onset is not always indicative of simple catarrhal laryngitis. One of these patients went to bed at night apparently well, and about 5 A.M. awakened her parents with marked signs of croup. At 9.30 I could see with the aid of the laryngoscope that the larynx was full of membrane. The stenosis was already so great that I determined to intubate at once, but my outfit had been mislaid and it was noon before it was found. By this time she had become badly cyanosed, and was apparently dying, but fortunately made a rapid recovery after intubation. There is nothing characteristic about the temperature, but it is seldom high.

TREATMENT.—As soon as the diagnosis is made, give at least 2,000 units of antitoxin. My practice is always to inject this near the angle of the scapula, for one is here out of reach of the hands and feet of the patient.

Then, if the stenosis is marked, one of O'Dwyer's tubes is inserted, never waiting till cyanosis sets in, and the child's vitality thereby greatly lowered. The case may, however, have progressed to this point when first seen by the physician. The sickroom should be well ventilated and warm, and a vessel of water and turpentine should be kept boiling near the bed. The moisture does good whether the turpentine does or not. If the case is not severe enough for intubation, a tent and slaking lime are used.

Internally I invariably give calomel from one-half to two grains every hour till the stools become green and frequent, then the dose is diminished and the intervals increased, but the drug is continued throughout the course of the disease. Diphtheria-patients stand mercury well. I have given to such two grains of the mild chlorid every 2 hours for a week with only good results. Strychnin and alcohol are given when indicated, as they often are. That nourishing, easily-digested food should be given often goes without saying, as well as that any complication, such as nasal or pharyngeal diphtheria, should be treated.

While the tube is in the throat, the patient has often great difficulty in swallowing liquids. It is strange how much this varies. Some experience very little inconvenience, others have a violent fit of coughing at every attempt at drinking. When this is the case, the difficulty may be lessened by placing the patient in a sort of Trendelenburg position to drink so that the liquids travel "up hill," and if any enters the tube, it at once runs out again. Custards, soft eggs, and such semisolids usually give no trouble.

A few words as to antitoxin in general. Physicians may not have in their hands the issues of life and death, but my own experience and that of others convinces me, that nowhere in the domain of medicine is there a more perfect specific for any disease than exists in antitoxin for diphtheria. Of no treatment for any disease have the statistics been so completely compiled, and few treatments have been so many times employed. Behring's works alone have been producing 100,000 doses per month for a long time. Altogether there have been millions of doses administered.

In the Berlin Hospital before the days of antitoxin the mortality of the diphtheria cases was 50%; with antitoxin it is 10%. In the Cook County Hospital, it has been reduced from 40% to 12½%. The mortality for all Chicago, for the first 2 years of the serum-treatment, during which time all cases were examined bacteriologically, was only 6.51% in all classes of cases, and only 16.53% in the laryngeal form. Of these cases 189 were injected the first day of the disease, and only one died. In last November, in the same city, of 192 cases receiving the antitoxin, only 3 died. The American Pediatric Society reports 5,794 cases in private practice with a mortality of 12.3%, or excluding those dying within 24 hours of the injection, only 8.8%. In one series of 11,000 cases treated with antitoxin the mortality was 19%, while during the same period 13,000 cases treated otherwise gave a death rate of 37%, and as we all know, it is usually the worst cases and those that have resisted other plans of treatment that receive the serum, too often too late to be of any service. When given the first day of the disease the mortality will not be over 2%. Baginsky treated 525 consecutive cases with serum with a death-rate of 15%, then owing to the supply failing, was obliged to treat 126 without. The mortality of these cases was 48.4%. When he could again obtain the serum the mortality at once fell to the old figure. He says in this connection: "If one will permit figures to speak at all, there has scarcely been made on human beings a more demonstrative test of the curative power of a therapeutic agent."

These figures should convince any fair-minded man of the efficacy of diphtheria-antitoxin, but more con-

vincing is its record in laryngeal cases. These cases are admitted by all to be most deadly, in fact almost hopeless under the old plans of treatment. Moreover, they require operation less often than without antitoxin. The serum seems to act more rapidly in the laryngeal form than in any other. The report of the American Pediatric Society gives 1,704 cases of laryngeal diphtheria treated with antitoxin, 1,036 without operation, with a mortality of 17.18% and 637 with intubation, mortality 26.5%, or 21.12% for all cases. Previous to the time of antitoxin, 5,546 cases of intubation gave a mortality of 69.5%. O'Dwyer himself had a mortality of 72.44%, without antitoxin, and with it, only 23.7%. In short, without antitoxin 3 out of 10 cases of laryngeal diphtheria end in recovery, with it only 3 end fatally. If any problem in human life can be proven, then it is proven that antitoxin is a specific for diphtheria.

A few points concerning the introduction of the tube. The proper size is threaded and attached to the introducer, the child is tightly wrapped in a sheet or blanket and held upright on the left knee of the nurse who secures the feet of the patient between her knees, the gag is introduced into the left side of the mouth and the assistant, standing directly behind the patient holds the head firmly on a line with the body. The operator passes his left index finger into the larynx, the epiglottis and tongue are drawn forward, this elevates the larynx somewhat, then the finger is moved to the right sufficiently to allow the tube to enter the larynx directly in the median line. The tube is pressed home with the finger in the larynx as it is released from the obturator. At once the patient coughs and breathes freely, the gag is removed and the thread is looped over the ear. The air whistling through the tube is always a welcome sound. Of late I leave the thread on, as it does no harm and greatly simplifies removal, besides there is the danger of loosened membrane blocking up the tube in the doctor's absence. This is always explained to the nurse who is directed to withdraw the tube at once in case this accident should occur.

In 48 hours the tube is removed and in only one case did I have to replace it. In some cases the tube is coughed up, often bringing along such a quantity of membrane that the stenosis is relieved and reintroduction unnecessary.

Extubation is considered more difficult than intubation, if the thread has been removed. The patient is arranged as for intubation, the finger is passed into the œsophagus till the tip rests on the arytenoids, then the extractor is slipped along the palmar surface of the finger till its point enters the tube, the jaws of the extractor are spread and the tube is pulled out. It sounds easy, but after you have removed a few, your heart is made glad when you visit a patient and find he has coughed up the tube, and it does not need to be replaced.

If left in too long, ulceration with exuberant granulations which occlude the larynx, or edema with the same result may follow, necessitating a special tube to be worn for a time. This condition is called "retained tube."

The lessons my experience has taught me may be epitomized :—

1. Give antitoxin early and in large doses.
2. Intubate early and remove the tube early.

FURTHER NOTES ON A CASE OF MALTA FEVER; A STUDY IN SERUM-DIAGNOSIS.[1]

BY JOHN H. MUSSER, M.D.,
AND
JOSEPH SAILER, M.D.,
of Philadelphia, Pa.

THE following case has been previously reported in the PHILADELPHIA MEDICAL JOURNAL for December 31, 1898. We desire to make a further report because, since that was published, several features of the case have developed which may perhaps be considered as invalidating our previous view of its nature. Moreover, it seems to us of considerable importance to determine positively whether Malta fever actually exists on this side of the Atlantic. Unfortunately, a positive bacteriologic diagnosis could not be made. The micrococcus melitensis has rarely been obtained from the living subject, and then only by means of splenic puncture. In the present instance, we did not consider that this procedure was justifiable. No attempt was made, moreover, to isolate the bacterium typhi abdominalis from the feces or urine. The procedure is of itself sufficiently difficult, and at no time were the clinical symptoms such as to justify, in view of the persistent absence of the Widal-reaction and of the diazo-reaction, the diagnosis of typhoid fever.

The case was reported December 31. The last note was made December 21. The patient was then suffering from fever of an undulating type which had been present upwards of 90 days, and had been 60 days under our observation. During this time there was no evidence of any infection, other than Malta fever, excepting a local and healing suppuration of the parotid gland, the pus from this yielding, on cultures made by Dr. Kneass, no pathogenic microorganism. It will also be remembered that typhoid fever, malaria, tuberculosis, and endocarditis had been excluded. We even thought an accidental syphilitic infection might have caused the fever. Indeed, the only symptom was fever; the only suffering—and there was very little—was from the fever. The patient ate heartily, enjoyed the visits of his friends, and read the current news. Dr. Guiteras kindly saw him for us, and agreed he was suffering

[1] Read before the Association of American Physicians, at the meeting held in Washington, D. C., May 11, 1899.

from some severe form of tropical fever, and agreed with us that the above-mentioned infections were not present.

Our record closed December 21, when the patient, heartily sick of 80 days of hospital-life, insisted upon leaving the hospital, and was sent home at his request, although his fever was then increasing, and on the day of his departure was 103°. After this the temperature continued to rise until it reached 105.2°, and continued above 104° for 8 days, when it fell to 101.2°, January 1, 1899. He returned to the hospital December 28. In 4 days diarrhea set in and continued for 2 weeks, or until January 9. During this time the stools were often passed involuntarily. They were usually greenish yellow. On January 3, the sheet was stained with an involuntary discharge of blood, scarcely $1\frac{1}{2}$ ounces in our judgment—nevertheless, a hemorrhage—fresh and seemingly from the colon. When the stools were not passed involuntarily, their passage was attended by tenesmus and tormina. Had we not in mind the possibility of typhoid fever, we would have said the intestinal condition was due to colitis. The thought that this was possible, was intensified by the fact that the liver was enlarged and painful. It extended from its highest normal limits to 2 inches below the margin of the ribs.

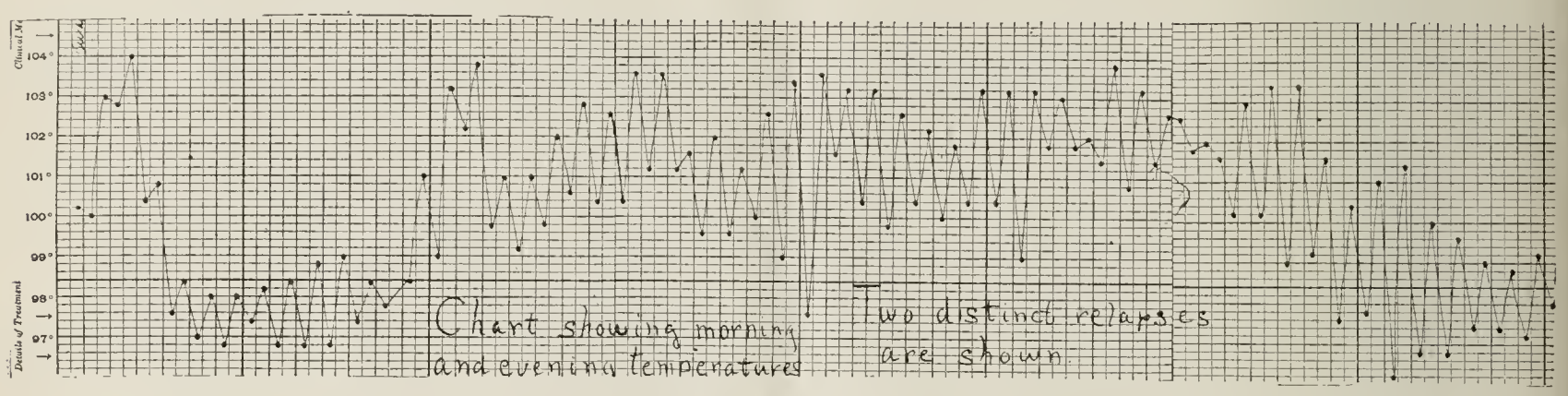
Subsequently the temperature was of the remittent type, with marked variation. It fell to 101° January 1. It then assumed an undulating type, the great diurnal variation continuing until the 133d day of the disease. On this day there was a difference of 2.8° between the morning and afternoon temperatures, although the evening rise was only 98.8°, the morning-temperature being 96°.

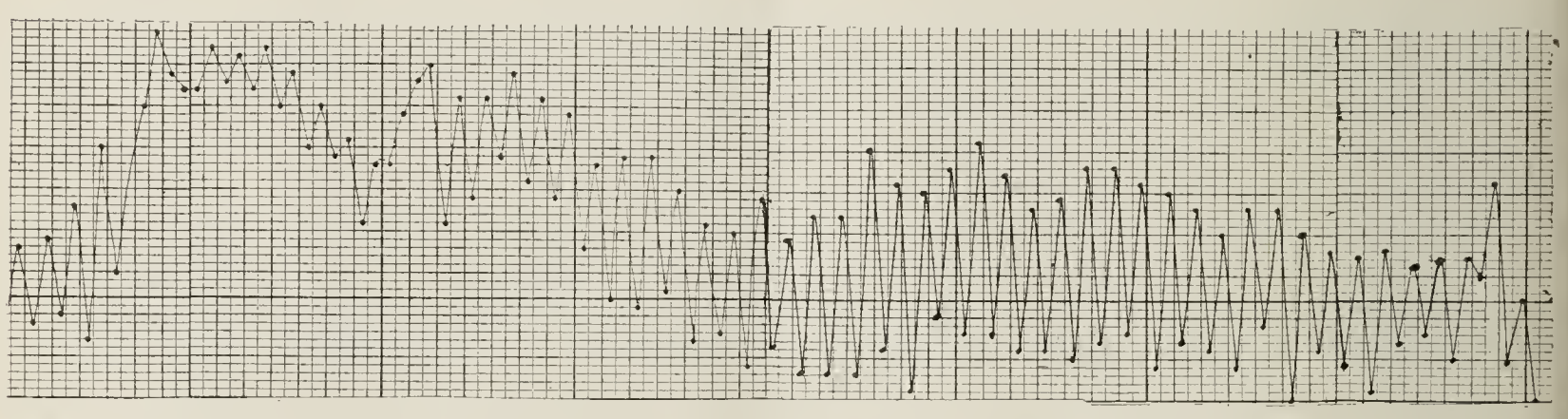
During the period of diarrhea the abdomen was tympanitic and an eruption of an erythematous and papular character developed over the trunk. The spots were larger than typhoid spots and darker red in color. They did not appear in groups.

During this time he lost memory for recent events and a curious confusional delirium was present for about one week.

SERUM-DIAGNOSIS.—The onset of symptoms resembling those of typhoid fever in this most interesting case, which thus far had showed no signs of this infection, led us to renewed efforts to study the serum-reactions. One of us, conjointly with Dr. Kneass, made frequent tests. As further control we asked Dr. Stewart, of the City Laboratory, to determine the reaction also. These tests were made every second day long into convalescence. At no time did Dr. Stewart secure the Widal-reaction to indicate the presence of typhoid fever. The diazo-reaction was studied by Dr. Wadsworth and was invariably absent.

The first culture of the micrococcus melitensis was obtained from Dr. Kinyoun about December 20. The blood of the patient was diluted in the white pipet in the proportion of 1 to 22. A reaction made of this showed typical agglutination in small clumps at the end of 26 minutes. Unfortunately, the tube was broken while making reinoculations. A second tube was obtained about 2 weeks later. It also gave a typical reaction both by the wet and the dry method on various occasions, the last being April 25. On almost all occa-





ons the blood was also tested with cultures of typhoid acilli and failed in every instance to present any trace f agglutination. A culture obtained through Dr. Kelly from Dr. Kretz, of Vienna, showed two types of rowth. The first appeared on agar on the second day fter inoculation. The colonies grew luxuriantly all long the course of the stroke and rapidly acquired a right yellow color, resembling a culture of staphylo-occus citreus. It failed to react with the blood of the atient. The other microorganism did not appear on ne culture-medium until the seventh day after inocu-ation. It grew at first along the streak as grayish-hite translucent colonies, then in time these became onfluent and formed a white semitranslucent growth. Vith this culture Dr. Kelly obtained a doubtful reac-on in about an hour by the dry method. The culture btained from Dr. Kinyoun was studied by Dr. Kneass, ho states that it appears the third day after inocula-on upon agar as a thin pale grayish growth. With is culture all the reactions were performed, the aximum period before agglutination took place being 5 minutes on the first occasion, and the minimum eriod being 4.

The microorganism is about 5 μ in diameter, is non-otile, but shows Brownian movements. It conforms in its biologic properties with the microorganism de-ribed by Bruce,[2] except the rapidity with which the olonies appeared after reinoculation. Agglutination ppears to occur when, as a result of the oscillations, ne microorganisms come in contact, when they adhere nd cease moving. The clumps are, therefore, much naller than those observed in the case of the Widal-action in typhoid fever.

We have then a case of what appeared to be Malta ver, presenting in the termination of its course phe-omena allied to those of the typhoid infection, but ithout the serum-reaction of this infection. The atural question that arises is, Was the disease typhoid ver from the first? We believe it was not. The clin-al history is against it; the serum-diagnosis does not rove it. Agglutination was never secured with typhoid acilli, and was repeatedly secured with the cultures the micrococcus melitensis, with all control-pre-utions.

We are personally of the belief that the serum-agnosis is final in infectious disease unless there is a onounced mixed infection, and although this is not possible in the case we have reported, the absence of e Widal-reaction and the atypical course of the mptoms, excludes, we believe, the probability of phoid infection during the latter part of the disease. side from the absence of involvement of the joints, e clinical history resembles closely the description as ven by Bruce, and the presence of the serum-reaction nfirms, we believe, the diagnosis.

Twentieth Century Practice of Medicine, Vol. xiv. (The article contains a l bibliography.)

FALSE TONSILS.[1]

BY ROBERT N. M. DAWBARN, M.D.,

of New York City.

Professor of Surgery and of Surgical Anatomy in the New York Polyclinic Medical School and Hospital, Surgeon to the New York City Hospital.

THE topic upon which I have been asked to address you this evening is, in one respect, unique. Nowhere else, I verily believe, than within the magic circle of "Waldeyer's tonsillar ring"[2] can be found a common meeting-ground for seven distinct classes of practitioners, all really interested in the subject. The otologist, because here lies the commonest cause of deafness. The rhinologist, because here is found one of the most frequent sources of nasal catarrh. The laryngologist, for the reason, among others, that obstruction of the vault interferes wofully with tone-production, as also do the high narrow arch of the palate, and abnormally small antrums. The stomatologist, because the disease in question leads to peculiar malformations of the upper jaw, and to defective dentition—with consequent necessity for regulating work. The neurologist, because a half-dozen psychoses and neuroses have an occasional starting-point here, from reflex irritation as well as from a poisoned and illy aerated blood that cannot properly nourish the nervous centers. The general practitioner, because of effects upon all organs and bodily functions from the cause just hinted at. And finally, the general surgeon diffidently expresses his interest in the subject—just because.

I believe that all surgeons commonly operate for removal of tonsils of all abnormal types and in all situations. Nevertheless, the field for general surgery is narrowing as rapidly as that for general medicine to-day; and one can hardly tread without stepping upon some brother's special field. Hence the diffidence aforesaid. As evidence, in one specialty alone, of this gentle tendency to elbow us off of the face of the earth, a well-known surgeon remarked not long ago to me that gynecology is steadily advancing up-hill—he is keeping his weather-eye on it.

Time was, when it was limited above by the brim of the true pelvis—now it is nearer the brim of the hat. They are rising in the world; and at present nothing short of a line firmly drawn just beneath the chin seems likely to stop their upward march. Maybe they too will find excuse for entering the magic circle of Waldeyer!

I have spoken of pharyngeal false tonsils. The correct term is pharyngeal lymphoids, or lymphoid growths. Adenoids is the more usual designation; but there is no pathologic justification for it, and writers careful in nomenclature are already dropping this unfortunate term. These vegetations are practically identical in

[1] Read at a meeting of the New York Institute of Stomatology, held March 7, 1899.

[2] Waldeyer: "Ueber den lymphatischen Pharynx Ring."—*Deutsche med. Wochenschrift*, No. 20, 1884.

structure with the faucial tonsils. That is the same as saying that they are open-meshed lymph-nodes, very vascular, having, however, no deep crypts or pockets, but abundance of irregular spaces between them wherein dirt and discharges are held, and being in a measure without the rather dense capsular investment of lymph-nodes elsewhere.

At what age do they appear, and with what frequency? There seems to be no period even of early infancy exempt. One of the worst cases I have cured was in a baby not nine months old. A surprisingly large amount of lymphoid material was removed.

Regarding the frequency, doubtless climate is a prominent factor therein. When, less than a generation ago, the disease began to be generally recognized, it was at first claimed that 5% of all children suffer therefrom, to some degree, in our very severe climate. But of late I am sure that this estimate is, by those competent to judge, regarded as much too low. Some specialists double it. And yet I can well believe that in the tropical and subtropical zones, and especially where the air is comparatively dust-free, and the variations in temperature and humidity are less startling than with us, there may be much lower percentages than I have named.

The ill-effects of large pharyngeal and faucial tonsils are numerous. With an audience of stomatologists I will, however, only discuss and dwell upon those having a direct bearing upon that speciality of medicine.

Perhaps the most prominent of these bad results are four: (1) the high, narrow arch of the palate; (2) the insufficient development of the upper jaw; (3) the dentition, irregular in order and imperfect in quality, and (4) the tendency to dental decay, especially of the teeth nearest these growths, and to various types of stomatitis and gingivitis, mainly induced by the myriad microbes which the interspaces of these vegetations harbor and encourage.

1 and 2. To study these in order: How shall we explain the high, narrow hard palate which is so frequently found in children subject to the troubles in question? After considerable thought I would reply that there seem to be at least six factors in its causation. The first and most important of these I believe to be a purely mechanical one. To explain: I am surely not overstating the fact if I say that nine out of every ten cases of pharyngeal tonsils are also cases of diseased and abnormally large true or faucial tonsils. It is certainly the rule with me, rather than the exception, to have to remove these at the same operation with the emptying of the obstructed pharynx.

Now I am certain that any other surgeon will agree in telling you that a fact too frequently overlooked is the firm adhesion so often found, when sought for, between the diseased tonsil and the pillars of the fauces—and especially the anterior pillar. An operator neglects his duty who does not look for and carefully separate such adhesions. And sometimes this is not easily done, for the twain have become one flesh, so to speak.

This being true, it seems plain that in the act of swallowing, the large tonsils, being dragged down mechanically with the bolus of solid food in the act of swallowing, in turn exert a distinct downward pull or tug upon their adherent pillars; and these in turn must pull down upon the sides of the bony palate, to which they are attached. Inevitably, when many thousands of times this tug is repeated, in the course of months and of years, a lateral narrowing of the arch has to result.[3] If this explanation be the true one, it follows that we should see the high, narrow arch in its extreme development mainly in those cases in which tonsillar hypertrophy with adhesions to the pillars of the fauces is particularly well-marked—and beginning while the bones are still young and soft enough to be capable of ready yielding to such force. And this I believe to be true, so far as my own observations go.

The second factor in causing the narrow arch is so obviously important that no one can gainsay it. Once let this condition be begun by the cause just studied, and presently we will find that the narrow superior dental arcade will begin to articulate towards the inner or lingual side of the inferior dental arcade; for the lower jaw is not especially involved, and develops naturally—therefore becoming wider in the transverse measurement between its alveolar processes than the upper jaw. As soon as such abnormal articulation has well begun, every time the teeth are firmly opposed they will tend to maintain the narrowness of the upper arch, and even to exaggerate it.

The third factor in causation of this malformation of the upper jaw has to do directly with the pharyngeal obstruction, and not now with the faucial. It seems an axiom in nature that any organ, any function, not put into use becomes atrophied and shrunken. Of this numerous instances will occur to you all. With the pharynx so filled up that the child has become a mouth-breather, the nasal air-passages have no longer the same *raison d'être*. They become comparatively useless in the economy, and from all sides nature begins to close in upon this waste space, largely, perhaps, from atmospheric pressure. The rising of the arch of the palate, which is also the floor of the nose, is a step in that process.

Fourth factor: In the case of young mouth-breathers the still soft bones of the upper jaw may well be expected to yield in some degree to the downward and continued traction of the soft parts of the sides of the face, pulled upon by the weight of the fallen lower jaw. The effect of this must necessarily be to bring the sides of the arch nearer together.

[3] I have recently learned that Dr. Dwight L. Hubbard also holds the opinion as to causation just expressed herein; but I do not know who originated it.

Fifth factor: In a recent most interesting study of e stigmata of degeneration, Dr. Frederic Peterson, one our highest authorities, has discussed many of these, d among others he includes abnormally shaped lates—specifying the high, narrow or Gothic roof of e mouth, the hip-roofed shape, the abnormally flat-ned, and a few others. I do not mean to have you fer that either he or I believe that more than a small inority of such palates represent such stigmata; but few do, and hence we must include this factor among ır causes. In some instances, though not indicative degeneration, the narrow arch or other unusual ape is unquestionably a matter of family inheritance, st as is the shape of the nose, for example.

Sixth factor: Following the reading of this paper, a ntleman present, Dr. J. B. Littig, offered what seems very valuable suggestion in further explanation of ıe narrow arch in mouth-breathers. He called atten-on to the fact that in nose-breathers the tongue con-antly lies in contact with, and in a measure supports, ıe roof of the mouth; and the bones, while soft natur-lly, are molded to the shape of the dorsum of the ngue; or probably each in part is molded by the ther. But in a mouth-breather the tongue no longer rves this useful function.

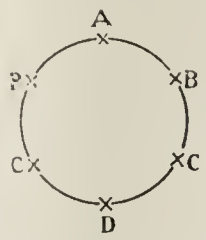
3. The third of the bad results of a stomatologic ature, to which I alluded a few minutes ago, was denti-on irregular in order and imperfect in quality. This, it ould seem, can readily be explained, since it is in the ame category with numerous other physiologic activi-es adversely affected by insufficient oxidation, and by ontinually poisoned salivary and mucous secretions, ith consequent anemia and malnutrition.[4]

4. Regarding a fourth group of symptoms caused y the disease we are studying, I would allude to the eadiness wherewith the teeth of these children decay, nd especially those teeth which are *hindmost*—thus ying nearest to the poison-filled tonsils or pharyngeal egetations. Quite recently, in talking informally of onsillar troubles, a member here present volunteered he remark that he was sure he had observed this; and wo other members confirmed the statement from their wn experience. It will be interesting to ascertain the general views upon this point in the discussion here-after.

The diagnosis: how shall this be made? Of the six way-stations upon the ellipse of Waldeyer's lymphoid ring, the lowermost three are open to ocular inspection with some degree of ease; *i. e.*, the tonsil of the tongue, on its upper surface and quite close to the epiglottis, and the two true or faucial tonsils. The symptoms produced by hypertrophy of the glossic tonsil need not concern us in this paper. The other three way-stations are all pharyngeal ones, namely, the uppermost or

[4] Eustace Smith says that pigeon-breast is due, with few exceptions, to rhino-pharyngeal obstruction, leading to insufficient aeration of the lungs and pul-monary collapse.

A DIAGRAMMATIC REPRESENTATION OF WALDEYER'S TONSILLAR RING.



A = Luschka's or the pharyngeal tonsil.

B = The tubal tonsils, or cushions of the eustachian tubes.

C = The true or faucial tonsils.

D = The glossic tonsil.

The letters indicate the sites of aggregations of lymphoid tissue; the dashes, the connecting lymphatic vessels.

Luschka's tonsil, and the two tubal ones, or cushions of the eustachian tubes. Of course, the scientific and exact way of diagnosis is to examine the pharynx by aid of the forehead-mirror and the laryngoscopic or the post nasal, which is a little mirror, just such as you employ for help in your own work. But the educated finger-tip is quite sufficient, though a more unpleasant way, to determine absolutely the need for operation. One can recognize with ease in an instant, after a little practice, the absence of the smooth, slippery, healthy mucous membrane, resembling closely in feel the inside of the cheek—the buccal mucous membrane—and instead, the presence of the mushroom or cauliflower growth, varying greatly in consistency according to age, duration, and rapidity of development. Also the doctor can determine at the same moment whether one or both of the passages of the choanæ—the posterior nares—be obstructed. A very simple means of diagnosis, requiring but a second or two of time and no experience, is that if the examiner's soft fingertip, with nail trimmed close to the quick, produces a nasopharyngeal hemorrhage, there is surely an abnormal and excessive degree of vascularity there, calling at least for a surgical opinion. There should no more be bleeding from the pharyngeal vault swept lightly by the fingertip than from the tongue or the buccal mucous surfaces under like circumstances. To be sure, malignant growths and certain other diseases may bleed thus upon touch, but these are very rare by comparison—and of course also need a consultant's opinion.

But aside from any direct examination of the space behind the curtain of the soft palate—if you find a child who is a mouth-breather at most times; who snores when asleep; whose utterance tends to be thick and resembling in its faulty consonants the pronunciation caused by severe cold in the head; whose expressionless face and open mouth give him a stupid look—with even less than all of these together you can be practically sure of your diagnosis. (Of course, I assume that there is no obstruction of the nasal passages to be observed from the front.) With such a picture we commonly expect to find, also, enlarged faucial tonsils; and their presence accordingly adds to your certainty, though their absence would not disprove the diagnosis.

It is worth noting, *en passant*, that a baby who is very subject to coryza, and "snuffles" most of the

time, is probably either syphilitic by inheritance or already afflicted with pharyngeal lymphoids.

In children old enough to understand and follow directions we are able to try the Valsalvan test—of closing the nostrils and trying to have them blow air through their eustachian tubes—which any normal person can learn to do, feeling the air distend the eardrums. Not to be able is often indicative of obstruction at the mouths of these tubes, and explains why growths here are known to be the most frequent cause of deafness; for the air-pressure should in the healthy tympanum be equal upon both sides of the eardrum.[5] Of course, this is a test as to the patency of the eustachian tubes and not merely as to the presence of vegetations in the pharynx, which may be present and growing in such a way as not to press on the tubes.

Clifford Allbutt states that the very worst degrees of depressed eardrums are found in bad cases of pharyngeal lymphoid growths; and that these children are the ones who, when stricken with diphtheria or scarlet fever, quite regularly develop suppurative otitis media and perforations.

PREVENTION.

I know of no means whereby in a catarrhal climate, such as that of the northeast American seaboard, one can be assured of success in preventing lymphoid developments. Of course, local cleanliness is of the utmost importance. The hygiene of the nose should be taught as carefully as that of the mouth, and how the nose may with safety be cleansed; for if done improperly, as we all know, syringing is capable of causing damage to the ears by forcing infected mucous discharges up the tubes.

One point in prevention may seem to you somewhat heterodox, and yet upon after-thought will, I believe, commend itself to you: namely, that so far from endeavoring to break a baby of the habit of thumb-sucking, in our climate, at least, it is rather to be encouraged; for it is obviously true that a thumb-sucking child cannot be mouth-breathing at the same time, and that consequently the habit promotes the natural function of the nose and nasopharynx in respiration, tending to keep these passages free. Also, so far as a slight vacuum is produced in the mouth during the sucking, between the tongue and hard palate, this should tend to bring down the arch of the palate, through atmospheric pressure from above—that is, air within the nose. Of course, it is plain that there are certain disadvantages too; possible protrusion of the upper front teeth, for example. But I am alluding just now to nasopharyngeal affairs, and upon the score of these am gallantly defending the little one's chief comfort in life when aggrieved and unhappy.

[5] The nasopharynx should first be cleansed by gentle douching before trying the Valsalvan test, lest acute middle-ear trouble be caused by infected mucus forced up the tube.

TREATMENT.

This is solely operative. I will waste no time over discussing palliative measures. The operation of tonsillotomy is performed in a few seconds with the guillotine, of various modifications. We also need to separate by another instrument the frequently adherent pillars. In very rare cases the shape of the tonsil is flat and diffuse, rendering amputation impossible, and demanding the electric or actual cautery-point, again and again, for its diminution and absorption.

As to anesthesia, I prefer the local application of a solution of eucain B rather than cocain, for the reason that eucain B does not shrink the growth, for it does not contract arterioles. Cocain *does*, very distinctly; so that one cannot remove after use of cocain so much as is desired because of this retraction due to sudden anemia. Of course, the latter (*i. e.*, the anemia) is a good point as to checking bleeding. However, hemorrhage is rarely excessive, and gargling with very hot water usually suffices. Not to carry this paper to greater lengths, I do not discuss the treatment of such occasional instances of further bleeding.[6] It is enough to say that the operation is entirely safe.

Regarding the ablation of pharyngeal lymphoids, simple as all agree that this is, in skilled hands, opinions differ widely as to the best technic. I will quote Seifert (*Die Aerztliche Praxis*, 1898, xi, 81).

"There is hardly another form of disease in which individual views regarding the method of operation, as well as anesthetic to be employed, are so diverse as in adenoid vegetations." This prominent specialist prefers chloroform, only a very light seminarcosis being allowed, and the child held sitting upright and leaning forward, the blood running thus out of the mouth and nose. Certain others are cruel enough to use no anesthesia at all. Cocain and eucain are nearly useless, because of the flow of blood which promptly washes them out of the tissues. Indeed, I know no small operation in which there is, just for an instant, such a gush of hemorrhage as that at the moment of detaching these very vascular growths; but it ceases as promptly as it comes, and is not to be feared.

Personally I do not consider it safe to give chloroform in the upright position. My own choice is for chloroform in this operation, as in most, provided the anesthetist be skilled; otherwise ether. It is generally admitted that in childhood chloroform is safer than otherwise; and with care it may even be given during sleep, thus preventing all excitement—the child sliding from natural into anesthetic sleep. The child is gagged and then put in Rose's position—in which the head is allowed to drop down and backward beyond the end of the table; thus the blood cannot run towards the larynx, being directed by gravity out of the nose and

[6] Upon this point the reader is referred to my articles upon Tonsillar Hemorrhage, its Prevention and Treatment, in the New York *Medical Record*, December 17, 1897; also in the New York *Medical News*, for May 20 and June 10, 1899.

nouth. As Dr. Delavan, among others, has pointed ut, there is more than a theoretic danger of inhaling bloodclot and thus choking, if the position of the hild renders this possible.

It is very likely that the gentlemen here present to iscuss this paper may each have his own choice herein; s also regarding the preferable instrument. Gottstein's uret, a kind of ring-knife, is very safe, and is popular or this purpose; though post-nasal forceps of various urves and shapes, and a few other tools are occasionlly employed—Löwenberg's, or Hartmann's or Trautnann's forceps to clear out Rosenmüller's fossa, for exmple. In little babies the vegetations may sometimes e found so soft that even a strong and long finger-nail vill suffice for their removal. With the flowing blood nd necessity for speedy work—for bleeding only ends vith detachment of the growths—it is hardly necesary to say that the operation is not done with mirrors nd reflected light, but entirely by sense of touch; the eft forefinger guiding the action of the curet or of the orceps.

The after-treatment is very simple. There is but light discomfort, for the operated surfaces are above nd behind the hanging palate, and deglutition does not ring the food in contact with any raw part. Any rdinary sore throat often causes much more annoyance han these little people feel the next day. They usually re kept recumbent only 24 hours, assuming that the irculation is normal. If any unpleasant odor, whatver, be noted after a day or two, I gently syringe the ose with normal salt-solution, warm; otherwise I do ot disturb the healing surfaces upon which nature is t work.

The child must be encouraged to use the natural reathing passages now. Quite as a habit, mouth-breathng may continue, otherwise, to his detriment. But *efore* this operation it is simple cruelty to demand that mouth-breathing child shall keep his lips closed. It vould mean a partial suffocation.

Does the disease recur? Very rarely, when the operation is well performed, and the same is true of a rehypertrophy of the amputated tonsil. The cases of recurrence are so excessively rare as to be a negligible quantity, not over 1% at most.

Conclusion.

If we admit that the points I have made are well and truly taken; that, in sundry ways, tonsillar growths, both oral and pharyngeal, are bad for the stomatological welfare of the dentists' little patients—then it surely follows that dentists have a duty to perform, in urging upon the parents of such patients the need of surgical intervention both for prevention and cure; the removal of faucial tonsils and careful separation of all adhesions here, to avoid the narrowing of the palatine arch; the ablation of pharyngeal tonsils to prevent such an arch, and also ill-development of the whole upper jaw, and faulty dentition; the removal of such growths, because they prevent sufficient oxidation of the blood, also because they are culture-cabinets for microbes innumerable, continually supplying in their irregular interspaces poisonous ptomains and toxins from life-and-death processes of these little enemies which shoot with poisoned arrows, thus vitiating the victim's blood. In both these last ways are induced anemia and vital weakness, whereby dentition, in common with other important physiologic processes, suffers and is performed but indifferently well at best—and at worst, very badly.

These things being by you made clear to the parents, and that the necessary operation is in no sense a dangerous one, I feel sure that few indeed among the more intelligent of these will fail to accept thankfully the means thus advised, and in later years to acknowledge in consequence a fresh debt of gratitude to that excellent friend, the conscientious and cultured family-dentist.

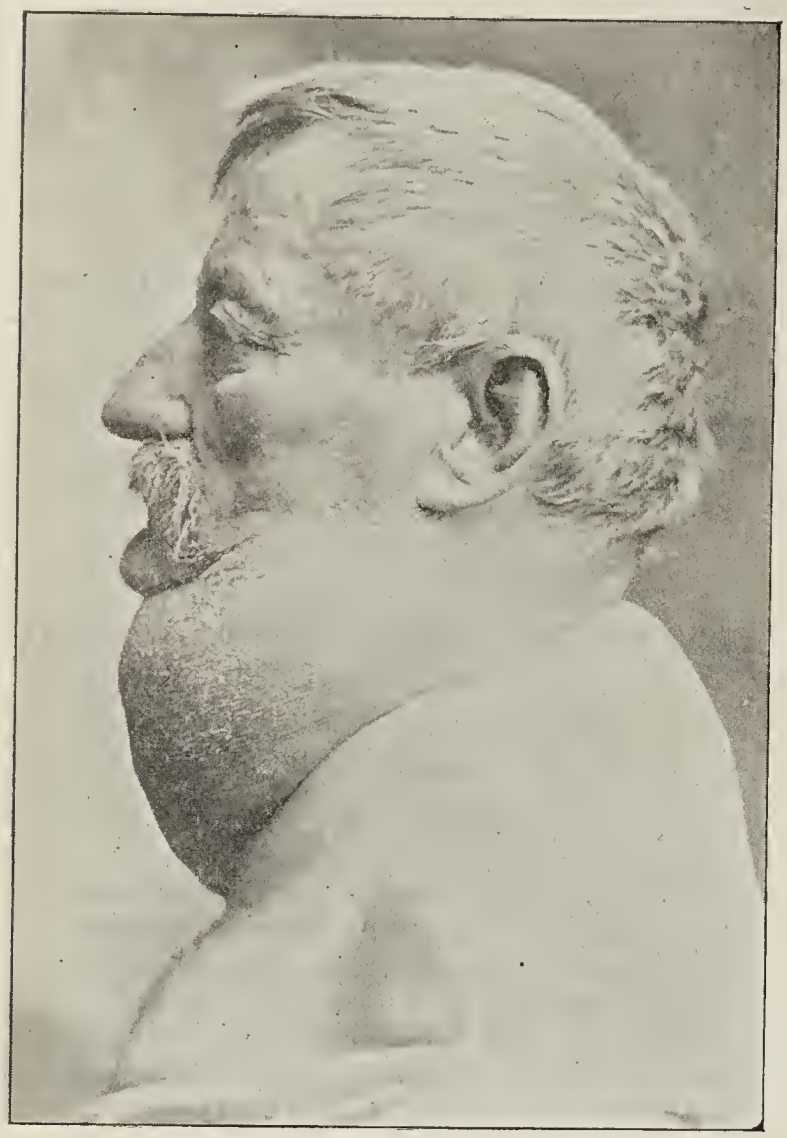
A LARGE DIFFUSE LIPOMA OF THE NECK: OPERATION; RECOVERY.

By J. SHELTON HORSLEY, M.D.,
of El Paso, Tex.

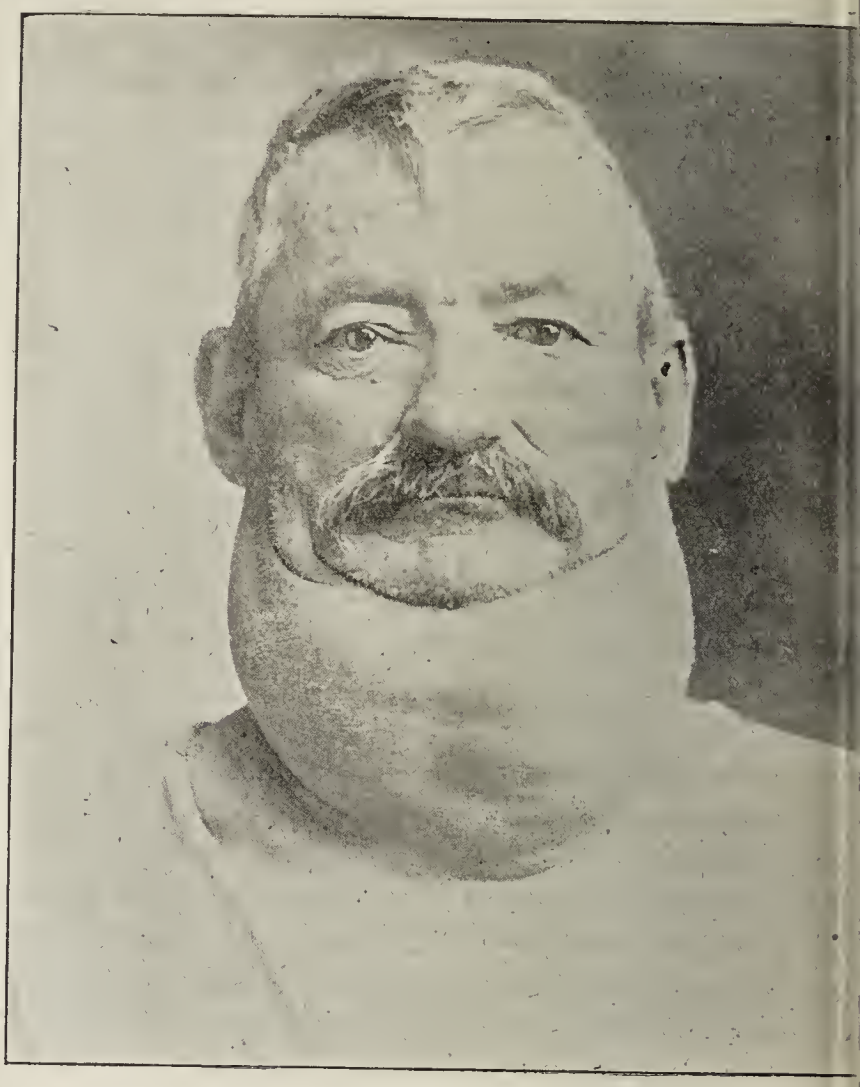
Operations for removing fatty tumors are usually simple and become difficult only from their size, or anatomic situation. The case here reported may be of some interest from both of these circumstances.

C. M., a Frenchman, aged 58 years, was formerly a soldier in the French army; his health has always been quite good. He has been dissipated and addicted to debauches from his youth. He has always been of a corpulent tendency. About 20 years ago he noticed a diffuse growth commencing in front of his neck. This was without pain and not accompanied at first by any particular discomfort. The tumor continued slowly increasing in size until in December, 1898. When he applied to me for operation it presented the appearance shown in the first two cuts, which are made from photographs taken at that time. The growth was lobulated, soft, and presented an indefinite sense of fluctuation. It was beginning to obstruct his breathing, particularly if he lay on his back. On December 8, 1898, I operated on him under chloroform-anesthesia at Hôtel Dieu. The Kocher incision was used, commencing under one ear and continuing obliquely over the tumor to a corresponding point on the opposite side of the neck. This was joined at the median line by a vertical incision downward. The skin was thin and adhered firmly to the growth. The flaps were dissected up and the whole of the tumor exposed; all bloodvessels were seized with artery-forceps as the operation progressed, care being taken to lose as little blood as possible. Beginning on the left side the lipoma was enucleated and freed from the large vessels without difficulty. Then it was dissected from the right side. It was closely adherent to the right internal jugular vein, which was wounded by scissors. The wound was caught with two hemostatic forceps and a lateral ligature of silk applied. The tumor was finally freed from the region around the median line. The vessels were tied with catgut. During the dissection both facial, both lingual, and numerous smaller arteries were caught and tied, many of them before being cut. The wound was closed with silkwormgut and catgut, and a gauze drain inserted at the ends of the in-

cisions. Though the growth and the region in which it was situated were quite vascular, not more than three ounces of blood were lost. The oblique cut healed primarily; the vertical one suppurated slightly. Recovery was uneventful. Most of the wound healed in two weeks, but a sinus remained at the lower end of the vertical incision which did not fully close for several weeks.



Appearance of patient prior to operation.

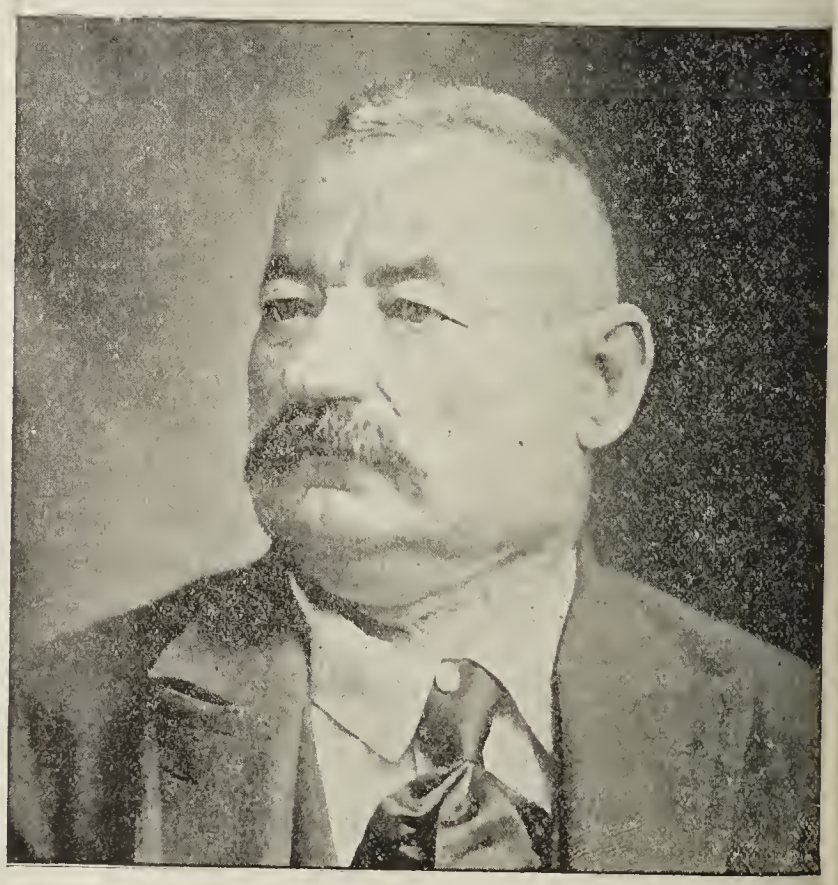


Appearance of patient prior to operation.

Dr. J. S. Davis, professor of pathology at the University of Virginia, made a microscopic examination of several portions of the tumor and pronounced it to be a lipoma.



Appearance of patient after operation.



Appearance of patient after operation.

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A coal-smoke abatement society has been started in London under the presidency of Sir William Richmond, K.C.B., the decorator of St. Paul's Cathedral. The society, as its name tells, has for its object the suppression of the serious nuisances to which the citizens of London are subjected by the belching forth into the atmosphere of filthy smoke. The society, fortunately for its chances of practical success, has not to agitate for fresh legislation, but only to see that existing law is put into action against offenders, for a section of the Public Health Act provides against such befouling of the air. Several important convictions have been obtained recently against factories, hotels, electrical works, etc., and the public is gradually waking up to the fact that London need not be a foggy or soot-grimed capital. Such a society should find its most powerful friends in the medical profession, for what proportion of lung-disease alone is due to irritating elements present in the atmosphere he would be a rash man who should attempt to guess. All statisticians put the figure very high.

The Optical Science of a President of an Optical College.—To Dr. David W. Stevenson, of Richmond, Ind., the profession is greatly indebted for a discovery of no inconsiderable value. He has discovered a rare book, entitled "Optical Truths," by Chas. McCormick, M.D., President of McCormick Optical College, 84 Adams Street, Chicago. This book, Dr. Stevenson says, was reviewed favorably by an "optical" journal, and was recommended to him by wholesale opticians "as the coming book on optics." From the selections given by Dr. Stevenson in his article "Sample Misstatements in a Book for Opticians," (*American Journal of Ophthalmology*, May, 1899) we have a valuable addition to the growing list of additions of contributions to science as she is taught by ignoramuses. When spurred by avarice, the impertinence of ignorance becomes unconsciously humorous, and our professional life is so serious that we must be highly grateful for anything contributing to the gaiety of nations, especially if it illustrates the truth that the quack opticians who wish to supplant medical men in the field of ophthalmology should not begin by an ignorance of optics and physiology so great as to advertise their incapacity to boobies and first-form schoolboys. We hope the first edition of "Doctor" McCormick's unique book may not be exhausted before we secure a copy.

The St. Luke's Hospital of Niles, Mich., continues to pour its literature upon us, through the mail—not directly, but by ricochet—from disgusted practitioners in all parts of the country. With it come letters from the invited, calling to our attention the fact that, *e.g.*, "here is a new scheme you have not shown up," etc. Well, brethren, we have spoken of it several times, and as a result of one of our speakings we notice, that in the last hundred or two batches received the "sample diploma" no longer uses the unauthorized name of N. Senn (an LL.D. is now the fashion). The waste-paper man last, and the printer first, with the U. S. mail between, must derive much profit from this concern. But does it pay the managers? If so, the caricaturists of "Uncle Sam" should no longer give his eyes the expression of humorous cunning, significant of at least one kind of intelligence. And if the caricaturists should ever condescend to notice medical matters, they should depict the typical M.D., with a very gullible and stupid leer, open-mouthed for tricksy honors, and for commissions (50%, in the present instance, "on all surgical operations and cases sent to the hospital"—imagine, either grammatically or ethically, the act of sending "a surgical operation" or "a case" to a 50% divvying hospital!) eager to give up his dollars for "certificates" "which, if displayed judiciously, will pay for your certificate many times over during the year." Is the game worth the candle?

The Business Ability of Medical Men.—The custom is entirely too common of charging medical men with lack of business ability and enterprise, and the charge too often goes unrefuted or the plea of guilty is too readily offered. The pursuit of his profession and adherence to an established code of ethics, it is true, tend to make the physician more scrupulous and more lenient in his dealings with his fellows, but that he is deficient in the higher and finer business instincts cannot be successfully maintained. Bartering, the keeping of accounts, the enforcement of collections and the like are often irksome to the professional man, with their resultant material sacrifices. While the average income of medical men may be smaller than that of workers in other fields, it is doubtful if failures are more numerous among the

former than among the latter, or even as numerous, when the quality and the quantity of the work and its results are taken into consideration. The success or failure of hospitals and medical colleges can, as a rule, be traced to the activity and the influence of its medical officers, in conjunction with the efforts of lay officials. The duties of the latter, however, should be confined exclusively to business matters, while to the former should be delegated the professional and educational management, which for harmony's sake may be subject to confirmation by the latter. That medical institution which undertakes to conduct its affairs without the solicited and hearty cooperation of its medical officers invites disaster.

A medical censor or adviser for the lay-press dispatches would not only ally the better newspaper interests of the country with true professional science, but would serve to differentiate the decent and self-respecting newspapers from those very indecent and nonself-respecting paper-dirtying publishers who, body and soul, are owned by their quack advertisers. Not only would the censor save the newspapers from making most ludicrous and stupid blunders in their desperate attempts to report medical events, but he would prevent the outrageous ignorance from becoming more deeply jammed in the minds of the people by the authority of the newspaper. Usually the medical chroniclings of the daily press are in about equal degree humorous and nauseating to the medically educated man. For very self-interest why do not these "educators of public intelligence" learn to do their work better? For example, every newspaper one picked up last week had scare-headlines followed by an opera-bouffe account of a wonderful and brand-new operation (extraction of steel from the eye by a magnet) which has been the routine-practice of oculists for years. Listen to this nonsense quoted from one of Philadelphia's leading papers :

EXCRUCIATING PAIN.

The magnet is shaped at each end, or pole, like a torpedo. It is twenty-two inches in diameter. To facilitate its movements so that it can be brought close to the eye of the magnet, the patient, on an operating table, was moved gradually towards the magnet. As the eye came nearer and nearer, the magnet, attracting the bit of steel, drew the eye from the socket.

The newspaper is bound to draw the eye from the socket in some way or other, and it is in exceptional luck when at one swoop it can do so in the case of both patient and reader.

The Care of the Mentally Deficient.—Mental deficiency occurs in all grades, from the lowest forms of idiocy and imbecility to merely slight impairment of intelligence. The condition must be looked upon as resulting from some aberration in cerebral growth or development, so that the greatest good that can be hoped for must be derived through educational influences. When acquired physical anomalies exist, surgery may be appealed to for relief, but the proportion of cases in which successful results may be brought about by these means is exceeding small. In England special day-schools have been established for mental defectives capable of being taught, and it is hoped that America will not be slow to follow the good example thus set. A tentative step in this direction has been taken by the Education Department of the Civic Club of Philadelphia, and the Public Education Association is providing, during July and August, educational opportunities for a limited number of backward children, not imbecile, who, by reason of mental or physical defect, are incapable of receiving proper benefit from the instruction given in ordinary schools, but yet are capable of learning in special classes. The pupils will be selected from applicants approved by the supervisors of the school—three of the principals of the Haddonfield Training School for Backward Children, who have generously offered their services—and recommended by an official medical adviser, who, with his assistants, will keep close supervision over the individual needs of the pupils and advise the teachers frequently with regard to them. The work, which will be carried out in one of the public schools, will occupy about 5½ hours daily, with an intermission of 2 hours at noon, and the course of instruction will cover:—

1. Physical exercise, including the walking ladder, balance-beam, jumping-board, boom and freehand movements.

2. Manual training, in woodwork, carpentry, clay-modeling, basket-work, painting and drawing.

3. Mental work proper, to include kindergarten and elementary school-work.

The plan of operation has received the approval of the President of the Board of Public Education and of the Superintendent of Public Schools, and it is hoped that the demonstration of its success will lead to its being made a part of the public-school system. The movement is one that deserves the heartiest encouragement and support, and the spirit of the bodies responsible for its conception and inauguration cannot be too warmly commended or too highly praised.

Study of Tropical Diseases.—Since expansion, which seems to be the tendency of the times, brings much more in its train than the mere acquirement of additional territory, as with this must also come the disease-conditions prevailing in the lands annexed, there is much necessity for the study of some of the hitherto rarely met diseases that have now become sources of danger in new portions of our territory and thus threaten our civilization more nearly than is generally recognized, as evidenced by the recent near approach of the bubonic plague to our shores.

At the annual dinner of the British Epidemiological Society at London recently, Professor Haffkine, who

was the guest of honor, in responding to the toast "The Visitors," spoke upon the responsibilities of nations with regard to the investigation of diseases occurring within their jurisdiction. His words had especial reference to the British Empire, and while treating as they did of the enormous expansion of British rule in so many distant lands in a way that must have flattered any imperialistic leanings of his hearers, his reminder that it was the duty of England to act as pioneer in all matters concerning the health and physical safety of her scattered subjects could hardly fail to make thoughtful people more thoughtful still. As a matter of fact, Great Britain has until now made but poor use of her unique opportunities for studying all sorts of diseases upon all sorts of soils. There has been no proper division of labor among the various workers, naval, military, and civil, but all have gone over the same weary groundwork instead of being able to start where previous observers have left off; and there has been no recognized central bureau of information to which all results would certainly be communicated, so that valuable time has been constantly spent by one set of workers, in rediscovering the discoveries of others. Men who have showed in many ways that they would excel in research-work have been compelled to fritter away their time fulfilling the routine of unimportant appointments; and in the army it has been tacitly recognized that quick promotion does not come the way of the man who goes outside his official program. Professor Haffkine, the Russian who has done such devoted work for the English Empire, did not remind his fellow-guests at the Epidemiological Society of these unpleasant truths in so many words, but he could not fail to have had them in his mind, when he congratulated the Society upon its position as "an organized body of scientific investigators." This has been the great need of what is generally spoken of as "tropical medicine" and what should be called "topical medicine," and Haffkine proves his grasp of the practical side of his work by stating the fact without circumlocution.

So with the United States—added territory has extended opportunities and increased responsibilities. Let science make the best use of the situation. With the politics of the matter it can have nothing to do; with the resulting medical and sociologic conditions it may have everything.

The Prevention of Railroad Accidents is the title of a most excellent paper by Dr. Norman Bridge, of Los Angeles, California, published some time ago in the *Medical Age*. Dr. Bridge arrives at a result similar to that alluded to in our editorial note of June 24 upon the reason of many shipwrecks, although he does not directly charge these accidents to old age. He says:—

> If there was some way of knowing who are more and who less likely to be seized with such a wave of mental abstraction, it would be something; or if we knew under exactly what circumstances such lapses are likely to occur to any man, that would help greatly. The startling thing is that such lapses often come to the oldest, most sedate and correct and most tried and trusted employes, and at times when there is not the slightest reason to doubt their usual efficiency, when they are neither sick nor tired nor overworked, nor disturbed by any distracting influence which their fellows know about.

Dr. Bridge repeatedly alludes to this fact that it is the "oldest and most trusted employe who is more likely to bring on a frightful accident than the youngest one who has attained the same service and rank." Dr. Bridges speaks of the danger of expertness and familiarity, inducing automatism and hence carelessness, of the need of change of duty, vacations, "laying off" awhile, etc., to insure mental attention. But he does not draw the conclusion which seemed and which still seems the essence of the matter. Since the editorial note alluded to was published we have received a number of letters, some from men on the wrecked vessels of whose captains they speak, and all are sure the great fault of the companies is in retaining men too long in charge, until the mental sclerosis of old age is upon them. It is not, it seems to us, that these old captains are really so aged in years, but that owing to great hardships and exposures they are psychologically at least much older than they seem. Flexibility of mind, alertness of attention, and all the qualities that insure the safety of the ship, the engine, etc., have, by habit, been blunted and pounded, as it were, into a sort of insensitiveness that is highly dangerous. We still think that men who since youth have been subject to constancy of mental strain, continuously long periods of attention, coupled with much physical exposure and hardship, should be retired and pensioned, at least at the age of fifty. They should be given higher wages, insured against want in old age, and for this the community could most well afford to pay—even if it gave these men what to them would be riches.

Sustaining this view of the matter is the statement just filed by Captain Watkins of the ill-fated *Paris*, in which he states that the stranding of the ship was the result of an unaccountable error on his part, not due to any want of thought or anxiety about his vessel, but from a mistake made in calculating the position of his vessel, this from simply the lack of "overcarefulness" which long habit will engender in even the most dangerous occupations. The manly way in which Captain Watkins acknowledges his fault and assumes the entire blame is worthy of all praise, and is equally as good evidence of his worth as his long years of honorable service. It is more than probable that there would now be a thousand less chances of disaster under the immediate captaincy of such a man than under that of some other captain who has acquired the mechanical proficiency with the confidence that attends years without an accident and who has not been shaken into more concentrative effort by some disaster. The pity is that his suspension from

service comes now as a punishment when it should have come years ago as a reward.

Religious Liberty.—The attempt to protect Christian Scientists on the ground that to prosecute them under the law would be an infringement of personal and religious liberty, is entirely futile. Especially is it inappropriate in a medical journal to take such a stand. As we have said before in these columns, one man's right ends where another man's right begins. Christian Scientists are infringing on the rights of countless other persons on all hands. Nothing can be plainer than this, and nothing can be more trivial than to urge in their behalf the protection of that much-abused term—"liberty." There is no such thing among men as absolute liberty. The idea, as well as the thing itself, is inconceivable in civilized society. The dogma upon which it rests is so constantly distorted by political and medical quacks that it can no longer be recognized by rational men. The fictions that all men are created equal, and that all are free, are not even working hypotheses. If they were, we should have no law, nor any jails, almshouses, or insane-asylums.

The right of any man to pray over his diseases, just as he prays over his sins, will not be denied to him. But the right to mislead others, to publish false statements about diseases and their scientific treatment, and to expose the lives of innocent or ignorant people, is quite another thing. No man has an absolute proprietary right in his own diseases and those of his family. He has no inherent right to treat them, or have them treated, just as he pleases. The public often have an interest in them quite as great as he. If any one doubts this, let him take some smallpox patient to church with him for religious treatment, and note the results. What is to become of public hygiene and sanitation if every liberty-loving ragamuffin is to have his own way?

As for these Christian Scientists, we reiterate that it is useless to argue with them. Our object in this journal is neither to persecute them nor to convert them. They themselves are objects of entire indifference to us, so far as their personal beliefs and destinies are concerned. We merely claim that they are public nuisances and law-breakers, and as such should be suppressed.

Medical Sermonets, No. 1. Science and Ethics.—We call especial attention to the extracts from a private letter published in another column of the present issue. The letter is from a man of the highest character and reputation, an original investigator, of which the letter itself gives evidence, and he has had exceptional opportunities of knowing the facts of which he speaks. Doubtless many will read this letter with a sort of bitter delight, but we confess that to us it is a grievously painful matter Were it not for the effective and convincing manner in which it lays bare a foul ulcer in professional life, we should for the sake of professional pride be inclined to keep it from public knowledge. But it is of the very essence of medical work to lay bare disease—in order, of course, to root it out and bring back health. The affair, moreover, has reached such degree of gangrene that the world's nostrils are surely to be made aware of its existence, and we at least may use it as a text for the first of a series of little medical sermons planned for forthcoming issues of our JOURNAL.

In this instance, in truth, the text is almost sufficiently explicit and instructive without further application or exhortation. Here was a man with extraordinary intellectual and scientific ability, whose success brought the greatest rewards and honors, who was given power and position to carry on the work for which the world waited and longed. After years of enjoyment of crowding opportunities he allowed his scientific honor to be tarnished by a desire for worldly success and he announced a discovery which did not discover—at least not what he had expected—and which a conscience singly devoted to true science would have held back for better testings and more certain proofs. It is the most exquisite irony of fate that tuberculin is of no use in the work for which it was planned, and that its sole service was not expected by its discoverer.

The pyschologic warnings that this experience would have given to a nobler mind were unheeded. As the years have gone on, what have they brought the busy and unsatisfied investigator that he can pronounce good? Should he live yet 50 years he will never discover anything of value to humanity. He lost the secret of discovery. when he moved to Berlin. It is the tyranny of evil that, once entered upon a wrong way, the sense of moral tact is lost, even that of social tact, and heedlessness begets recklessness, and both beget an astonishing selfishness and injustice. If but a part of the implications of our correspondent's letter are true, what a moral does the man's life point to the medical politician, the self-seeker, and the investigator whose aim is financial success instead of truth! There are thousands of physicians who, like Koch, are ignoring the truth that intellect and ability alone cannot win true success without honor and reverence for the right. The greatest danger to our civilization is the trust men put in selfishness and sharp-dealing. It is simple stupidity, at least, their indulgence in this fatuous dream, for all history and all observation of actual life prove that he who neglects the rights of others and seeks only self-advantage will never win what he seeks. In the long run it is as poor policy as it is poor morals. There is a hidden fatality that attends not only the self-seeker himself, but that somehow or other finally brings to naught the very work of which he is proud. Some poor scientists appear to think that the old-fashioned God has nothing to do with the new-fashioned science. They forget that the one thing that cannot be explained mechanically is physiology. Fate may explain chemism, mechanics may account for the inorganic, and gravitation may make plain the origin of worlds; environment may even solve the riddles of morphology, but only intelligence and conscience in the cell can account for its origin or its function. He who deals with life must therefore deal with the God of life. Biologic science is the method of discovering God. The primal law of all science is the truth, *i e.*, correspondence of idea with fact. Scientific truth will not be discovered by men who think more of themselves than they do of science. Egotism is never truthful; if it were it would truthfully estimate the value of self. Selfishness and science are incompatible. The financial scientist is an impossibility, and a contradiction in terms. If the world turns in disgust even from a Koch because of such blemishes, how will it look upon us pigmies who, without his virtues, imitate his failings?

Special Article.

MEDICAL BRICABRACOLOGY.

No. 1.—Introducing the Subject.

"A merry heart doeth good like a medicine."

Everybody knows what bric-a-brac is, but lest the word bricabracology may not be found in the dictionaries it is well to explain. Each of us has, of course, a greater or lesser number of odds or ends, of no earthly use, except to make a litter and excite curiosity. Yet these queer relics often teach a lesson which would be learned in no other way.

Why then should there not be literary bric-a-brac, scraps from the rag-bag of antiquity, worked into a patchwork quilt, of no set design, but a happy-go-lucky pattern, each piece being put where it best fits?

Why should there not be a "knickknackatory" of literature, a collection of things curious rather than valuable? There the eye, pained by long gazing at the stars, may find relief in less dazzling sights; the brain, wearied by intense thought upon abstruse subjects, may find less arduous suggestions; the mind, saddened by disappointment in searching for the unattainable, may find amusement in that within its grasp and comprehension.

The literary bricabracologist has an unlimited field; the greatest possibilities are at his hand. With his mind's eye he can gaze and speculate upon the primeval needle with which mother Eve, alas for her frailties, sewed together the primordial apron; he can examine the fishhook with which Job did not catch the leviathan; he can weigh that leviathan in the scales of his imagination just as modern fishermen weigh the fish they didn't catch. He can chip fragments from the monuments of ancient men and things. He can, like the expert paleontologist, who reconstructs mastodons, pterodactyls, and megalosaurians from a bit of bone, reproduce the masterpieces of literature from fragments gathered here and there, rebuilding a noble structure or fashioning a grotesque combination.

At first sight the treasures of the medical philobricabrac would seem to consist, by preference, of mummies' toes, chips from sarcophagi, burnt bones from Pompeii, and such like tit-bits, but in reality the physician is a man of wide and diversified interests. He is not a man of one book. One often hears the warning, "beware of the man of one book;" popular judgment ascribes preternatural wisdom, phenomenal sagacity, and penetrating astuteness to this man of limited literary acquaintance. But that is an erroneous impression. The man of one book has a needle's eye, but not the keen point; his eye is microscopic and his mind is commensurate with his eye.

He is an uncomfortable man; he is like the angular, grimly austere and painfully upright man, who is always hurting your feelings and extinguishing every spark of cheerfulness with the cold water of chilly austerity.

Time was when the Methodists gained an unenviable fame for the repression of cheerfulness. They threw a general pall over all gaiety, and excommunicated pleasure even though innocent. Deacons with long poles with feathers on one end and a brass knob on the other, knocked the men on the head with the one and tickled the women in the neck with the other if they smiled or snored in church. These Methodists were people of one "doxy," and that was the only ortho or straight 'doxy; all other 'doxies were crooked and perverse; they did not tolerate them in themselves or in others. They were people of one idea, these Puritan followers of Wesley and Whitfield, who lived by rule and constant method.

Yet religion copied this name. Doctors were the ones who had the priority of possession in this term, for, according to good old John Walker, a "Methodist" anciently signified "a physician who practised by theory." These physicians were men of one idea; their manner was characterized by acerbity, untempered by suavity, as their medicines were bitter and unsweetened. From this Old School, clinging to dogmas with the tenacity of a dog to a dry bone of contention, arose a New School, a body of evolutionists, and revolutionists, who sought for light not only in the East, but in all points of the compass, whose Mecca encircled the entire circumference of the world of knowledge. They did not blindly follow time-honored fossilized creeds; they thought for themselves and gained the name of Rationalists, who tried and proved all things and kept the best.

Among other things, these rationalists, both in religion and medicine, thought they could catch as many, if not more, flies with molasses as with vinegar. They thought that they could instruct a man much more pleasantly and agreeably by tickling his fancy than by beating it into him with a knockdown argument punctuated with a brickbat. As they disguised bitter medicine with sugar-coating, so they made their advice and their conversation more savory and spicy with stories that hid a serious matter, but did not end with an hæc fabula docet.

Although, like true Christians, they revered sacred relics of the cross and perhaps fragments of the tomb, they did not allow them to overshadow the profaner relics of man's attempts to dispel the clouds. The curfew-bell became a relic of the past along with the Blue Laws, which forbade a man to kiss his wife on Sunday, to smoke on the streets or to stay out after dark. Fires were not extinguished or lights put out at the stroke of 9, nor was the latch-string drawn in; there was more latitude in the matter of nightkeys. The theater was not considered so much of an evil, and its foyer was not so much identified with the front door of hell; in fact, the stage invaded the church in a mild way. Reformed actors came down from the stage to ascend the pulpit, and doffing the tinsel stage-robes for the surplice, put off the buskins for the pilgrim's sandals. Even the lottery installed itself at church-fairs, and other worldly means were adopted to make money for the cause which, being righteous in itself, presumably took off the curse from the means. Folks even began to think that it was not so very wicked to laugh, but they were not boisterous with unmitigated hilarity; they had been glum so long that it took time to get used to it, and long and persistent practice was necessary. Even the Methodist doctors began to remember that there was such a thing as a muscle called "Risorius Santorini," the laughing muscle.

Perhaps the Humorists knew the value of laughing; their names suggest it, but, unfortunately for them, history records that they believed in a different kind of humor. True, one of these was bile, and then there was atrabile. Of course every one knows that a bilious person is inclined to be imbued with the bitterness of gall, and although the substance itself is yellow it makes them "blue." Hence, the Humorists, after all, may have believed in the efficacy of a cheerful heart and a happy environment.

This atrabile, black bile, or black humor, about which the Humorists made such ado, was supposed, by the ancients, to

be secreted by the suprarenal capsules, and when in excess to give rise to melancholy.

Some of these atrabilarians would have had the joyous sky hung with perpetual black. There was George Vasey, for instance, who wrote "The Philosophy of Laughter and Smiling," published in 1875. Of this book Vasey says, "although its subject is laughter, the volume is by no means a jest book," and "the subject of laughter is no laughing matter." He says laughter is "restricted to those countries where what is called civilization had made considerable progress—where vice and dissipation and all manner of crime abound; and, above all, where levity and frivolity and every species of folly constitute the predominant characteristics of the inhabitants.

"On the other hand, it is equally true that in all uncivilized tribes, among whom vice and crime are comparatively rare—where levity and frivolity are never seen, and where the manners of the people are simple and unsophisticated—in such communities laughter may be said to be entirely unknown."

This is sort of reversal of ordinary and accepted opinions; but, according to the author, it would follow that the heathen should send missionaries to convert the civilized nations of the earth to a state of undisturbed serenity of countenance, for, as he says, "when we compare the attributes of gravity with those of levity, or seriousness with frivolity, . . . they bear nearly the same relation to each other as virtue bears to vice or wisdom to folly."

This bilious philosopher furthermore says, "the wise, the prudent, and the thoughtful rarely laugh," and "only the superficial and unthinking laugh," and "unfortunately the superficial and unthinking constitute ninety-nine in every hundred." These are mild terms of reproach, for, in other places, he calls those who laugh, "silly, giddy, frivolous, superficial, shallow-brained, empty-headed simpletons, brutal, unfeeling, vulgar, frivolous fools," and, on the other hand, he inquires "if a man's mind be occupied by good and useful ideas, how can it be possible for him to laugh?" A conundrum which he fails to answer.

This laughterless model of propriety, who would banish laughter from the world, then proceeds to annihilate and stigmatize Beaumont, Fletcher, Fielding, Prior, Butler, and other humorists, and says of Milton, "Verily, the moral world owes John Milton (of 'Paradise Lost' celebrity) a certain amount of pity—not unmingled with contempt."

As for children's books, "they always have been and still continue to be of the most trashy description, and have had a powerful and marked effect in degrading the morals and stultifying the intellect." "These extremely stupid and vulgar books, have been and still continue to be, the bane and curse of the intellect of the rising generation, and, in a vast majority of cases, the utter ruin of their morals."

There's the secret of reform, ye philanthropists, according to Vasey. Employ teachers who have taken an oath never to smile, let them severely punish any child who dares even to look pleasant, and make laughter a capital offence against morals. What a nice world it would be to be sure! No children's laughter to brighten it and no children's prattle to cheer the heart; that is the way Vasey would have it.

"Children," says he, "(who of course are ignorant) laugh considerably, that is to say in civilized countries. As they grow older and gain knowledge and good sense, their laughing propensity gradually becomes weaker, and the habit of laughing gradually diminishes. If they become studious and intelligent (which all human beings ought to become) the spasm of laughter is rarely exhibited." One is likely to wish, if that is the case, to remain moderately ignorant and moderately happy.

As texts from Shakespeare and the Bible can be selected and twisted to apply to most any subject, Mr. Vasey does not fail to appropriate a few, while he gives selections from Emerson and Victor Hugo, and refers to Pythagoras and Cicero as men who frowned on laughter, capping the climax by a reference to Heraclitus, who wept at the follies, frivolities and vicissitudes of human existence.

Thomas Carlyle is also invoked, and his statements that "England contains twenty millions of people, mostly fools," is given due prominence. "In fact," says Vasey, "we cannot help indorsing Carlyle's estimate,"—a modest statement that reminds one of the man who was the greatest man in the world and had forgotten the others.

Carlyle's statement may be true, but it is subject to discussion, and as the twenty million is a large majority, their opinion to the contrary will doubtless be sustained and they will continue to laugh and be happy.

While the North American Indians and the New Zealanders and other "virtuous" and serious savages continue to decline to smile and show that they are "well organized human beings and possess considerable intellectual power" by slaughtering and torturing their enemies, making beasts of burden of their women, and indulging in other trivial amenities, the poor civilized but "silly, frivolous, giddy, giggling, full-grown fools, who infest all ranks of society," whose "nascent minds were perverted and distorted and shrivelled in their infancy and childhood," still continue to laugh.

Why, bless you, my long-faced friend, you, who think that laughing is a sin, you, upon whose sour visage long enforced melancholy has graven deep wrinkles that cannot be effaced by merry quips, even the animals laugh. There's the horse-laugh, for example, although Cicero says, "Though laughter is allowable, a horse-laugh is abominable;" and there is the laughing crow, and the laughing-goose and the laughing-hyena, and the laughing-jackass who laughs a merry laugh and punctuates the joke with his heels. Then there is the loon who laughs a jeering laugh at you with mocks and gibes.

If these do not incite you to laughter, go get the herb sardonia, which begets laughter and gets its name from that fact. That will engender the very madness of laughter or there is no efficacy in drugs.

Read those who believe in laughter. "Morally considered," says H. W. Shaw, "laughter is next to the Ten Commandments." Thackeray says: "A good laugh is sunshine in the house." Laughter draws nails out of your coffin. "The little giddy laugh of Madam d'Albert," says Marot, "was enough to raise a man from the dead."

To return to the text—"A merry heart doeth good like a medicine"—Dr. Hufeland says: "Laughter is a most healthful exertion; it is one of the greatest helps to digestion with which I am acquainted; and the custom prevalent among our forefathers, of exciting it at table by jesters and buffoons was founded on true medical principles."

Chavasse, an eminent surgeon, says:—"Encourage your child to be merry and to laugh aloud; a good hearty laugh expands his chest, and makes his blood bound merrily along. Commend me to a good laugh, not to a little sniggering laugh, but to one that will sound through the house; it will not only do your child good, but it will be a benefit to all who hear, and an important means of driving the blue devils from the dwelling. Merriment is very catching, and spreads in a remarkable manner, few being able to resist the contagion."

Above all, don't make the mournful boast recorded of Chesterfield—"I am sure that since I had the use of my reason, no human being has ever heard me laugh," but remember the warning of Bruyere: "We must laugh before we are happy, for fear we die before we laugh at all."

LEON NOEL.

Correspondence.

MALARIA OR DENGUE.

BY C. S. BRADDOCK, JR., M.D., Late Lieut. U. S. Navy,
of Haddonfield, N. J.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

I WAS much interested in the article by Dr. Harland, late First Pennsylvania Regiment, U. S. V., on Malaria or Dengue. While lying in the harbor of Key West after arrival from Havana late last summer, we were not allowed to land for fear of bringing yellow fever. We learned, however, that they had 3,000 cases ashore in the city of Key West *without a death* of a disease which was diagnosed differently by some of the physicians there as mild yellow fever, mild typhus fever, and dengue. These were the differing opinions of the physicians residing there and of the navy medical men.

A few weeks afterward we were ordered to Dry Tortugas for disinfection, yellow fever having broken out on our ship in Havana harbor. On arrival there we found that all of the large number of workmen employed in building the naval coaling station had been ill with the same symptoms as the people of Key West, also *without a death*. Dr. Williams, of the Revenue Marine-Hospital service, a yellow-fever expert and a very competent man, stationed there, said the disease was dengue. A short time before we brought to Montauk Point from Santiago 4 batteries of regular artillery, one battery each of the First, Second, Fourth and Fifth Artillery, under Brigadier-General Randolph. Of 220 men, nearly every man was ill with malaria or typhoid fever. In fact, on gaining our deck they dropped where they stood. It was the most pitiable sight I ever saw. The symptoms of these men were entirely different from those at Key West and Dry Tortugas. There may have been cases of dengue at Siboney, but I did not hear of them. Surgeon-General Agramonte, of the Cuban army, told me at Puerto Principe that in certain parts of the island the malarial poison was so intense that a person would be attacked within six hours from the time he rode across.

AN UNAUTHORIZED TESTIMONIAL.

BY JOSEPH McFARLAND, M.D,
of Philadelphia.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

A FEW days ago I received an envelop containing some pamphlets published by the Weeks Drug and Chemical Co., advertising and describing *Paquin's antitubercle serum.* Being interested in serumtherapy, from both the practical and theoretical sides, I read some of the contents of the green pamphlet and with astonishment noted on the seventh page the following: "We append the names of professional men who, having used Paquin's Anti-Tubercle Serum, have proclaimed its virtues publicly, or whose signatures we have appended to endorsements of its value as a curative agent in cases of consumption, and as a most valuable remedy in most cases, including even many desperate conditions." I did not note this very commonplace statement with astonishment because there should be testimonials, for it is easy to procure them from even the most careful medical man, but because my own name appeared about the middle of the list.

I beg to inform you and your readers that I never authorized such use of my name, that I never gave any endorsement or testimonial concerning the value of the serum, and that I know nothing at all about the serum, as I have never seen or used any of it.

My knowledge of "antitubercle serum" is limited to the results of my own experiments which have been for the most part published. The facts in their favor which I had to offer were so inadequate that few physicians were persuaded to try the serums, and I have long since ceased to believe that they possessed real virtue. The experiments to which I refer were made according to suggestions first made by Viquerat and consisted in the inoculation of large animals with progressively increasing doses of *tuberculin*, the product being known as *antituberculin*. None of the original experimenters with antituberculin have very much to say in its favor and it was only the hope that they had not gone far enough that made me take it up. I am continuing the experiment. From the beginning of Paquin's work it has been understood that his product was an antituberculin. If so, it is surely as unwise to make the extravagant claims of its curative power that the pamphlets referred to above contain, as it is unfair to use names regardless of permission, to advertise and sell it.

I write this in no spirit of animosity towards Dr. Paquin, (who may have been sinned against by those who compiled the pamphlet), to whom I have given credit for his work in my book upon the "Pathogenic Bacteria," but to exempt myself from the extremely reprehensible error of endorsing what from well-known scientific data must be looked upon as of *very questionable utility.*

[Special.]

KOCH AND HIS METHODS.

WHILE I was stopping in Florence, whither I had gone to see my mother who has been ill, I read Koch's report upon the investigations of the German Malaria-Commission. As you will have also seen the report you will also have noted how he ignores the work of others, making out as if he had discovered nearly everything that is worth knowing about malaria. He, of course, does not mention the work of the Italian investigators, though these were known to him; he refers rather slightingly to the work of Ross which he really could not avoid mentioning. He quite ignores McCallum's discovery with regard to the process of fertilization in the estivo-autumnal malarial parasites, and in Halteridium, and distinctly takes to himself the full credit of having made that discovery. This kind of thing has been going on long enough and it is time to call a halt to this scientific pirating. It seems desirable to protest, as all the people here who are not especially up in the literature never cease talking to you about Koch's wonderful new discoveries, among which they do not forget to mention the role of ticks in Texas fever! In a note to the *Deutsche medicinische Wochenschrift* (Feb. 23, p. 135), attention was called to McCallum's discovery with the result that the editors "went for" the writer—but what they say does not affect the facts. From Florence I wrote to Grassi saying that some of his compatriots should also make some kind of a protest against what I have dubbed the "new Koch methods," though, for that matter, they are not so very new either. Grassi replied by telegram asking me to come to Rome, so I went there and spent a day most profitably. Besides Grassi, I met Celli, Marchiafava, Bastianelli, and Dionisi, and they were most friendly in showing me everything that was going on in their laboratories. I was very much impressed with what I saw. But of this presently.

Grassi told me the following facts about Koch, which deserve to become widely known as they give an idea of the features which characterize the "new Koch methods": When Koch went to Rome in August of last year he met Grassi, and the latter told him about his work. Koch having found out what he wanted to know, turned around and said all he could to damage Grassi in the eyes of the authorities and of his confreres, that he was an enthusiast and working on a wrong tack entirely, etc. Grassi said that the consequence was that he could not show himself in any of the frequented cafés of Rome for at least 10 days for fear of being ridiculed by those who accepted the Koch dictum as Gospel. Even Bignami and Bastianelli withdrew their collaboration.

After a time Grassi became aware of the fact that Koch's agents were following his (Grassi's) men about and watching what places they were collecting in. As Koch continued to be very positive in his assertions that Grassi was wrong in supposing Anopheles claviger could be the right species of mosquito, Grassi thought Koch must have some reason for saying so; being suspicious of Koch's honesty, he immediately pressed on his work with the result that he was soon able to publish his preliminary notes in September and November. After Koch's return to Berlin the investigations were pursued, with the result which we see in the "Bericht," the sum of 5 lires being offered in the meantime by Koch's agents for every specimen of Anopheles claviger that could be caught for them. Grassi told me that he had sent a note to the *Deutsche medicinische Wochenschrift*, but that it was kept a month and a half and then returned to him unpublished. That Koch knew nothing about mosquitos was clearly shown by the fact that he referred to A. claviger and A. maculipennis as two different species, while these are two names for the same insect. He also made the absurd statement in his Reisebericht last year that the Filaria sanguinis hominis "wird übertragen" by the mosquito. Attention to this error was called in a paper which appeared in the *Hygienische Rundschau*.

Now comes the crowning point of all: When I was in Grassi's laboratory, his servant came in from Maccarese, whither he had gone to collect mosquitos. The servant told Grassi that he had been told by the officials that he was not to collect insects there any longer, it would not be permitted. . . . *because Professor Koch was coming to Rome in April to study malaria.* In other words, this was "close season" for mosquitos to other investigators than the German Commission! I drove with Grassi to the "Ministero," where he immediately requested that the report should be denied. Later in the day, the answer came that his servant might collect insects at the place mentioned. I suppose that this was partly due to the fact that Grassi had threatened to publish the matter in the newspapers all over Italy. When an Italian cannot collect mosquitos in his own country, things are getting pretty strong, especially when every facility is offered instead to a German. The explanation of this remarkable behavior of the authorities was made clear to me by Grassi, as also by Professor Lustig in Florence. There are two factions in Rome, the official faction with Baccelli at the head, and the scientific faction, if I may so call it, to which Celli, Bignami, Marchiafava, Grassi, Bastianelli, Dionisi, and others belong. Lustig told me that he had learned in conversation with one of the ministers, that Koch was financially interested in this malaria business. I believe that this is the only explanation of his conduct. The minister I have referred to stated positively that Koch is connected with a very wealthy syndicate, which has for its object the rendering healthy of the Campagna Romana by drainage, cultivation, etc. The syndicate has been formed in Germany, and is at present endeavoring by every means in its power to derive especially favorable concessions from the Italian Government. Koch's scientific mission is a part of this scheme, as he is "in with" Baccelli. That there is something influencing the proverbially rotten Italian officialdom, is very clear; there is scarcely an official that will not accept a bribe, as Italians themselves will tell you. A group of officials, the syndicate and Koch are all pulling together; in my mind there is absolutely no doubt on that score. Even a prominent member of the Höchster Farbwerke recently told a man I know, that Koch will do everything for money, and that he was bleeding them as hard as he could by compelling them to adhere to the absolute letter of a contract they made with him when tuberculin was first boomed into the market, and everybody nearly lost their heads. I hear all kinds of things here every day, things too numerous to mention, which all seem to indicate that Koch is quite unscrupulous. But, enough of this unsavory subject. I think, though, that it is time that loud protests shall be heard from all sides, so that this scientific brigandage shall cease. As Celli said, "Koch has got hold of the wrong lion by the tail" in Grassi, as he is known in Italy to be a terror with tongue and pen; if there is a fight on he is well-prepared. I saw a big manuscript on Grassi's table, which he told me is a brochure against Koch, which tells this whole story. It will appear shortly in three or four languages.

Grassi, who, by the way, spoke with great respect of Ross's work, showed me many beautiful stained and unstained specimens, showing the whole development of the malarial parasite in the mosquito. He and his collaborators confirm all of Ross's work practically, and go further. He has, among other things, found the parasites in the mosquito's eggs. His work will appear, I think, in about two months, and it will be profusely illustrated. I saw a number of remarkably accurate figures, being able to compare them in some cases with the original specimens. I cannot enter into further details here.

Accidental Separation of the Symphysis Pubis During Labor.—B. S. Rutherford (*Louisville Journal of Surgery and Medicine*, June, 1899). The patient in this case had had a number of difficult labors in which forceps had been employed, and in the previous labor craniotomy had been resorted to. The patient had been in labor over three hours, and although the pains were good, the head refused to advance. Forceps were applied under chloroform-anesthesia, but with no result, and craniotomy was about to be resorted to, but the author made one more attempt with the forceps, during which a perceptible crack was heard. The patient was allowed to recover from the chloroform and in one pain expelled the child. The symphysis pubis was found to have been ruptured. [C.L.L.]

Death under Chloroform: Its Comparative Rarity in India.—J. Harris (*Indian Medical Record*, May 19, 1899), in testing an apparatus for the painless death of lower animals which had been taken out to India from England and found not to work, found that the reason was that the high temperature in that country prevented the concentration of the chloroform-vapor and consequently its lethal effect upon the animals. By placing ice in the chambers the animals were readily killed. The author relates this fact as showing that the safety of chloroform as an anesthetic depends upon its dilution, and that that is produced in India by the high temperatures present there, and that in consequence safety devices for its employment are unnecessary. Difference in climate is then a factor that must always be counted on in chloroform-anesthesia. [C.L.L.]

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Children's Hospital, Philadelphia.—Dr. T. W. Wilson, president of the Board of Trustees, has presented a roof-garden to the hospital as a memorial to his sister, Mrs. Elizabeth Lewis, who was for many years interested in the work of the institution. The roof-garden will, in a measure, replace the country branch of the hospital, which it was found impossible to open this year on account of lack of funds.

Medical Society of New Jersey.—The following are the officers elected at the annual meeting concluded in Allenhurst, June 29: President, Dr. Luther M. Halsey, of Williamstown; first vice-president, Dr. William Pierson, of Orange; second vice-president, Dr. John D. McGill, of Jersey City; third vice-president, Dr. E. L. B. Godfrey, of Camden; corresponding secretary, Dr. E. W. Hedges, of Plainfield; recording secretary, Dr. William J. Chandler, of South Orange; treasurer, Dr. Archibald Mercer, of Newark.

Vital Statistics of Philadelphia for the week ending July 8, 1899:—

Total mortality		435
Children under 5 years of age		189
Diseases.	Cases.	Deaths.
Cholera infantum 52, gastroenteritis 29, diarrhea 4; cholera morbus 3		88
Pulmonary tuberculosis		46
Marasmus 18, inanition 23, debility 3		45
Heart-disease 23, inflammation of the heart 4		27
Nephritis 21, uremia 2		23
Pneumonia 21, congestion of the lungs 1		22
Apoplexy 13, paralysis 2, softening of the brain 3		18
Inflammation of the brain 16, congestion of the brain 1		17
Senility		16
Casualties 14, burns and scalds 2		16
Diphtheria	50	11
Typhoid fever	53	9
Carcinoma 7, tumor 1		8
Cerebrospinal meningitis	4	3
Scarlet fever	36	1
Smallpox	4	0
Bronchitis 8, peritonitis 6, convulsions 6, cyanosis 5, jaundice 4, suicide 4, pertussis 4, rheumatism 4, cirrhosis of the liver 3, alcoholism 2, anemia 2, dropsy 2, dysentery 2, mania-a-potu 2, puerperal fever 1, remittent fever 1, appendicitis 1, measles 1, teething 1.		

Pittsburg (Pa.) Academy of Medicine.—At a meeting held June 5, Dr. J. N. Williamson presented for diagnosis a young man with disease of the skin affecting almost the entire surface of the body. It had existed four years, did not affect his general health and did not itch. There was no specific history. The patient had been the round of skin specialists in Philadelphia and Baltimore and sections had been made from the skin, but a diagnosis had never been ventured. In the way of treatment nothing has ever been of the slightest benefit. Dr. W. B. Ewing said that he considered the case one of lichen ruber or lichen ruber pilaris. Treatment is very unsatisfactory; the condition may be relieved somewhat, but not cured. Dr. R. F. B. Miller thought the diagnosis of the case was difficult. Dr. Irwin Fischer stated that the absence of itching and the fact that the disease had not affected the general health would appear to contraindicate lichen ruber. Dr. Ewing replied that there was but little itching in lichen ruber, and he recalled two cases in which the general health was good. Dr. Williamson thought it rather strange that none of the many specialists who had previously seen the case would venture a diagnosis. Dr. J. C. Thompson related a case of alopecia areata for which he ordered a lotion containing cantharides and quinin with the result that the hair turned green. It was two years before the hair regained its natural color. Dr. Singley reported the recovery of a patient who had taken with suicidal intent while intoxicated 15 drams of the official tincture of opium, equivalent to about 90 grains of opium. He was seen two hours after taking the drug, when his respirations were but 3 per minute, pulse full and strong, and pinpoint pupils. An emetic and unknown amounts of strychnin and atropin had been previously administered, but the patient had not vomited. Treatment consisted in violent flagellations with ice-water towels, mustard-water, apomorphin and cocain hypodermically, strong black coffee internally and per rectum, and constant walking for a period of twelve hours. An attempt was made to flush out stomach with a solution of potassium permanganate without success by reason of a poor stomach-tube. Dr. Irwin Fischer reported the case of a man who had taken an unknown quantity of tincture of opium in which recovery followed the use of potassium permanganate hypodermatically and the flushing of the stomach with a solution of the same drug. Dr. Williamson spoke of the case of a colored woman who had taken a large quantity of arsenic (amount unknown) in coffee. Recovery followed with scarcely any symptoms after washing out the stomach. Dr. Miller reported a case of lead-poisoning in a woman following the use of a domestic remedy consisting of one pound of white lead in a half pound of melted butter, for hemorrhoids. Recovery ensued. Dr. Singley stated that it is generally admitted that potassium permanganate is a chemical and not a physiological antidote for opium; and that its use hypodermatically is of no benefit, while it may produce an abscess.

Pittsburg (Pa.) Academy of Medicine.—At a regular meeting, held June 12, Dr. R. W. Stewart reported a case of **esophageal stricture produced by swallowing lye.** Only liquids could be swallowed. The passage of bougies, 24 and 28, French, and, later, larger sizes, was followed by improvement in swallowing. These instruments were always "held" until the last sitting, when the largest sizes passed readily without indicating any contracture whatever. Such favorable results are quite rare. It was thought that the stricture had been ruptured previous to the last passage of bougies. Dr. Stewart also reported the case of a woman who was referred to him with the diagnosis of neoplasm in the upper portion of the esophagus. An obstruction met the finger when passed into the upper end of the canal. An external esophagotomy revealed only a small transverse band stretched across the posterior wall. This, in all probability, produced a spasmodic stricture when a bougie came in contact with it, in much the same manner as a sound produces a spasmodic stricture of the urethra.

Dr. E. S. Montgomery reported the case of a girl with **mucous colitis,** dating from the ingestion of candy drugged with tincture of cantharides. Dr. W. B. Ewing related a personal experience with an unknown poison (probably croton oil) which caused a severe diarrhea, with large quantities of mucus, lasting two years. Dr. Todd referred to a case of mucous colitis, with large casts, in which guaiacol carbonate, 2 grains, with bismuth subgallate, 5 grains, in capsule, had been of benefit. Dr. Todd also spoke of the subsequent developments in a case which he had previously reported to the Academy as probably lumbago. The spinal column was repeatedly examined and there was no deformity until a few days ago, when protrusion of the spines of two of the lumbar vertebras was discovered. The patient never had, nor does she now have, any tenderness over these points. Deep abdominal pressure, however, at an opposite point, causes severe pain. The deformity is quite small as yet and there is no motor paralysis. She has two small areas of paresthesia. Pain is greatest at night. Dr. Stewart asked what line of treatment was being carried out. Dr. Todd replied that a brace was being made to fit over hips with supporting crutches under arms, which will take weight off vertebras and limit lateral movement. Dr. Stewart stated that if treatment is instituted promptly—at least the recumbent posture—the deformity can be arrested and even diminished.

Dr. R. D. B. Miller read a paper on **Some varieties of**

erythema. The author stated that the term erythema now embraces a much wider range of affections than it was primarily intended to include, and that authorities differ greatly, not only in regard to erythema, but in the classification of all diseases of the skin. The varieties of erythema were pointed out, their etiology discussed, and the treatment of the most important indicated. In discussion, DR. W. B. EWING stated that most cases of simple erythema are due to gastric derangement, or the ingestion of some particular article of diet. He had seen a number of cases recently caused by eating strawberries. These were usually most pronounced on the flexor surface of the forearm. DR. J. C. THOMPSON asked if it had been noted that the ingestion of strawberries produces an irritable bladder or mild cystitis, and stated that they invariably had such an effect upon himself. DR. HECKEL inquired as to the extent arsenic is now used in dermatology. Closing the discussion, DR. MILLER said that it is well known that many cases of erythema are due to an acid condition of the gastrointestinal tract. Arsenic is by no means so generally used as it was some years ago, its use now being confined, as a rule, to those cases which seem to have a nervous element in their etiology. The secretary, DR. J. C. THOMPSON, then read a circular-letter from the secretary of the State Medical Society of Georgia relative to the matter of increasing the rank and salary of the Surgeon-General of the army.

NEW YORK.

Bellevue Hospital, New York.—A fire that at one time threatened to become quite serious broke out in one of the pavilions devoted to the care of incurables and chronic cases, July 10, and a panic was only averted by the prompt action and presence of mind of one of the nurses, Miss Abbe. The mosquito-nettings about the beds caught fire, and each one as it in turn became involved was torn down by the nurse, and the patient removed from the bed. Later the ambulance-driver rendered assistance, but the fire was out before the arrival of the fire-brigade. The greatest commendation is deserved by Miss Abbe, who was unfortunately, though it is trusted not seriously, burned.

NEW ENGLAND.

Butler Hospital for the Insane, Providence, R. I.—Dr. G. Alder Blumer, superintendent of the State Hospital for the Insane at Utica, N. Y., has accepted the offer of the superintendency of the Butler Hospital for the Insane, situated near Providence, R. I., to succeed the late Dr. Gorton.

Wentworth Home for the Aged, Dover, N. H.—Mr. Ariocle (Wentworth), to whom the Home as well as the Home for Children is already indebted for considerable donations, has made an additional donation amounting to $70,000. The Home was dedicated about a year ago and is accomplishing a very creditable work.

The New England Episcopal Hospital for Women and Children at Boston is to have a new surgical building, and the corner-stone has already been laid. It will be a brick structure with gray stone trimmings to correspond with the other buildings of the institution. It will have main building of three stories, and four wings, two on each side, of two stories. There will be accommodations for about 50 cases. This is one of the few hospitals in the country where all the physicians are women. It was founded in 1872 by Dr. Marie E. Zakrzewska, and has been supported by personal donations, without the aid of State or City. It has no large endowment, $55,000 from the Conant estate and $50,000 from the late R. C. Billings constituting its largest gifts. It has a medical building, a maternity building and a dispensary, and spends about $60,000 a year.

According to the will of the late Robert C. Billings, of Boston, the sum of $1,500,000 is bequeathed to public institutions. The following are beneficiaries in sums ranging from $25,000 to $150,000: Harvard College, Massachusetts Institute of Technology, Museum of Fine Arts, Massachusetts General Hospital, New England Hospital for Women and Children, Roxbury District; Children's Hospital, Massachusetts Eye and Ear Infirmary, and the Perkins Institute and Massachusetts School for the Blind, Kindergarten for the Blind, American Unitarian Association, Boston; Young Men's Christian Union and the Hampton (Va.) Normal and Agricultural Institute.

Boston Society of Medical Sciences.—The work of this society during the past winter has attracted much attention in the profession in Boston, owing to the progressive, up-to-date character of the papers read and topics discussed. The last meeting occurred June 20, at which Dr. Theodore Hough discussed the effect of temperature on capillary bloodpressure in the skin. The conclusion deduced was that the muscles of veins and arteries cooperate in maintaining a constant pressure. The cardiac vasoconstrictor fibers in the vagus nerve were treated from a physiologic standpoint by Dr. W. T. Porter and Dr. H. G. Beyer. The most important paper was by Dr. Calvin G. Page on "A Preliminary Study of Streptococcus Isolated from Throat-cultures from Patients Ill with Scarlet Fever." He spoke of the work yet to be done in isolating varieties of streptococci, and also demonstrated lantern slides of a bacterium which may possibly be the long-sought cause of scarlet fever.

Boston Floating Hospital.—The first trip of the Boston Floating Hospital, a steamer fitted up to give sick children fresh air and ocean coolness during the summer, occurred July 5. A new feature this year is a cooling plant, designed to keep the air in the wards of even temperature. Fresh air is taken from the upper deck and conveyed to the lower deck through a large pipe. Here the air is passed over coils filled with sea water and brine and kept at a temperature of 10°, and thereby freed from moisture and cooled to 60°. It is then forced over steam coils which heat it to 75°, and thus dry and cool the air is distributed by shafts to the wards. The plant has a capacity of 5,000 cubic feet a minute. The staff consists of Dr. Samuel Buck and Dr. F. Coggeshall, visiting physicians; Dr. Charles D. Wilkins, medical superintendent; assistant physicians, Drs. Crosby, Devinell, Hess, and Gardner. The trips will be made daily, except Sunday. Provision is also made this year for keeping very sick babies on the boat at night, thus avoiding the inevitable relapse that follows a night in a hot tenement.

CHICAGO AND WESTERN STATES.

Rocky Mountain Inter-State Medical Association.—The following is the scientific program of the first annual meeting to be held in Salt Lake City, July 25 and 26:

The Medico-Legal Supervision of Prostitution, by Salathiel Ewing, Salt Lake City; discussion opened by W. R. Pike, Provo. The Medical Prevaricator, by Frank Dunham, Lander, Wyo.; discussion opened by E. S. Wright, Salt Lake City. Treatment of Chorea, by S. D. Hopkins, Denver, Col.; discussion opened by J. W. Aird, Heber, Utah. Hydatidiform Mole, or Cystic Degeneration Chorion Villi, by Sol. G. Kahn, Leadville, Colo.; discussion opened by C. K. Fleming, Denver, Col. Hemophilia, with Report of Two Cases, by A. A. Kerr, Salt Lake City; discussion opened by A. S. Bower, Salt Lake City. The Attitude of the Newspapers towards Regular Physicians and Scientific Medicine, by E. Stuver, Fort Collins, Col.; discussion opened by E. P. Hershey, Denver, Col. President's address, The Use of the Hematokrit, by Judson Daland, Philadelphia, Pa. Fibroid Phthisis, as Induced by De La Mar Dust, by William Winthrop Betts, Salt Lake City; discussion opened by A. C. Ewing, Salt Lake City. Extra-Uterine Pregnancy, with Cases, by C. K. Fleming, Denver,

Col. Carcinoma of the Uterus, by W. W. Grant, Denver, Col.; discussion opened on last three papers by H. D. Niles, Salt Lake City. The Treatment of Acute Conjunctivitis, by Edward Jackson, Denver, Col. Some Valuable Points in Eye Work, by R. F. Lemond, Denver, Col. Ocular Prothesis, by G. M. Black, Denver, Col.; discussion opened on the last three papers by I. A. E. Lyons, Salt Lake City. Control, its Relation to Self and the State, by Milton Hardy, Provo, Utah; discussion opened by E. V. Silver, SaltLake City. Report of a Case of Acute Yellow Atrophy of the Liver, by Thomas Hayden Hawkins, Denver, Col. Gallstones, with Report of Cases, by I. B. Perkins, Denver, Col.; discussion opened by Clayton Parkhill, Denver, Col. Preliminary to a Discussion on Pneumonia and its Treatment, by L. E. Holmes, Butte, Mont. The Treatment of Pneumonia, by E.P.Hershey, Denver, Col.; discussion opened by Philo E. Jones, Salt Lake City. The Use of Suprarenal Extract in Surgery of Ear, Nose and Throat, by W. W. Bulette, Pueblo, Col. The Lingual Tonsil, by Robert Levy, Denver, Col.; discussion opened by M. A. Hughes, Salt Lake City. The Use of the Bottini Instrument for Hypertrophy of the Prostate, by Leonard Freeman, Denver, Col.; discussion opened by Thomas Hayden Hawkins, Denver, Col. The Surgical Treatment of Diseases of the Antrum of Hymorianum, by R. Harvey Reed, Rock Springs, Wyo. Mastoid Disease, with Cases, by Charles K. Cole, Helena, Mont.; discussion opened by G. B. Pfoutz, Salt Lake City. Points in Systematic Examination of the Urine, by E. R. Axtell, Denver, Col. Toxic Causes of Insanity, by Hubert Work, Pueblo, Col.; discussion opened by A. C. Maclean, Salt Lake City, and Robert W. Fisher, Salt Lake City. Points in Autointoxication and Blood-Morphology, to be Considered in the Preparation of a Patient for Surgical Operation, by P. S. Keogh, Salt Lake City. General and Local Infection by the Bacterium Coli, with Report of Cases, by J. N. Hall, Denver, Col.; discussion opened by E. Stoover, Fort Collins, Col. A Plea for the Early Diagnosis of Tuberculosis, by A. Mansfield Holmes, Denver, Col. The Clinical Appearance of the Blood in the Anemias, by George H. Stover, Denver, Col.; discussion opened by Andrew J. Hosmer, Salt Lake City. Excission of the Gasserian Ganglion, by Clayton Parkhill, Denver, Col.; discussion opened by Leonard Freeman, Denver, Col.

The following are the officers of the association: President, Charles Pinkney Hough, Salt Lake City; first vice-president, Charles K. Cole, Helena, Mont.; second vice-president, Clayton Parkhill, Denver, Col.; treasurer, E. Stoover, Fort Collins, Col.; recording secretary, Samuel C. Baldwin, Salt Lake City; corresponding secretary, S. D. Hopkins, Denver, Col.; board of trustees, Charles H. Jones, Arizona; J. H. Bean, Idaho; A. S. Bower, Utah; Thomas H. Hawkins, Colorado; T. J. Murray, Montana; E. J. Silver, Wyoming. Executive committee, Charles G. Plummer, chairman; Philo E. Jones, E. S. Wright, Harry D. Niles, Alexander C. Ewing, Salathiel Ewing, Andrew J. Hosmer.

SOUTHERN STATES.

Dallas (Texas) District Medical Society.—At the annual meeting held July 5, Dr. Samuel E. Milliken reported a case in which, after the method of Calot, he had forcibly reduced the deformity following tuberculous spondylitis in a child aged 6½ years. Dr. C. W. Simpson was elected president, and Dr. J. B. Shelmire, secretary, for the ensuing year.

The Louisville Monthly Journal of Surgery and Medicine is the title of the publication resulting from the consolidation of the *Louisville Journal of Surgery and Medicine* and the *Louisville Medical Monthly*. The new publication will be under the editorial supervision of Drs. Joseph M. Mathews, H.. Horace Grant, A. M. Cartledge, and Henry E. Tuley. We wish success to the editors in thus combining interests.

MISCELLANY.

Dr. James E. Graham, of Toronto, Can., who died July 8, of acute tuberculosis, had been president of both the Canadian Medical Association and the American Dermatological Association, and was one of the original members of the Royal College of Physicians, London. He was the first doctor in the Dominion to give up practice to become a consulting physician. At the time of his death he was president of the Ontario Medical Association, which was largely organized through his efforts.

Health-Reports.—The following cases of smallpox, yellow fever, cholera, and plague were reported to the Surgeon-General of the U. S. Marine-Hospital Service, during the week ended July 9, 1899:

Smallpox—United States.

			Cases.	Deaths.
Georgia:	Savananh	June 18	5	
Illinois:	Chicago	June 24-30	2	
Indiana:	Evansville	June 24-July 1	6	
Kentucky:	Louisville	June 24-30	4	
Louisiana:	New Orleans	June 24-July 1	2	1
"	Shreveport	June 24-July 1	1	
Massachus'ts:	Boston	June 30-July 1	2	1
"	Fall River	June 27	1	
New York:	New York	June 24-July 1	7	
N. Carolina:	Charlotte	June 24-July 1	2	
Ohio:	Cincinnati	June 23-30	1	
"	Cincinnati	June 24-July 1	2	
Oregon:	Portland	June 29	4	
Pennsylv'nia:	Allegheny Co.	June 3-26	11	
"	Belle Vernon	June 3-26	1	
"	BrownvilleTwp.	June 3-26	34	
"	Cambria Co.	June 3-26	22	
"	Clearfield Co.	June 3-26	1	
"	Fayette Co.	June 3-26	10	
"	Jefferson Co.	June 3-26	5	
"	Philadelphia	June 3-26	40	
"	Somerset Co.	June 3-26	9	
"	Washington Co.	June 3-26	11	
"	Westm'land Co.	June 3-26	1 at Penn Station several.	
Virginia:	Norfolk	June 2	1 to date 825.	
Washington:	Wallawalla	June 29	8	
W. Virginia:	Benwood	July 1	1	

Smallpox—Foreign.

Belgium:	Antwerp	June 10-17	3	1
Brazil:	Bahia	June 10-17	1	
"	Rio de Janeiro	May 19-26		16
China:	Hong Kong	May 6-27	5	2
Cuba:	Habana	June 29		1
England:	Liverpool	June 10-17		1
"	London	June 10-17	1	
"	Gibraltar	June 3-11	1	
Greece:	Athens	June 10-17	22	7
India:	Bombay	May 27-June 6		4
"	Calcutta	May 13-20		1
Mexico:	Mexico	June 3-26	25	15
Russia:	Moscow	June 3-10	11	11
"	Odessa	June 10-17	7	1
"	St. Petersburg	June 3-17	28	12
"	Warsaw	June 3-10		1
Scotland:	Glasgow	June 10-17		1
Straits Settlements:	Singapore	April 1-20		13
Turkey:	Smyrna	June 11-16		8

Yellow Fever—Foreign.

Africa:	Grand Bason Ivory Coast		Reported present.	
Brazil:	Bahia	June 3-17	70	36
"	Rio de Janeiro	May 12-26		10
Columbia:	Panama	June 16-23	8	3
Cuba:	Habana	June 15	5	1
"	Matanzas	June 17-23	1 case, doubtful.	
"	Santiago	July 3	100	20
			Principally among troops.	
Mexico:	Cordoba	June 11	13	14
"	Merida	July 1	1	
"	Mexico	June 3-25		2
"	Vera Cruz	June 22-29		35
San Salvador:	San Salvador	June 30	Reported present.	

Cholera.

India:	Calcutta	May 13-27		46
"	Kurrachea	May 10-17	29	

Plague.

China:	Hong Kong	May 6-27	319	293
Egypt:	Alexandria	June 10	52	10
India:	Bombay	May 30-June 6		66
"	Calcutta	May 13-27		64
"	Surrachea	May 14-28	50	
Mauritius		May 4-22		5

On Japanese steamship "Nippon Maru," from Hong Kong, and Japanese ports, for San Francisco, May 26, 1 death.

Obituary.—DR. WILLIAM HOWARD NEILSON, New Rochelle, N.Y., July 6, aged 41 years.—DR. ROBERT A. LINENDOLL, Fort Edward, N. Y., July 5, aged 40 years.—DR. PAUL CLENDENIN, captain U. S. Army, surgeon in charge of the yellow-fever hospital in Santiago de Cuba, of yellow fever, July 4.—DR. JOHN W. WILLIAMS, Bowdton, Va., aged 91 years.—DR. CHARLES D. SMITH, Hooper's Island, Cambridge, Md., July 3.—DR. W. T. FLEET, Walkerton, Va., aged 80 years.—DR. NATHANIEL GREEN, president of the Rhode Island Society of the Cincinnati, Middletown, R. I., July 8, aged 90 years.

American Ophthalmological Society.—The following is the scientific program of the meeting to be held in New London, Conn., July 19 and 20:

A Case of Primary Tumor of the Optic Nerve, DR. BULLER; History of a Case of Removal of an Orbital Sarcoma with Preservation of Normal Vision, DR. OLIVER; A Case of Primary Non-pigmented Sarcoma of the Left Upper Lid, DR. VEASEY; An Instrument Intended to Facilitate the Operation of Capsulotomy. DR. BULLER; A Case of Expulsive Intraocular Hemorrhage after Preliminary Iridectomy for Cataract, DR. RANDOLPH; On Anomalies of the Epithelial Layer of the Crystalline Lens and Anterior Polar Cataract, DR. ALT; Report of Three Cases of Magnetic Extraction of Steel from Eyeball through the Point of Entrance, DR. W. B. JOHNSON; A Cyst of the Vitreous (with patient), DR. TANSLEY; Congenitally Inefficient External Rectus and Binocular Vision (with patient), DR. TANSLEY; Demonstration of Office Stethoscope, DR. R. H. DERBY; A Case of Sympathetic Ophthalmia due to Glioma Retinae in the Fellow Eye, DR. ALT; Cases of Metastatic Panophthalmitis, DR. MILLIKIN; A Case of Spontaneous Rupture of the Eyeball, DR. MILLIKIN; Multiple Rupture of Sphincter of Iris with Subsequent Development of Myopic Astigmatism, DR. MITTENDORF; Some Unusual Cases of Secondary Glaucoma, DR. BULL; Normal Pupillary Reaction—with Microscope for its Measurement, DR. L. HOWE; A Clinical Study of the Ocular Symptoms found in Posterior Spinal Sclerosis, DR. OLIVER; Report of a Case of Keratectomy, DR. KOLLOCK; The Value of Acoin as a Local Anesthetic in Eye Surgery, DR. RANDOLPH; More Uniform Tests for Vision, Color-Sense and Hearing, DR. WILLIAMS; Injuries to the Sight from Blunt Force applied near the Orbit, DR. SPALDING; Remarks on the Use of the Wire Shield and Lid Sutures in Cataract, DR. PROUT; A Modified Perimeter, DR. WILLIAMS.

Medical Officers for the New Regiments to Serve in the Philippines.—The following are the medical officers selected by the President to serve with the regiments of volunteer infantry to be organized for service in the Philippines:

Surgeons with Rank of Major.—Ogden Rafferty, Captain and Assistant Surgeon, United States Army, late Brigade Surgeon Volunteers; Charles P. Mason, Captain and Assistant Surgeon, United States Army, late Brigade Surgeon Volunteers; John R. McDill, late Brigade Surgeon Volunteers, now Acting Assistant Surgeon, United States Army; Frank C. Armstrong, late Surgeon Twenty-first Kansas Volunteers; Thomas W. Chalmers, late Surgeon Twelfth New York Volunteers; Charles L. G. Anderson, late Assistant Surgeon, United States Army, now Acting Assistant Surgeon, United States Army; D. Albert Lieberman, late Surgeon Sixth Missouri Volunteers; Joseph N. Henry, late Surgeon Fourth United States Infantry.

Assistant Surgeons with Rank of Captain—John R. Hereford, late Surgeon First Missouri Volunteers; James P. Miner, late Surgeon First Arkansas Volunteers; Frank W. Foxworthy, late Assistant Surgeon One Hundred and Sixtieth Indiana Volunteers; Abram L. Haines, late Surgeon Two Hundred and Third New York Volunteers; James J. Erwin, late Assistant Surgeon Tenth Ohio Volunteers; W. E. Parker, late Acting Assistant Surgeon, United States Army; James E. Shellenberger, late Surgeon Third Ohio Volunteers.

Assistant Surgeons with Rank of First Lieutenant—William H. Cook, Acting Assistant Surgeon, United States Army; Lomax S. Anderson, late Assistant Surgeon Fifth United States Volunteer Infantry; Leonard K. Graves, late Assistant Surgeon Two Hundred and First New York Volunteers; Ralph S. Porter, late Assistant Surgeon Second Illinois Volunteers; John A. Metzger, Acting Assistant Surgeon, United States Army; Patrick J. McKenna, late Assistant Surgeon Second United States Engineers; Albert H. Eber, late Assistant Surgeon Thirty-fifth Michigan Volunteers; John E. Boyd, late Captain Second South Carolina Volunteers.

Changes in the Medical Corps of the U. S. Army.

A board of medical officers to consist of Major ROBERT J. GIBSON, surgeon; Captain EDWARD EVERTS, assistant surgeon; Captain THOMAS U. RAYMOND, assistant surgeon, is appointed to meet at the Presidio, June 19, for the purpose of inquiring into and reporting upon the physical condition of Captain ISAAC P. WARE, assistant surgeon, and making such recommendations in his case as may seem best.

RAYMOND, Captain THOMAS U., assistant surgeon, will report to Major P. Henry Ray, Eighth Infantry, and proceed with that officer to Alaska, for the purpose of accompanying to San Francisco Battery A, Third Artillery, and detachments of the Eighth Infantry, now in Alaska under orders to proceed to San Francisco.

MCQUESTEN, CHARLES A., acting assistant surgeon, will report to Major P. Henry Ray, Eighth Infantry, and proceed with that officer to Alaska, for the purpose of accompanying to San Francisco Battery A, Third Artillery, and detachments of the Eighth Infantry, now in Alaska under orders to proceed to San Francisco.

MCADORY, ROBERT J., acting assistant surgeon, now at the U. S. General Hospital, Presidio, will proceed to Angel Island for temporary duty.

MEACHAM, Major FRANKLIN A., surgeon, will proceed to Guanajay, Cuba, for the purpose of making an examination and report upon the quality of the water in the well from which it is proposed to furnish water for the use of the troops stationed at that point.

HERMAN, MEYER, acting assistant surgeon, is relieved from further duty in the department of Matanzas and Santa Clara, and will proceed to Santiago de Cuba, for assignment.

JUNCO, LEONCIO, acting assistant surgeon, is assigned to the department of Matanzas and Santa Clara for duty.

HOWARD. Captain DEANE C., assistant surgeon, is detailed temporarily as a member of the army retiring board at Governor's Island, during the absence of Colonel CHARLES C. BYRNE, assistant surgeon-general, temporarily relieved.

MCDILL, JOHN R., acting assistant surgeon, will proceed from Milwaukee, Wis., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to temporary duty.

The following-named officers are relieved from their present duties and stations and will repair to San Francisco, Cal., and report to the commanding general, department of California, for assignment to temporary duty: Captain CHARLES E. B. FLAGG, assistant surgeon; First Lieutenant BASIL H. DUTCHER, assistant surgeon; First Lieutenant ELMER A. DEAN, assistant surgeon; First Lieutenant HENRY S. GREENLEAF, assistant surgeon; First Lieutenant OTWAY W. RASH, assistant surgeon.

The following acting assistant surgeons are relieved from duty in the department of California and will proceed to San Francisco, Cal., to proceed on the steamer "Para," July 12, to Manila, P. I., and upon their arrival there to report to the commanding general, department of the Pacific, for assignment to duty: FRANK W. DUDLEY, EDWARD P. HAYWARD, CHAS. NORTON BARNEY, FRANK W. FOXWORTHY, and S. J. FRASER.

WILSON, RICHARD, acting assistant surgeon, now at Santiago, Cuba, is relieved from further duty in the department of Porto Rico and will report to the commanding general, department of Santiago, for assignment to duty in that department.

GILMAN, LOUIS L., acting assistant surgeon, will proceed from Rochester, N. H., to Fort Ethan Allen, for assignment to duty.

SEAMAN, GILBERT E., acting assistant surgeon, will proceed from Milwaukee, Wis., to San Francisco, Cal., and report before July 12 to the commanding general, department of California, for assignment to duty.

DRIVER, GERRY S., acting assistant surgeon, will proceed to the United States and report by letter to the Surgeon-General, U. S. Army, for orders.

WILSON, COMPTON, acting assistant surgeon, is granted leave for 30 days, with permission to return to the United States. June 22.

GIRARD, Major ALFRED C., surgeon, is assigned to the command of the new General Hospital, Presidio, and, in addition, he will take command of the old General Hospital at that post, to date from July 1, relieving from duty Major W. S. H. MATTHEWS, brigade-surgeon.

STEARNS, CHARLES H., acting assistant surgeon, is assigned to duty at the U. S. General Hospital, Presidio.

GEDDINGS, E. F., acting assistant surgeon, is relieved from further duty at the General Hospital, Santiago, Cuba, and will report to the commanding officer of the camp of the Fifth Infantry battalion near La Cruz, for duty with that battalion.

HEREFORD, JOHN R., acting assistant surgeon, is assigned to duty at the U. S. General Hospital, Presidio.

RUTHERFORD, H. H., acting assistant surgeon, is assigned to duty at the U. S. General Hospital, Presidio.

LEARY, TIMOTHY, acting assistant surgeon, will report at the General Hospital, Santiago, Cuba, for duty as bacteriologist and pathologist.

MILLER, WILLIAM GREY, acting assistant surgeon, is assigned to duty at the U. S. General Hospital, Presidio.

SHELLENBERGER, JAMES E., acting assistant surgeon, is assigned to duty at the U. S. General Hospital, Presidio.

SMITH, BAT, acting assistant surgeon, is relieved from further duty at the General Hospital, Santiago, Cuba, and will report to the officer in charge of the yellow fever hospital for duty.

KENNEDY, Captain JAMES M., assistant surgeon, now on duty with the Fourth Cavalry at the Presidio, will, on account of illness, remain at that post and report for temporary duty to the commanding officer, U. S. General Hospital.

GARRETT, NEVIL M., acting assistant surgeon, now at the U. S. General Hospital, Presidio, is assigned to duty as attending sur-

geon on the transport "Pennsylvania," to sail June 30, during the voyage of that vessel to Manila, P. I., and return.

MATTHEWS, Major WILLARD S. H., surgeon, is relieved from further duty at the U. S. General Hospital, San Francisco, Cal., and will proceed to Manila, P. I., and report to the commanding general, department of the Pacific, and Eighth Army Corps, for assignment to duty.

NEWLOVE, GEORGE, acting assistant surgeon, will proceed from Somerton, Philadelphia, Pa., to Fort Leavenworth for duty.

WOODRUFF, Major EZRA, surgeon, now on duty at Fort Trumbull, will proceed to Camp Meade, Pa., for duty at that Camp, to relieve Major WILLIAM R. HALL, surgeon. Major HALL will return to his station.

SWIFT, Captain EUGENE L., assistant surgeon, is relieved from further duty at Fort Slocum, and will proceed to San Francisco, Cal., for temporary duty.

HILLHOFF, First Lieutenant CLARENCE B., assistant surgeon, now on duty at Camp Meade, Pa., will report to the commanding officer, Nineteenth Infantry, for duty to accompany that regiment to Manila, P. I.

ESCOBAR, JULIUS A., acting assistant surgeon, will proceed to Havana, Cuba, for assignment to duty.

Changes in the U. S. Marine-Hospital Service, for the seven days ended July 6, 1899:

MURRAY, R. D., surgeon, to defer departure to Key West, Fla. (as directed by Bureau letter of May 15, 1899) until further orders, and to proceed to New Orleans, La., for special temporary duty. July 1.

VASDEN, EUGENE, surgeon, to proceed to Norfolk, Va., and assume temporary charge of the Service at that port not later than July 17, 1899. July 5.

MCADAM, W. R., assistant surgeon, Bureau letter of May 15, 1899, relieving Assistant Surgeon MCADAM from duty at Key West, Fla, revoked and directed to reassume command of the Service at Key West. June 30.

ROBINSON, D. E., assistant surgeon, relieved from duty at Chicago, Ill., and directed to proceed to Mobile, Ala., and report to the commanding officer for duty and assignment to quarters, June 30.

ALTREE, G. H., acting assistant surgeon, granted leave of absence for 4 days. July 3.

DEAN, L. C., acting assistant surgeon, granted leave of absence for 2 days. July 5.

APPOINTMENT.

MCISAAC, FRED C., appointed acting assistant surgeon, U. S. Marine-Hospital Service, for duty at Evansville, Ind. July 3.

RESIGNATION.

BRUNNER, W. F., sanitary inspector, resignation accepted as tendered, to take effect June 30, 1899. July 3.

Changes in the Medical Corps of the U. S. Navy, for the week ending July 8, 1899:

PLUMMER, RALPH W., assistant surgeon, appointed assistant surgeon from June 17, 1899.

WISE, J. C., medical inspector, granted sick leave for 3 months.

Foreign News and Notes.

GREAT BRITAIN.

Dr. W. J. Simpson, professor of hygiene at King's College, London, has been elected an honorary president of the International Medical Congress, to be held in Paris in 1900.

The annual congress of the **Association of Sanitary Inspectors of Scotland** was held in Inverness in the last week of June, when many papers of practical interest to the medical man and sanitarian, as well as to the general public, were read.

Prof. Haffkine in London.—The week ending July 1 may certainly be called Haffkine's week in London. The publication of his address before the Royal Society, entitled "A Discourse on Preventive Inoculation," was followed by a long article in the *Times* upon his pathologic work in India; and when the *Times* at the busiest season of the year gives great space to the achievements of any individual, that individual, may take it for granted that he is, for the time being at any rate, of considerable consequence. Finally at the annual dinner of the Epidemiological Society of London, Haffkine was the distinguished guest.

The Bazaar in aid of the Charing Cross Hospital, London, which was recently held in Albert Hall, netted $65,000. The bazaar was distinctly a society affair and was patronized by all the nobility, many of whom played at being shop-girls, etc., for charity. Objects worth 10 shillings were sold for £10, and the managers of the hospital are in consequence much elated.

The Hospital Reform Association is going to conduct an investigation into the methods adopted by the metropolitan hospitals for discovering the pecuniary circumstances of the patients who apply for medical relief. The investigation cannot be carried on with any hope of practical success unless the hospital authorities are ready to cooperate with the investigators, and to what extent they will do so is not known yet. The Hospital Reform Association certainly desires to take a thoroughly progressive step, but it will have to be careful not to wound the susceptibilities of the hospital officials, or the researches of its delegates will be worthless.

The Royal College of Physicians of London.—At the latest meeting of the College, the president, Dr. Church, announced that Dr. Horton-Smith would deliver the next Goulstonian Lectures, Dr. Cheadle the next Lumleian Lectures, and Dr. Halliburton the next Croonian Lectures. The Goulstonian lecturer, Dr. Percival Horton-Smith, is, as is usual with the holder of this appointment, a young man, and has only recently been elected a fellow of the Royal College of Physicians. He had a distinguished career at Cambridge, where he is a fellow of St. John's, and is at present medical tutor at St. Bartholomew's Hospital. Dr. W. B. Cheadle, who is senior physician to St. Mary's Hospital, and consulting physician to the Children's Hospital, is a well-known, perhaps the best known, English authority on pediatrics. Dr. W. D. Halliburton, F.R.S., is professor of physiology in Kings' College, London, and a leading physiologic chemist.

Trained Nurses in Irish Workhouses.—The Irish Local Government Board have determined that the nurses in the poor-law or workhouse infirmaries of the country shall be properly trained. This is an excellent resolve, for scandals arising out of neglect to sick paupers have not been infrequent. In many of these infirmaries the authorities seem to expect that the greater part of the nursing should be done by the inmates of the workhouse, but this ingenious manner of securing nursing service for nothing has led to so many disastrous errors that it is falling into disuse. The board intends now to prevent it altogether; but Ireland is an unfortunate country, where circumstances always arise to baffle authoritative attempts at reform of all sorts. The guardians of the poor at Limavady recently advertised for a nurse for the workhouse, trained according to the requirements of the Local Government Board, and offered £35 as a salary. They received no answer and refused to advertise again. The Local Government Board then wrote to the medical officer of the workhouse and said that in the absence of trained nurses they should hold *him* responsible for the nursing arrangements of the infirmary! The medical man then told the master, or lay director of the workhouse, that having regard to the position in which he was now placed, he must have a proper nurse, while the Local Government Board told the master that he must find what the medical man has told him to provide. The master in his turn went to the guardians and represented that they must advertise for a nurse, which

they have now decided to do. They do not intend to mention the salary which they propose to give and will probably much enjoy being able to tell the Local Government Board that no applications for the post have been received.

Cheap Consulting.—A scheme has been recently mooted at Birmingham for providing a certain class of the community with cheap medical consultation. The Hospital Saturday Fund of the city, which is largely supported by the working classes, desired to establish two gentlemen in a consulting-room at a given salary, believing that their services could be retailed at considerable profit to factory hands, etc. A meeting of the medical profession was convened by Dr. Robert Saundby, professor of medicine in Mason University College, Birmingham, and president of the Council of the British Medical Association, at which the whole matter was considered, when the following resolution was passed:—

That this meeting of registered medical practitioners residing in or near Birmingham objects to the proposed Consulting Institution on the following grounds: (1) That it is proposed that nonmedical employers shall exploit the services of medical men; in other words shall employ medical men to earn fees, pay them by salary, and deal with the proceeds at their own pleasure; (2) that no restriction is proposed as to the class of persons to be received as patients, so that persons well able to afford the usual consultation fees would obtain a concession to which they have no claim; (3) that it is purposed to incorporate the institution as a limited company to carry on the business of physicians and surgeons, and that this is contrary to the bill which is now before the House of Lords, entitled "An Act to amend the Companies Acts," which has received the support of the General Medical Council and the British Medical Association; (4) that in the event of the proposed institution seeking to procure patients by advertising and canvassing in contravention of professional rules, any practitioner holding service in it would render himself liable to the censure of the General Medical Council.

The medical profession has suffered so much under lay employers, *e. g.*, the clubs and medical-aid institutions, that no one can be surprised at the decided way in which the profession at Birmingham decided to make their own arrangements for extending the advantages of consultation to those unable to pay full fees, and yet by position unfit for the gratuitous advice of the hospitals.

CONTINENTAL EUROPE.

Epidemic cerebrospinal meningitis is reported as quite prevalent in Paris.

A monument to the memory of Caventou and Pelletier, the discoverers of quinin, is about to be erected in Paris, the funds for that purpose having been already subscribed.

A $250,000 Fee.—Even the surgeons will soon have to envy the bacteriologist. Koch is said to have asked of the Cape Colony Government the modest fee of $250,000, for his work on the Rinderpest.

Professor Ehrlich will shortly leave Berlin to assume the direction of the newly-erected Serum Institute in Frankfort-on-the-Main. In commemoration of his departure, a honorary banquet was tendered him, July 3.

The Publication of Medical Observations.—The *Lancet* states that the conference of barristers of the Paris Court of Appeal has been discussing the following question: Does the publication in a work by a medical man of observations made on a hospital patient constitute the offense of violation of professional secrecy as defined by Article 378 of the Penal Code? The conference took the affirmative view on the question.

The Celebration of the 500th Anniversary of the Foundation of the Vienna Medical School.—As announced recently in the JOURNAL, the celebration of this anniversary, which in reality occurred this spring, has been postponed until the fall. The faculty of medicine of the University has now appointed Professors Max Gruber, Puschmann, and Emil Zuckerkandl a committee to have charge of the details of the celebration.

The Virchow Pathologic Museum in Berlin.—On June 27, in the presence of a number of officials, academic and scientific notabilities, Professor Virchow delivered an address and formally opened the new pathologic museum which bears his name, and has been built under his superintendence. It has cost about 560,000 marks, and contains a collection of more than 20,000 specimens, collected almost wholly by Professor Virchow himself, and representing and illustrating the history and progress of pathology during the past half-century.

Important Hygienic Precaution in Italy.—According to the *Lancet*, copper sulfate to the amount of 320 cwt. annually is consumed in Italy to protect the vines from the peronospora. Vine-leaves, in such constant use as wrappers for butter, cheese, fresh fruits, etc., are thus impregnated with a salt retaining much of its toxic power and conveying its characteristic poison in serious measure to the public consumer. The sanitary authorities have therefore issued an order "forbidding the contact of such leaves with meat, fresh or cured, with fish (under similar conditions), with butter, cheese, and all such dairy produce, with fresh fruits, such as figs, peaches, etc.," contravention of the order being rigorously punished by law.

University of Vienna.—A monument to the memory of the late Professor Joseph Loschmidt, professor of physics in the University of Vienna, will shortly be unveiled in the University court. The monument is the work of the sculptor Schmidt-Gruber. At the unveiling ceremonies, Dr. Ludwig Boltzmann, a former pupil of Professor Loschmidt, and now professor of physics, will deliver an address. The unveiling of the monument to the memory of the late Professor Bamberger, which was to have taken place June 25, has been postponed until fall owing to the death of a sister of the late professor. Dr. Ernest Ludwig, professor of chemistry, will celebrate, August 2, the twenty-fifth anniversary of his professorship.

International Congress of Medical Ethics.—The work of the congress to meet in Paris in 1900 will be conducted in four sections: (1) The Relations of the Medical Practitioner with Public Bodies (State or other). (2) The Relations of the Practitioner with Individuals (patients, prescribing chemists, and unqualified practitioners). (3) Relations of Practitioners with Professional Brethren (Medical Ethics). (4) Professional Provident Societies, Medical Defense Unions. Reports must be in the hands of the Organizing Committee before January 1, 1900, and abstracts or summaries of the conclusions of communications before July 1, 1900. Information on all subjects connected with the Congress may be obtained on application to the Agence Centrale de la Presse Scientifique, 93 Boulevard Saint-Germain. Paris.

The State and Cost of Medical Education in France.—The *Lancet*, quoting the *Lyon Medicale*, states that a computation has been made of the cost of a student's education in the French universities. The 15 universities of Paris and the provincial cities have 27,080 students, of whom 12,057 are in Paris. The yearly outlay of the universities in 13,859,500 francs. The instruction of each student, therefore, costs 511 francs per annum on an average. The outlay is partially provided for by 2,093,700 francs from the university revenues, and by bequests, donations and sundry sources of income amounting to 1,511,600 francs; the state pays the balance of 10,254,200 francs, or 378 francs for each student per annum. The University of Lyons, which has 2,335 students, spends 1,310,600 francs, so that the education of each student costs 561 francs. Toward this amount the university revenues contribute 209,460 francs, or less than 100 francs for each student; the balance is paid by the state.

Cultivation of the Bacillus of Leprosy.—According to the *British Medical Journal*, at a recent meeting of the National Academy of Medicine of Bogota Dr. Carrasquilla asserted that he had successfully cultivated the bacillus lepra on sloped solidified human serum and on beef-bouillon prepared according to the method of Thoinot and Masselin. The bacillus was then cultivated from serum to serum, and from bouillon to bouillon, pure cultures being always obtained. Dr. Carrasquilla further states that he observed the bacillus in motion in two stages of its development—as long, slender bacilli, which move in an undulatory manner; and as short, coarse, almost elliptic bodies, moving rapidly in a straight line. In the latter he fancies he has observed flagella, but he is not positive as to this. His results do not entirely accord with those obtained by Professor Spronck, of Utrecht, who has also claimed to have cultivated Hansen's bacillus. Professor Campana, of Rome, has also convinced himself that he has successfully cultivated the bacillus lepra. These experiments require confirmation and extended observation before they can be accepted as absolute and decisive, although plausible.

Night Medical Service in Paris.—The *Lancet* states that M. Becançon of the Prefecture of Police has published in the *Revue Municipale* an article on the Service Médical du Nuit of the city of Paris. This service was established in 1876 by M. Léon Renault, Prefect of Police. In 1876 the sum allotted for this purpose by the municipal council was 2,000 francs. In 1882 it rose to 60,000 francs, in 1894 to 130,000 francs, and it has now risen to 145,000 francs. The number of visits has therefore increased from year to year. Arrangements for supplying medicines at night were first made in 1886, as the result of a recommendation made to the municipal council by Dr. Navarre. Druggists who wish to engage in this work enter their names on a list kept at the police-station of their district, and the prescriptions written by the medical men of the Service du Nuit are taken to the pharmacy nearest to the patient's residence. The prices paid are those laid down by the Chambre Syndicale. The expenses of this part of the service were 3,300 francs in 1886, and are now 35,000 francs. According to the statistics of the first quarter of 1899 there have been 214 confinements attended during that period, and 3,843 patients have received treatment, the corresponding average for the last 10 years having been only 3,021.

Obituary.—SIR ALEXANDER ARMSTRONG, K.C.B., F.R.S., L.D., J.P., formerly Director-General of the British Navy, uly 5.

Society Report.

(From our Special Correspondent.)

AMERICAN PEDIATRIC SOCIETY.

Eleventh Annual Meeting, held at Deer Park, Md., June 27, 1899.

FIRST DAY.

THE President, DR. WILLIAM P. NORTHROP, of New York, chose for the subject of his annual address **The Teaching of Pediatrics.** Dr. Northop said: "The American Pediatric Society is made up largely of teachers of pediatrics and the discussion of the methods of teaching this subject may be worth our while. What place should the subject of pediatrics have in the curriculum? In an undergraduate course what number of lectures and what amount of time should be given to the subject of pediatrics? In answering these questions I must draw upon my own experience. In the whole scheme of instruction we may admit the first importance of general medicine, general surgery and obstetrics and then pediatrics shares with gynecology the second place. Our course of instruction at present includes didactic lectures, clinics and section teaching. There is a wave of sentiment against didactic teaching and no doubt the reaction against the former complete dissertations on disease is justified, but the didactic lecturer has yet a function, which is to present to the beginner the salient points of a subject, to give the essentials of a subject. Certain diseases must also be seen clinically in order to understand them, and in addition to the regular clinic attended by all there should be section teaching, so that the students may get very near the patient and if possible each one should repeat the demonstration. In this way gavage, lavage, lumbar puncture, etc., can best be taught. Dr. Northrop then described what he considered the best arrangement of hospital rooms and wards for teaching purposes, and gave a list of diseases that should be taught entirely by the chair of pediatrics. He was also quite enthusiastic about the value of the stereopticon for teaching purposes. In regard to the status of the teacher of pediatrics he said that in their school the professor of pediatrics was not a member of the governing faculty, but both he and his chief of clinic received a salary.

Discussion.—DR. ROTCH explained the advance that had taken place in the teaching of pediatrics at Harvard University and said that it now holds the same position as any of the other branches of clinical medicine or surgery; that the teacher holds a full professorship, receives a salary and is on an equality with the other members of the faculty. The course of study continues from October to June and is divided into didactic lectures, clinical instruction and clinical conferences. For the purpose of the conference a certain number of students were asked to work up cases and present them at a meeting over which the professor of pediatrics presides. The subject is then open for discussion, first by the students and then by the pediatric staff. This seems to incite the men to do good work. Lantern-slides are also used with good results. Examination on pediatrics is compulsory. DR. GRIFFITH said that, as usual, Philadelphia was not progressing quite so rapidly as Boston, but that there had been at the University of Pennsylvania steady advance in the recognition accorded pediatrics. The teacher of this branch holds a clinical professorship, but the subject of pediatrics is an elective study. He hoped that the time would come when full recognition would be accorded his department, and the study of pediatrics be made compulsory for all students. DR. CHAPIN said that his work had been mostly with postgraduate students and that he had found a large number of the students were not well grounded in the principles of pediatrics. He thought that this was largely due to the fact that college-authorities had not appreciated the importance of pediatrics and had not accorded it the proper place in the curriculum. He thought that it should not be tacked onto obstetrics or to gynecology and that it should not, on the other hand, be treated as a specialty, but that it should be taught as a branch of general medicine. DR. BLACKADER said that it had been his custom to devote his didactic lectures mainly to a consideration of infantile de-

velopment and the different way in which a disease manifests itself in the child as compared with the adult. The teacher in McGill University is associated with the chair of medicine, does not hold a chair in the faculty, and has no emoluments. DR. ADAMS thought that the matter does not rest so much with the colleges as with the men themselves. That if they insisted upon proper recognition they would receive it. He cited his own experience to show that at least one faculty had been made to recognize the full importance of pediatrics, and he considered it quite as important as any other branch of medicine. DR. FORCHHEIMER thought that pediatrics might be taught along with general medicine, but DR. ROTCH opposed this idea on the ground that the subject-matter was too large for one man, and that while pediatrics was not to be considered a specialty it could be best taught by one especially interested in the subject. DR. COTTON explained the method just adopted at Rush College, in which the junior students are to be thoroughly drilled in the preliminaries, and the seniors are given actual clinical experience. DR. CRANDALL thought that the students were more progressive in many instances than the colleges, for the classes in diseases of children in the postgraduate schools are among the very largest.

The Increase of Weight in Infants Fed Artificially.—DR. HENRY KOPLIK, of New York, said: During the past 9 years I have conducted, in connection with my dispensary clinic, a laboratory for the artificial feeding of infants and for the purposes of the present study infants below the age of 9 months were observed and as many collected as would remain under observation for a protracted period. And I have studied first, infants fed from birth, or nearly so, with a modified cow's milk; second, infants fed with breast and cow's milk. The modified milk supplied to these infants was in all cases the same, being composed of cow's milk diluted with equal parts of distilled water and 6% of sugar of milk added. Infants below 3 months received 3 ounces of this mixture; above this age an ounce is added for every month until 8 ounces are reached, when full whole-milk is administered. The infants were systematically weighed. In some of the older children who did not prosper on this Heubner-Hofman mixture I increased the amount of fat. My patients were all taken from an ambulatory service in the slums. Dr. Koplik then gives tables to show the gain in weight of these 25 cases and adds: It is quite safe to predict that an infant, if it has the breast only once or twice in the course of the 24 hours will thrive on the bottle much better than on the bottle alone, and I am convinced that it is inadvisable to deprive the infant of the mother's breast no matter how scant the secretion in the breast may be. It is very difficult to decide how much cow's milk should be given such infants, because it is impracticable to measure the amount of milk secreted by the breast in question, but an observant mother and physician will soon find out how much additional milk to give.

Discussion.—DR. ROTCH thought that while this work was very interesting, it was not all scientific, and that one could not make a test of any method of feeding upon cases of an ambulatory nature, for he could not tell what they were getting when away from his observation. DR. KOPLIK admitted the force of this objection, and said that he had not attempted to show the value of any particular mixture, but merely to determine how much weight a bottle-fed infant should be gaining if it were prospering. DR. ROTCH contended that that was just what Dr. Koplik had not shown, as his children were not bottle-fed only, and he could not say how much other food they had obtained. DR. MORSE also considered the work without scientific value, because while it recorded the gains of a certain small number of infants fed on a certain mixture, it did not report the number or condition of those that did not thrive under the same circumstances. DR. WENTWORTH called attention to the fact that analyses had shown that when the mother's milk became scanty, it is very apt to be a poor milk, and stated that if Dr. Koplik recommended any breast-milk as better than artificial feeding alone, he would have to take issue with him on that point. DR. CHAPIN thought that clinical experience seemed to show that even though the albuminoids were high and the fats low, still it was better to give the baby that milk, together with the substitute feeding, rather than to cut it off entirely. DR. BLACKADER rather agreed with this, as he considered it no light measure to at once put the child on artificial feeding. DR. WENTWORTH said that he recognized the value of mixed feeding, and only criticised Dr. Koplik's point, that even a very scanty supply of milk was better than bottle-feeding alone, and he maintained that, if scanty milk was poor milk, he could not agree with Dr. Koplik. DR. FORCHHEIMER said that while he should be sorry to have in private practice such results as Dr. Koplik reported, still he thought we could not decide these questions yet on the basis of physiologic chemistry.

Porencephalus. Case and Specimen. DR. GEO. N. ACKER, Washington.—The patient was a colored male child, aged 4 years. Soon after birth the mother noticed that the eyes had a peculiar appearance, and that he did not move his right arm or leg. He never made any attempt to walk or talk, and was quiet at all times except when hungry, at which time he would cry. The muscles were soft and flabby with a noticeable atrophy on the right side, and the right forearm was strongly flexed and could not be extended. There were pronounced nervous symptoms, and the temperature at one time reached 107°. Postmortem examination was made 26 hours after death, and it was found that the right hemisphere weighed 19½ ounces, the left, 14½. The fissuration was quite atypical and interfered with a study of the convolutions. The defect in development of certain parts of the brain correspond pretty closely to the parts supplied by the middle cerebral artery, and the author thought they had been caused by some change in this artery.

A Preliminary Communication on the Separation of Bacteria from Milk by Natural Processes.—DR. R. G. FREEMAN, of New York, said that he had previously expressed the opinion that raw milk, even when the conditions of the dairy were satisfactory, could not be considered safe for administration without heating because it was likely to contain a considerable number of bacteria, and we could not make sure that among these there might not be the bacteria causing diarrhea, typhoid fever, diphtheria, or other diseases. For that reason he desired to make a preliminary report on some work, which, while incomplete, seemed to show that the great bulk of bacteria which contaminated milk might separate from it by natural processes without the use of filtration, heat, or preservative agents. If milk is allowed to stand and the cream separates off and then a separate analysis is made of the milk and cream it is found that the cream contains some 300 times as many bacteria as the milk, and with the rising of the cream about 99% of the bacteria are removed from the milk. He thought the separation was probably due to the fat-globules carrying the bacteria with them in the course of their inverse precipitation and suggested that if this proved to be correct we might allow such a separation, sterilize, or pasteurize the cream and then add it again to the practically germ-free milk for administration as a food.

Discussion.—DR. KOPLIK thought it would not be wise to let the impression go abroad from this that we are prepared to advise the use of raw milk for babies. DR. FORCHHEIMER said that the ideal food of the future is going to be raw milk and that the tendency is in that direction. DR. ROTCH said that some infants who can not take pasteurized or sterilized milk do well on raw milk if administered in proper modifications. DR. ADAMS agreed with Dr. Forchheimer that raw milk would be the ideal food.

Sarcoma of the Cerebellum in a Child Aged Four Years.—DR. S. S. ADAMS, Washington, said that the patient was taken sick in June, 1897, the prominent symptoms being high fever and vomiting. In a week's time she had apparently recovered under treatment, but a month later began to complain of intense pain in the head and right arm. Then a weakness of the legs became manifest, the child frequently staggering and at times falling. She slept well at night and seemed to suffer principally in the mornings and afternoons. She developed a second attack of fever and vomiting, after which she lost control of her bowels and bladder. Dr. Adams made the diagnosis of cerebellar tumor, which was proved by autopsy to be correct. The brain weighed 39 ounces and every suture in the cranium was widely separated.

Enlarged Bronchial Nodes.—DR. J. PARK WEST, Bellaire, Ohio, reported cases of 8 children in whom the diagnosis of enlarged bronchial nodes had been made, and who were brought to him on account of the accompanying cough. Every child had enlarged cervical nodes, in 6 there was in addition large axillary nodes, and in 5 large inguinal nodes.

All had large tonsils. Two had adenoids that interfered with nasal respiration, and in 3 the spleen could be felt. The author believes that the enlargement of these nodes was the local manifestation of the status lymphaticus and not mere local lesions.

Discussion.—DR. RATCHFORD said that he had seen 4 cases this winter presenting similar symptoms that were relieved by removing the adenoids. DR. CHAPIN said that the paper had reminded him of a number of cases of obscure cough in which careful physical examination would show no apparent cause for it, and in which there was also no adenoids. DR. CRANDALL said that he frequently saw these cases in which there were adenoids with persistent cough.

SECOND DAY.

Report of a Case of Transposition of the Viscera and of the Great Vessels; with Photograph.—DR. J. P. CROZER GRIFFITH, of Philadelphia, said that the patient, a boy, 8 months old, began 3 months previous to admission in the hospital, to have attacks of cyanosis and dyspnea lasting 20 minutes and occurring a half dozen times a day. He became blue in the hands, feet and face and had rapid breathing. On admission the child seemed ill and was distinctly cyanotic. A systolic murmur was heard with greatest intensity at the pulmonary cartilage and at the third left interspace close to the sternum, as well as at the aortic cartilage and apex. It was not transmitted to the axilla and there was no thrill. The diagnosis was made of pulmonary stenosis, probably associated with perforate septum ventriculorum. The child soon sickened with what appeared to be symptoms of pneumonia, cyanosis increased and he was so weak that he was treated purely symptomatically and the actual condition of the viscera was not investigated. DR. GRIFFITH exhibited the postmortem specimens showing the following peculiarities: The aorta arises from the right ventricle, and passing upwards arches slightly from left to right, then almost directly backward over the right bronchus and descends upon the right half of the vertebral column; the coronary arteries arise from the right ventricle; the pulmonary artery from the left ventricle, to the left of, and slightly posterior to, the origin of the aorta. The liver lies chiefly to the left side and the spleen lies in the midaxillary line in the right hypochondrium; there are two supernumerary spleens both easily identified.

Discussion.—DR. CHAPIN said that he had presented a case in the New York Academy of Medicine some years ago in which the heart was on the right side and the liver on the left, but his patient was in perfect health and the tranposition of the viscera was accidently discovered. DR. KOPLIK had reported a similar case in which the patient was in good health, except for occasional attacks of asthma. DR. NORTHROP said that some years ago he had seen a case of symmetrical transposition of all the viscera in an adult female. Since that time he had made over 200 autopsies without discovering a case of transposition in the infant. DR. GRIFFITH remarked that this was the fifth case he had seen in his practice.

Observations on Certain Abnormal Conditions in Livers of Infants and Children.—DR. R. G. FREEMAN, of New York, has carefully studied the autopsy, reports at the New York Foundling Hospital with reference to the condition of the liver especially. These consisted of some 500 cases, and he finds that cirrhosis of the liver is very rare in infancy, as is also the condition of waxy liver. A careful study of fatty livers is made and in contradistinction to the ordinary statements given in most textbooks he formulates the following conclusions: (1) fatty livers occur very frequently in the infants and children that come to autopsy at the Foundling Hospital; in about 41% of all cases; (2) the condition of nutrition of the child apparently has no connection with the fatty condition of the liver, the condition of nourishment in the cases having fatty livers averaging about the same as in the whole number of cases; (3) fatty livers occur rarely in the chronic wasting diseases, such as marasmus, malnutrition, or rachitis and syphilis, unless such condition be complicated by an acute disease; (4) with tuberculosis fatty livers occur not more often than with other conditions; (5) fatty livers occur most often with acute meningitis, gastrointestinal disorder, measles and diphtheria very seldom in chronic conditions.

(To be continued.)

The Latest Literature.

British Medical Journal.

June 24, 1899. [No. 2008.]

1 The Cavendish Lecture on the Etiology and Diagnosis of Cerebrospinal Fever. WILLIAM OSLER.
2. The Croonian Lectures on Some Points Connected with Sleep, Sleeplessness, and Hypnotics. Lecture I. JOHN BUCKLEY BRADBURY.
3. Case of Multiple Adenomata of the Skin. ROBERT Y. AITKEN.
4. Injuries Produced by an Explosion of Gun-Cotton. GERALD SICHEL.
5. Anesthetics through a Tracheotomy-Tube. W. MCGREGOR YOUNG.
6. Strychnin in Opium-Poisoning. R. D. PENNEFATHER.
7. Case of Acute (Ulcerative) Endocarditis Giving a Positive Widal Reaction. W. R. MATTHEWS and D. R. MOIR.

1.—See PHILADELPHIA MEDICAL JOURNAL, July 1, 1899.

3.—A woman, aged 43, presented herself with **multiple adenomas of the scalp,** which had been growing for over 13 years. There were over 30 of these lumps, varying in size from mere papules to large cherries, some of them were slightly pedunculated, and all were quite immovable in the scalp though not adherent to the bone. [G.B.W.]

5.—In operations in which **tracheotomy** has been required it may be of advantage to fasten a piece of rubber tubing over the tracheotomy-tube, whereby one may be able to conduct the anesthesia at a point removed from the seat of operation. [G.B.W.]

6.—The patient was comatose from **opium-poisoning** and could not be roused. One-fiftieth grain of strychnin was given hypodermically with almost immediate effect. When the patient could swallow, strong coffee was given. Rapid recovery followed. [A.G.E.]

7.—The case reported is that of an **obscure disease** in a subject having delusional insanity. Typhoid was a possibility, and the blood was examined twice by the Widal test. The first reaction was positive, but not very distinct; the second was positive and marked. Postmortem showed ulcerative endocarditis. The Widal test instead of differentiating in this case wrongly confirmed the opinion of anomalous typhoid fever. There was no history or postmortem evidence of previous typhoid to account for it. [A.G.E.]

Lancet.

June 24, 1899. [No. 3956.]

1. Some Points Connected with Sleep, Sleeplessness and Hypnotics. JOHN BUCKLEY BRADBURY.
2. Preventive Inoculation. W. M. HAFFKINE.
3. The Etiology and Diagnosis of Cerebrospinal Fever. WILLIAM OSLER.
4. Two Further Instances of Extrauterine (one Tubal and one Ovarian) Gestation in which Rupture Occurred Before the End of the First Month; Operations. HASTINGS GILFORD.
5. Nonfatal Perforation in a Case of Gastric Ulcer; Hematemesis; Transfusion. C. J. WHITBY.
6. Obscure Cases of Ptomain-poisoning. A. R. ALDRIDGE.
7. A Case of Pentastoma Constrictum. ALBERT J. CHALMERS.
8. A Case of Bilharzia of the Vagina. FRANK COLE MADDEN.
9. A Case of Procident Uterus Treated by Quinin-Injection. J. AIKMAN.
10. Multiple Neuritis through Necrosis of the Lower Jaw Caused by an Ill-fitting Denture; Easy Removal of Sequestrum; Rapid Recovery. MONTAGUE D. MAKUNA.
11. "On the Effects of Primula Obconica on the Skin." E. A. BARTON.
12. Two Cases of Erysipelas Treated with Antistreptococcic Serum. W. MURRELL.
13. A Case of Hydatid Cyst of the Lung Treated by Incision and Drainage; Recovery. R. M. SIMON and LEONARD GAMGEE.

1.—Bradbury discusses the **various theories of the causation of sleep.** These he divides into the chemic, histologic, vasomotor, and psychologic. He believes that consciousness and its alterations are of a chemic nature; that there is a normal metabolism of the nervous cells and unconsciousness is due to an alteration in this metabolism. The fundamental phenomena to be determined in dealing with psychic processes are the chemic changes occurring in the cells. Admitting this, a connection can be traced in the various theories regarding sleep. Hypnotics and the rational treatment of insomnia are to be considered in subsequent lectures. [A.G.E.]

2.—Haffkine observed that **inoculation against cholera** strikingly influenced the total number of cases and deaths, but the proportion of deaths to cases was not influenced. This led to the conclusion that there were two kinds of immunity, one against the living microbe and one against the fatality of the symptoms of the disease caused by the products of the microbe. A combination of the bodies of microbes and their concentrated products was then prepared and used in several large series of cases. By this means the case mortality was reduced 50%. Experiments being conducted give promise of a protective typhoid inoculation similar to that obtained in the case of cholera. [A.G.E.]

4.—Gilford reports 2 cases of **extrauterine pregnancy,** in which rupture occurred before the end of the first month. Operations were performed, and specimens removed, carefully examined, and one of the cases proved to be an ovarian pregnancy. He considers that not only may the sperm-cell of the male reach the ovary, but that sometimes it is capable of finding its way through solid tissues, such as that of the stroma of the ovary. [W.K.]

5.—Whitby reports a case that illustrates the **great value of transfusion,** and shows that, in the most desperate cases, well-directed, persistent effort may be rewarded by the production of a cure. The patient had been treated on several previous occasions for attacks of what appeared to be gastric ulceration, and had been advised to undergo a course of treatment commensurate with the condition. He had, however, been unable to do so. He finally returned for treatment. Suddenly, while in bed, a sharp attack of pain was felt, which was probably due to perforation; fortunately his stomach had been emptied on the previous day by an emesis. The subsequent symptoms pointed to a localized peritonitis in the region of the pylorus. The patient rallied, and by rectal feeding regained considerable strength. The rectal feeding was not tolerated very well, and a slight amount of food was administered by the mouth; this was well borne for a time, but had to be discontinued from time to time. There occurred finally a sudden hemorrhage, and the patient became very pale, deaf, and unconscious; death was imminent. A hot-water enema was given, followed by transfusion; more than 4 pints of saline solution being introduced through both median basilic veins. The immediate results were extremely disappointing, the volume of the pulse being little improved. The patient, however, slept a little, and then gradually improved, finally making a complete recovery. [C.L.L.]

7.—Chalmers reports a case which is peculiar to tropical countries, and of which very little is known, although it has been described a number of times. The patient was admitted to the hospital in a very weak condition with emaciation and a distended and tender abdomen. The necropsy showed the peritoneal cavity filled with the **pentastoma constrictum,** some fastened to the intestines, others moving about, while living parasites were found in cysts in the liver, pancreas and in the lung. The point of entrance is not known, it is probably through the alimentary canal. [C.L.L.]

8.—Madden, of Cairo, reports a case of **bilharzia of the vagina,** occurring in an Egyptian woman who was operated upon for a tumor of the vagina. The specimen used was examined microscopically and presented all the appearances of a bilharzia papilloma, and numerous ova were found in the submucous tissue throughout the sections. [W.K.]

9.—Aikman reports a case of **procidentia uteri** successfully treated by the injection of quinin solution into the broad ligament on either side of the uterus. [W.K.]

10.—Makuna found that in a case of **persistent pain and neuralgia** of the lower jaw the cause of the irritation was an ill-fitting denture. The patient had had a large number of teeth extracted, but without relief. When the case came under his care the jaw was very much swollen and painful. The application of leeches relieved the pain and let out some pus, through the opening a sequestrum was detected which was readily removed under cocain-anesthesia, the patient, herself, finally withdrawing the sequestrum. After the removal of all the teeth in that half of the jaw the sinus closed and the patient was completely relieved of all symptoms and rapidly gained weight. [C.L.L.]

11.—Barton relates a case in which **irritation, itching, and edema were caused by handling primulæ.** Attention is called to the fact that at times there is a long period between the contact and the eruption. [A.G.E.]

12.—Two cases of erysipelas in which antistreptococcic serum was successfully used are described. Points noticeable were, (1) the rapidity with which improvement was obtained; (2) the fact that the disease may be checked in its early stages; (3) the lack of local symptoms caused by the injections. The serum is considered to be of most value in severe cases of facial erysipelas and should not be used in the majority of cases of the disease. [A.G.E.]

13.—An echinococcus-cyst was removed from the lung by incision and drainage, the patient recovering completely. [C.L.L.]

New York Medical Journal.

July 8, 1899. [Vol. lxx, No. 2.]

1. Report of Three Cases of Multiple Pistol-shot Wounds of the Intestine, with Remarks. GEORGE WOOLSEY.
2. A Clinical Study of 24 Cases of Paralysis Agitans, with Remarks on the Treatment of the Disease. JOSEPH COLLINS and L. J. J. MUSKENS.
3. The Etiology of Texas Cattle Fever, with Special Reference to Recent Hypotheses concerning the Transmission of Malaria. THEOBALD SMITH.
4. Eudoxin in Pediatric Practice. GUSTAVUS M. BLECH.
5. The Doctor as a Carrier of Disease. JOHN T. HOWELL.

1.—Woolsey reviews three cases of **multiple pistol-shot wounds of the intestine.** Two of the cases recovered. In one there were four perforations in two inches of intestine, which was resected and an end-to-end anastomosis made by the Murphy button. Throughout the operation large quantities of hot, sterile, normal salt-solution were used for cleansing, to keep the bowels moist and warm, and to combat shock. The wound was closed, except for a glass drainage-tube that entered at the lower angle of the wound into the pelvis. The healing was *per primam,* and the button passed on the ninth day. In the other case that recovered there were two wounds of the ascending colon, two of the transverse, and two of the stomach. They were sutured with Lembert sutures. Hot, normal, saline solutions were used after the extravasated material that could be reached had been wiped away with gauze pads. The patient suffered from delirium tremens. The stitches tore out, and finally the hernia resulting had to be closed by operation. The patient recovered. The fact that the intestines were comparatively empty in these cases that recovered, leads the author to believe that this is a condition favorable to recovery. He advises the exploration of the external wound under local anesthesia, and immediate operation if penetration has taken place, to discover if the perforation of the bowels has occurred. The escape of gas, feces, or a considerable quantity of blood indicates a perforating wound. Blood in stools or vomited matter is a valuable sign, but does not indicate that it is too late to operate. [C.L.L.]

2.—Interesting points in the study of **24 cases of paralysis agitans** are, (1) a remarkable predominance of the Irish race; (2) four cases with the history of direct inheritance; (3) traumatism not the alleged cause in a single instance; (4) the preponderance of the diplegic type; the symptoms and treatment are discussed at length. Of the drugs used for the disease, hyoscyamus and duboisin are considered by far the most important. [A.G.E.]

3.—Smith reviews **the etiology of Texas cattle-fever,** and considers the phases of this disease which bear upon the studies of the **causation of malaria.** Attention is called to the persistence of the parasite of Texas-fever in the blood after recovery, and that for years these immune

animals are carriers of fatal infection for non-immune cattle. Upon this, together with the fact of the acquisition of immunity, he bases his working hypothesis for studying the dissemination of tertian malaria. An infected individual going into a region where there are mosquitos may start an endemic. It is probable that the parasites are gradually confined by the growth of immunity to some restricted territory representing the *locus minoris resistentiæ* during derangements of health. [A.G.E.]

4.—Blech has found **eudoxin to be an excellent intestinal antiseptic,** its nontoxicity making it especially adapted for use in children. Good results were obtained in 58 of 63 cases of infantile diarrhea. [A.G.E.]

5.—Howell wears **gossamer rubber overcoats when in the room of a patient suffering from an infectious disease.** Emphasis is laid upon the use of these. Also finger cots and rubber gloves. [A.G.E.]

Medical Record.

July 8, 1899. [Vol. lvi, No. 2.]

1. Report of a Case of Alcoholic Multiple Neuritis, with Autopsy. J. H. Larkin and Smith Ely Jelliffe.
2. Notes on the Induction of Premature Labor. Henry C. Coe.
3. Variations in Human Gait. E. H. Bradford.

1.—The case reported was one which resulted fatally during the course of widespread **neuritis followsng prolonged debauch.** The brain and spinal cord were studied, the stains used being chiefly Nissl's and hematoxylin. The authors particularly note that the most satisfactory sections are somewhat thicker than those commonly used. They prefer a thickness of about 20μ, since this gives a better idea of the condition of the nucleus, and does not lead to the impression that the nucleus is absent, as thinner sections sometimes do. In the spinal cord very marked lesions were found in the anterior horns, the posterior horns, the columns of Clarke, and the nucleus of Stilling, and in the ganglion cells, the changes being especially marked by their great variety. The most common was central chromatolysis. There were also distinct degenerative changes in the cortex of the brain. The authors decide that fatal alcoholic multiple neuritis causes grave changes in the ganglion cells characterized by extreme polymorphism. There is doubt as to the degree to which these are due to direct action of alcohol on the ganglion cells or to the peripheral degeneration, but believe that the latter is the more important. They adhere to the theory of Van Gehuchten that the degeneration of the cells in the columns of Clarke may be explained by considering that the cells in the nervous chain have a trophic action and that disturbance of this causes trophic changes in the cells so related. [D.L.E.]

2.—Coe discusses the **induction of premature labor** and reports several cases. These are presented simply to confirm the statement that while the gauze tamponade and water bags are invaluable for the purpose of softening and dilating the cervix and lower uterine segment, they cannot be depended upon to excite regular uterine contractions, provided that the membranes remain intact. In his opinion their use should always precede attempts at manual dilatation, save in those exceptional cases in which rapid dilatation and immediate delivery are necessary in the interests of the mother. It is more in accord with the spirit of modern elective obstetrics to deliver the patient promptly after full dilatation has been secured than to keep her in a state of anxiety for days waiting for labor to begin, until she loses both her strength and her courage, and is in poor condition to sustain long anesthesia and an obstetric operation. It is rarely necessary to anesthetize a patient in order to introduce the gauze or bags. It is apt to demoralize the woman and her family if she is chloroformed and an "operation" is performed two or three times before the beginning of labor. It would seem unnecessary to add that rigid asepsis is indispensable in all these manipulations. It is not enough simply to give a vaginal douche each time that the gauze is introduced, removed, and a bag substituted. Unless the same care is observed on every occasion as in a minor gynecologic operation, with regard to the preparation of the field of operation and the sterilization of hands and instruments, there will always be a painful uncertainty as to the ultimate result. [W.K.]

Medical News.

July 8, 1899. [Vol. lxxv, No. 2.]

1. Bicycling in Its Relation to Heart Disease. A. C. Getchell.
2. The Prognosis of Pneumonia in Its Relation to Its Etiology. Herbert Maxon King.
3. Measuring the Intensity of the Heart-Tones. Albert Abrams.
4. Tetanus Treated by Antitetanus-Serum; Report of a Case. T. E. Taylor.

1. The relation of overexertion in bicycling to heart-disease is discussed. Valvular disease, as well as dilatation, may result. Getchell summarizes as follows: Acute dilatation of the heart is an accident that may be expected from overexertion in an unathletic rider; if repeated, permanent dilatation with consequent damage to the valves may result. In the athletic, hypertrophy may be produced, with possible disease of the aorta and aortic incompetence. Examination of the heart should be made in all cases before advising the use of the bicycle. Cardiac lesions do not forbid the use of the bicycle, but it must be *prescribed*. He believes that proper bicycle riding will materially strengthen a weak heart. [A.G.E.]

2.—King bases the **prognosis in pneumonia** to a great extent **upon the etiology of the disease.** In a mixed infection there will always be a predominating or primary germ. Each pneumonia should be named for its causative factor, so far as possible, as "pneumococcic" pneumonia, "influenza" pneumonia, etc. A series of cases is given to illustrate such prognostication. [A.G.E.]

3.—Abrams **measures the intensity of the heart-tones** by interposing rods of partially vulcanized rubber between the auscultated area and the stethoscope. These rods are numbered, and increasing lengths are used until the heart-tones are no longer heard. The method is only relatively accurate. [A.G.E.]

4.—Recovery followed the use of 10 cc. of antitetanus-serum in a case of tetanus following abortion. The serum was given in two doses, about 24 hours apart. Taylor believes that the prompt response to the serum was due to its early use. [A.G.E.]

Boston Medical and Surgical Journal.

July 6, 1899. [Vol. cxli, No. 1.]

1. The Cavendish Lecture on the Etiology and Diagnosis of Cerebrospinal Fever. William Osler.
2. Imperforate Rectum. F. A. Higgins.
3. Case of Imperforate Anus. Farrar Cobb.
4. A Case of Inperforate Rectum. C. A. Porter.
5. A Case of Actinomycosis; Operation; Recovery. S. J. Mixter.
6. The Pathology of Actinomycosis. J. H. Wright.
7. Cases of Actinomycosis. J. W. Elliot.

1.—See Philadelphia Medical Journal, July 1, 1899.

2.—At the operation it was found that the **rectum** was **obstructed** by a membraneous diaphragm stretched across it about 2 inches above the anus. In order to reach the obstruction the coccyx and a portion of the sacrum were excised. The recovery was uneventful and complete. [G.B.W.]

3.—Cobb reports a case of **imperforate anus**, in which the rectal pouch, though being rather high up, was easily reached, and brought down through a long parasacral incision. The child remained in the hospital 10 days and left at the end of that time cured. [G.B.W.]

5.—Mixter reports a case of **lump-jaw** cured by excision of the abscess. [G.B.W.]

7.—Elliott reports 4 cases of actinomycosis, in none of which, though all were operated on, was a cure effected. [G.B.W.]

Journal American Medical Association.

July 8, 1899. [Vol. xxxiii, No. 2.]

1. Section on Stomatology. Chairman's Address. G. V. I. BROWN.
2. Uric Acid Theories. ALFRED C. CROFTAN.
3. Rubber Gloves or Gauntlets. J. E. SUMMERS, JR.
4. Serotherapy. C. P. AMBLER.
5. The Subjectoscope. HAMILTON STILLSON.
6. Modern Treatment of Fractures. EDWARD A. TRACY.
7. Double Synchronous Amputation. THOMAS W. HUNTINGTON.
8. Cyst of Pancreas Following Trauma. J. VAN DER LAAN.
9. Treatment of Tuberculosis. J. F. PEAVY.
10. Human Face and Jaws. J. G. KIERNAN.
11. Nervous Diseases. JOHN PUNTON.
12. Malignant Disease of Nose and Throat. JONATHAN WRIGHT.

2.—Croftan antagonizes the existing theories regarding the relation of uric acid to the so-called uric-acid diseases. He holds: That **uric acid is not the materies morbi in uric-acid lesions;** that uric acid acts pathologically only from its tendency to form concretions; that its formation, far from being a process of autointoxication, is a process of disintoxication; that the decrease in the excretion of uric acid observed in some morbid conditions is not due to retention but to nonformation; that the *materia peccans* in uric-acid lesions are the alloxuric bases; that in the so-called uric-acid lesions we find an absolute increase over the normal of the *sum* of uric acid and alloxuric bases, and that this finding is of diagnostic value, more than the usual separate consideration of the amount of uric acid present. [C.L.L.]

3.—Summers advocates the employment of **rubber gloves in all surgical procedures** by general practitioners. Their value in preventing septic infection from the hands during surgical operations has been proven beyond a doubt. He believes that they are an additional guarantee of asepsis to patient whom we are treating either in dressings or in obstetric operations and that they will prevent the carrying of infection from the infected case and the infection of the non-infected, while protecting the practitioner from infection from his patient. [C.L.L.]

4.—See PHILADELPHIA MEDICAL JOURNAL, June 17.

5.—Stillson presents a new instrument for examining the subjective visual sensations, which is apparently well-adapted to its purpose. His presentment would show excellent results. [C.L.L.]

6.—Tracy holds that when the fragments resulting from a fracture are placed in accurate apposition, and held there, primary union will take place in the majority of cases. The necessity is, therefore, **accurate reposition and perfect fixation.** He discards all forms of splints other than those that can be molded to the limb, especially disliking plaster of paris or any splint that requires much padding. He would advise the employment of wood-fiber or gummed felting. These should be molded and applied without the use of a primary roller-bandage. [C.L.L.]

7.—Huntington reports three cases of **synchronous amputation of the lower extremities,** which were successful, and are the last of a series of nine such cases, and the only ones that recovered. They were railway crushes, and he attributes his success to improved aseptic technic, but especially to the free use of large quantities of normal salt-solution to counteract the severe shock always present in these cases. [C.L.L.]

8.—Van der Laan reports a **traumatic pancreatic cyst** which **ruptured** after **tapping** with a **hypodermic** needle for **exploratory purposes** and required a laparotomy on account of the peritonitis set up. The patient recovered after a subsequent operation to remove the sac which filled up again. [C.L.L.]

9.—Peavy has as the fundamental aim in the method advocated the **increase of physiologic oxidations,** at the same time using the tonic effect of static electricity, stimulating metabolism, increasing the demand and the capacity for increased nutritive increment, thus building up the resisting and defensive powers of the organism. [C.L.L.]

10.—See PHILADELPHIA MEDICAL JOURNAL, June 17.

11.—*Ibid.*

American Gynecological and Obstetrical Journal.

April, 1899. [Vol. xiv, No. 4.]

1. Reminiscences of the Founders of the Woman's Hospital Association. THOMAS ADDIS EMMET.
2. A Plea for the More Correct Application of the Emmet Methods in Plastic Surgery. W. D. HAGGARD, JR.
3. A Preliminary Report Upon the Use of the Doyen-Thumen Crusher; with a New Instrument for Extending its Work Upon the Broad Ligaments and Other Soft Structures. HENRY P. NEWMAN.
4. A Clinical Contribution to the Treatment of Malignant Tumors of the Ovary. X. O. WERDER.
5. The Cesarean Operation, with Report of Two Cases. A. MCDIARMID.
6. Operations During Pregnancy. CHARLES P. NOBLE.

2.—Haggard urges a more careful study and **correct application of Emmet's method of plastic surgery,** particularly the operations on the cervix and posterior vaginal wall. In operating on the cervix it is important to remove all the cicatricial and cystogenic tissue and to maintain the conical form of the cervix. In addition to these cardinal points, it is extremely essential to preserve the continuity of the cervical canal down to the new external ostium, and in suturing to avoid the formation of new pockets which are caused by leaving irregular recesses unapproximated by the sutures. The hard cicatricial plugs in the angles, and the oft-associated, honeycombed condition of the cystic tissue, require careful excision with the sharp-pointed, curved scissors, and very often amputation of the cervix. The physiologic peculiarities of the erectile tissue of the genitalia, that of rapid engorgement and depletion, require an unyielding suture-material, and one that will permit of the resulting involution as repair proceeds. He prefers silver wire for the cervical sutures. [W.K.]

3.—Newman describes his **modification of the Doyen-Thumen crusher.** He has instituted a series of experiments upon the lower animals with this purpose in view: (1) To observe the immediate condition resulting from clamping or crushing soft tissues within and without closed cavities; (2) the subsequent conditions of the stump and tissue, including the nutritive and reparative process that takes place. He details 6 cases operated upon with the Newman instrument. [W.K.]

4.—**Malignant tumors of the ovary** constitute, according to Olshausen, 15% of all ovarian tumors. Kelly's statistics are considerably smaller, only 8%. Werder found in 131 ovarian neoplasms removed at the Mercy Hospital, 20 were malignant, or about 15%. The mortality of the 20 cases subjected to operation was 3, or 15%, 2 deaths belonging to the group of carcinoma and one to that of sarcoma. Even though complete cures may be the exception, the few years or even months of comfort and well-being added to human life are well worth our best efforts in a disease so hopeless and destructive. Unless a previous evamination shows extensive infiltration of the pelvis and distinct metastatic processes in the bladder, intestines, and abdominal walls, an exploratory incision is not only justifiable but indicated. The question of operability is discussed and Werder makes a plea for earlier and prompter operations on ovarian tumors. While the complications of ovarian tumors caused by delays, such as torsion of pedicle, suppuration, etc., are frequently discussed, too little is said of the most frequent greatest danger, malignancy. [W.K.]

5.—McDiarmid discusses the **cesarean operation** and reports two cases successfully operated upon. The indications for this operation are usually classed as absolute or relative; absolute when there exists no other method of delivery, and relative when the conditions admit of some other method, but when cesarean section may be considered to give the best result for mother and child. Absolute indications are furnished by extreme degrees of pelvic deformity and contraction, growths and tumors obstructing the pelvis, cancer of the cervix, and cicatricial contraction of the vagina. Symphysiotomy has somewhat narrowed the limits, so that pelvic contraction is not considered to afford an absolute indication, unless the conjugate diameter in a flat pelvis is $6\frac{1}{2}$ cm. ($2\frac{5}{8}$ inches) or under. As to the outlet, it is held that 5.5 cm. (2.2 inches) between the ischial tuberosities affords an absolute indication. Relative indications are more

difficult to formulate, and should be determined by the conditions of the individual case, and in part at least by the wishes of the patient and her friends. Pelvic contraction less than to constitute an absolute indication, yet sufficient to make safe delivery by the natural passages doubtful, such as conjugate diameter of 6½ to 8 cm. (2⅝ to 3⅛ inches), and tumors of the pelvis or soft parts, causing a similar moderate contraction, are the commonest relative indications. The alternatives are symphysiotomy, forceps, version, and craniotomy. The most recent modification of this operation is that of Heinrich Fritsch, of Bonn, who makes a transverse incision across the anterior aspect of the fundus from tube to tube. He makes for it the following claims: (*a*) The abdominal incision can be made higher, the umbilicus occupying its center, thus lessening the danger of hernia; (*b*) the transverse uterine incision, being farther removed from the assistant's hands, affords better opportunity for manual compression of the lower uterine segment; (*c*) its cleanliness, blood and liquor amnii being kept outside the abdomen; (*d*) the ease with which the child is extracted, and (*e*) the freedom from hemorrhage and its perfect control by suture. [W.K.]

6.—Noble reports **12 cases operated upon during pregnancy**; 5 of ovariotomy, 1 of myomectomy, 1 of hystero-myomectomy, 1 of appendicitis with abscess, 1 of intestinal obstruction during pregnancy, 1 of intestinal obstruction after labor, and 1 of fistula in ano. One patient aborted, but the ovum was dead before the operative interference, which hastened the inevitable abortion. The patient upon whom myomectomy was performed also aborted. This operation was not premeditated, having been undertaken with the diagnosis of ovarian tumor. The results of myomectomies in the hands of others have been so unfavorable from the standpoint of bringing on abortion, that, in his judgment, the conditions must be unusual to make the operation justifiable. As a routine procedure, it is certainly contraindicated. All of the ovariotomies did well. [W.K.]

Journal of Nervous and Mental Disease.

May, 1899. [Vol. xxvi, No. 5.]

Retrobulbar Neuritis and Facial Palsy Occurring in the Same Patient, with Cases. G. E. DE SCHWEINITZ.
On the Relations of Infantile Spinal Paralysis to Spinal Diseases of Later Life. WILLIAM HIRSCH.
Lipoma of the Filum Terminale. WILLIAM G. SPILLER.
Do Epileptics Recover? EDGAR J. SPRATTLING.

1.—De Schweinitz reports two cases of **retrobulbar neuritis** associated more or less remotely with facial palsy. The first patient, a woman of 30, had had a right facial palsy. Two or three years later vision of the right eye became very indistinct, and examination showed the presence of a chronic retrobulbar neuritis. Vigorous treatment caused this to disappear. The second patient, a girl of 20, had had an attack of facial palsy of the right side, following an attack of sclero-keratitis. While being treated for the keratitis, she developed facial palsy, which was cured, but finally, some years later, she applied for treatment with the characteristic symptoms of neuroretinitis. No other nervous condition existed. De Schweinitz believes that these cases are simply manifestations of neuritis due to similar causes, occurring in different cranial nerves. [J.S.]

2.—Hirsch reports the case of a man, 45 years of age, who in infancy had had an attack of **infantile spinal paralysis** which left the left arm weak. At the age of 42, he noticed stiffness and weakness in the left leg, and finally the power of both legs became so much impaired that he could not stand nor work. There were no sensory symptoms. The muscles of the lower extremities were not degenerated, and the electric reactions were normal. The tendon reflexes were greatly increased, and ankle-clonus was present on both sides. Later severe shooting pains occurred in both lower extremities. The patient was unable even to sit in bed or raise his head. The limbs were intensely spastic and contracted, and the right arm also became completely paralyzed. Finally, bulbar symptoms appeared, and he died from exhaustion. At the autopsy, only the brain and cord were removed. There was moderate congestion of the pia mater; otherwise, macroscopically, there was nothing abnormal. Microscopic examination showed marked shrinking in the anterior cornua, disappearance of the cells to a very considerable degree, enlargement of the pericellular spaces, and an extreme proliferation of the blood vessels in the gray substance, with enlargement of the perivascular spaces. There was a triangular field of degeneration in the column of Goll, more extensive in the lower regions, and a curious fan-like extension of tissue from the cornua towards the periphery, more pronounced on the left side. In the lumbar region, however, the white substance was almost normal, and there were numerous cells, only in part degenerated, in the anterior cornua. In the medulla oblongata, there was some sclerosis in the anterior part, involving the pyramids. The case was originally diagnosed amyotrophic lateral sclerosis, but Hirsch believes that, although clinically it resembled this disease, pathologically it must be regarded as a case of **myelitis with secondary degeneration of the neurons.** It is not a systemic type, because the columns of Burdach and Goll, as well as the anterior pyramidal tracts, are affected, and the atrophy of the ganglion cells is not in proportion to the changes in the surrounding tissue. The case is furthermore important, because it illustrates how difficult it is to be certain of the existence of systemic disease. In regard to the etiologic relation of the infantile spinal paralysis to the later condition, Hirsch is of the opinion that in the old sclerotic process, some peculiar form of toxin may have been retained that later affected the other portions of the cord, although he admits that possibly a new infection might have been found in the old locus minoris resistentia. [J.S.]

3.—Spiller reports a case of **lipoma of the filum terminale.** The tumor occurred about ½ c. below the tip of the conus, and formed a spindle-form swelling in the filum. It was composed of fatty cells, in the midst of which was imbedded a mass of glia-cells, lying in a granulofibrillar matrix. A few nerve-fibers were also found in the midst of the fatty tissue. The pia mater surrounding the filum was also infiltrated by fat-cells. In one part of the tumor, there was a nerve-bundle containing cells resembling those found in the spinal ganglion. Spiller calls attention to the extreme rarity of fatty tumors of the spinal cord. His own is, he believes, the only case in which the tumor was situated in the filum. [J.S.]

4.—Sprattling discusses the possibility of recovery in cases of epilepsy. He concludes, without any definite statistics upon which to base his opinion, that we cannot speak of true recovery, but only of remission of the symptoms, and draws the practical conclusion that persons who have had epilepsy should not marry. [J.S.]

Edinburgh Medical Journal.

April, 1899. [N. S., Vol. 5, No. 4.]

1. On the Prevention of Valvular Disease of the Heart. RICHARD CATON.
2. On the Treatment of Some of the More Common Eye-affections. G. A. BERRY.
3. The Causation and Rhythm of the Crescendo Murmur of Mitral Stenosis. E. M. BROCKBANK.
4. Perforation in Enteric Fever, with Notes of 10 Cases. GEORGE P. YULE.
5. Suppurative Cholangitis. R. LLEWELYN JONES and T. ALDOUS CLINCH.
6. The Hygienics of Milk. W. LESLIE MACKENZIE.
7. Clinical Lecture on a Case of Typhus, and Some Lessons to be Drawn from It. W. S. GREENFIELD.
8. On the Value of Milk Whey in Infant-feeding. HENRY ASHBY.

1.—Caton, in order to **prevent the occurrence of valvular disease of the heart,** makes a daily note of the heart's condition in all cases of acute rheumatism. He protects the patients from exposure to cold by clothing them with warm woolen garments next the skin during the whole of the acute period. He insists upon prolonged absolute rest. In the way of medicines he gives gentle cholagogs with some of the salicylate preparations. Diet is light and simple. When pain fails to yield to this treatment, it is quickly dispelled by Davies' method of treating rheumatism by the application of small blisters to the joints. Under this treatment 82% or 83% of his cases recover without cardiac com-

plications. In the arrest of cardiac valvular disease, when once developed, he has found the salicylates of little or no benefit. When the cardiac bruit is first perceptible, or there occurs a muffling of the first sound at the apex, Caton applies in the course of the third, fourth, fifth or sixth intercostal nerves small blisters, not much larger than a shilling, in succession, one at a time. The patient is kept in bed absolutely recumbent, and as quiet as possible, for several weeks. In addition to the salicylate, 8 or 10-grain doses of sodium iodid or potassium iodid are given 3 times daily, in the hope that it may help to absorb inflammatory products. In about $\frac{5}{7}$ of these cases the bruit vanishes, and the patient leaves the hospital with a sound heart. If these patients have relapse, or have a second attack of rheumatism within a few months, the endocarditis is almost sure to return. [S.M.H.]

2.—Berry considers **glaucoma a curable disease** when recognized and treated in time. Late treatment results in permanent damage to the sight of the affected eye. In acute congestive glaucoma the first thing to be done is to give a subcutaneous injection of morphia, and as soon as possible thereafter an iridectomy should be performed under an anesthetic. Moderate coloboma and a large and peripheral cornea-scleral section made with a keratome is what should be aimed at. The cases that do best are those in which the section heals quickly, leaving a barely visible scar. For some time following the operation a solution of eserin or pilocarpin should be dropped into the eye 2 or 3 times a day. The amount may be gradually diminished to 1 installation daily, 1 every second day, and so on, when the tension and visual acuity show that no recurrence has taken place. The standard as to the visual acuity should be that amount which in the absence of complications exists 1 week after iridectomy. Failure to secure permanent relief following iridectomy may be due to either a gradual return of the increased tension, or a slow degenerative change in the retina causing blindness. In the former case the treatment most likely to lead to a good result is to reopen the old corneal scar, at the same time make a fresh wound and remove a further portion of the iris. This incision should be made with a Graefe's knife entered at the corneoscleral margin at some distance from one end of the old scar, passed out of the chamber at or near the other end of the scar, the section being completed by cutting outwards. A portion of iris continuous with one limb of the existing coloboma is then removed, and thus the coloboma made larger. In the second instance no further operative interference is called for. In cases of hemorrhagic glaucoma sclerotomy is recommended rather than iridectomy, but in many of these cases all operative interference is contraindicated. The same procedure is advisable in case of glaucoma occurring in high degrees of myopia with choroidal disease. In glaucoma occurring in early life, at a time when the coats of the eye offer less resistance to the intraocular pressure and become distended, iridectomy is apt to cause dislocation of the lens, therefore sclerotomy, repeated if necessary several times, until either there is an evident decrease in the distention of the eye, or it appears quite hopeless that this can be brought about at all, is recommended. In cases in which premonitory glaucoma is at all frequent it is well to advise the patient to have his pilocarpin drops always at hand. The solution should be made up with some antiseptic, such as boracic acid or corrosive sublimate. Gentle rubbing of the eyes is often also useful in dispelling these symptoms. Even in the so-called absolute stage of glaucoma operative interference may be called for in order to relieve the pain. Iridectomy, though rarely capable of affording relief, should be tried first. If this fails a scleral puncture should be done, and should the pain still continue and prove severe enough to affect the patient's health, the eyeball should be enucleated. When there is great objection to this procedure section of the optic nerve may be done. [S.M.H.]

3.—When the **crescendo murmur of mitral stenosis** is continued by a ventricular systolic murmur, the former bruit is produced in the same way as when heard alone, but the coaptation of the valves is imperfect, in consequence of which the blood regurgitates through the valve, whilst ventricular systole persists, and gives rise to the uniform systolic murmur. A rather abrupt first sound divides these murmurs. In some instances, the crescendo murmur and accentuated first sound alternate with the systolic murmur or a less marked or absent first sound, which indicates that in one instance the ventricular blood-pressure is raised by ventricular systole sufficiently high to produce a transient regurgitant murmur before it closes the valve with a snap, whilst the production of a ventricular systolic murmur but no sound means that the heart-beat is weak; sufficient pressure is not developed to close the valve anything like completely; no crescendo murmur or abrupt sound is produced, and ordinary ventricular systolic regurgitation goes on, producing the uniform true mitral systolic murmur. When diastolic, crescendo, and systolic murmurs form one long, continuous bruit, the diastolic murmur is formed by blood being driven through the stenosed orifice under the propulsing force of the pulmonary bloodpressure and of the contracting auricle, aided by the aspirating power of the dilating left ventricle; the crescendo murmur by blood regurgitating through the closing valve during the earlier half of ventricular systole, and the systolic murmur by blood escaping through a leak in the otherwise closed valve during the latter half of ventricular contraction. The crescendo murmur is most audible at the apex-beat, and is rarely conducted to the left margin of the sternum, or to the back of the chest. The systolic murmur of mitral stenosis is loudest at the apex-beat, and is conducted only rarely to the back or sternum. The mitral diastolic murmur is usually audible near the left margin of the sternum as well as at the apex. Occasionally, it is most distinct at the fourth costochondral junction. The limited area of audibility of the crescendo and systolic murmurs is due to the very limited amount of blood which, by its regurgitation, causes these bruits. The different murmurs of aortic stenosis are produced by forces and processes which are comparable with those concerned in creating their mitral analogues; as the aortic bruits have a rhythmic relation to the systole ventricle, so have the corresponding mitral murmurs an analogous rhythmic relation to the systole of the auricle, and such being the case, the crescendo murmurs of mitral as well as of aortic stenosis are regurgitant and not direct. The tactile thrill accompanying these mitral murmurs is of 2 types, according to its rhythm: (1) the diastolic, synchronous with the mitral diastolic murmurs; (2) the crescendo thrill, which is presystolic in time. The sphygmograph affords no evidence of any value in the study of the rhythm of the crescendo murmur. In cardiograms of these cases there are observed waves indicating more or less marked movement of the apex immediately before the abrupt rise denoting true ventricular systole. These indicate that there is a preliminary systolic agitation of the apex of the ventricle during the time of the closing of the stenosed valve, due to the earliest attempt on the part of the ventricle to contract effectually. Brockbank believes it quite possible for the crescendo murmur of an ascending pitch, but without a typical abrupt terminal sound, to occur when there is no valvular stenosis present. The essential conditions for the development of the crescendo murmur are that the valve in which it is produced must be only temporarily incompetent, that the leak in it must become obliterated during the production of the mumur, and that the force which develops the murmur must be vigorous. With these 3 conditions it matters not what state the valve-orifice may be in. These new bruits, like the true crescendo murmur, are always regurgitant. Incompetence of the valve results from perverted action of the forces, which tend to bring about its closure, and from structural changes in the valve-appendages. Three muscular forces are concerned in the normal closure of the auriculoventricular valve; (1) the contraction of the whole ventricle; (2) the contraction of the circular muscular fibers; (3) the contraction of the papillary muscles. That the valve may be competent, intact curtains and chordae tendinae are essential. Permanent incompetency results in the development of the ordinary prolonged systolic murmur of regurgitation. Temporary incompetency may occur in the following conditions: Dilatation of ventricle, temporary crippling of the papillary muscles as the result of this or from shrinking of the chordae tendinae and puckering of the valve curtains and adherent pericardium, which acts by inducing ventricular dilatation and hindering the systolic diminution of the area of the valve-orifices. There are 2 diastolic murmurs in mitral stenosis, the early and the late. The early appears after the second sound of the heart. It is short and decrescendo in vigor and usually in pitch. It is probably caused by the development of sonorous vibrations in the stiffened and rigid valve, and to a less

extent by the causation of a fluid vein within the cavity of the left ventricle. The late or mid-diastolic murmur occurs at the time of the auricular systole, and is probably caused by the combined forces of the bloodpressure of the pulmonary circulation and the aspirating power of the dilating left ventricle by the auricular contraction. [S.M.H.]

4.—Yule finds in an experience of 10 cases that the symptoms of onset of **perforation in enteric fever** are very sudden or gradual, and in rare cases are so masked that the condition is first noted on the postmortem table. Of 10 cases referred to only 1 showed sudden onset. The others were gradual. The bowel may be perforated for several hours without any suggestive symptoms arising. In comparing the symptoms of acute peritonitis with those of perforation he says that those symptoms which are objective and have as their cause the presence of inflammatory products in the abdomen persist, while those which have their origin in the acute peritonitic pain are lacking. The constitutional symptoms are greatly obscured by the fever and are only noticeable when they are practically of no importance, as they set in when operation is not advisable. It is very easy to diagnose perforation when collapse occurs, the other symptoms of acute peritonitis being present. The difficulty lies in recognizing it before the gravity of the symptoms precludes operative treatment. Early diagnosis is possible, as shown by the number of successful operations, and the experience in these cases seems to point to a delay of at least 18 or 24 hours before collapse appears, giving ample time for operation, if it is deemed advisable. As a rule, the first symptom of perforation is an acute stabbing pain, often accurately localized to an area between the umbilicus and the anterior superior iliac spine. This disappears after a variable time. Immediate primary shock was not noted in any of the 10 cases referred to. Hiccough, retching, and vomiting appear, either singly or combined, and are often the first symptoms to attract attention, but these may be delayed 8, 12 or 16 hours. The abdomen as long as 12 hours after perforation may show very little tumidity, being soft, but doughy, palpation eliciting very little or no pain. Splenic and liver dulness may be present. There is very slight change in the pulse, there is no marked sense of discomfort, some cases partaking freely of nourishment. Absence of pain probably accounts for lack of such physical symptoms as fear of physical examination, anxious facial expression, drawn up legs, thoracic type of breathing, and hard and shotty abdomen. As the case advances retching or intractable vomiting, which may become fecal, ensues. The bowels are usually obstructed, the abdomen distends greatly, is tense and tympanitic, the liver dulness partly or entirely disappears. All of the symptoms of collapse appear. There may be an initial rise of temperature followed by a steady fall. Rigors are usually absent. Two cases in the 10 studied were perforated after the patient had been 3 weeks in the hospital, 1 on the 21st day of a prolonged severe relapse, the others within 8 days from admission. Three cases are given in detail which show the absence of well-defined characteristic symptoms. Two of these were operated upon, 1 recovering and the other dying. [S.M.H.]

5.—Jones reports a case of **cholangitis** occurring in a man who had been in the Durham County Asylum for 19 years. He was seized suddenly with abdominal pain and faintness. His face and hands were intensely cyanosed, his pulse very feeble and irregular, his respirations shallow, and temperature 104° F. His skin was somewhat yellowish. His stools clay-colored, his urine contained bile-pigments. He was very restless, tossing about in his sleep. His limbs were flexed and extended with almost convulsive force. He weakened and lost flesh with great rapidity. His temperature was extremely irregular. He died at the end of 3 weeks. His jaundice was never very intense and varied in degree from day to day. The autopsy showed the liver to be soft, its capsule irregularly thickened, especially in the region of the gallbladder; the gallbladder was adherent both to the liver and to the duodenum and contained a calculus about the size of a pigeon's egg. The bile-ducts were dilated and in the liver-substance their walls were thickened and bile-stained. On section of the liver it appeared dotted over with small pus-exuding points, about $\frac{3}{10}$ of an inch in diameter. This pus was thick, tenacious, and slightly bile-stained. The liver was somewhat diminished in size. Microscopically there was found an increase of fibrous tissue confined to the portal spaces, but only with extreme rarity did bands of fibrous tissue enclose lobules or sections of them. There was, however, increase of the bile-ducts, which, as in the classical form, ran parallel with the edges of the portal spaces. As the immediate cause of this localized condition there occurred a catarrhal condition of the bile-ducts, which had probably existed for many years and was the only known cause for the condition. The long residence of the patient in the asylum completely excluded alcohol. Complete obstruction can hardly have occurred on account of the size and shape of the stone. Whether the biliary catarrh was antecedent to the stone or subsequent thereto cannot be cleared up, as it may be accepted that secretion of albumin into the bile-ducts is the usual cause of gallstones. If the calculus is not the cause of the catarrh which existed at death, it must have much exaggerated its course. The association of cirrhosis with cholangitis has not been much recognized. It is of great importance, as the enlargement of the liver, which is so constant a sign of cholangitis, is masked by the cirrhosis, and the difficulties of diagnosis are greatly increased. The areas of necrosis and inflammation are associated with swelling, and scattered so thickly as these areas were throughout the liver in question, it is probable that a real enlargement did occur in this case, but was masked by the previously unrecognized contraction. The bacteriologic examination of the tissues showed the presence of microorganisms which both morphologically and in their staining reactions resembled the bacillus coli communis. [S.M.H.]

8.—Ashby considers **milk-whey** as of great value in infant feeding. The most ready way of preparing it for this purpose is to use Hawksley's sterilizing apparatus, since it is provided with a thermometer by which the temperature can be regulated. Thirty ounces of good fresh milk is placed in the bottle provided and the heat raised to 104° F. Two teaspoonfuls of Benger's essence of rennet is added and the whole set aside for a few minutes. When curdling has taken place the curd should be thoroughly broken up by stirring and shaking the bottle. It should then be strained through a fine muslin. In this way 22 or 23 ounces of an opalescent fluid are obtained, which should be heated to 160° F. for 20 minutes in order to destroy the rennin. Further straining may be required, as more curd is apt to form on heating. Analyses of whey prepared in this way show that on an average it contains, proteids, .97%, fat 2%, salts 6.1%, the amount of fat being much larger than in whey prepared by simply straining the whey off the curd without agitation. Prepared in this way with or without the addition of 2 or 3 drams of milk-sugar to the pint, it makes a useful food for newborn infants who have to be artificially fed or for infants who suffer from chronic vomiting or have liquid, green, curdy stools. They will gain weight and be more comfortable than when taking diluted milk. A weak humanized milk may be made by adding 10 ounces of fresh milk to 20 ounces of sterilized whey, and add ½ ounce of milk-sugar. To make a humanized milk more rich in fat, top-milk may be added in the same proportion. Let a quart of fresh milk stand in a covered glass jar in a cold place for 4 or 5 hours. Remove the upper 10 ounces by skimming; add this to 20 ounces of sterilized whey with ½ ounce of milk-sugar. Anaylsis of mixtures carefully made according to these directions from perfectly fresh milk of a good average quality will be about:

	Proteids.	Fat.	Lactose.	Salts.
Human milk, average.....	1.75	3.5	6	.3
Whey.....	.8	2	4.5	.6
Milk, 10 oz. Whey, 20 oz. } ..... Lactose, ½ oz.	1.75	2.5	6	.6
Cream, 8%, 10 oz. Whey, 20 oz. } ..... Lactose, ½ oz.	1.75	4	6	.6

A grain or two of bicarbonate of soda should be added to render the mixture neutral or slightly alkaline. It is often convenient to give dyspeptic infants whey, or even dilute whey with a solution of maltose or barley-water, in the beginning of treatment, as as much as 2% of fat is often too great for these infants. As they improve, milk or top-milk may be added to the whey. Whey has this advantage over a solution of lactose—it contains antiscorbutic properties which a solution of milk-sugar does not. It further contains soluble proteids and a certain amount of fat. [S.M.H.]

Münchener medicinische Wochenschrift.

April 18, 1899. [46. Jahrg., No. 16]

1. The Influence of Drugs in Forming and Eliminating Uric Acid. BOHLAND.
2. The Nature of Premortal Azotemia. SCHULZ.
3. On the Treatment of Pellagra. GALLI.
4. Case Reports. ZIEGLER.
5. Further Experience in Appendicitis. DOERFLER.
6. The Influence of Bodily Exercise upon the Temperature in Health and in Sickness. PENZOLDT and BIRGELEN.
7. Angelo Knorr. BUCHNER.
8. The Right of the Physician to Operate. STENGLEIN.

1.—Bohland, having found that certain drugs produce an increase and others a diminution of the number of leukocytes, has investigated the influence of the administration of such drugs on the uric-acid excretion. Horbaczewski, it will be remembered, maintains that the uric acid is derived from the nucleins of the white corpuscles. Bohland determined the uric acid and the number of leukocytes under normal conditions, and then administered the drug to be studied, and determined the number of leukocytes and the uric acid excreted. In the case of **tannic acid** he found that the uric acid was diminished, as was also the number of leukocytes. The digestion-leukocytosis, which had always been present in the person experimented upon, did not occur when tannic acid was given. **Ergot** diminished the uric acid and also the number of leukocytes, but the effects upon the two did not run parallel, diminution in the number of leukocytes setting in later than the diminution in uric acid. **Atropin** reduced the uric-acid elimination and the number of leukocytes in the blood; as regards this drug, the parallelism between the leukocytes and uric acid, postulated by Horbaczewski, must be admitted. In the case of **quinin** the conditions were different. It reduced uric acid, but did *not* diminish the number of leukocytes; and this fact contradicts Horbaczewski's theory. **Camphoric acid** reduced the number of leukocytes without influencing uric-acid elimination. Bohland had previously studied the effect of sodium salicylate. As far as **the origin of uric acid from nuclein** is concerned, it must be accepted as correct; but that the nuclein is always derived exclusively from the leukocytes, as maintained by Horbaczewski, seems improbable. If there is a general increase of leukocytes in all parts of the body, as in leukemia, or in cases of absorption of cellular exudates, as in pneumonia, an increase in the uric acid may be fairly ascribed to an increased destruction of leukocytes; but if the leukocytosis is slight, it is probable that there is not a general increase, but merely a different distribution of the white cells as regards the peripheral and central circulation. To such cases Horbaczewski's theory probably does not apply. Bohland's researches show that there is no parallelism between uric-acid excretion and leukocyte-content of the blood; and it is also probable that an actual increase or an actual diminution of the leukocytes in the blood is not produced by the drugs studied. The effect on the uric acid which these drugs, nevertheless, have, can only be explained as due to a direct action on the nucleins normally undergoing destruction in the body. Under the influence of certain drugs, as pilocarpin, sodium salicylate, and others, more uric acid is formed out of nucleins; while under the influence of atropin, tannic acid, quinin, either more alloxur-bodies are formed or the uric acid is oxidized to allantoin, and even to urea. When thymus-gland is ingested, the uric-acid excretion is greatly augmented; but Bohland found that when tannic acid is given with the thymus, the uric-acid elimination does not exceed the normal. The researches are also interesting from a practical point of view. In **gout,** no matter what theory may be held as to its nature, it is advisable to reduce the uric-acid formation during the attack, so as to prevent its deposit in the joints; and in the case of the uric-acid diathesis with tendency to stone-formation, this same thing is desirable. It is probable, however, that any drug used for this purpose will, after a time, lose its effect. It is advisable, then, to alternate in the use of different drugs. [D.R.]

2.—Four problems have been experimentally investigated by Schulz: (1) the metabolism during starvation; (2) metabolism during the administration of a nonalbuminous diet; (3) metabolism during exclusive feeding with proteids in sufficient quantities, and (4) whether there is a lower limit for the fat-content of the animal body. During complete starvation the body lives at the expense of its own materials. At first it uses up the reserve-foods, the fats and carbohydrates. So long as there is enough of these present no more albumin is destroyed than is absolutely necessary for the maintenance of vital functions. But after long fasting the albumin-destruction increases; first slowly, then rapidly, until all the needs of the body are covered by it. The terminal rapid destruction of albumin, indicated by the so-called **"premortal" increase in the nitrogen-elimination,** has been considered a sign that all the reserve material in the body has been used up, and that the albumin is the only remaining food-stuff. If this were true it would be an important fact in experiments made to determine whether a new formation of fat from other substances occurs. No accurate fat-determinations, made on animals that have shown a premortal increase in the nitrogen, are extant; there is some evidence, however, that such animals still contain more than 2% or 3% of fat. Schulz believes that the premortal increase of nitrogen is independent of the amount of fats present, and is due to other causes. If this is true, namely, that the increase of nitrogen is independent of the amount of fats present, but depends on conditions influencing the albuminous metabolism, then it should occur when the animals receive a purely nonnitrogenous diet. The author took three rabbits and fed them on sugar solution. The animals showed the typical premortal increase in nitrogen-elimination, and, in addition, albuminuria, despite the presence in their bodies of large amounts of reserve-food. An animal fed exclusively on limited quantities of proteids can for a certain time maintain its nitrogen-equilibrium, losing, in the meanwhile, a large amount of its fat. Shortly before death, and very suddenly, the nitrogen-elimination increases greatly, although the quantity of albumin sufficient to maintain the nitrogen-equilibrium is still supplied. Such a premortal increase, the author thinks, is due to a deficiency of fats in the body; in simple starvation, however, the premortal increase in nitrogen-elimination is no criterion of great poverty in fats. The two animals that had been deprived of their fat by having been kept on an insufficient, purely albuminous diet, at autopsy showed scarcely any visible fat, but a chemical examination of the organs proved that fat was still present. But the amount of fat was much less than that seen in animals subjected to starvation. The result of all the experiments is that the premortal increase in nitrogen-elimination is no criterion that the fat-content of an animal has reached an absolute minimum. From a practical point of view the researches show that the amount of fat in the body is no measure of the resistance of the organism when the food is insufficient. In every case it is the lack of proteids that causes the death of a starving individual. [D.R.]

3.—Galli very vividly describes the great damage produced in northern Italy by **pellagra.** Two theories of the cause of the disease exist: One, that it is due to the ingestion of **spoiled maize;** and second, that it depends upon **insufficiency of nourishing food.** Galli believes that both of these play a part. Regarding treatment, he has found **iron arsenate** most valuable, and in 4 apparently hopeless cases achieved a cure with it. At first he gave the drug by the mouth, in solution, beginning with 5 drops, and increasing to 20, daily; then he used it in hypodermic injections, first daily, and then every second day, using one gram of the substance. [D.R.]

4.—Ziegler reports a case of **gangrene of the entire right arm after subcutaneous rupture of the axillary artery.** The patient, a brakeman, while standing on the locomotive and swinging the signal flag, struck with his back against the side of a bridge, fracturing the scapula. Six days later the arm became gangrenous, the radial pulse disappeared, and exarticulation at the shoulder became necessary. [D.R.]

5.—In discussing the **dangers of operation in appendicitis** the author says that in the simplest cases it is sometimes possible to detect the point where the intestinal and parietal peritoneum have become fixed together by adhesions, so that it is possible to open directly into the abscess without opening the general peritoneal cavity outside of the wall formed by the adhesions. In the majority of cases this is not possible, and we must be ready to protect the peritoneum from general infection. This he accomplishes by anti-

eptic tampons, which prevent the infecting material from eaching the peritoneum. After the pus has been evacuated nd the cavity thoroughly sponged out, he inserts a drainage-ube surrounded by iodoform-gauze, and replaces the tam-ons by others, formed by covering drainage-tubes with iodo-orm-gauze. He has never seen infection spread from the bscess-cavity through the contiguity of these drainage-tubes. When there are no very urgent symptoms, he has secured esirable results, when the general peritoneal cavity has been pened, by packing with gauze for 5 or 6 days, or even 24 to 8 hours, and then opening the abscess subsequently. Other omplications are the injury to the intestines or the bladder; ne opening of a greatly distended appendix, which has some-mes been mistaken for the intestine itself; the overlooking f a second focus of suppuration, when the one entered has een supposed to be the only one. When the tumor and bscess have developed in Douglas' pouch, or in the true elvis, and have been detected by palpation by rectum or agina, he has seen the best results follow its opening from elow, as in an operation for the extirpation of the rectum. secondary operation is of course necessary for the removal f the appendix at a later period if the symptoms demand it. eptic infection, resulting from lymphatic absorption of pus nat has been allowed to flow over the raw surface of the ound, or septic infection that has become general, is one of ne most dangerous complications that may arise. This he as successfully combated by the subcutaneous or intra-enous injection of normal salt-solution and hypodermic imulant medication. In reference to the removal of the ppendix, he does not believe it should be removed in every ase at any cost, nor that it should be allowed to remain un-ss it is easily removed. The individual case decides these uestions. A certain persistence is necessary, but great risks nould not be taken. Many patients recover and the appen-ix remains the rest of the life without any symptoms. It not necessary to remove it at a secondary operation. In-rnal medication and the expectant treatment have their lace, but so too has immediate surgical intervention. In ases of general suppurative peritonitis with appendicitis, ne detection of the symptoms and the diagnosis are of the tmost importance, for delayed surgical intervention means eath. The attack may be ushered in abruptly or it may be ne result of a breaking down of adhesions in a case of cir-mscribed periappendicular abscess. He advises delay for least 24 hours, as it is impossible to make the differential agnosis within 12 or 15 hours. The longer time permits ne absolute diagnosis to be made. We know that operative ntervention is most dangerous in cases of circumscribed ab-ess in the early stage before the adhesions are strong, and e should therefore wait and make certain that it is not a ase of this description before incurring all the risks of an peration on the general peritoneal cavity. Doerfler makes differentiation in these extreme cases in the results and rognosis between acute general adhesive peritonitis and the rogressive fibropurulent peritonitis of Mikulicz. The latter ases are more amenable to surgical treatment, but all should operated upon as soon as the diagnosis has been fully tablished. He then discusses the symptomatology of circum-ript periappendiceal suppuration and the variations that e frequently met with. He lays special stress upon the ecessity of rectal examinations and agrees with Lennander at these abscesses may, without this examination, spread adually between the rectum and bladder or vagina and ve rise by their pressure to such symptoms as colic pain, at results from the blocking back of flatus in the intestine. c gives as the symptoms that indicate threatened rupture: apid increase in the tumor, great prostration, restlessness day and night, and slight clouding of the sensorium. ese are all indications of the resorption of toxic sub-nces as the result of insufficient encapsulation. The in-ction through the lymphatics is indicated by increase in e tumor, a rise in the pulse sometimes without a propor-nate rise in temperature, restlessness, dry tongue, sleep-ssness, unbearable thirst, chills, recurrence of vomiting, in in the free position of the abdomen, slight icterus, bumin in the urine, marked meteorism and fluctuations in mperature. Any of these symptoms should place one on ard ready for surgical intervention. In cases in which us is produced by the pressure of an abscess upon the testine no better method of relieving it can be found than e evacuation of the abscess and the breaking down of ad-hesions, so also an ileus can be produced by evacuating a periappendicular abscess without breaking down the adhesions that have bound the intestines together. He holds the opinion that in cases of circumscribed periappendicular abscess, the surgeon is always able to make the diagnosis. When all alarming symptoms are absent we should hold to the expectant treatment for a few days. When after the lapse of this length of time the temperature rises again instead of falling, the tumor increases in size and sensitiveness in touch, the pus must be evacuated. When, however, all the symptoms subside let the patient alone and treat on the expectant plan. If, however, urgent symptoms appear on the second or third day, general peritonitis is threatening and immediate operation is imperative. Internal treatment, however, remains justified so long as we are unable to eliminate danger from the operations. [C.L.L.]

8.—The right of the surgeon to operate depends on the consent of the patient or the urgent necessity of the operation, when the patient is unconscious and, therefore, unable to give his consent, and no other person is present who has the right to act for the patient. If during an operation a condition is found that was not diagnosed correctly, if to allow it to remain endangers the life of the patient the operator has the right to proceed. If, however, delay would not increase the danger he must obtain the patient's consent, or that of some other person who has the right to act for him. [C.L.L.]

Berliner klinische Wochenschrift.

April 24, 1899. [36. Jahrg., No. 17.]

1. Remarks upon the Reaction of Certain Organisms against Specific Infections. BABES.
2. Concerning Abortions. L. LEWIN.
3. Concerning the Irritants of Whooping-cough. W. BUTTERMILCH.
4. The Technic of Celloidin Embedding. J. HELLER.
5. A Case of Incipient Tabes Dorsalis with Gummatous Disease of the Brain-substance. And a Contribution upon the Pathology of the Return of the Vanished (Lost) Patellar Reflex. (*Conclusion.*) NONNE.

1.—The susceptibility of the body to diseases depends upon various conditions, and it may be said that every animal can be brought into a state of receptivity to a disease to which it is ordinarily not susceptible, either by lessening the resistance of the point of infection, or by enfeebling, or in other ways preparing the body in general. On the other hand, animals can by various methods be made resistant to infections to which they ordinarily succumb. Differences in the gravity of a disease depend mainly on differences in the avenues along which the microorganisms spread in the interior of the body. Some bacteria prefer the lymph-paths and are injured or destroyed in the blood-stream, while others advance almost exclusively by way of the blood-circulation. In whichever way the infection of the body occurs, the microorganisms usually meet organs or apparatuses which resist their further spread. Indeed, nearly every organ possesses some power against certain microorganisms. As Roger has shown, anthrax-bacillus and staphylococcus are retained in the liver, while the streptococcus is not held back in this organ. The lung, on the other hand, offers a barrier to the spread of the streptococcus, but not to that of the anthrax-bacillus. But the ability of an organ to inhibit the spread of a virus does not alone depend upon mechanical action in its capillary network, but also upon soluble products which modify the microorganisms. In some cases these soluble products are probably the result of an acquired immunity; in others, they are innate in the organ. In favor of the latter possibility is the fact of the toxicity of certain organs, by which they can injure the microorganisms. On the other hand, it has been found that certain bacteria, as the typhoid-bacillus and colon-bacillus, find in the liver and the bile a favorable soil. Not only are these bacteria not injured by the liver, but they are even facilitated in their multiplication and dissemination. For the pneumococcus, on the contrary, the liver and especially the bile are unfavorable media. In many diseases the bile acquires a certain antibacterial power during the course of the disease. This, for instance, is the case in rabies. Babes, in 1895, showed that toxins which

have been paralyzed by antitoxins have a curative and protective power. He showed this for diphtheria, and Koch and Löffler later applied the same principles to the combat against rinderpest and foot-and-mouth disease. Koch found that the virus of the former circulates in the blood, while the bile contains antitoxins, and that animals could be vaccinated successfully with a mixture of bile and blood. In the aphthous vesicles of foot-and-mouth disease, Löffler found a poison, and an antipoison in the blood of the diseased animals. With a mixture of the two he was able to protect animals. In typhoid fever and cholera, the blood during the disease also contains antibacterial substances. Efforts have been made to find the mechanism by which these different properties of organs are brought about, which either assist or resist infection. So far as the bile is concerned, very little is known. As regards its acquisition of an **antirabic property,** it can only be surmised that it occurs during the incubation-period of the disease. A comparison of the action of the bile with that of the nervous system may, however, throw some light on the subject. Babes had found that the injection of nervous substance (the medulla oblongata of sheep) was able to protect dogs against lyssa, both before and after the injection of the rabic poison. This shows that the normal nervous substance has an influence on the virus of rabies. A similar phenomenon was observed by Wassermann and Takaki in tetanus. The action of the nervous system towards rabies differs from that of the bile. Normal bile has no power, while normal nervous tissue has. The antirabic power of the bile is acquired during disease. It might be concluded that during the incubation or during the disease, a substance which was present in the nervous system passed over into the bile. The rabic poison certainly acts upon the nervous system, and Babes was able to demonstrate that even during the period of incubation, when there were no symptoms, structural changes took place in the spinal cord. He found in dogs, as early as the fourth or fifth day after infection, grave changes in the medulla and the cord, the lesions being more marked in the upper than in the lower portions. They consisted of a perivascular accumulation of round cells, a swelling of the fixed elements in the vessel-walls, an accumulation of leukocytes within the vessels, and marked chromatolysis of the ganglion-cells. It appeared as if the poison had entered the central canal from the higher portions of the neural axis. The poison leads to a loss of the chromatophilic substance of the nerve-cells, and it is not impossible that this substance may have some relation to the bile. Babes believes that the rabic virus spreads along the nerves, then, at a certain moment enters the nerve-centers, and attacks, first gradually and then suddenly, certain motor-centers, especially the nerve-cells, and that the latter make an effort, by the extrusion or excretion of the chromatic substance, to paralyze the poison. As long as the cells contain a sufficient amount of the substance which opposes the poison, the disease does not develop; but as soon as the cells are no longer capable of elaborating a sufficient quantity, probably because of changes and obstructions of the blood and lymph-vessels, the virus is capable of multiplying and destroying the cells. During this conflict a part of the antirabic substance is eliminated in the bile, as this is the only secretion which during the disease contains an antirabic substance. These observations show a certain relationship between different organs. In typhoid fever, the bile is not bactericidal, while the blood contains an antityphoidal substance that in the test-tube is capable of agglutinating and killing the typhoid-bacillus. It may be inferred that this bacillus, which primarily attacks only certain organs, as the spleen and liver, organs evidently struggling to prevent a general invasion of the bacillus, is checked in its development by a cellular secretion of these organs. This secretion, in the case of typhoid fever, enters the blood, where it may be found during the disease and from which it is later eliminated. The liver may thus play a varying role in infection. It may hold the latter back mechanically, acting as a filter for the microorganisms, or its cells and their secretions may be bactericidal. These secretions are not always destroyed by the bacteria or their poison; they may enter the blood and protect it against infection. The liver may finally eliminate through the bile antitoxic substances received from distant organs. These substances are either formed during the conflict between the distant organs and the virus, or else are preexistent and are eliminated from the organs in question during the course of the disease. A series of experiments with the rabic virus is described. [D.R.]

3.—In 1892 Ritter described a **microorganism of whooping-cough,** which failed to receive confirmation at the hands of other investigators. A few months ago, Vincenzi Sassari, during an epidemic of pertussis in Sardinia, isolated a bacterium which he described as a coccobacillus and which appears to Buttermilch as identical with Ritter's diplococcus. As animals are not subject to whooping-cough, the final proof that the diplococcus of Ritter is the cause of the disease has not been brought. [D.R.]

4.—Where it is necessary to affix tissues that cut with difficulty to the cork or block, Heller recommends the following procedure: The cork is surrounded with paper, which is pinned on and projects high enough so that celloidin can be poured into the trough all around the tissue. Then, in order to secure uniform hardening of the celloidin, the cork is put in a glass dish, supported by pieces of cork, and the dish then placed in a closed cylinder, which contains a few centimeters of alcohol. The celloidin becomes hard in the alcohol-vapor, without being in direct contact with the alcohol itself. The block of tissue remains in its position and air-bubbles do not enter the celloidin. After 24 hours, or when convenient, the block is placed in 70% alcohol. [D.R.]

Neurologisches Centralblatt.

June 1, 1899. [18. Jahrg., No. 11.]

1. The Lid-Phenomenon of the Pupil. (Galassi.) MINGAZZINI.
2. Anatomic Changes in Unilateral Paralysis of the Oculomotorus, Occurring in the Course of Progressive Paralysis. O. JULIUSBURGER and L. KAPLIN.
3. Further Communications concerning the Concept Reflexes of the Pupils. J. PILTZ.

1.—Mingazzini claims for Galassi the priority of the discovery of the **lid-phenomenon of the pupil** recently described by Gifford and Westphal. It consists in a contraction of the iris when the patient makes an effort to close the eyelids against resistance. In 1887, Galassi read two papers before the Lancisian Society. The first case was observed in a woman with bilateral incomplete ptosis, paralysis of accommodation, loss of bulbar rotation, and failure of the pupils to react to light. The left pupil was mydriatic, and when the patient closed the eye forcibly, it became extremely contracted. The same result occurred when the lids of the left eye were forcibly held apart. The second patient had paresis of the levators, complete paralysis of the superior and anterior recti, and of the inferior oblique. The pupils failed to react to light and accommodation. The lid-phenomenon was very pronounced. At the autopsy, the posterior clinoid process of the right side was more prominent than the left, and ended in a sharp point. A portion of the right oculomotor nerve outside the dura showed proliferation of the connective tissue, and more or less degeneration of the nerve-fibers. Galassi concluded from this case that when all other movements of the pupils are lost, the lid-reaction may remain and may be more pronounced than in normal cases. He calls attention to the analogy between this condition and the persistence of voluntary motion or its early recurrence in cases of degeneration or regeneration of the nerves. Therefore, the lid-phenomenon is a favorable sign, and indicates more or less improvement, and also the fact that when only a single form of irritation can be transmitted along a motor nerve, the reaction of the muscles is much more intense than under normal circumstances. [J.S.]

2.—The patient, a woman of 51, died after having suffered from **general paresis for 11 years.** Five years before death, there was paralysis of the right oculomotor and later loss of light, and accommodation of the pupils, with persistence of distance-accommodation on the left side, and its absence on the right. There was also, apparently, paralysis of the right internal rectus. The cells of the Edinger-Westphal nucleus were small and showed central chromatolysis. The central nucleus (according to Perlia), showed in its proximal portion, atrophy as far as the anterior end, and posteriorly, a distinct atrophy on the side of the atrophic roots. The lateral cells had almost totally disappeared, and

n the side corresponding to the degenerated roots. Some f the cells that still persisted were normal, others showed stinct changes. It is probable that the disease was pri- arily in the cells, and secondly extended into the roots. .s.]

3.—Piltz has performed a number of experiments in order confirm his previous communication regarding the **action the pupil** when the patient by an effort of will has the **ubjective sensation of a bright or dark object.** A ypermetropic subject was able to relax the accommodation, it the pupils narrowed every time when he imagined a mp that he had seen, and dilated when he imagined a ack object. A myopic subject was also given the same ries of tests, and the results recorded by both the subject id the observer upon moving Marie's drum, showed that nen the patient imagined either the dark or the light object ere was always a corresponding dilatation or contraction the pupils. [J.S.]

Centralblatt für innere Medicin.

June 10, 1899. [20. Jahrg., No. 23.]

Concerning Mutase. E. KOCH.

Mutase is a new artificial food which, contrary to other buminous preparations, such as somatose, nutrose and ipon, is made purely from vegetables. It is a yellowish wder of indifferent taste, slightly hygroscopic, largely luble in cold water. It contains about 58% of albumin. ie preparation was found to be well taken by patients, it used no digestive disturbance, and comparative determina- ns of absorption in the case of a young person with rile phthisis showed that when milk was given the absorp- n was less good than when from 35 to 50 gm. of mutase re given with the daily amount of milk, so that it seemed tually to increase absorption. The bowel-movements dur- g this time were normal, and there was no evidence of itation of the intestinal tract. The preparation has been ed in v. Noorden's clinic in other diseases, among which ch mentions chronic gastritis, gastric ulcer, carcinoma of e stomach, diseases of the intestine, and tuberculosis of e lungs; and in all the results were good. Investigations the absorption when administered by rectum showed that 75 gm. so administered about 80% was absorbed, and it ised no signs of irritation of the rectum. [D.L.E.]

Centralblatt für Gynäkologie.

April 1, 1899. [23. Jahrg., No. 13.]

Total Extirpation of the Uterus per Vaginam or by Laparatomy in Cases of Uterine Lacerations during Labor. A. SOLOWIJ.

Acute Torsion of the Pedicle of a Dermoid Cyst of the Right Ovary after Simple Examination 5 Days after an Abortion. UNTERBERGER.

Several Cases of Pregnancy Complicated with Carcinoma of the Cervix. JAHREISS.

A New Cervical Dilator. A. MUELLER.

An Answer to Duhrssen's Statement in Regard to Atmokausis. LUDWIG PINCUS.

.—The best method of operating is undecided. Most of cases of complete uterine rupture demand removal of organ. Solowij describes a rupture of the uterus in which **ginal hysterectomy** was performed after the extraction the child, which was in a transverse position between the rus and the abdominal parietes. The patient dying the ceeding day, the autopsy revealed a diffuse peritonitis, eration of the peritoneum, with hematoma in the left iliac ion, and pulmonary edema. [W.K.]

.—Unterberger describes a case in which, after curetment owing abortion, a movable tumor was discovered. The iptoms later became aggravated, and on the eighth day r the abortion celiotomy was performed and a dermoid t with strangulated pedicle of the right ovary was found. vas removed and the patient recovered. [W.K.]

.—Jahreiss reports 4 cases of the **puerperium com- cated with cancer of the cervix,** which he has ob- ved during the last ten years. In the fourth case cesarean ion was performed at the eighth month of pregnancy . a living child extracted, after which the diseased uterus was extirpated by the vagina. In making the transverse fundal incision the placenta was injured and considerable hemorrhage ensued. The vaginal hysterectomy was easily performed because of the free mobility of the uterus. The patient recovered. [W.K.]

April 8, 1899. [23. Jahrg., No. 14.]

1. On the Plastic Use of the Uterus in Prolapse. E. WERTHEIM.
2. Operation for Uterine Retroflexion. An answer to an article of the same title by A. Mackenrodt in No. 8 of this Journal. C. GOTTSCHALK.
3. Forceps with Removable Handles. LUDWIG PINCUS.

1.—Wertheim suggests the employment of the **uterus as a "pelotte" for the relief of cystocele.** He describes two cases and the method of operation in 3 stages: (1) A transverse incision is made in the anterior vaginal culdesac. After opening into the anterior uterine pouch, the uterus is dragged into the vagina, on which both edges of the incision are sutured to the cervix. (2) An oval denudation is made on the anterior vaginal wall beginning under the external urethral orifice and carried to within 1½ cm. of the transverse incision. (3) The body of the uterus lying in the vagina is scarified on its posterior surface and pulled so far forward that it may be sutured to the edges of the denudation. In these cases the results were very satisfactory, and he considers that this method will fill a long-felt want in the treatment of prolapse. [W.K.]

3.—Pincus describes his invention and claims that the forceps facilitate operation and diminish the number of assistants required. [W.K.]

Centralblatt für Chirurgie.

June 3, 1899. [26. Jahrg, No. 22.]

1. Congenital Defects of the Bladder. J. MIKULICZ.
2. A Simple Method of Trephining for Intracerebral Injections. A. KOCHER.

1.—In following out the work of Rutkowski in using a portion of the intestine to form a new bladder wall in cases of **congenital deficiency of the bladder,** the author took the precaution to do the operation in two periods, as his experience with intestinal operations and experiments had shown that in certain cases in which a portion of gut is cut off from the root it atrophies or sometimes fails to live. He therefore left one end of the portion of intestine to be employed open, suturing it in the abdominal wound near the bladder, and afterward, when he found it would live, used it to form the anterior wall of the bladder. The operation was successful [C.L.L.]

2.—In making **intracerebral injections of antitoxin in tetanus,** Kocher employs a simple drill. After the head is shaved and the scalp thoroughly cleaned the point is located by the craniometer for injecting into the anterior portion of the lateral ventricle. After cocain-anesthesia, the drill is placed perpendicular to the skull, the scalp pierced and the skull bored through. The point where it has passed through the inner table is noted, the drill is withdrawn and the needle with the antitoxin passed in to the depth required to penetrate the lateral sinuses and then the antitoxin gently introduced. After the needle is withdrawn the opening is covered with adhesive plaster. The patient did not mind the operation, although it was repeated. Although the case was a mild one and the patient recovered, the author would not state definitely that the recovery was due to the intracerebral or the intravenous injections of antitoxin employed, as the patient might have recovered without their use. [C.L.L.]

Foreign Body in the Nasopharynx for 18 Years.—Dr. H. S. Birket (*Montreal Medical Journal*, June, 1899), in examining a patient for a persistent fetid purulent discharge from the nasopharynx, found a sewing-thimble, which, from the history secured from the patient and her family, was shown to have become lodged there 15 years previously, while she was a child 3 years old. It had a dark encrusted mass over it, and all the ordinary roughenings had been worn smooth by time. [C.L.L.]

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.,

of Philadelphia.

Infiltration Anesthesia.—Heinze (*Arch. für path. Anat. und Phys.*, 1898, Band cliii, Heft 3) has conducted a series of experiments that are of great value in determining the local anesthetic power of various agents that are now in vogue for this form of anesthesia.

The tests were not made upon animals or upon various individuals seen in the course of clinical work, but upon his own person.

The action of varying anesthetic solutions he found to be due entirely to the amount of cocain they contained, and not to peculiar properties that have from time to time been attributed to the combined action of their other constituents.

His experiments further demonstrated that the action of eucain-B and cocain were equal. One reason of this is that, as shown by Braun's researches, their osmotic tensions are about the same. The anesthesia which they produce in 0.1% and still weaker solutions last about 15 minutes. The irritant action of eucain-B is less even than that of cocain; 5% and 6% solutions were not as painful when injected as cocain solutions of the same strengths.

The eucain-B solution was found to be less toxic than cocain, and has the advantage of being capable of sterilization. He recommends its employment in place of cocain, and that it should be generally employed in infiltration-anesthesia in weak solution, as in the following formula:

Eucain-B	1½ grains.
Sodium chlorid	12 grains.
Distilled water	3¼ ounces.

Such a solution is capable of being sterilized at any time without interfering with its efficiency. It causes no swelling, and therefore does not injure the tissues or interfere with primary union. The eucain-B is the only anesthetic in the solution, the salt simply preventing irritation.—*American Journal of Medical Sciences*, June, 1899.

The Treatment of Whooping-Cough.—Willoughby (*Therapist*, London, May 15, 1899) states that among the classical remedies, with the prestige derived from authority, may be mentioned belladonna, which was strongly recommended by Trousseau, and for many years held in high esteem. He advised its administration in gradually increasing doses until marked dilatation of the pupils indicated caution in its further use or a reduction of the dose. It acted as a sedative of the spasms, though, as we have since learned, it is also a stimulant of the cardiac and respiratory centers, and checks secretion from the cutaneous and mucous glands.

Hyoscyamus and conium belong to the same category. Bromids of potassium or ammonia are of undoubted value, and may be given in large doses without risk of undesirable effects. Opiates allay the cough to a less extent, however, than in bronchial catarrhs. Alum, copper sulfate (recommended by Trousseau), silver nitrate, perhaps having some sedative action also, are astringents, and he has found benefit from the first-named in cases attended by profuse secretion; while ipecacuanha and other expectorants, combined with alkaline carbonates, are useful when the mucus is more viscid and tenacious. Chloral hydrate is, however, the best of all sedatives. He has failed to discover any palpable good follow the use of quinin, and euchinin, vaunted by von Noorden, has been carefully tried by Cassel, of Berlin, and found wanting.

Lastly the value of phenazon as a nerve-sedative, completely superseding its use as an antipyretic, from which it derived its popular or commercial name of antipyrin, naturally suggested its employment in whooping-cough, which has been confirmed by experience.

The rational treatment consists in the avoidance of everything that may tend to maintain the irritation, for every paroxysm that can be averted tends to hasten the natural termination of the disease. The child should be kept in a well-ventilated room, at a uniform and comfortable temperature, protected from draughts, all excitement or agitation of mind or body, quarreling, noisy play, or the like avoided, and, if old enough, be persuaded to check, or at any rate, not to give way to, needless coughing, though gentler suasion may be used than that employed by the Prussian colonel's wife, who told Dr. Felix Niemeyer that the most effectual cure was the horsewhip. The diet should be light, and solid meat withheld so long as the paroxysms are severe or there is a tendency to vomiting; it is then better to discontinue regular meals, and to give a little food shortly after each attack, for if half the usual interval be allowed to elapse the next attack will probably be accelerated. Oranges are much relished, and are to be recommended on several grounds; but on no account should the connective tissue or celluline be swallowed, for the papier-mâché-like pellets are ill-borne by the stomach, and with them the food is rejected; indeed, he has seen persistent vomiting cease as soon as this simple precaution was taken.

The drug on which he has for more than 20 years mainly relied is chloral hydrate, of which the youngest infants are very tolerant. Given in such doses and at such intervals, which may be left to the discretion of a careful mother, that the child shall sleep, say, half again as many hours as it otherwise would, and be disposed to doze, or at any rate to lie down from time to time during the day—in fact, to be always well marked and often startling, the severest attacks being moderated in a few days, and the illness henceforth pursuing a favorable course. With very young infants in whom the asphyxia and cerebral congestion induced by violent and prolonged paroxysms leads to convulsions, a few double doses given in closer succession completely obviate the danger. The effect of chloral as nearly approaches the character of a specific remedy as can well be imagined in a specific disease that must run a definite course; and when with this treatment the general or hygienic management he has indicated is strictly carried out, the termination of the cough at the end of 3 or 4 weeks is often surprisingly abrupt and complete; indeed, he has frequently found that when a child has been kept indoors for a week or ten days, after this sudden cessation of the whoops, it has been able to go out even in the coldest weather without any recrudescence of the cough or ill-effect whatever, though such exposure so long as any congh remains would inevitably lead to its indefinite prolongation. In some cases it may be useful to combine a bromid with the chloral, and of late years he has found its action greatly aided by combining it with antipyrin,—chloral, antipyrin, and wine of ipecac, with sirup, being now his favorite formula. After a thorough trial of bromoform the result did not encourage him to depart from his previous practice.

Injection for Vaginal Gonorrhea.

Alum, Sodium borate, of each	450 grains.
Quinin sulfate	15 grains.
Carbolic acid, Oil of thyme	30 drops.
Glycerin	6½ ounces.

Sig.—A soupspoonful in a quart of hot water, to be injected into the vagina two or three times daily.—*New York Medical Journal.*

Oxygen in the Heart-failure Attending Angina Pectoris.—The free use of oxygen is of very great value in all cases in which cardiac failure is a marked feature. The remedy has a double value in satisfying and relieving the air-hunger (due to impaired circulation through the lungs) which is often so marked a feature; and in securing the circulation through the usually constricted coronary vessels of over-oxygenated blood, which stimulates nutritive changes in the muscle and secures the removal of effete and half-changed material which embarrass its function. In administering the oxygen, however, all personal cooperation on the part of the patient must be avoided; the naso-oral muzzle must never be used, but the gas must be directed over the mouth and nostrils by means of a glass funnel attached to the tubing held a few inches away so as to leave the patient to breathe a highly oxygenated air at his ease. Oxygen inhalation is particularly indicated in those cases in which morphia is found necessary; and, when the paroxysm is over and sleep induced, the gas should be allowed from time to time to fortify the air immediately about the patient's mouth and nose. It is best to let the patient choose his position for himself, and to adopt that which is most comfortable and helpful to him.—R. DOUGLAS POWELL in *Allbutt's System of Medicine.*

Original Articles.

LECTURES ON ORTHOPEDIC SURGERY.

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[Continued from Vol. III, p. 332.]

HIP-DISEASE.—The term hip-disease is used for any chronic inflammation of the synovial membrane of the hip-joint, of the acetabulum, of the head, neck, or greater trochanter of the femur, or of the soft parts immediately surrounding these, which, if allowed to progress without treatment, would ultimately present the symptoms of a tuberculous arthritis.

The synonyms in common use are hip-joint disease, tuberculous arthritis of the hip, morbus coxae, and coxalgia.

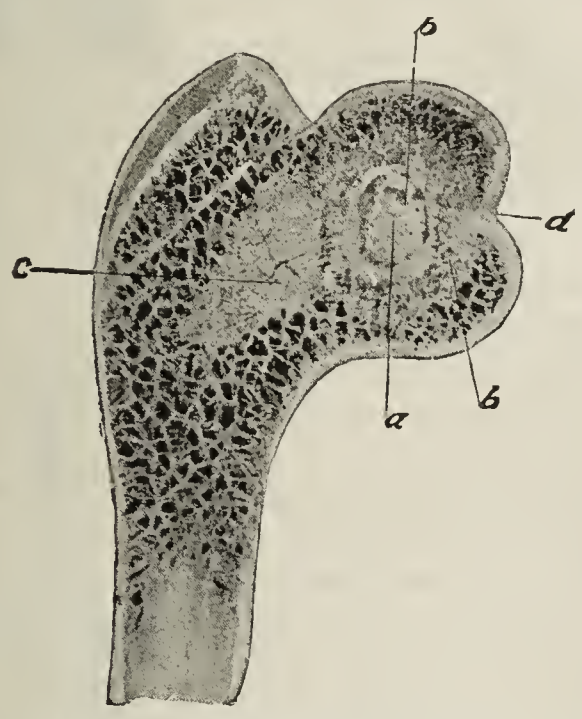


FIG. 1.—From a case of severe coxitis in a boy six years old. Primary tuberculous infection in the head of the femur. (*a*) Cheesy spot; (*bb*) infection of surrounding medulla; (*c*) extension into the shaft; (*d*) compression-groove where the head of the femur rested on the acetabulum. (Cut taken from Krause.)

The causes of hip-disease are tuberculosis, usually acquired, but occasionally inherited, inherited syphilis, injury from falls, blows, and probably from jumping and from sprains, the infectious diseases of childhood, and the various causes that tend to chronic inflammation in and about bones and joints. But whatever the cause, it ultimately presents the symptoms characteristic of a tuberculous arthritis, and for all practical purposes may be regarded as such.

The precise location of the pathologic lesion, as a rule, cannot be determined. From our knowledge of like pathologic processes in more superficial joints we are justified in assuming that the disease may begin in the synovial membrane, but the symptoms of a chronic synovitis at the hip-joint are very obscure, and a diagnosis is rarely made before the bone is invaded through the early destruction of the cotyloid ligament. When the disease begins as an osteitis it is not possible to say



FIG. 2.—Resected upper end of a femur of a girl five years old. Large cone-shaped subchondral focus with demarcation far advanced; articular cartilage lifted up like a vesicle. This is unquestionably a secondary infarction focus. (Cut taken from Krause.)

whether the primary focus is in the head, neck, or greater trochanter of the femur, or in the acetabulum; and in many instances it is not possible to say whether the disease is articular or periarticular. This uncertainty as to the precise location of the primary lesion renders early operative treatment ridiculous; without any treatment all of the tissues of the joint ultimately



FIG. 3.—Cone-shaped sequestrum abutting against the cartilage, which is perforated (*a*) with numerous holes and tilted away from the whole head of the bone. (From Krause.)

become involved; treated mechanically, many cases recover so completely that we are still in doubt as to the location of the primary lesions. In the children of syphilitics, in cases directly traceable to injury, and in those cases that follow the infectious diseases there is almost an equal uncertainty as to the primary pathogenic process; but from the practical standpoint of

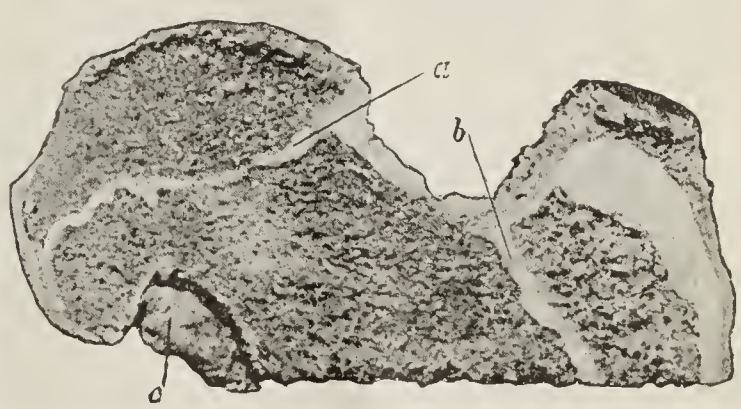


FIG. 4.—(*a*) Epiphyseal cartilage of the femoral head; (*b*) cartilage of the greater trochanter; (*c*) a cheesey sequestrum at the lower surface of the neck which has infected the joint. The head has been partially destroyed and is covered with a layer of granulation-tissue. (From Krause.)

symptoms, prognosis, and treatment it is with a tuberculous arthritis that we have to deal.

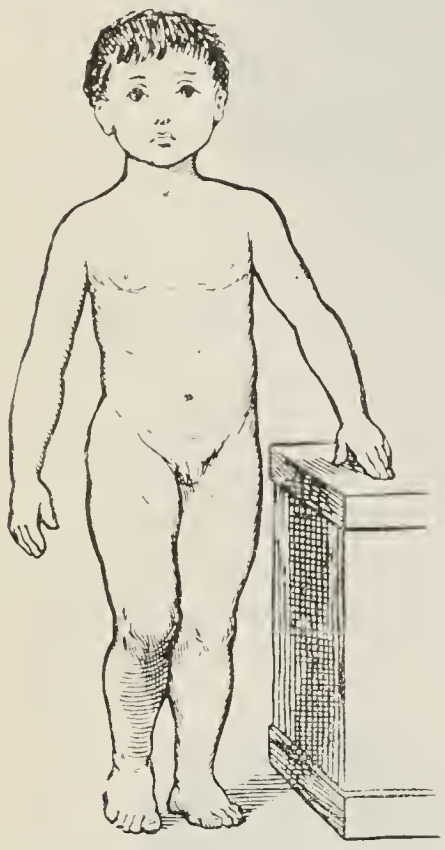


FIG. 5. — Early stage of hip-disease. Flexion of right leg without noticeable lateral deformity.

Symptoms.—Almost invariably the first symptom noticed is a slight limp. This usually begins before there has been any complaint of pain, and it remains until a cure has been affected, and not infrequently it persists to the very end of life. In a few cases there may be one or more intervals of intermission during the early months of the disease. The limp is due to the inability of the patient to fully extend the thigh on the pelvis more than to any sensitiveness of the joint to weight-bearing; although in untreated cases, and in very many that are subjected to treatment, there comes a time when walking is difficult or impossible from the sensitiveness of the joint and its inability to sustain the weight of the body. Nevertheless, the characteristic limp of hip-disease is not one of pain; it is rather one of impaired function.

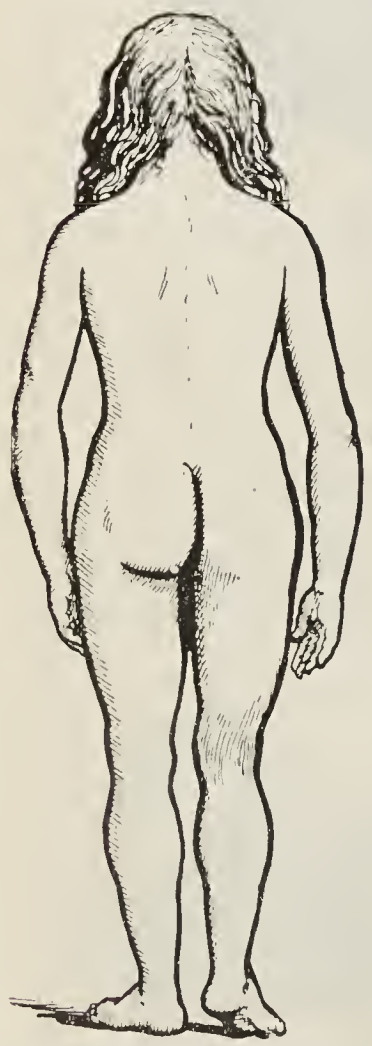


FIG. 6.—Flexion-deformity, without lateral deformity, showing obliteration of the gluteo-femoral crease.

As a rule, the patient very early in the disease becomes restless in sleep, and may cry out without fully awaking. The cry is peculiar, and consists in a sudden, sharp, frightened scream, occurring during the first hours of sleep. These night-cries commonly precede and almost invariably accompany a period of pain. They have been considered as characteristic of osteitis, though there can be no doubt of the presence of osteitis in certain cases in which no night-cries are heard; it is more probable that they are indicative of a rather rapid development of a tuberculous abscess under tension. The symptom is valuable in the early stage of the disease only as corroborative of other symptoms and as a hint to the prognosis of abscess.

Pain is usually complained of at some time during the course of hip-disease, but the fact must not be lost sight of that it is rarely complained of until long after limping has appeared. It disappears months and often years before the joint is cured; and patients with nonsuppurative, and at times with suppurative hip-disease may never feel the least pain from the commencement of the limping all through the 3 or 4 years' course of the disease to a cure, resulting perhaps in a perfectly ankylosed joint. When pain is present it is usually complained of at the inner side of the anterior surface of the knee, but it may be felt in any part of the hip or thigh; like the night-cries it is corroborative rather than a diagnostic symptom. It is indicative of an osseous lesion, and, coming on or growing worse without assignable cause during the course of treatment, should be considered as pointing to the development of abscess.



FIG. 7.—Early stage of hip-disease. Flexion and abduction deformity showing false lengthening.

Inspection of a case of hip-disease, stripped for examination, reveals flexion of the thigh on the pelvis with or without accompanying abduction or adduction. Most cases present one or the other lateral deformity, but the rule is not invariable, and some cases run their course and go on to a great degree of flexion without either abduction or adduction.

Abduction when present usually is found in the early stage of the disease, and has been looked upon as indicative of effusion into the joint, but of this we do not feel certain. We have observed abduction late in the disease and in patients where we have never been able to make out fluctuation. The position of abduction gives a false lengthening to the limb, and is the cause of the obliteration of the buttock-fold.

Adduction usually appears when the flexion deformity has progressed so far as 25° to 40°. It gives a false shortening to the limb and raises the buttock-fold, making prominent the hip.

Outward rotation or eversion of the limb usually accompanies abduction, and inward rotation accompanies adduction. Occasionally when there has been great destruction of the upper end of the femur, outward rotation will be found associated with adduction. The cause of the malpositions at the hip have not been absolutely determined; but it would seem probable that the position of the tuberculous focus, together with the



FIG. 8.—Disease of the right hip. Marked flexion and adduction deformity.

attitude assumed by the patient, determines the malposition. The patient assumes the attitude of greatest comfort, whether lying, sitting, or standing, and this strongly influences the deformity in the early stages of the affection. Later the malposition is determined by the unbalanced force existing between the opposing groups of muscles in their effort to immobilize the joint, or between the muscular groups on the one hand and the mechanical device employed in the treatment of the disease on the other hand.

Muscular shrinking, generally believed to be due to reflex influence, comes on early, is very constant, and may be regarded as a very valuable symptom. It has been claimed by careful observers that this muscular atrophy is due solely to disuse, inasmuch as it bears no constant relation to any other factor involved; but we have observed a patient who had limped for only 2 weeks, who had suffered no pain, and had not ceased from his usual avocations, whose affected thigh measured one inch less in circumference than the opposite thigh, a difference which went on increasing at a less, but at an unusually rapid, rate during the succeeding fortnight before the application of apparatus. The fact that we do not know the relative sizes of the thighs before the limping commenced, renders the case of no positive value in controversial argument, but we are much inclined to believe that there is present in these cases a shrinking of the muscular masses over and above that due to disuse and to the constricting effects of the dressings used. The muscular shrinking affects the thigh first, later the buttock, still later the calf, and in some instances the whole limb. The symptom is so constant that it may be regarded as of very great diagnostic value. We have, however, seen one case in which there was no muscular shrinking, but the thigh was actually larger than the other throughout the entire course of the disease, which never presented any evidences of a suppurative process.

Shortening may be either actual or practical, true or false. True shortening is due either to arrested growth, to actual bone-destruction, or to partial or complete displacement of the head of the femur from the acetabulum. None of these conditions are found early in the disease, when a false lengthening is often present; but an accurate record should be kept, for in this way the ultimate length of the limb can best be prognosticated. The true shortening is found by measuring from the anterior superior spine of the ilium to the inner malleolus on each side when the limbs are in like relations to the median line of the body. Practical, or false, shortening is due to adduction or flexion, or both. The false shortening is found by measuring from the umbilicus to the malleoli when the limbs lie side by side. It is from the relation of the actual to the practical shortening that the degree of adduction is calculated; and the relation of the true to the false lengthening enables us to find the degree of abduction. A limb may be really shortened, but by being abducted be apparently lengthened.

The difference between the real and apparent lengths of the limbs having been ascertained, we measure the distances between the anterior superior spines of the ilia, and then by Lovett's table compute the degree of abduction or adduction. If the line which represents the amount of difference in inches between the real and

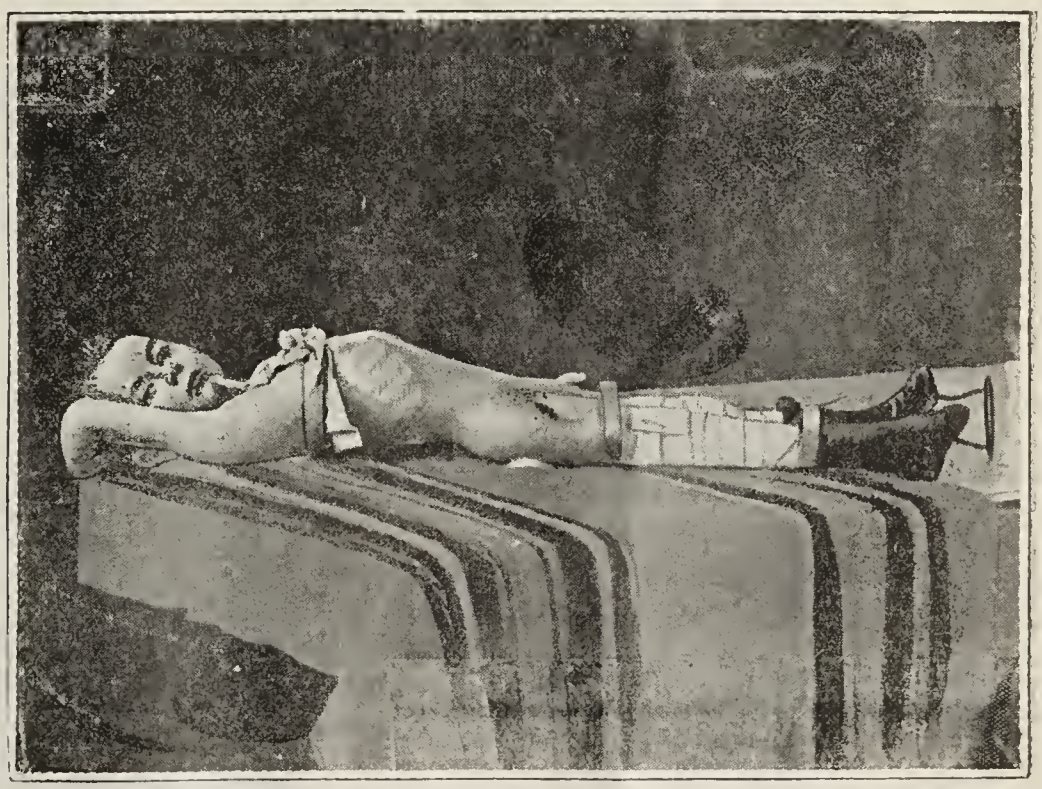


FIG. 9.—Same patient as shown in Fig. 8, with flexion and adduction-deformity reduced. Also shows scar from hip-abscess; also the Thomas hip-splint applied to the right leg and the high patten on the left shoe.



FIG. 10.—Disease of left hip. Marked flexion, adduction, and outward rotation.

LOVETT'S TABLE.

Distance Between Anterior Superior Spines in Inches.

Difference in Inches between Real and Apparent Shortening.	3	3½	4	4½	5	5½	6	6½	7	7½	8	8½	9	9½	10	11	12	13
¼	5°	4°	4°	3°	3°	2°	2°	2°	2°	2°	2°	2°	2°	1°	1°	1°	1°	1°
½	10	8	7	6	5	5	4	4	4	4	4	4	4	3	3	3	3	2
¾	14	12	11	10	8	8	7	7	6	6	5	5	5	4	4	4	3	3
1	19	17	14	13	11	10	9	9	8	7	7	7	6	6	6	5	5	4
1¼	25	21	18	16	14	13	12	11	10	9	9	8	8	7	7	7	6	6
1½	30	25	22	19	17	15	14	13	12	12	11	10	10	9	9	8	7	7
1¾	36	30	26	23	20	18	17	15	14	13	13	12	11	10	10	9	8	8
2	42	35	30	26	23	21	19	18	16	15	14	14	13	12	12	10	10	9
2¼	...	40	34	30	26	24	21	20	19	17	16	15	14	14	13	12	11	10
2½	...	...	39	34	29	27	24	22	21	19	18	17	16	15	14	13	12	11
2¾	...	...	...	38	32	29	27	25	23	21	20	19	18	17	16	14	13	12
3	...	...	...	42	35	32	29	27	25	23	22	21	19	18	18	16	14	13
3¼	...	...	...	...	39	36	32	30	27	26	25	22	21	20	19	17	15	14
3½	...	...	...	...	...	40	35	33	30	28	26	24	23	22	21	19	17	16
3¾	...	...	...	...	...	...	38	35	32	30	28	26	25	23	22	20	18	17
4	...	...	...	...	...	...	42	38	35	32	30	28	26	25	23	21	19	18

apparent shortening is followed until it intersects the line which represents the pelvic breadth, the angle of deformity will be found in degrees, where they meet. If the practical shortening is greater than the real shortening, the diseased leg is adducted; if less than the real shortening, it is abducted. Take an example: Length (from anterior superior spine) of right leg, 23; left leg, 22½; length (from umbilicus) of right leg, 25; left leg, 23; real shortening, ½ an inch; apparent shortening, 2 inches; difference between real and practical shortening, 1½ inches; pelvic measurement, 7 inches. If we follow the line for 1½ inches until it intersects the line for pelvic breadth of 7 inches, and we find 12° to be the angle of deformity, as the practical shortening is greater than the real, it is 12° of abduction of the left leg.



FIG. 11.—Same patient as showu in Fig. 10, with deformity reduced. Shows Thomas hip-splint with left wing of chest-band drawn higher than the right.

The angle of flexion may be estimated in the following manner: The patient lies on his back on a table; the surgeon lifts the limb until the lordosis disappears and the pelvis lies in normal relation to the trunk; he then measures from the table along the thigh, following the line of the femur, for any distance, and from there drops a vertical line to the table, noting the length of both these lines. The decimal fraction obtained by dividing the length of the vertical line by the length of the line measured along the limb will give the sine of



FIG. 12.—Same patient as shown in Figs. 10 and 11, cured with normal range of motion.

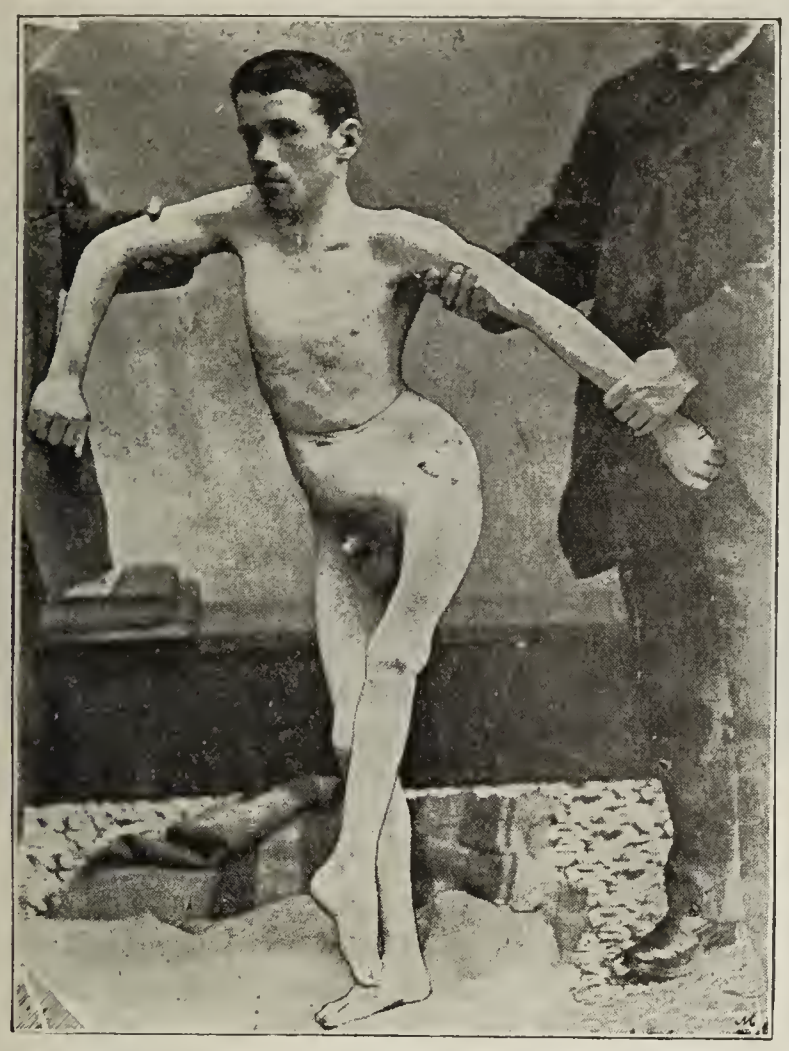


Fig. 13.—Disease of left hip. Untreated case. Flexion adduction, outward rotation, and great shortening.

the angle formed by the oblique line and the table. By consulting a book of mathematical tables the angle is found. Kingsley measures a constant length of 24 inches along the thigh, and publishes a table showing the angle corresponding to the length of each vertical line from 1 to 24 inches.

Actual lengthening of the diseased member rarely occurs, but we have observed it during the course of treatment by the long traction hip-splint. An accurate record of the angle of flexion and adduction, or abduction, is of the greatest importance. Upon a change in this angle, and upon this change alone at times, depends the diagnosis of disease; and upon it depends the diagnosis of a cure in all cases resulting in ankylosis. A joint in which the angle of deformity is changing is not a cured joint; such a joint is capable, under proper treatment, of gaining a still greater degree of usefulness. In a case destined to result in ankylosis a cure is not effected until the angle of deformity ceases to change.

The involuntary muscular spasm which restricts the range of motion at the joint is the most important symptom of joint-disease. It is the first symptom to appear and the last to disappear, and it is the only symptom upon which dependence can always be placed in making the diagnosis. It is believed to be of reflex character, and

KINGSLEY'S TABLE.

In.	Deg.	In.	Deg.	In.	Deg	In.	Deg.
0.5	1	6.5	16	12.5	31	18.5	50
1.0	2	7.0	17	13.0	33	19.0	52
1.5	3	7.5	19	13.5	34	19.5	54
2.0	4	8.0	20	14.0	36	20.0	56
2.5	6	8.5	21	14.5	37	20.5	58
3.0	7	9.0	22	15.0	39	21.0	60
3.5	9	9.5	24	15.5	40	21.5	63
4.0	10	10.0	25	16.0	42	22.0	67
4.5	11	10.5	27	16.5	43	22.5	70
5.0	12	11.0	28	17.0	45	23.0	75
5.5	14	11.5	29	17.5	47	23.5	80
6.0	15	12.0	30	18.0	48	24.0	90

to be due to irritation of the nerves that supply the joint. It affects only the muscles that control the movements of the diseased joint, but it affects all of them. At times it is so slight that it can be recognized with certainty only by comparison with the healthy joint of the other side, and at other times it prevents all motion so completely that the joint appears to be ankylosed. Upon this symptom depends the diagnosis of the disease and the differential diagnosis from affections which closely simulate the disease. Lack of normal extension and rotation is usually more noticeable in the first weeks of the disease than are restrictions to flexion and the lateral movements; but a careful comparison between the movements possible at the two hip-joints will render the defect apparent to one who has become at all familiar with this peculiar symptom. To describe the sensation which this involuntary muscular spasm imparts to the hand of the examiner is scarcely possible; it is one of those things better learned from the patient than from the teacher. The restriction which involuntary muscular spasm gives to attempted passive motion is not the slowly elastic yielding of voluntary muscular opposition, nor the sudden dead stop of ligamentous or fibrous adhesions; nevertheless, it is a sudden and a positive stop, which, when once felt, will always be recognized.

The diagnosis of hip-disease is rendered compara-



Fig. 14.—Flexion beyond a right angle; sinuses in the usual place.

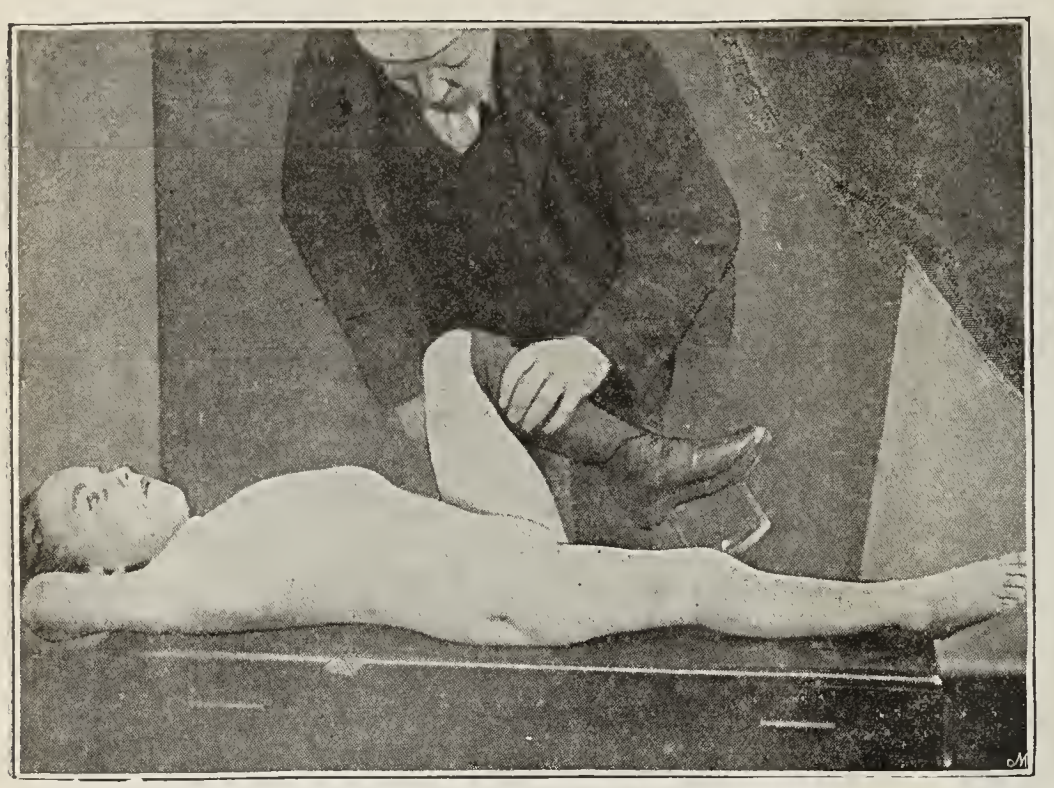


FIG. 15.—Scar from old sinus; flexion-deformity reduced.

tively easy by what is known as the Thomas flexion-test. This is founded upon our inability to extend an inflamed hip without producing lordosis. By lifting the knee of the sound limb until it touches the chest the pelvis is fixed and the spine is straightened. If there be hip-disease the patient is unable to extend the thigh on the diseased side and it remains at an angle. If disease is absent the leg can quite easily be made straight. Few surgeons seem to have observed that if we take any healthy subject and lay him flat upon a table or other hard plane we can easily pass our hand under the lumbar vertebrae, but if we ask the subject to touch the table with his back he is able to obliterate the hollow without lifting his limbs. We have here, therefore, a very ready guide for the detection of deformity. In no case of hip-disease is the patient able to straighten his spine until art has stepped in and corrected the flexion-deformity.

The application of the flexion-test in the case of an infant requires considerable delicacy. A child 2 or 3 years old is brought for examination. A vague history of irritability may be alone complained of, or pain may be occasioned when the child is washed. The surgeon is to find out in the first place whether there is an inflamed joint, and if so, on which side. The child is gently put upon the table, while the surgeon, without exciting alarm, holds a knee in either hand. The thighs are slowly flexed toward the chest, when it is observed that one easily yields to full flexion while the other becomes a little rigid. The stiff hip is then gently allowed to fall while the sound one is fully flexed. It will then be perceived that the diseased limb remains at an angle and cannot be fully extended. Stress must be laid upon the necessity of not startling the child and of not using the slightest force; while care must be taken first not to flex the pelvis upon the spine, and secondly, to conduct the examination upon an even, flat surface. Although this test is not absolutely diagnostic, if the hip be complained of, and pelvic, vertebral, sacroiliac and malignant disease be negatived, one can fairly infer the presence of coxitis.

The complications of hip-disease are abscess, spontaneous dislocation and separation of the head of the femur from the neck.

Abscesses occur in about half of all cases where treatment is not commenced very early. They may be present in any relation to the joint, but the most frequent position for the first abscess to appear is somewhat below and to the inner side of the anterior superior spine of the ilium. An abscess may appear early in the disease or at any time during its course. It is usually ushered in by a period of pain, night-cries, and increase of deformity; flexion is always present, and abduction is frequently found when abscesses appear early; adduction is more common when the abscess appears late in the disease. During the treatment of hip-disease any exacerbation of pain or tendency to deformity, unless there has been some well-recognized traumatism, is suggestive of the formation of an abscess and warrants that prognosis. The first objective sign is a branny feeling in front of the joint; this is, or it soon becomes, tender to pressure, ultimately it softens in the center and fluctuation may be made out. The area of fluctuation extends, the extension being usually in the outward and downward direction, and at times fully two-thirds of the upper, outer and anterior portion of the thigh is occupied by the fluctuating tumor. The



FIG. 16.—Shows flexion-deformity of diseased left hip when sound thigh is flexed on the body.



Fig. 17.—Same patient shown in Fig. 16; flexion-deformity of left hip reduced.

abscess, however, may appear posteriorly to the greater trochanter, or it may be first made out within the iliac fossa, where it has found its way through the acetabulum or through some of the natural openings of the pelvis; from here it usually makes its way up over the brim of the pelvis, following much the same course as a psoas abscess, and on reaching the thigh occupies the anterior and inner aspect. Sometimes an anal abscess is simulated, and after spontaneous opening the persistance of symptoms strongly suggests fistula in ano. Much care is required in differentiating it.

The course of these abscesses in untreated cases is towards spontaneous opening and evacuation. Rarely is there any especial fever or other constitutional symptoms except such as may be attributed to the pain; and pain is felt only while the abscess is intracapsular or subperiosteal; when once the pus escapes from the bone or joint the suffering ceases and almost invariably the general health of the patient improves. In patients where the joint receives full protection these abscesses, even after they have attained a very considerable size, frequently disappear by gradual absorption.

Spontaneous dislocation, which occurs but rarely, may be due to distention of the joint or to destruction of the upper border of the acetabulum. These cases present the usual characteristics of a hip-dislocation, but the Röntgen picture will render the diagnosis certain.

Separation of the head of the femur from the neck is in our experience of such rare occurrence that we are unwilling to suggest any certain symptoms as characteristic.

The differential diagnosis of hip-disease is mainly from lumbar spondylitis, sacro-iliac disease, hysterical hip, congenital dislocation, traumatic dislocation, fracture of the femoral neck, and coxa vara.

In lumbar spondylitis the patient may walk with a limp because the thigh is held flexed, and motion is restricted in extension and in rotation during extension; motion is free in flexion and in rotation during flexion. In hip-disease the attitude may be the same, but action is restricted in all directions.

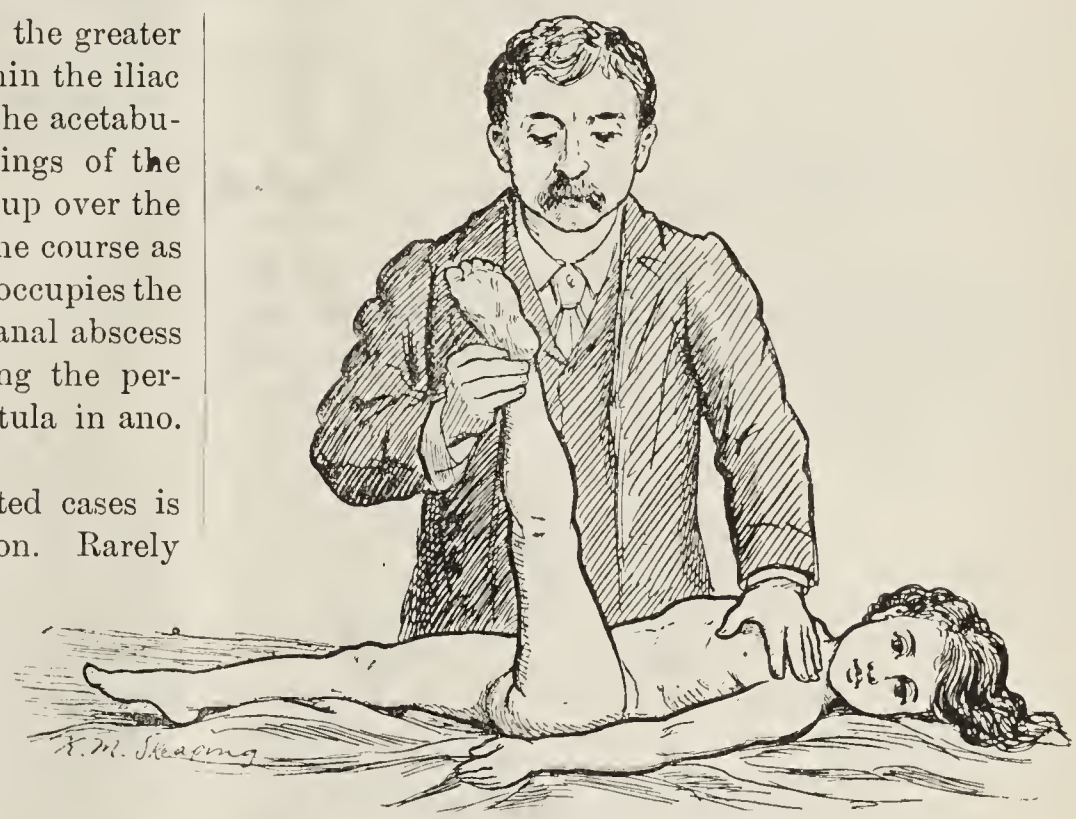


Fig. 18.—Testing the movements at the hip-joint.

From sacroiliac disease hip-disease is excluded by the same symptoms.

The hysterical hip may or may not present deformity, but rarely in a regular way and commensurate with the other symptoms; the rigidity is excessive, but more characteristic of voluntary effort than of involuntary muscular spasm; there are shifting superficial sensitive areas without evident cause; position changes during sleep; the limb can be carried through the full normal range of motion if a persistent effort be made and the attention directed elsewhere; and there is no muscular atrophy even when the limb has not been used for a long period.

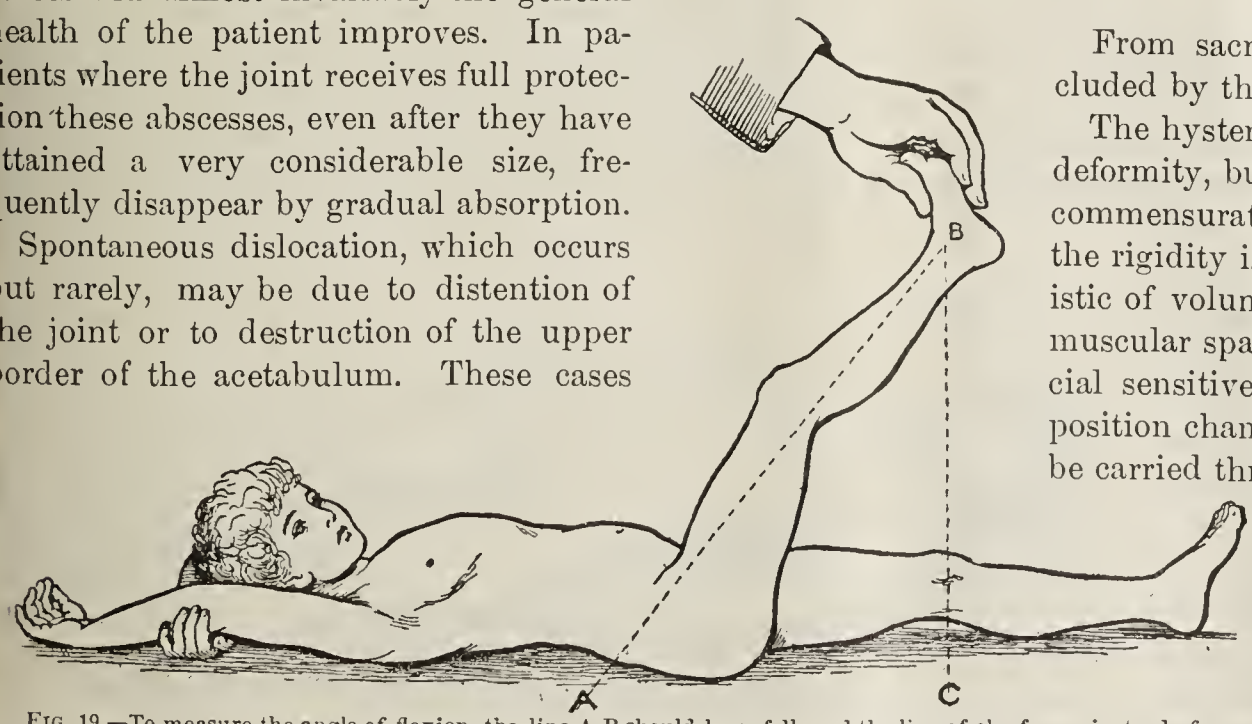


Fig. 19.—To measure the angle of flexion, the line A B should have followed the line of the femur instead of the lower extremity as a whole.



FIG. 20.



FIG. 21.

FIG. 20.—Shows the normal arching of the spine in a healthy person, which can be voluntarily effaced, as shown in Fig. 21.

Unilateral congenital dislocation at the hip gives a history of limping from the commencement of walking without pain or other disability; there is shortening of the limb of from $\frac{3}{4}$ to 2 inches when measured from the

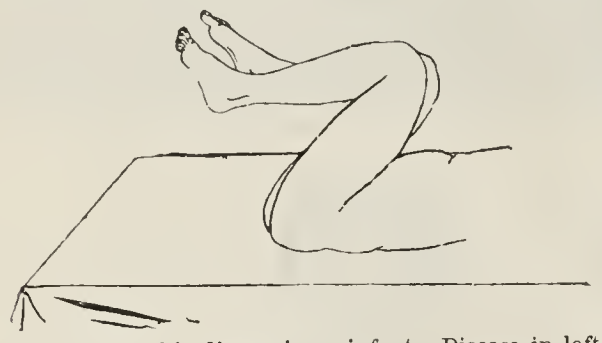


FIG. 22.—The diagnosis of hip-disease in an infant. Disease in left hip. Lack of perfect flexion.

anterior superior spine of the ilium to the inner malleolus, but no shortening when measured from the greater trochanter to the outer malleolus, and the greater trochanter is found to be as far above Nelaton's line as the

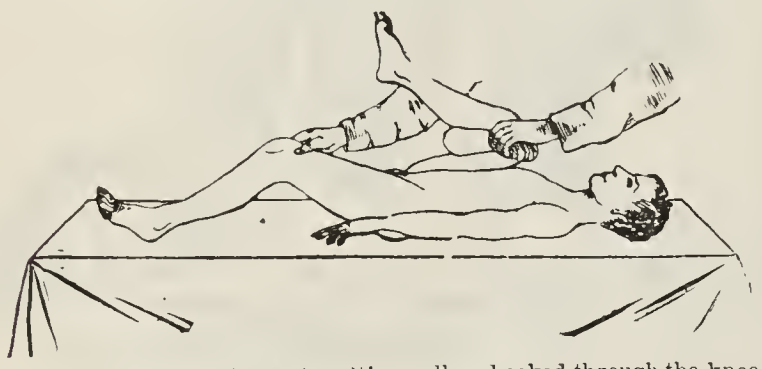


FIG. 23.—The Thomas flexion-test position; elbow hooked through the knee and forearm carried across the chest. The affected limb can not be forced down upon the table.

shortening shown by the first measurement. Motion is somewhat restricted in extension, abduction and outward rotation, but there is no characteristic involuntary muscular spasm. The head of the femur can usually be felt lying under the gluteal muscles on the dorsum of the ilium when the femur is rotated inward. The Röntgen picture makes the diagnosis conclusive. In hip-disease this amount of shortening would be associated with great, probably complete, rigidity to motion in all directions.

A traumatic dislocation at the hip would give the history of injury, with immediate and continuous disability, growing better, if anything, rather than growing worse; the thigh would be held flexed, adducted, and rotated inward; there would be restriction to motion in all directions, and sensitiveness on motion without the characteristic involuntary muscular spasm of hip-disease. There is shortening from $\frac{3}{4}$ to 2 inches. The head of the femur can usually be made out under the gluteal muscles, and the Röntgen picture renders the diagnosis positive.

Fracture of the neck of the femur, although a misfortune usually looked for only in those past middle age, does occasionally occur in children. There should be a history of injury with complete disability coming on either immediately if the fracture is complete, or within two or three weeks if the fracture is incomplete, the disability unchanging or slowly improving but never growing worse. There is shortening of $\frac{1}{2}$ an inch or more, and this is all above the greater trochanter as in dislocation. The limb is usually slightly flexed, somewhat adducted, and considerably rotated outward.

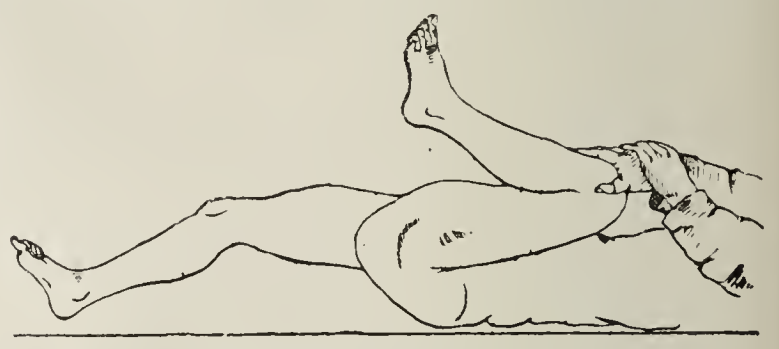


FIG. 24.—Tilting of the pelvis by extreme flexion, giving a false flexion to the right thigh in a healthy subject.

The range of motion and the sensitiveness on motion depends upon the time since the injury and the amount of union that has taken place. There is no pain when the limb is at rest, and no tendency to an increase of the deformity. The Röntgen picture renders the diagnosis positive.

Coxa vara comes on either during the period of infantile or of adolescent rickets. There is a considerable period, often covering many months, of gradual shortening without other disability, unless there should be some traumatism, when there may be some sensitive-

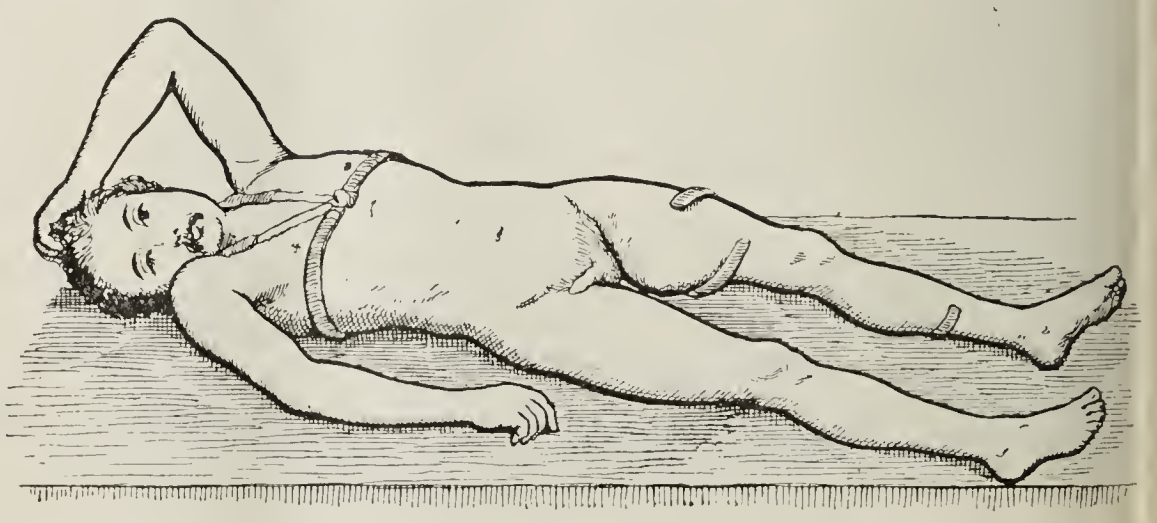


FIG. 25.—Abscess on the inner side of the thigh coming down from within the pelvis.

ness and rigidity for a time. After the shortening has advanced to ¾ of an inch or more there is restriction to abduction, and later on, to extension, and finally to all motions at the joint. The shortening is all above the greater trochanter, and this can be demonstrated as in fracture of the neck and in dislocations. The characteristic involuntary muscular spasm of hip-disease is wanting. The Röntgen picture will clear up a doubtful diagnosis.

THE PATHOLOGY OF CATARRHAL DEAFNESS.[1]

BY FRANK WHITEHILL HINKEL, A.M., M.D.,
of Buffalo, N. Y.
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I SHALL not attempt to describe the pathologic anatomy of the regions involved in catarrhal deafness with any detail or explicitness. I have no original observations in this field to offer, and an epitome of the statements of current textbooks, themselves compiled from the work of a very limited number of original investigators, would be fruitless occupation of time. A consideration of the influence upon the hearing of pathologic conditions of adjacent and coordinating mechanisms and organs, and an estimate of the influence of diathetic and constitutional conditions upon the function of the middle ear, may prove both a more interesting and a more profitable field for our discussion.

Perhaps none of our functions is more often impaired than that of hearing, yet so generous has nature been in her provision of this important sense that a high degree of defectiveness may exist without its presence being recognized. It is no uncommon experience for an individual to discover accidentally that one ear is almost entirely deaf, when the evidence is plain to the intelligent observer that the process has been a long and progressive one. Even when both ears are involved there may be a loss of much of the finer acuteness of hearing without any serious discomfort or disability ensuing. Allowing, however, for this considerable number who can in no sense be called sufferers from deafness, there remains a very large number of persons, in whom usefulness and enjoyment in life are impaired by some form of catarrhal deafness. Hartmann[2] estimates that one in every four of the German population has defective hearing in one or both ears. So frequent a perversion of a function so important to self-preservation, and occurring in an organ apparently so carefully protected by its location from external influences, implies a wide association with other mechanisms and functions of the general economy; and on investigation this is found to be the case. Said to be originally a diverticulum from the combined air-and-food tract, the cavity of the middle ear retains intimate relations with these important mechanisms and with the later-developed functions of speech. When we consider the large number of accidents and diseases incident to the exposed location and peculiar function of the upper air-tract, and when we consider the dependence and interrelation of every part of the body with the food-tract, it is not surprising that, despite nature's careful seclusion of the middle ear, it is a frequent seat of inflammatory and perverted trophic processes.

For some conception of the deleterious influences upon the middle ear of defects and diseases in the passages for air and food, it is necessary to recall to mind the peculiar anatomic and functional relations between the various mechanisms involved. The middle ear, deep situated in the temporal bone, communicates only with the outer world through the eustachian tube, where flaring trumpet terminates immediately behind the nose in the upper part of the lateral wall of the pharynx. An imperfect bony canal, the dehiscence of the eustachian tube is filled by membranous walls that lie in contact when at rest and occlude its lumen. From these membranous walls originate numerous muscular fibers. These, blending with other muscular fibers springing from neighboring bony attachments, pass down and across to interlace with corresponding fibers from the opposite side. The partial diaphragm thus made constitutes the soft palate. Now the soft palate, like man in his time, "plays many parts." When we swallow, its coaptation with the constricting pharyngeal wall prevents regurgitation of fluid through the nose, and thus determines the direction in which the force of the pharyngeal constrictors shall be exerted. When we speak, less vigorous but more delicately adjusted movements of the palate veil assist in altering the resonance cavity of the mouth, and in reflecting like a sounding-board the laryngeal tones to the articulating apparatus. Inspection through the nose, without more accurate and scientific measurement, shows how constant and vigorous these palatal contractions are. While these muscles are performing their more obvious functions of tension and elevation of the soft palate from which they obtain their names, they are with double-ended faithfulness executing important duties about their points of origin. The soft palate, while acting as we have seen as an important factor in deglutition and articulation, at the same time performs a very important function in the middle ear. The walls of the eustachian tube, when at rest, lie in contact in the membranous portion, and if they remain passive, no connection between the middle ear and the outer air is possible. Now, a failure of proper ventilation of the middle ear is followed by well-recognized results. The air contained in the tympanum is absorbed by the tissues, and atmospheric pressure forces in the movable tympanic membrane, strains and stretches the delicate articulations of the ossicles, alters the labyrinthine pressure, and causes

[1] Read before the Section on Pathology, Buffalo Academy of Medicine, January 17, 1899.

[2] "Diseases of the Ear," page 62.

a passive congestion of the mucous membrane lining the middle ear. However, each act of deglutition and articulation—indeed to a very slight degree each respiration—is accompanied by tension and elevation of the soft palate. As these muscles act they draw also upon the flaccid portion of the eustachian tube from which they have their origin, and draw it away from the fixed bony wall, thus insuring the frequent and regular ventilation of the middle ear.

The important mechanism thus briefly sketched is conditioned and dependent upon so many other organs and mechanisms of the digestive, respiratory, and speech tracts, that it can readily be seen how easily it may become impaired by the local or general diseased conditions that we shall now consider.

The earliest and most frequent cause of impaired hearing is hypertrophy of the lymphoid structures of the nasopharynx—adenoids. They affect the eustachian tube and middle ear in several ways. They interfere mechanically with the convex upward arch of the soft palate during tension. In other words, the tensors and elevators of the soft palate, which are also the dilators of the eustachian tube, are more or less completely prevented from a full contraction. Consequently full dilatation of the eustachian tube and ventilation of the middle ear is prevented. Swollen and inflamed adenoids, also, by direct pressure on the eustachian orifices, prevent ingress of air, while the inflammation of the surrounding tissues they induce favors the development of a low grade of chronic inflammation in the mucous membrane of the tube and middle ear. The recurring exacerbations of inflammation in the adenoid structures are accompanied by exacerbations of the middle-ear inflammation. This leads to further thickening of the lining mucous membrane, with greater tubal occlusion and increased predisposition to inflammatory processes. Hence the recurring attacks of earache and increased deafness in children afflicted with nasopharyngeal hypertrophies. It needs but a very few years' continuance of these conditions to induce catarrhal deafness, the worst effects of which may be manifest only after the original cause has atrophied and disappeared in the lapse of years.

Of similar but not quite so frequent nor injurious an effect are hypertrophied faucial tonsils, whose presence in early life impedes the free tension and elevation of the soft palate. It may safely be asserted that a very large proportion of the cases of catarrhal deafness have begun in childhood as aural catarrhs induced by diseased lymphoid structures in the pharynx. This etiologic factor may be overlooked, since the hypertrophied tonsils and adenoids usually atrophy in early life and their former presence is often only to be inferred from the lasting diseased conditions they have induced. So important a part do I believe adenoid vegetations play in the production of chronic catarrhal deafness later in life, that I would urge upon you the importance of a careful attention to this diseased state whenever found in childhood. The family-physician should be alive to the importance of heeding the often well-marked symptoms of the presence of lymphoid hypertrophies of the nasopharynx. Even if the ears be not at all affected and the ill effects be shown only in head-colds and "bronchitis," yet there is great danger that the function of the middle-ear may eventually become impaired. Usually, however, careful testing shows some impairment of hearing in these cases even early in life.

Obstructive disease of the nose is another factor in the development of chronic nonsuppurative middle-ear disease, but not so directly or constantly as disease of the nasopharynx. Hypertrophy of the nasal mucous membrane, deflections or spurs of the nasal septum and nasal polypi, may each or all be present for years without material influence upon the hearing. But in persons predisposed to aural disease their effects are mischievous. If the nose be held and fluid swallowed a distinct sucking-in of the drum membranes may be often felt in the middle ear. This rarefaction of air in slight degree goes on in the middle ear continuously with every respiration and act of deglutition in obstructive nasal disease. The pharynx is rarely free from congestion in these cases and thus are supplied conditions that easily lead to chronic congestion and perverted tension of the middle ear.

Derangement of the digestive tract is often accompanied by pharyngitis. The rheumatic diathesis also frequently manifests itself in recurring tonsillitis and pharyngitis, from which may develop a secondary catarrhal otitis. In this way, in cases in which the middle ear is susceptible from inherited, or acquired peculiarities, disease of a distant organ, or a general diathetic disease, may have catarrhal deafness as one of its manifestations.

Chronic nonsuppurative disease of the middle ear has long been divided, clinically, into two classes, the hypertrophic and the sclerotic—divisions somewhat analogous to hypertrophic and atrophic rhinitis.

It is probable that the sclerotic form is not infrequently a sequel of the hypertrophic form due to a connective-tissue organization of the infiltrating elements. But a certain number of cases of chronic catarrhal deafness appear to have a fibrous type of inflammation from the beginning. They furnish the cases of "creeping deafness"—the bane of some families and the dread of otologists.

These cases present marked hereditary influences and they are the cases in which the hearing is especially susceptible to the deleterious effects of digestive derangements and nasal occlusion. There seems to be a trophic defect in the middle ear that leads to sclerotic changes, which, after they have begun, respond but little to treatment. There is a neuropathic taint at times in these sclerotic cases, a tendency to rheumatism and neuralgia, and at times distinct psychopathic tendencies.

Preventive treatment aimed to remove nasal occlusion, digestive disturbance, or rheumatic conditions in cases in which the family history indicates a tendency to creeping deafness, may ward off the unfortunate issue, and should be begun before the disease makes inroads on the integrity of the hearing.

Most cases of chronic catarrhal deafness, however, have their origin in the hypertrophic form of middle-ear disease, and their pathology shows that with reasonably prompt and careful treatment they are often remediable and at times curable. If treatment be begun early in life most of them are distinctly curable.

Allow me, in conclusion, to urge that an appreciation of these general points in the pathology of catarrhal deafness must impress upon the observer the importance of treatment in early life aimed to remove the predisposing adenoid, tonsillar, or nasal obstructions that may exist. Such prophylactic treatment will give a more satisfactory result than any method of treatment of the middle ear adopted after the hearing has become more or less chronically affected.

INVOLVEMENT OF THE EYE AND EAR IN CEREBROSPINAL MENINGITIS.

By WILLIAM CHEATHAM, M.D.,

of Louisville, Ky.

Having been consulted by several practitioners lately upon the above subject, and as there seems to be considerable of the disease in our State just now, I thought it well to give such symptoms relating to the eye and ear as may be of help in making out the diagnosis. It is the epidemic form of cerebrospinal meningitis I wish to especially refer to, and in this form catarrhal conjunctivitis often appears in the beginning; the coccus of meningitis has, however, never been found in the conjunctival surface. Edema of the conjunctiva and lids occurs sometimes early in the disease, and usually means a simultaneous invasion of the orbital tissue with the meninges. Again, it occurs later and is frequently metastatic, or the invasion may be through the superior orbital fissure of either or both orbits or along the veins. This may go on to suppuration with protrusion of the globe, and a characteristic edema of the lids, which extends only to the bony ridge of the orbit. This of course interferes with the movements of the eye or eyes; vision may not be disturbed much unless there be involvement of the globe itself.

The motor nerves of the eye are of course frequently involved, as the base of the brain seldom escapes invasion; this involvement of the nerves may be paralytic or from irritation. Knies, pages 150 and 151, says: "Leichtenstein, who reported 29 cases of epidemic meningitis, found that the abducens was attacked most frequently, the motor oculi very rarely; in the hydrocephalic stage there was slight bilateral ptosis in one case, weakness of internus in one case, and inequality of pupil in one case; pupil sluggish in two cases. In one case there was isolated abducens paralysis, although all the nerves were imbedded in exudations and both motores ocularum nerves were very much reddened. In one patient there was paralysis of all the ocular muscles, including the levators palpebrarum, but the pupil reacted to light. Nystagmus was observed several times. Spasms and paralysis have a peripheral character."

Conjugate deviation of the eyes is sometimes present. Photophobia is often present, especially if there is any general hyperesthesia. Invasion of the cornea being usually neuroparalytic, does not produce much fear of light. Suppuration of the cornea is very rare; the parenchyma may become opaque. A xerosis of the cornea may result from its exposure for a long time, the result of imperfect closure of the lids. Foerster saw 2 cases of deep subepithelial infiltrations of the cornea in 28 cases of epidemic cerebrospinal meningitis. What is called febrile herpes of the cornea sometimes follows neuroparalysis.

As to the iris, if there is much increase of pressure the pupils are liable to be dilated; there are exceptions to this rule, however. One or both pupils may react to light, even when the patient is blind, especially if this blindness is the result of an involvement of the visual cortex. Senator (*Charité Ann.*, xi, page 284) has seen iritis with meningitis; rapid muscular action of iris, alternating dilation and contraction of pupil has been observed, more common in tuberculous meningitis. Of course, in involvement of the ciliary body and choroid, we have also an inflammation of the iris. Bock (*Wiener med. Wochenschr.*, 23, xi, 1889) is the only one who has reported cataract,—not secondary to disease of choroid, etc., after meningitis; (his diagnosis of meningitis is disputed, however); secondary cataract is not so unusual.

The choroid, and with it the whole uveal tract, is often involved. The most usual form of inflammation is seroplastic and afterwards purulent. Involvement of the choroid may be metastic, but often the invasion is simultaneous with that of the meninges; the deposit of the coccus, then, in the two tissues must be simultaneous. Knies (p. 155) says those two tissues, being developmentally alike, make this theory more plausible. The disease is more often unilateral. It may come at any stage of the disease, or even some weeks afterwards; such eyes usually grow soft and shrink, the lens degenerate, the cornea often remains clear.

In the seroplastic form, the exudation into the vitreous chamber, with its yellowish color, bloodvessels running over it, and small hemorrhages on its surface, closely resembles a glioma; if in much doubt, enucleation under the circumstances is indicated, but it is usually a pseudoglioma. Of course, in a case in which

there is no doubt of meningitis, the probability of there being a glioma of retina is reduced to a minimum.

Involvement of the optic nerve may be from direct extension, metastatic, or by direct invasion. The optic and acoustic nerves are the most common of the nerves of special sense to be involved, the optic nerve the most common. The nerve and its sheaths both become involved. The inflammation is from a simple hyperemia to that extent in which the location of the head of the nerve can only be told by the convergence of the retinal vessels. Its inflammation is one of the most important diagnostic points in meningitis. "In extreme cases the papilla is not much swelled, and hemorrhages and exudations are rare." (Knies, page 152.) The disease is generally bilateral. Prognosis is, of course, bad, yet some cases recover with perfect vision; others well with greatly reduced vision and contracted visual fields; color-sense is often involved; perfect vision is rare. Knies says (page 153) that when it occurs early it is of the greatest importance in excluding typhoid fever, pneumonia, etc. He also says, "optic neuritis is found in a majority of these cases."

When the convexity of the brain and the cortical sight-centers are involved, blindness may result, temporary or permanent, with no ophthalmoscopic symptoms. They may show later in an atrophy.

During and following the recent epidemic in Webster County, this State, I saw many cases of loss of sight and hearing. Most of the cases of blindness were from optic-nerve atrophy.

In considering the involvement of the ear I shall quote from Dench, pages 577 and 578. He says: When the meninges are invaded by the specific germ of "epidemic cerebrospinal meningitis," the inflammatory process extends along the lymph-channels of the vestibular and cochlear aqueducts, and involves the structures located within the bony labyrinth. During the early stages, both the perilymph and the endolymph are increased in quantity, while at the same time their composition undergoes a change through the action of the specific germ. Later, the bony walls are the seat of the inflammatory changes, both the arteries and veins become dilated. There is a migration of white bloodcells into the surrounding tissues, and true tissue-hypertrophy takes place. From the extensive proliferation of the bloodvessels themselves in the newly deposited tissue, the walls of these channels are of unusual tenuity, and rupture easily. Hence, extravasation of blood constitutes one of the conditions found. The newly deposited tissue increases in density, and may be transformed into bone, in which case the semicircular canals or cochlea are partially or completely obliterated. In other portions the chief force of the disease expends itself in tissue-necrosis, the labyrinthine channels being filled with pus. Occasionally the tympanum is invaded secondarily by a rupture of the membrane at the round or oval windows, allowing the inflammatory products to escape into the middle ear. From the tympanic involvement the drum-membrane is soon destroyed, and a purulent otorrhea manifests itself. Naturally, this condition is somewhat rare, as death usually takes place before sufficient time has elapsed for its completion.

In addition to the symptoms characteristic of meningeal inflammation, we have vertigo, sudden loss of hearing, and intense tinnitus. In very young children the vertigo may be the only evident symptom, on account of the age of the patient. Occurring in older individuals, the access of subjective noises is usually sudden, while their intensity is so great as to be agonizing. The hearing is either completely destroyed at once, or this condition occurs at the end of a few hours after the appearance of the symptoms. Preceding these marked evidences of labyrinthine invasion, the power of audition may be abnormally acute, probably from the hyperemic condition of the labyrinthine structures. This hyperacousis may be so marked that faint sounds even are painful, the patient starting at the slightest noise, and complaining of an increase in the headache characteristic of meningitis. After a short time the subjective noises diminish, owing to the destruction of the terminal filaments of the nerve, and the hearing remains profoundly impaired for the same reason. The power of equilibrium gradually returns, although this is more slow, perhaps, than the disappearance of the subjective noises. The involvement of the middle ear is evidenced by the ordinary symptoms of acute purulent inflammation when arising from any other cause than that under consideration.

The body of the nerve is often the one involved. Deafness may be also the result of implication of the cortical center, one and two temporal convolutions. Word-deafness is then a common symptom. The sound is heard, but not interpreted. By means of the galvanic current and the tuning-fork differential diagnosis can be made here.

Deafness the result of epidemic cerebrospinal meningitis does not increase after recovery from the primary disease; the hearing is more liable to increase than to diminish, when the labyrinth alone is involved. When the trunk of the nerve or the cortex are involved the symptoms go as the meningitis progresses or recedes. When the trunk is involved the middle part of the musical scale is interfered with; conversation is therefore perverted; there is simply impairment of the hearing. When the lesion is labyrinthine, in the early stages there is distressing tinnitus. When the nerve-trunk or cortex alone is involved there is no tinnitus. When pressure upon the cortex or nerve-trunk is made tinnitus ceases. If the lesion is in the labyrinth the lower tone-limit is usually normal, and the upper tone-limit lowered. When the middle ear is at fault instrumental examination shows it.

VARIATIONS IN THE MANIFESTATIONS OF MALARIA.[1]

BY CHARLES DEWEY CENTER, M.D.,
of Quincy, Ill.

TO THE medical man living in the State of Illinois the subject of malaria must come as a living entity, for, like the poor, it is with you always. It is not a new or fashionable disease, but is, according to Osler, the only acute disease for which we have an absolute specific after an acquaintance of 200 years. The word "absolute" is quoted, and there is no doubt that if the question were asked of this audience at least four absolute specifics would be mentioned.

Malaria is a protean disease, and the remark applied to syphilis, that it simulates all other diseases, might justly be applied to malaria. There are some among you who can recall cases you first diagnosed as puerperal sepsis; as septic intoxication following operation; as typhoid; as one of the many acute forms of gastro-intestinal disturbance; as hematuria from nephritic lesions—by this I mean the diagnosis of the symptom, and not the something behind it; as rheumatism, all cases you later found unmistakably malarial. There are valid reasons for this simulativeness, reasons becoming more and more understood from day to day.

In 1879 Lewis discovered a parasite in the blood of malarial patients. In 1880 Laveran discovered and named this parasite, and we now know that Laveran's parasite may be multiplied by three, and possibly by four, and that while each organism causes malaria, there are distinguishing earmarks accompanying the workings of each variety. In the words of Thayer who has studied and tabulated over 1,600 cases, the malarial parasite is not a single and polymorphous organism, but the three forms represent distinct and separate varieties of organisms.

A classification of the causes for the varied forms of malarial manifestations give us (1) a variation arising from difference in the causative parasites; (2) variation caused by individual differences, or personality; (3) variation caused by locality and time; (4) variation as shown by deviation from, or failure in use of, the recognized specific, quinin.

In considering the first cause let us recognize the three chief forms of the plasmodium, the tertian, the quartan, and the crescent or estivo-autumnal. The quotidian of Golgi is, I believe, not yet thoroughly established, some investigators holding with him, and others believing that cases said to be caused by this fourth parasite are either double implantations, or mixed implantations.

The characteristics more or less common to all the forms of the plasmodium are, activity of the flagellae, symmetry as to length and form, dilatation at the point where the flagella is given off the body, the club-shaped extremities, breaking off of the flagella and its spirilla-like motion. The unanimity of these characteristics is extremely interesting since it has been recently determined by Koch that the flagellae are the plasmodial spermatozoa.

The chief differences, subjectively, are, the number of spores, difference in activity of the parasite, difference in action on the blood-corpuscles, difference in color, difference in the power to convert hemoglobin into melanin, difference in sites of selection, and difference in outline so far as the crescent or estivo-autumnal form is concerned. Objectively the differences are in the periods of time for chill and temperature, the location of greatest discomfort, the time of year, and the surrendering of the disease to, or its resisting, quinin.

Taking up the causative parasite, or parasites, reasons can readily be given for some of the differences in malarial manifestations. All of these parasites are hematozoa. All exist within, and at the expense of, the red blood-corpuscle; but the tertian, whose life cycle runs from chill to chill every other day, and whose habitat is the circulating blood, differs from the quartan whose life cycle is 24 hours longer, whose habitat is also the circulating medium; and both these differ from the estivo-autumnal, whose cycle seems very irregular and whose habitat is in the red corpuscles of the bone-marrow and of the spleen. The tertian, short of life, is more active than the quartan. It has a greater number of pigment-granules and they are smaller than those of the quartan. Its color is lighter. It causes the red corpuscle to swell while the corpuscle retains most of its color. The quartan causes decolorization and shrinkage. Both respond to quinin, the tertian possibly a little more readily than the quartan. These parasites cause what may be called typical cases. They may be depended on. Herein they differ from the cases caused by the estivo-autumnal or crescent hematozoon, which produces the relapsing fever, the pernicious fever, the irregular fever, the atypical forms. Bear in mind also that there may be atypical forms caused by a double infection, a double tertian for instance, or, as often seen, there may be type-deviation caused by the paroxysm gaining a few hours on itself each day, the form known as anticipating fever.

The matter of personality has no greater weight in cases of malaria than in any other systemic disorder. If all men were created alike, it is safe to say that by this time we would have specifics for at least half of the recognized diseases. The successful practice of medicine is said to consist of two-sevenths diagnosis, two-sevenths therapeusis, and three-sevenths knowing the patient. Given a disease like malaria, whose causative agent inhabits the life-giving medium of the body to the detriment of its most important constituent, as well as to the detriment of every part of the system through which it courses, and the resulting symptoms will be varied as well as, in many cases, complex and puzzling.

[1] Read before the Illinois State Medical Society, Cairo, Ill., May 16, 1899

Like any other disease, malaria attacks the point of least resistance. The parasite attacks the red corpuscle, but the disease attacks the weakest link of the chain. So diversified are the systemic manifestations of malaria, that one author classifies the aggravated forms alone under five different heads: the bilious, the hemorrhagic, the algid, the asthenic, and the comatose, the name being chosen from the most prominent symptom. With these aggravated forms are the names of the more common and simpler varieties, the intermittent, remittent, the masked form frequently known as dumb-ague, the continuous, and the malarial cachexia.

The third great cause for variation is locality and time. This cause operates secondarily, since the difference is really made by the difference in the plasmodium. In some of the malarial belts the tertian hematozoon is the only one found; in others the quartan; in others the irregular, crescent, or estivo-autumnal. Osler considers the quartan very rare north of Chesapeake Bay. James says the tertian is the parasite of malaria in and about New York City. In a study of 400 cases in West Africa Surgeon-Captain Duggan found the tertian but once and the quartan not at all, the causative parasite here being the irregular estivo-autumnal. During 1897 in Transcaspia, a province of Asiatic Russia, there was an epidemic of malaria following the overflow of the river Murghat, when 6% of the entire population died, about 35% having the disease. This was called the quotidian form, but like the following case reported by Miner, of Montana, seen by him 6000 feet above sea-level, there is no record as to whether Golgi's quotidian parasite was found, or whether it was a double or a mixed implantation. In the northern part of Illinois the estivo-autumnal parasite is rare; in Quincy it is not uncommon, and probably is quite common as far south as this city. The element of time is recognized in the name of the estivo-autumnal parasite.

Turning from the variations of locality and time let us take up those shown by deviation in results in the use of the recognized specific—quinin. Speaking in a general way we recognize quinin as the specific for malaria, and still, there are doubtless some among you who pin your faith to arsenic, or methylene-blue, or iron, or iodin, or mercury, or eucalyptus. When my college-days were ended my mind held the strongest conviction that of one disease at least I was absolute master, that malaria had no terrors for me because quinin would cure it. My faith was rudely shaken. During my first spring and summer in Quincy we had an unusual rise of the river. During the latter summer and early fall we had considerable malaria, many of the cases being atypical ones. In about half of the cases coming under my observation quinin alone seemed powerless to cure. If there were chills it would stop them, at least for a time, but the splenic pain, the aching of the bones, the nausea and vomiting, and the headache would go merrily on. I regret to say blood-examinations were not made for proof, but these were undoubtedly cases of estivo-autumnal fever, and in the words of one author, the crescent parasite laughs at quinin, and remains in the blood for weeks. The majority of these cases had taken quinin before calling a doctor—laymen buy quinin by the ounce in Quincy, and take from 2 to 10 grains t.i.d. Some would say that the chills were gone, but that they felt worse than ever. The patients were nearly all pale or yellowish; sclerotics yellow; tongue dry, lightly coated with whitish coat superimposed on bluish-red tongue; breath offensive; anorexia, nausea, and vomiting; some with gastric pain, others without; constipation and diarrhea about evenly divided; great splenic pain and some splenic enlargement; intense cephalalgia and sacralgia in nearly all cases; mild delirium in some; albuminuria in about half, and hematuria in 3 out of 51. These cases laughed at quinin alone, in large or small doses, whether given hypodermically, by mouth, or by inunction. On the other hand they did well after a mercurial purge, on small doses of quinin combined with arsenic, the preference being given to potassium arsenite, this being followed during convalescence by the tincture of the chlorid of iron.

To recapitulate, malaria is a generic term embracing several distinctly separate manifestations of disease caused by distinct and different parasites, parasites differing in age, habits, and in many morphologic characteristics, these differences causing the various manifestations in the clinical study of the disease, and necessitating the use of other remedies than quinin for satisfactory and permanent relief.

THE TREATMENT OF CERTAIN TYPHOID FEVER CASES AT THE U. S. GENERAL HOSPITAL, FORT MONROE, VA.[1]

BY CARL H. ANDERSEN, M.D.,
Acting Assistant Surgeon of the U. S. Army.

I HAVE the honor to submit herewith a summary of the cases of typhoid fever treated by me at the U. S. General Hospital, Fort Monroe, Va., during the period beginning July 20, 1898, and ending November 20, 1898.

In the tent-hospital there were treated altogether 412 cases of typhoid, of which 30 resulted fatally; 6 of the latter were in a moribund condition upon their arrival at the hospital. Of the total number of cases 87 were treated by me, and of these only 1 was fatal. Four distinct types of typhoid fever were observed, those from the camp at Chickamauga being the most virulent, those from Tampa, Fla., being the next in order of severity and the remainder coming from Santiago and Porto Rico being the least virulent. The type coming from Chickamauga Park had all the classic symptoms, such

[1] Published through the courtesy of George M. Sternberg, M.D., Surgeon-General of the U. S. Army.

as high fever, enormously enlarged spleen, delirium, tympanites, rose-spots on the abdomen, characteristic stools, hemorrhages from bowels, typical tongue, and in many cases abscesses in several parts of the body during the convalescent period. Of this class of cases I treated 18. When such cases are treated in civilian hospitals with every convenience at command, the death-rate is expected to reach at least 35%. The type of fever coming from Tampa, Fla., was less virulent, enlarged spleen being absent in many instances and the temperature not ranging so high. The rose-spots appeared only on the abdomen. Very few had violent delirium, although the stools and tongue were typical. As a rule no hemorrhage from the bowels occurred. Twelve of these cases were treated by me. The remaining 57 cases came from Santiago or Porto Rico and were of a very mild type, resembling in some degree malarial fever. The spleen was seldom enlarged in this type; few had delirium and none had tympanites.

The following treatment was pursued in treating the typhoid cases under my care. Being in tent-wards no baths were given, no matter how high the temperature of the patient, the probability of contracting pneumonia being considered great owing to the rapid changes in temperature constantly occurring. Calomel was given 2 or 3 times a week, in doses of 2 or 3 grains, the frequency of administration and the quantity administered depending upon the condition of the patient's bowels and the progress of the disease. Strychnin was given in every case, the minimum dose, $\frac{1}{60}$ of a grain, being increased according to the condition of the patient's heart. As nourishment 2 ounces of milk was administered every 2 hours. Two drams of brandy in 2 ounces of water was given every 2 hours when necessary. The stimulant was not increased unless absolutely necessary, but the milk was increased day by day until 6 ounces every 2 hours was being administered. The stools were watched very carefully, and as soon as it was observed that the milk was not entirely digested the quantity was decreased until the amount capable of complete digestion was reached. Morphin was administered only in cases of very violent delirium. The stools, discharges and bedding were disinfected thoroughly in all cases, the principal disinfectants used being chlorinated lime, milk of lime, and solutions of carbolic acid of sufficient strength. Clothing was disinfected, prior to being sent to the general wash, by steeping it in a strong solution of mercuric chlorid.

No patient was allowed anything but pure milk as a diet until 2 weeks after the temperature became normal, and no patient was allowed to sit up in a chair until 3 weeks after the normal temperature had been noted. The later regimen was watched carefully and, if deemed advisable, soft-boiled eggs were allowed, eggs beaten up with milk, and other like articles of light diet. After 2 more weeks of this course the patient was given more substantial food until eventually the usual diet was reached.

Of the 87 patients treated in this manner only 1 case proved fatal, and in that instance the patient contracted typhoid after recovering from an attack of malarial fever. Of the cases treated 29 had hemorrhage from the bowels and 33 had delirium. Out of the total 87 cases 41 were desperate.

The following case is an example of the last class, and is of interest as demonstrating the efficacy of the particular treatment adopted.

Corporal Paul Tuttle, Company L, 5th Ill. Vol. Infantry, was admitted August 27, 1898, from the camp of volunteer troops at Newport News, Va.; diagnosis "enteritis." Prior to arriving at Newport News this man came from the camp at Chickamauga, suffering from "enteritis," so that when finally removed to the General Hospital at Fort Monroe, Va., his case had become desperate. On the day of his admission to the hospital his morning-temperature was 102.4° and evening-temperature about the same. His stools were typical typhoid stools, spleen greatly enlarged, tongue characteristic, rose-spots on abdomen, tympanites; thus no difficulty was experieneed in diagnosing his case as typhoid fever. He was immediately plaeed upon my usual treatment. Given as nourishment 2 ounees of milk every 2 hours and as stimulant 2 drams of brandy in 2 ounces of water every 2 hours. Strychnin nitrate was administered in doses of $\frac{1}{60}$ of a grain every 4 or 5 hours as occasion demonstrated the necessity. The milk was gradually increased until, in the second week, the patient was taking 6 ounces every 2 hours; water was given ad libitum and brandy every 3 hours in 2-dram doses. The fever ran a regular course; delirium set in; the patient had violent twitchings of face and hands; skin was clammy; tympanites increased and he appeared on the verge of eollapse.

Turpentine-stupes were applied and oleum terebinthinæ was administered in 3-minim doses every 4 hours. Calomel was given in 2-grain doses. On the 26th day the temperature rose to 106.2° F. in the axilla in the evening, and to 103° F. in the morning. On the 29th day the patient had a eopious hemorrhage from the bowels. He exhibited great depression and again appeared on the verge of collapse. His skin was cold and clammy. Normal salt-solution was administered in the rectum every 6 hours with very fair results. I then decided on transfusion. The normal salt-solution heated to 106° F. was placed in a clean fountain-syringe, properly elevated, a glass pipet point attached to the end of the rubber-tubing and the liquid gradually introduced into the median basilic vein. The fountain-syringe was elevated 3 feet above the patient and a quart of the salt-solution injeeted. The pulse grew stronger, the body warmer and the result attained was generally satisfactory. Strychnin nitrate in doses of $\frac{1}{30}$ grain was administered every 2 hours. Brandy was given in the usual doses every 5 hours. Rectal enemas and strychnin were kept up all night and next day. The stryehnin was reduced the next day.

On the 31st day the patient began to improve greatly, when another hemorrhage occurred. No pulse could be felt in the wrist. A quart and a half of normal salt-solution was then injected into the median basilic vein. The temperature of the solution on this occasion was 105°. The patient's temperature at the completion of the transfusion was 104.2° F. The result was extremely good on this occasion. Hot-water bags were applied; strychnin given in doses of $\frac{1}{30}$ grain and rectal enemas of normal salt-solution continued. On the 35th day another large hemorrhage occurred. The nurse on this occasion thought the patient dead. No pulse could be felt in the wrist. The face was cold and clammy. Hot-water bags were at onee resorted to; the patient was wrapped in woolen blankets; strychnin was increased and finally a quart of normal salt-solution was transfused. The patient did not rally so well as formerly and normal salt-solution at a temperature of 108° F. was transfused. As the patient complained of pain in the region of the heart after a quantity of

the solution had been injected, the fountain-syringe was lowered somewhat and the transfusion proceeded with more slowly. The improvement upon this occasion was very marked. Albumen-water and milk were administered freely as nourishment. The patient gradually improved and I hoped that all hemorrhage had ceased. This did not prove correct, however. On the 39th day he had two very severe hemorrhages, one at 10 A.M. and another at 3 P.M. Transfusion was resorted to after each. One quart of normal salt-solution was injected on each occasion. The results attained were fair. Hot-water bags and turpentine-stupes were resorted to. Stimulants were kept up and nourishment forced as much as possible. Brandy and strychnin continued to be the stimulants used. On the 45th day another but smaller hemorrhage occurred. Transfusion was again resorted to. On the 47th day a quart and a half of the solution was transfused. At this time the temperature of the patient was 102.5° F.

From this time on the patient steadily improved. His appetite was good at all times except 12 to 16 hours after the transfusion, when he rejected all food. It was then administered by the rectum. On the 50th day the patient's temperature was 100° F. in the morning and 103° F. in the evening. The treatment now consisted of: Five ounces of milk every 2 hours; $\frac{1}{20}$ of a grain of strychnin nitrate every 2 hours; $\frac{1}{100}$ of a grain of digitalin every 4 hours, and the usual amount of brandy every 2 hours. Albumin-water was freely administered. On the 55th day large abscesses (not bedsores) appeared on cheek, side, leg and other parts of the body. These were opened, the pus removed and the parts aseptically dressed. On the 62d day a large abscess of the finger occurred and necrosis of the bone was developed. The bone was removed and the wound healed quickly.

Up to this time all temperatures had been taken in the axilla.

On the 70th day the patient was given milk-toast in conjunction with the albumen-water and milk, brandy, etc., formerly allowed. The temperature of the patient was now (taken in mouth) 99.5° F. in the evening and 97.5° F. in the morning. From this on the temperature remained normal. The abscesses which had formed all over the body did not recur and on the 78th day the patient was able to sit up for the first time.

From this time his convalescence was rapid and complete.

Referring to this case of Corporal Paul Tuttle, I desire to claim priority as to the manner of treating typhoid fever with hemorrhage from the intestines, as this is the first case on record in which transfusion of normal salt-solution has been resorted to.

This man left my ward on November 19, 1898, and was thoroughly cured.

FATAL CASE OF INFANTILE SCURVY: AUTOPSY.

BY ANTHONY BASSLER, M.D.,
of New York, N. Y.
Visiting Physician to Bellevue Hospital Dispensary.

INFANTILE SCORBUTUS being a disease only recently recognized as a distinct affection, and as cases are not common, and not often fatal, the following case is worthy of mention:

An infant, 1 year old, was brought into the Bellevue Dispensary. She was a full-term child, fairly well-developed at birth. For two months the child was breast-fed, then, probably because of a constant colic, she refused to continue with the breast-milk. During these two months she was apparently blind; the finger could be placed upon the eyeball before the eyes would close. When 5 months old she had sprue. About this time she began bleeding from the vulva. This bleeding continued intermittently for 6 months. This blood did not come from the urinary passage. Often the bleeding would continue for 3 weeks at a time; this was particularly noticeable when the child was held upright. Three weeks ago, after great disturbance of the nervous system, 2 teeth were cut (upper incisors).

After the breast-feeding was stopped, she was fed on oatmeal-water for a short time. This was changed to barley-water, which was continued for 3 weeks, and this last was changed to diluted cow's milk. All the foods were boiled.

On examination she appeared fairly well nourished. The skin had a muddy look; anemia was well marked; temperature, 99.1° in the rectum; pulse 80. It was noticed that she did not move her legs. They were flexed and apparently powerless. Pressure over the lower end of the femur and upper end of the tibia caused a painful cry and much uneasiness. The gums about the two teeth were markedly swollen, congested and blue in color. The teeth were loose, blood flowed from the gingival junction. There was slight signs of rachitis, no apparent disease of the heart. Thus diagnosis of scurvy, also bronchitis, was made.

In 60 hours the child died, it having grown rapidly worse. After leaving the dispensary and when reaching home, swallowing seemed impossible, so no orange-juice or fresh milk was taken.

Autopsy four hours after the child died. No rigor mortis as yet, although the mucous membrane of the mouth was very pale, the blue gums were very evident. There was great scarcity of fat-tissue. The kidneys had no capsules of fat. The heart, slightly enlarged, showed pathologic changes. In the soft muscular tissues there were areas of fatty degeneration. All the valves were normal excepting the mitral; these flaps were partly destroyed. They were thickened and irregular at the free edges from which a fringe of fibrous tissue hung, giving it a jagged appearance. The lungs were emphysematous, markedly congested. In the lower lobe there was a chronic bronchopneumonia of moderate extent. The stomach was enlarged, otherwise apparently normal. The intestines were coated with a thick, tenacious mucus, which was most marked in the colon. About 5 inches from the anus a fibrous constriction about 2 inches in length held the colon tightly against the back of the abdomen. This stricture (probably congenital) could account for the chronic constipation of the little one.

The liver and kidneys were slightly enlarged and showed much fatty degeneration. In the kidneys the cortical substance was very much swollen. On cutting down upon the lower end of the femur, the muscles were strangely dark in color, and a dark fluid constantly oozed from the cut surfaces, the periosteum was raised from the bone, distinctly fluctuating, and when cut open a thick grumous blood was forced out with a jet, it having been under pressure. The only change observed about the tibia was a thickening and congestion of the periosteum about the upper extremity.

The Unusual Course of a Dissecting Aneurysm of the Ascending Aorta.—W. E. Shortwell (*Colorado Medical Journal*, June 18, 1899). When called to see the patient he was found to be cyanotic and in convulsions, had at first suffered from severe pain in the right ear and radiating down the spine. A hypodermic of strychnin and digitalin relieved the spasm and the patient was comfortable so long as he remained in a reclining position. Although the heart-sounds could not be heard or the beat felt in the normal position the radial pulse was strong. The area of dulness was very much increased. The patient was removed to his home in an ambulance. The aneurysm had given rise to no serious trouble during life up to this time. The patient rested quietly in bed during the night, but died after getting up 24 hours after the first attack and going through the house and back. The tear was at first small, the hemorrhage was within the pericardium, and so long as he kept quiet the pressure of the blood in the pericardium and the contraction of the muscles prevented the fatal termination. The remarkable feature of the case was that he lived so long after the first attack. [C.L.L.]

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The saving of the life of Kipling, for which the whole civilized world has been so justly and abundantly thankful, is of course due to the science, skill, and devotion of medical men. Of this fact the world appears as thoughtless and as ungrateful for it—as the world usually is. It is therefore all the more striking that it has, even incidentally, been recognized by our medicine-hating, profession-detesting, and vivisection-loathing contemporary, *Life*, which speaks of him as "the greatest surviving illustration of the skill of the New York doctors." It will be remembered that during the illness every part of Kipling's lung-tissue was pneumonic.

Of injustice to the Navy Medical Corps, many conspicuous examples could be cited, but of late they have been increasing with remarkable prolificity, and the worst of it is that they seem in some instances due to the selfish ambition of officers high in authority. It is even said that the desire of the empty honor of a name, titular rank, is responsible for the fact that under the Personnel Bill the officers enter a whole grade behind army medical officers, and do not, *e. g.*, receive additional compensation as mounted officers (as army medical officers do). Generally speaking, there has been the same negligent disregard of their usefulness and heroism as was accorded Kitchener's medical staff. All this while brevets were showered in some favored departments of our army, in which favoritism and nepotism ruled unchecked. The regulations also as to voluntary retirement after 20 years' service, or after the attainment of a certain grade, are unequal, and to the naval officers, unjust. The naval medical service plainly needs better looking after.

Juvenile Depravity.—Within the last few weeks there have been reported not less than four instances in which boys have placed obstructions upon railroad-tracks, in two with disastrous results. The acts, it is explained, were committed in thoughtlessness and without malice. On the other hand, rather more than a year ago a train was wrecked in the State of New York by a number of boys for the sake of plunder. It is at once an important and a difficult question to decide what shall be done with the offenders. Those of the second class must of course be treated like older criminals, while those of the first class must be emphatically discouraged. The utility of corporal punishment may here be appropriately mentioned, but the true remedy consists in teaching children that they must ever respect the rights of others—and the lesson must be taught not less by example than by precept. For those children that will not receive such instruction through the ordinary channels special means must be provided, either in the form of schools or reformatories or other educational and restraining influences. The suppression of juvenile depravity means the prevention of juvenile or even mature crime.

The George Washington Memorial Association.—Many good Americans do not know that the United States Government spends about $8,000,000 a year, and employs about 5,000 persons, for what, in a general way, may be termed scientific purposes. Still fewer good Americans who think George Washington was a wise and patriotic man know that he formulated a plan and left money by will to help found a National University. The George Washington Memorial Association has been recently formed with something like 1,200 charter members for the purpose of carrying out Washington's wishes and adapting them to the new conditions and needs of the present time, by unifying the scientific opportunities, collections, and work of the Government into a great institution. If effectively and wisely carried out, no one can doubt that the plan would be of incalculable benefit to science and to the American people. The trouble lies in the impossibility of securing the cooperation of legislators in anything of an unselfish or genuinely political nature. Politics with us is not political. On the ground of the great advantage to medical science and progress, physicians should encourage the realization of the objects of the memorial association and see that in the working plans our professional aims are considered. What is of more vital importance to the nation than the national health?

Heredity or environment, whether the one or the other has been the predominant factor in evolution, is a question which has long been, and doubtless will long continue to be, one concerning which biologists and sociologists have had many wordy wars. We wish to call attention to a fact that seems not to have been noticed and which is a pretty convincing proof that in

civilized sociology the environment and education has vastly more influence than heredity. There is a woman in New York who has personally secured the adoption into good families of over 5,000 children of murderous, thieving, and drunken parents. Not only has she attended to the adoptions, but she has kept track of the adopted in after life, of many until their own children have proved the truth, and the result of her statistics is that not over 10% show tendencies to vicious lives; "90% are to-day educated, refined, law-abiding, and prosperous." This result, in part, is due to the well-devised methods of adoption. The children are chosen when babies, they must be legally and entirely adopted by good people, as their "very own," the child must take the name of his foster-father, and, most important, he or she must never know, or, if possible, suspect the real circumstances of origin.

"And strange to say," says the report, "it has not always been the most vigorous or the most attractive children that have been taken. I have known men and women who have passed the handsomest and healthiest child in the home and carried away a weakling whom they have nursed to health. Poor little humpbacks and cripples have often been taken to beautiful homes. I have even known men and women to carry away children thoroughly diseased, and, to all appearances, incurable. In many cases the best medical treatment and long and patient nursing have cured these innocent waifs, and they have developed into good men and women."

Fourth of July Lockjaw.—Many persons must be impressed by this time with the large number of cases of tetanus that have been reported in the newspapers as caused by wounds received on the Fourth of July. The fatal results have followed quickly, as a rule, upon the receipt of the wound. For instance, on the 14th inst. there had already been reported 25 deaths in New York City, and on the 15th inst. the newspapers in Philadelphia reported 2 coroner's inquests and 3 other fatal cases for the preceding day. Pittsburg reported 3 fatal cases on one day (before the 15th). Since these dates many other cases have been reported, especially from the large cities; and fatal results may be feared in the third and even fourth week. As a rule, tetanus is not fatal in ten days after the receipt of the wound, although the fact has long been known that the earlier the disease appears after the injury the more virulent and more rapidly fatal it is likely to be. It would thus appear that many of the Fourth of July cases are instances of extreme virulence. Several deaths, in fact, were reported in Philadelphia so early as the 11th inst., and Boston reported 1 death on the 10th. This activity of the poison is doubtless due to the nature of the wound and (in many cases) to the carelessness with which it is treated. The wound in the vast majority of cases is in the palm of the hand or in the fingers, and is caused by the obnoxious toy-pistol or the cannon-cracker. It is, therefore, either a penetrating or a lacerated wound—often both—and thus presents the most favorable conditions for infection. Moreover, the hand of the victim is usually begrimed with dirt—especially from the earth. The alarming fatality from lockjaw should impress upon the public the extreme need for radical treatment of these wounds—even the most insignificant of them. Tetanus is an infectious disease, due to the action of a microbe; and, although one of the most fatal of diseases, is probably one of the most easily preventable in many cases. The wound should be thoroughly cleaned and drained, as only a good surgeon or physician can do it, and never by amateurs or according to household methods. Cauterization in these cases is a pernicious practice, because it makes a crust over the wound and thus prevents free drainage. In other words it effectually imprisons the microbes, and thus promotes infection. The bacillus of tetanus is said to be anaerobic—it lives without air, or at least is killed by free air. Hence the necessity for cleansing and drainage. Finally, this bacillus is telluric—it inhabits earth or soil.

The serum-treatment has so far not proved reliable. Prevention is, of course, better than cure; and this sad mortality among boys and young men should tend to put an end to some of the dangerous and irrational customs that are so popular in the celebration of the national holiday.

"Vivisection Up To Date."—We revert to the subject of vivisection because of a communication that has been brought to our notice, entitled: "Vivisection up to date," which was published in the initial number of the *Abolitionist*, a journal recently launched by Frances Power Cobbe, of England, to do battle to the medical profession, under the editorial supervision of Rev. John Verschoyle. The article in question is by one who signs himself M.D.—a homeopath. He not only refers to the uselessness of vivisection on animals, citing the apostle of the antis, the late Mr. Lawson Tait, but also mentions the "inutility of experiments on animals," said to have been admitted by Claude Bernard, and states that the "'altogether erroneous conclusions' arrived at by those early vivisectors of men, Herophilus and Erasistratus, have not deterred our *fin-de-siecle* researchers from experimenting on a very extensive scale on human victims, who had confided themselves to their care, or had entered the hospitals for the cure of their diseases or the alleviation of their sufferings." To prove the truth of this assertion, and incidentally to besmirch the honored names of eminent scientists and physicians, he quotes from the writings of the following, guilty of the most obnoxious practices: Koch, Schrieber, Döderlein, Menge, Krönig, Schimmelbusch, Janson, Epstein, Gross, Bumm, Finger, and Neisser. We have gone to considerable trouble in an endeavor to verify our author's statements, not so much with the idea of disproving that unjustifiable experiments have been performed upon human beings, but rather to furnish additional proof of that of which we are well

aware—the looseness of the statements and the illogical and unwarranted deductions of many of the antivivisectionists. As indicative of the reliability and exactness of the article in question, it may be stated that of the 14 communications of the above-mentioned 12 authors, the correct references are given of but 6 (Koch, Schrieber, Menge, Krönig, Schimmelbusch, and Bumm). Of 4 (Döderlein, Janson, Epstein, and Gross) no references are mentioned; of 3 (Gross, Finger, and Neisser) the references are either incorrect or cannot be verified. The reference given for the remaining 1 (Bumm) cannot be found, and we are informed by a reliable librarian, that the work indicated by the reference has not yet been published.

Koch is "damned to everlasting fame" for his pretended remedy for tuberculosis, and is roundly abused for his injection of tuberculin into healthy adults. Our author not only insinuates extreme moral debasement on the part of Koch by characterizing tuberculin as a "pretended remedy," but, on the other hand, he neglects to mention that one of the first adults injected with the tuberculin was Koch himself. This fact must have been purposely suppressed, as Koch mentions it early in the paper cited by our author. Although as a remedy for tuberculosis tuberculin has deservedly fallen into disrepute, the incalculable advantage that it has proved to the human race has evidently escaped the attention of our antivivisectionist. It is well known that tuberculin is of extreme value in the diagnosis of tuberculosis, especially in cattle, and permits recognition of the disease before it has given rise to any tangible symptoms. We surmise that even our antivisectionist would like to be assured of the health of the cows from which he obtains his milk-supply. In this connection there is nothing more important than a negative response on the part of the cows to the tuberculin-test.

To the casual reader of the article in question, it would appear that Schimmelbusch is guilty of the death of two boys because of his having rubbed into their legs cultures obtained from a furuncle. As a matter of fact the boys were dying of septicemia at the time of the inoculations. Pustules developed at the site of the inoculations in both cases, but one boy did not die until the lapse of two weeks, at which time the pustules had about healed, and the other boy was so nearly dead at the time of the inoculation that he survived but 24 hours. Janson is said to have used 14 children in preference to calves in experimenting with black smallpox, because the children were cheaper, but no reference is given for this statement. Nor is there any reference for the experiments of Epstein, who is reported to have fed the eggs of round worms to children in order to ascertain if worms could be reared at will in the intestinal tract. In this connection four other authors—Cobbald, Davaine, Blair, and Rogers—are cited without reference. The other important experiments referred to are those of Menge, who injected various cocci into the vaginas of women to ascertain the bactericidal action of the vaginal secretion; of Gross, who injected gonococci into the healthy urethra and arms of men; of Finger, who is said to have communicated syphilis; and of Neisser, who "inoculated 8 healthy persons with the same disease, 4 of whom became affected with its unmistakable symptoms."

In this connection we have no desire to dispute facts, and for the sake of our argument it may be admitted that all the experiments cited were in reality performed. We abhor them and we abhor their perpetrators, but we abhor more the writer who deliberately distorts facts and knowingly deduces, or suggests to the less well informed, unwarranted conclusions from certain premises. If the sin of vivisection and the sins of vivisectors were as heinous as the antivivisectionists paint them the crowning sin of the antis, a disregard for truth and justice, is still more harmful and outrageous. We will refer merely to the most reprehensible experiments cited—Neisser's. In reality, Neisser did inoculate 8 presumably healthy persons with the serum of syphilitics. But instead of inoculating them with the idea of experimentally producing syphilis, he inoculated those presumably unaffected with the disease, but whose occupation exposed them to the likelihood, to the almost certainty, of becoming infected, with the idea of rendering them immune,—in other words, he inoculated young prostitutes. He was careful to secure the serum free of all cellular elements, hoping thereby to inject merely the antitoxic (antisyphilitic) bodies. Of the 8 prostitutes inoculated, 4, at the end of several years, had not become infected (were they rendered experimentally immune?) and 4 had become syphilitic. In reading the article in question, the unthinking would readily presume that virtuous persons were, unknown to themselves, inoculated with syphilitic virus, and that as a direct consequence thereof they became subsequently affected with the most loathsome of diseases. But who will state that of 8 young prostitutes, one-half are not almost certain in the course of a few years to become infected with syphilis as a direct result of the trade they ply? But these facts are suppressed by our conscientious author, and the old argument of post hoc, propter hoc, is brought forth in all its—ridiculousness. We mention this merely to indicate the absolute lack of good faith, the unreliability, the woful distortion of facts, the unwarranted deductions of some of our friends the antivivisectionists.

Reverting, however, to the experiments themselves, we find no reason to alter the opinions that we had occasion to express a short time ago (see Philadelphia Medical Journal, Vol. III, page 964): "Human vivisection differs from animal vivisection in the one fundamental distinction that whereas the latter (under wise and humane limitations) is permissible for the welfare of

the human race and the progress of science, the former is permissible only for the good of the individual himself. The advancement of science cannot outweigh the concern for individual welfare, and the sacrifice of one individual to others must never be sanctioned, except in rare instances, as, for example, sometimes in obstetric cases." From this point of view we denounce such experimentation on human beings as is cited above, and we denounce the guilty perpetrators of the experiments. All right-thinking men will contemplate with repugnance and horror any experiment on man that either directly or indirectly tends to produce in a human being any disease, more particularly any venereal disease. Certain experimentation on human beings, always with due regard to the interests of the individual, are to be commended as being necessary, especially those that fall within the domain of clinical surgery and clinical therapeutics, but no one is ever justified in experimentally producing in a human being any disease, any more than he is justified in not observing all precautions to prevent the development of certain diseases, as, for instance, sepsis in the puerperium. We are pleased to note that in Germany, where these experiments with the serum of syphilitics were performed, the perpetrators are receiving the denunciation they merit. We may repeat: "Let us be frank in condemnation and alert in the prevention of the crimes of those, if there be such, who become as great enemies of science and of the profession as they are of the patient and the community, when they overstep the sacred rights of personality, and use individuals as tools for other ends. The use of another as an instrument, and not for his welfare, is the quintessence of all crime and injustice."

"Mrs. Pinkham's Lawn Party,"—that is the heading of a long and important dispatch in the daily papers, describing how Lydia, "the friend of womankind," gave the largest lawn party ever given in Boston to the Young Ladies' Branch of the W. C. T. U. of that city. Everybody was "charmed" by "the gracious bearing" of the hostess, the orchestra, the food, the Japanese lanterns, and the rest. The dispatch continues:—

> Across the street from Mrs. Pinkham's home are situated the immense laboratories and office-buildings, where are manufactured the medicines which have made the name of Mrs. Pinkham known in every house throughout the land. Here a large force of workmen are kept busy meeting the demands which are constantly pouring in for Mrs. Pinkham's popular remedies.

We had supposed that the original Lydia was dead, but *Le Roi est mort, vive le Roi!* We wonder what the opinions of the new Lydia are as to Christian science, antivivisection, and the rest of the antis? We know what the W. C. T. U. thinks about such things. But more important still would be the succinct and official opinions of both as to the relations of Christianity to modern nostrums, as to the duties of good citizens to the science of medicine and hygiene, and, more important still, as to the ethics of advertising. The newspapers, and the editors who inserted the "ad" (?), verily, they have their reward!

Medical Sermonets, No. 2.—The Hybrid of Pornography and Science is a new product of biologic and sociologic evolution, springing from the unnatural union of degenerate parents. A depraved commercialism with its nostrums desperately wooes pseudomedical science, and we have a resultant species of literary hybrid of remarkable qualities. That the dominant element of sexualism in human nature was not without influence in medicine is very evident to readers of old medical literature; its traces are also plain in the anatomic nomenclature that has come down to us from medieval days. That it is still a power is proved by much so-called medical literature in many so-called medical journals. Still better proof is adduced by some of the manufacturers of nostrums, who find it does pay to produce literary invitations to the medical profession to use and advise the nostrum. To buy the strange paper on which these advertising pamphlets are printed, to pay the artists (?) who devise the cuts, to settle the bills of the engravers, the printers, the binders, the addressers, and the post office, must cost an enormous amount of money. When the advertisement is addressed to medical men only, there must be a sufficiently large part of the profession whose standards of art, humor, ethics, and science, are such that their commendations and uses of the nostrum amply serve to recompense the advertiser. It is not a pleasant subject, nor is it a hopeful sign that these pamphlets are growing in number and size, and are distributed more lavishly than ever. They are sent in the mails, which should exclude them, and left at the residences of physicians, so that women and girls get hold of them to shock or to corrupt, and give them a false idea of what self-respecting physicians are doing and thinking. These writings make the doctor the accomplice and patcher-up of vice and the disease that follows it, a kind of diabolically cunning sharper, after money, and successfully screening libertines from the natural results of hypocrisy and criminality, by means of his skill, plus the cure-all nostrum he has been sharp enough to get hold of through the no less cunning manufacturer. Hybrids are sterile, and this one shares the common curse; there is a stupid and leering attempt at wit which nauseates as much by the failure in humor as by the success in the indecency. The French are experts in this unseemly art of pornographic literature, but they frankly address it to lay pornographists, not to the profession. Our poor imitators have neither the literary nor the artistic skill to make text or illustration provoke a smile in the lover of genuine jocosity, and the grins of these splashers in their own filth are anything but mirth-provoking.

We appeal to every physician who may receive samples of this hybrid literature to set upon it the seal of his condemnation. Write to its perpetrators of your disgust, and call upon their better nature, or at least their better business-sense, to stop it. Let us free our professional characters and reputations of the shame either of its encouragement or of its permission!

University of Innsbruck.—Dr. Von Hacker, professor of surgery, has been elected rector of the University for the coming academic year.

Special Article.

MEDICAL BRICABRACOLOGY.

No. 2.—Oaths and Clothes.

WHEN Hippocrates, in ancient days, bound all his pupils by an oath, which many people erroneously think all graduates in medicine take to-day, there were some very queer but none the less good things required by that oath. The pupil swore to do certain things, and not to do certain other things, calling upon Apollo, Esculapius, Hygeia, the goddess of health, and Panacea, the goddess of healing, and all the other greater and lesser gods, to witness these vows.

The Hippocratic Oath was briefly as follows:

"I swear by Apollo, by Esculapius, by Hygeia and Panacea, by all the gods and goddesses of Olympia, whom I call upon as witnesses, to fulfil this vow according to my capacities and my power."

"I will regard as my father the one who has taught me medicine; I will share with him my goods and money if he shall be in need; I will consider and treat his children as if they were my brothers, and if they desire to study medicine I will teach them without reward of any kind."

"I will prescribe for my patients that which seems most useful and will reject everything harmful."

"I will maintain a pure life and exercise my art only for the good of man."

"That which I have heard while in the exercise of my profession I will consider as a secret which ought not to be divulged."

"If I keep my oath, may my life be happy and my reputation honored; if I violate my oath, may I suffer the contrary."

This is an abbreviated form of the oath, but gives the general character of the vow. The licentiate further agreed not to give poison to any one asking it, and to abstain from giving a woman an abortifacient as well as cutting for stone. Regarding the latter clause, Mons. Doctor Charpignon, who has written a monograph upon the subject, thinks that Hippocrates referred to castration and not cutting for stone.

Considering the licentiousness reigning at that time, and the fact that pederasty was prevalent, slaves and others being castrated that they might grow up emasculated and therefore more feminine in actions and appearance, it is probable that castration was the operation interdicted by the oath.

Historians also say that Hippocrates himself violated the clause forbidding the administration of abortifacients, but this is difficult of belief considering the reputed high morality and firmness of character of the man.

Many stories are told, and among them the following is worthy of repetition: Artaxerxes, the king of the Persians, jealous that a nation, an enemy to him and his, should possess such a valuable physician as Hippocrates, sent deputies to him bearing magnificent presents of great price, demanding that he should become a member of his household and exercise his wonderful skill there. Hippocrates sent back the proud reply: "In my own country I have my living, clothing, and shelter. It is not meet that I should possess the riches or the grandeur of the Persians, nor that I should cure barbarians who are the enemies of the Greeks."

It is easy to see why the Hippocratic Oath is not practicable to-day, for if medical colleges were obliged to give instruction literally, without money and without price, there would be an astonishing lack of colleges. In other respects, however, the oath is in a great degree incorporated into codes of ethics, and the professional secret is one of the most stringent requisites.

Apropos of this secret, a story told of a surgeon in a Paris hospital is interesting. After an insurrection this surgeon was asked by the authorities if he had received any insurgents for treatment. His answer was brief and honorable: "I do not know. In my profession I recognize neither insurgents nor soldiers; I see none but sufferers."

The oath, however, in its original form, was administered to graduates of the School of Montpellier, which was famous in France in the twelfth century.

This solemn performance was called the "act of triumph." The recipient took the oath with his hand laid upon the book of Hippocrates, his body being covered with the robe of Rabelais, but as every graduate found ways and means to cut off a piece of this gown, as a souvenir, it was necessary to make a new gown from time to time, which answered just as well as the original.

Upon the head was a bonnet or round cap, somewhat like a Tam O'Shanter in shape, made of black cloth and surmounted by a crest of crimson silk. Upon the finger was a gold ring and the loins were girded with a gilded belt. In fact, the laws had much to say as to what style of dress the physician should wear, and the cap alone often announced the degree. In the School of Paris the three grades were baccalaureate, licentiate, and doctorate, the latter alone having the right to wear the square bonnet or cap, analogous to the "mortar-board" of the present time worn by collegiates.

Hippocrates himself wrote much relating to the material and moral qualifications of the good physician and included remarks upon dress.

"He who wishes to be a physician should have a natural disposition, favorable instruction, and that from infancy, love of work and long application."

"The good physician ought to be of lusty health, portly figure, and good carriage, for the common people imagine that he who is not in good health is not in a state to advise others profitably." (It is a case of "physician, heal thyself," when the man is lean and sickly.)

"He should be scrupulously neat and clean as to his person and dress, with a delicate perfume about him, but not a pronounced one, for in general all these please the sick one."

"As for morality, the wise physician will not only be discreet, but he will observe great regularity in his life; that adds most greatly to reputation. His manners and morals should be honorable and irreproachable, and with all that he should be serious and good-natured, since forwardness and prodigality excite distrust."

"He should regulate himself according to the license given him by each patient, for the same things seldom present themselves to different persons as acceptable"

"His features should be thoughtful, without austerity, otherwise he will appear arrogant and harsh; on the other hand, he who gives way to laughter and to excessive gaiety transgresses the laws of propriety, and these should always be conscientiously observed."

Even in the time of the School of Salerno, one of the oldest of the old schools, the personal appearance of the physician was considered worthy of precept. He was advised to wear decent clothes and a ruby ring. A ring, by the way, was put on the finger of each graduate as a sort of insignium. He was counseled to be affable and zealous, always ready

to answer a call. He was to ride a faithful courser and by these methods he was sure to add to his reputation and have a beneficial effect upon the spirit of his patient, so that he would recover more quickly and he (the doctor) would gain patients without number. But the man with a threadbare suit and a poor equipment would succeed but poorly and be niggardly rewarded. The School of Salerno, flourishing about the twelfth century, was a popular one and did much to advance medicine.

In this connection it is interesting to glance at the methods of instruction of that time. The University of Paris was held in a sort of tumble-down house in the Rue du Fouarre, at the foot of Mount Saint Genevieve. A stool, two candles and some trusses of straw, scattered about on the bare earth, composed the furnishings of these squalid quarters, to which the students hastened at five o'clock in the morning. The costume of the professors was in harmony with the surroundings. By the statutes of 1350 they were ordered to wear a round bonnet (cap), but even this article of wearing apparel was obtained with difficulty.

In the absence of clocks and watches, the pupils regulated time by the bells in the neighboring churches. The Mass of the Carmelites, celebrated at 5 o'clock, gave the first signal, and an hour later came the bells of Notre Dame. Consultations of the Faculty were held at the Church of the Mathurines, at Saint Genevieve des Ardents, or at Notre Dame, around the holy-water fonts, at the foot of the towers.

The dress of the modern physician is subject to no rules of legislative bodies, yet the rules of good sense and propriety, unwritten, yet none the less binding, favor the somber yet dressy suit of black. These have no connection with Hamlet's "inky cloak," . . . "the trappings and the suits of woe," but are accepted as marks of refinement and education.

The physician, on the other hand, who dresses in a "sporty" suit may have a certain clientele, but the better class associates him with the race-track and the horse-doctor. Polonius' advice to his son Laertes in Hamlet may well be taken in this connection, and it applies as well to "My fayre ladye," the woman doctor:

> "Costly thy habit as thy purse can buy,
> But not expressed by fancy; rich, not gaudy;
> For the apparel oft proclaims the man."

The time-honored idea of the savant is a man too absorbed in his studies to pay proper attention to his person, but people don't want that kind of a person to visit them as a physician. The man with less knowledge but more policy and good-fitting clothes of fine texture will gain an entrance to the best of places, while his more learned brother resembles Shakespeare's apothecary which Romeo remembers: "In tattered weeds, with overwhelming brows, . . . meager were his looks, sharp misery had worn him to the bone."

Even the hat has some influence on the success of the doctor. Oliver Wendell Holmes, speaking of this, says:

> "Wear a good hat, the secret of good looks,
> Lies with the beaver in Canadian brooks."

LEON NOEL.

The Albert Medal of the Society of Arts for the present year has been awarded by the President and Council to Sir William Crookes, F.R.S., "for his extensive and laborious researches in chemistry and in physics—researches which have in many instances developed into useful and practical applications in the arts and manufactures."

Correspondence.

OXYGEN AND LIFE.

BY A. H. SMITH,
of New York.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

IN the JOURNAL, July 1, p. 6, is an article on anesthesia in which I find the following statement: "Our study of chemistry and physiology has taught us that. . . . life cannot be sustained on pure oxygen alone."

I have kept animals in an atmosphere of pure oxygen continuously for four days without, in any way, apparently impairing their health or causing them discomfort. I have myself inhaled pure oxygen for a quarter of an hour at a time without experiencing any unusual sensations or changing the pulse-rate by half a dozen beats.

The author quotes from Kirke's Physiology as follows, (speaking of the absorption of oxygen by the blood): "If the proportion is great the absorption will be great. The absorption continues until the proportions of the gas in the liquid and in the atmosphere are equal." It would be interesting to know the date of the book from which this passage is taken.

RED SPECTACLES AS A PREVENTIVE FOR SEASICKNESS.

BY N. J. WEILL, M.D.,
of Pittsburg.
Formerly Assistant of the University Eye-Clinic, Zurich, Switzerland.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

PARTICULARLY on the Continent, and principally in Germany, the newspapers have dwelt upon the employment of bright-red glasses accompanied by internal doses of calomel as a modern specific against seasickness. The *Medical Record* recently mentioned the new German specific shortly after an allusion to the same had appeared in the *Scientific American*. This treatment is deduced from the investigations of Epstein on the influence of color on the bloodvessels of the brain. Inasmuch as seasickness is regarded by many as due to lack of blood in the brain, and red, according to Epstein, being the color which should send blood to the brain, the wearing of bright-red lenses at sea would appear to be an appropriate means of preventing seasickness.

The *Scientific American* states that by looking at one point for some time through red glasses the patient is cured radically. To assist this new mechanical preventive of seasickness the administration of calomel or the like, to aid the functions of the digestive tract, is often essential. Numerous Germans have tried red glasses to prevent seasickness, but as yet I have failed to see any publication of the results obtained by them. Having been subject to seasickness on all my previous sea-voyages, in various months of the year, I concluded to employ this proposed safeguard upon my next opportunity. Accordingly I had a pair of eyeglasses fitted with bright-red lenses. I did not attempt to analyze the mode of action of this experiment, but decided simply to take advantage of it. We sailed from Southampton for New York early in May, and from the very beginning of our sea-voyage the red glasses were worn. The first two days on the ocean were most favorable in every respect, and seasickness was not experienced by me. But on the afternoon of the

third day we experienced a so-called "breeze," to which I promptly responded, becoming actively seasick, even though I had perseveringly worn the red glasses. I discarded the glasses to learn how I would fare without them for the balance of the trip. The following two days the weather was delightful, the sea calm and my health very satisfactory. In the afternoon of the sixth day we again had a "breeze," severer than its predecessor, but with about similar effect upon my constitution. From my single personal experience with the employment of red glasses at sea to inhibit an attack of seasickness, I believe that this popularly proposed treatment did not in any way contribute to alleviate such predisposition. A number of foreigners, who had personally used this procedure or had witnessed its application on various sea-voyages on different waters, have remarked to me that the results of their experience were in perfect accord with mine.

A CASE OF SPORADIC CEREBROSPINAL MENINGITIS, WITH BACTERIOLOGIC EXAMINATION.

By FREDERICK T. SIMPSON, M.D.,

of Hartford, Conn.

To the Editor of The Philadelphia Medical Journal:—

In view of the editorial of July 8 on cerebrospinal meningitis, may I report one case of the sporadic form with bacteriologic examination that may be of interest? For more than a dozen years, I should say, there has been no epidemic of cerebrospinal meningitis in Hartford County. Our statistics show an average of about 9 deaths per year from this disease for this period. No epidemic exists at the present time. The case about to be mentioned is therefore of the sporadic form.

W. A., male, aged 25, machinist, developed an exudate in the right pleural cavity during July, 1898. It was accompanied with mild fever, little pain and only sufficient prostration to keep him from work but not in bed, except under orders. Gradual resolution and absorption went on through the fall, but was not completed in January, 1899. Then he was suddenly seized with severe headache and backache, fever, prostration, restlessness. In two days appeared delirium, retraction of head generally, increased muscular tension, deafness, mydriasis. Within a week came stupor, incontinence of sphincters, conjugate deviation, nystagmus, etc. Lumbar puncture was made on the seventh day with free escape of cerebrospinal fluid to the amount of at least three drams, part of which was allowed to flow into a culture tube and delivered to the board of health. The symptoms of the patient were considerably relieved for 12 hours, and the patient responded and was to a much greater degree rational. On the eighth day about a dram more of fluid was taken away for a culture-test. Gradually, however, symptoms became aggravated and death by coma occurred on the twelfth day of the disease. No autopsy was permitted. The second culture-tube developed nothing. The first one developed 2 colonies within 36 hours. Examination of one of them by the microscope showed a diplococcus in tetrads in pure culture. According to the bacteriologist, examination of the other showed staphylococcus pyogenes aureus, the growth of which subsequently became more extensive.

If the presence of the staphylococcus was not accidental, of which I am not certain, this was a case of mixed infection. If staphylococci were really present in the cerebrospinal fluid, we would naturally expect a growth in the second culture-tube, as it is so easy to obtain, but there was none. Notoriously the meningococcus is difficult to grow and is a rare germ, so that the significance of its presence is unmistakable. Clinically I had already come to the conclusion also entertained by my consultants that the meningitis was not secondary to the pleurisy but a primary affection and the result of the bacteriologic examination strengthened my belief. So far as my reading goes, Weichselbaum's diplococcus has never been found in a primary pleurisy, though it does occur in pneumonia coincident with meningitis. A serofibrinous pleurisy is almost invariably sterile, and when not so, tubercle-bacilli, streptococci, and staphylococcus albus are the usual microbes present. Thus it seems fair to conclude that there was no connection between the pleurisy and the meningitis and that the case furnishes one indubitable instance of a sporadic meningitis caused by the diplococcus intracellularis.

THE WORK OF JOHN CRAWFORD AS TO THE ETIOLOGY OF INFECTIOUS DISEASES.

By EUGENE F. CORDELL, M.D.,

of Baltimore, Md.

To the Editor of The Philadelphia Medical Journal:—

Various allusions have been made of late to Dr. John Crawford, of this city, as the author of the "mosquito theory of malaria." Allow me to say a few words as to this physician and his writings, which are indeed most interesting and remarkable. I can here only deal briefly with the subject, but have prepared a lengthy notice for the forthcoming number of the *Johns Hopkins Hospital Bulletin*. Dr. Crawford was born in the north of Ireland, in 1746, settled in Baltimore the year the city was chartered, 1796, and died here in 1813. It was in 1790, while Surgeon-major of the Dutch Colony of Demerara, that his attention was drawn to the animalcular origin of disease. He was there put in charge of a hospital of 60 to 80 beds, and made a great many autopsies. He was absolutely untrammeled in his work, and he was placed in unusually favorable conditions for investigation of the pathology of the diseases which prevailed in that locality: dysentery, malarial fevers, yellow fever, cholera, etc. He was particularly struck with the frequency of hepatic abscess when there had been no symptoms pointing to that condition during life. When the rays of the sun struck the earth obliquely, in the evening, he observed myriads of insects at a distance floating in the atmosphere. They were invisible near at hand. If in the air, thought he, why may these creatures not enter with my breath, and once within my body, is their presence entirely without significance? Are they then entirely innocuous? May they not deposit within my body their eggs, and when these have been hatched out may they not produce disease? Much occupied with these thoughts, he was struck with the fate of the cotton-trees. He could find nothing in the textbooks on the subject and was not aware at the time that the view had ever been proposed before that time. Some years afterward, in visiting Leyden, where he had received his medical degree, he became aware of the writings of Kircher and Pleneif. Struck with the adaptability of the theory to the diseases and the postmortem appearances which he found, he pursued his investigations enthusiastically. Being a fine naturalist, he was able to do this with success. He studied the causes of disease not only in man but in the lower animals, and then continued his researches in the vegetable kingdom. His scientific bent placed him above the absurdity then the vogue, of regarding man as superior to the rest of creation and not amenable to its laws. He recognized that one law applied to all living things, whether vegetable or animal. The withered leaf, the rotting wood, the moldy

bread, the putrefying flesh, the caterpillar invaded by the ichneumon, the horse seized with the botts, the human being attacked with fever, were to him all instances of the same process and proofs of the truth of the law that every living thing is liable to parasitic invasion and destruction. Some of these invaders we can see (flies, mosquitos, lice, worms, etc.); most of them are invisible. Many will never be known, but we need not despair. With prophetic vision he declared "*Our ignorance upon these subjects cannot continue always, they are not beyond the reach of human intelligence.*"

Dr. Crawford believed the proofs of his "animalcular theory" to be absolutely convincing, such as in any other department of human inquiry would have been accepted without question. He held that the theory gave a clear and distinct explanation and solution of the entire question of etiology, which had perplexed the minds of men through all the previous ages and given rise to the greatest diversity and absurdity of view. Nor was he a mere dreamer—his views were practical and he carried them out to their legitimate result. The well were to be kept away from the localities infested by these noxious germs—the sites of epidemics—and the sick were to be removed beyond their influence. Cleanliness was to be absolutely enforced, cleanliness of person, cleanliness of houses, cleanliness of streets, cleanliness of harbors. He treated the disease when he could not prevent it, upon the same theory. He applied his remedial agents with the object of destroying the living hosts within the patient's body. What was the result? Could such a man—60 years ahead of his time—escape the fate of the reformer? No. His life was embittered by the hostility of his colleagues. He was ostracised by them, he was regarded as a crank, he was ridiculed, he could not get them to listen. Was he deterred by opposition? No, he expected opposition and was prepared for it; he had no misgivings as to the result and would proceed perseveringly with his investigations, hoping to convince those with whom the love of truth is the predominating principle of action. He was willing to make any sacrifice to attain this object and to submit to any deprivation. Fortunately he was supported by a mind which did not crave luxuries, but was satisfied with the necessaries of life; his inclinations were all devoid of extravagance, and the plainest fare was as acceptable as the richest viands. Having already advanced far in his 65th year, the charms of life had largely lost their attractions, and there was no impediment to his pursuit of the path which he had followed for nearly 20 years. The difficulties he had had to encounter had indeed increased his ardor. As long as health and life remained he should deem himself strictly in the performance of his duty while so employed, and would leave the result to that august Being who has made nothing in vain and who often makes use of the humblest instruments to accomplish his all-wise purposes, lest presumptuous man should assume to himself the glory which belongeth alone to God.

2032 Maryland Avenue, June 11, 1899.

Dr. Frederick A. Washburn, Jr., assistant superintendent of the Massachusetts General Hospital, has tendered his resignation to accept the position of Assistant Surgeon with rank of Captain in the 26th Regiment of Volunteers now recruiting for the Philippines. It will take effect when he is ordered to join his regiment at Plattsburg. Dr. Washburn went through the Porto Rico campaign with General Miles, as assistant surgeon of the 6th Massachusetts Volunteers.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Philadelphia Hospital.—Dr. Henry W. Cattell has been elected pathologist to succeed Dr. John Guiteras, who recently resigned.

University of Pennsylvania.—The receiving ward is being remodeled and enlarged. Better facilities for operations are being provided.

New Jersey State Hospital (Trenton).—Dr. Charles Lewis Allen, of Washington, D. C., has been appointed Pathologist and Second Assistant Physician.

Woman's Medical College of Pennsylvania.—Dr. Thomas S. K. Morton has been elected professor of the principles and practice of surgery and of clinical surgery, in succession to Dr. John B. Roberts, who recently resigned.

Dr. John H. Gibbon, of Philadelphia, and **Dr. Herbert A. Arnold,** of Montgomery County, have been appointed assistant-surgeons in the National Guard of Pennsylvania, and have been assigned to the Sixth Regiment, Infantry.

The Alvarenga Prize of the College of Physicians of Philadelphia, for the year 1899, has been awarded to Dr. Robert L. Randolph, of Baltimore Md., for his essay entitled: The regeneration of the crystalline lens; an experimental study.

Lehigh Valley Medical Association.—The nineteenth annual meeting will be held at Glen Summit, July 27. In addition to the transaction of miscellaneous business pertaining to the Society, and the election of officers, the retiring president, Dr. J. E. Bauman, of Telford, will deliver an address on tuberculosis, and Dr. W. L. Rodman, of Philadelphia, will give an addess upon the importance of early diagnosis and operation in tumors of the mammary gland.

Dr. George H. Richardson, of Class '91, Medical Department of the University of Pennsylvania, who was sent to the Philippines on May 17, 1898, as Acting Assistant-Surgeon, was given, on May 21, 1899, a commission as Captain and Assistant-Surgeon in the First California United States Volunteer Infantry. He has been with this regiment since January 3, and was with them during the fight of February 5, in the capture of Paco, Santa Anna, San Pedro Macarti, and Guadaloupe. Dr. Richardson arrived from Burmah only a few months before sailing for Manila.

State Board of Health of Pennsylvania.—The thirty-third annual meeting was held at Glenolden and Essington, July 14, under the presidency of Dr. John Fulton. The following reports were received from standing committees: Executive Committee, Richard Y. Cook; Registration and Vital Statistics, Benjamin Lee; Preventable Diseases, Disinfection and Supervision of Travel and Traffic, John Fulton; Water-Supply, Drainage, Sewerage, Topography, and Mines, John Fulton, C.F.; Public Institutions and School Hygiene, Samuel T. Davis; Adulterations, Poisons, Explosives, and Other Special Sources of Danger to Life and Limb, Philip A. Boyer; and Sanitary Legislation, Rules and Regulations, J. H. McClelland. At the conclusion of the meeting the State Quarantine Station at Marcus Hook was inpected.

Berks County (Pa.) Medical Society.—At a meeting held at Reading, July 11, Dr. A. B. DUNDORE read a paper on

Moral pollution and sanitation. Dr. Dundore viewed a man from the physical, moral, and spiritual aspects. He stated that obscene literature, pictures of love adventures, and much of the literature of the daily newspapers all have a tendency to lower the standard of morality. Politics with its vows and promises unfulfilled, rolls of principles laid down and never carried out, election returns falsified, piles of tax-receipts that were never paid by the debtor, bosses and dram-shops, none aid in purifying or in raising the standard of morality. Probably the most widely spreading cancer on the moral, as well as on the physical, body is that of prostitution. Notwithstanding the convictions and oppositions of moralists and religionists, we are convinced that prostitution is a necessary evil, that cannot by the enactment of laws or by any other means be eradicated. The enactment of proper laws, recognizing prostitution as a legitimate business, putting it under strict police surveillance and medical inspection, would in a measure prevent the spread of venereal disease. A law which secures the greatest good to the greatest number is a good law. Such a law would lessen the number of houses of prostitution, also the number of bed-houses, and thus prevent the spread of disease. Abortion, the lowest ebb of morality, is reached when, fearless of accountability to God, or the laws of our country, men and women will stoop to steep their hands in the blood of the helpless innocents of their own kind, while yet in the embryonic stage. To wilfully destroy that being in utero is just as much an act of murder in the sight of God, as to deliberately kill a human being after birth. The fiend who introduces a sound into a pregnant uterus and wilfully produces the expulsion of a human fetus is a criminal equal to the villain who enters a sleeping chamber, and plunges a dagger into the sleeping victim.

Vital Statistics of Philadelphia for the week ending July 15, 1899:—

Total mortality		482
Children under 5 years of age		201
Diseases.	Cases.	Deaths.
Cholera infantum 66, gastroenteritis 35, diarrhea 3		104
Pulmonary tuberculosis		50
Marasmus 21, inanition 14, debility 3		38
Heart-disease 27, fatty degeneration of the heart 2, inflammation of the heart 2		31
Nephritis 20, uremia 10		30
Senility		23
Casualties 15, burns and scalds 6		21
Diphtheria 17, membranous croup 2	64	19
Pneumonia 17, congestion of the lungs 2		19
Apoplexy 10, paralysis 5,		15
Inflammation of the brain 12, congestion of the brain 2		14
Carcinoma 11, tumor 2		13
Convulsions		12
Typhoid fever	40	9
Scarlet fever	35	2
Cerebrospinal meningitis	1	2
Pertussis 9, bronchitis 6, septicemia 4, suicide 4, cirrhosis of the liver 3, cyanosis 3, drowned 4, alcoholism 2, anemia 2, congestion of the liver 2, diabetes 2, dropsy 2, homicide 2, cystitis 2, appendicitis 2, tetanus 2, ulceration of the stomach 2, abscess 1, insanity 1.		

NEW YORK.

Little Leaks in Quarantine.—It was not long after yellow fever was reported from Santiago, and later from Havana, that cases made their appearance at the gateway of New York harbor, where they were identified and held in check by the quarantine service. The first cases were found on the army transport *McClellan*. The passengers were at once taken to the quarantine establishment for observation and for treatment in the case of those passengers in whom the disease had made itself manifest. The vessel was subjected to the most approved disinfection, and with this it was considered that every feasible method of precaution had been practised. Yet the quarantine was by no means a complete sealing of of the port. Every day while the *McClellan* was flying the yellow flag she was boarded by laborers engaged in preparing the ship for discharge of her cargo. It was easy to find the evidence of this fact. Every morning there was a crowd of stevedores' men at the dock in Brooklyn, where the business of the transports is conducted, and there was always a crowd of men awaiting employment. From this crowd was drafted a number of men who were taken down to the quarantine station and put to work on the infected vessel. At the end of the day they were brought back on the government tug and set ashore on the pier head without having undergone any process to prevent their carrying ashore with them the germs of disease. Medical officers of the transports say that this is a common thing in the harbor of New York, and that it is even more dangerously prevalent in the West Indian ports at which they call. In Porto Rico and Cuba the vessels are crowded with the stevedores' gangs from shore, sent off to discharge the ships. These laborers come from the most unwholesome shore surroundings and go into all parts of the ship. In many instances they sleep aboard on the decks and mix freely with the ship's company. From this it appears that at both ends there are countless small leaks which carry the possibility of vitiating the quarantine watchfulness and which may involve the introduction of pernicious diseases at this port.

Yellow Fever Under Serum Treatment.—The recent announcement made by Health-Officer Doty that he or Dr. Fitzpatrick, a bacteriologist of the city department of health, had discovered a serum apparently identical with the antiamarillic serum of Sanarelli had prepared the public to expect great things in case yellow fever should appear at the port of New York. The first case in two years was made manifest on the arrival of the transport *McClellan* from Santiago. One case was quite well advanced, another was in its incipient stage when it came under the examination of the quarantine officials. Dr. Doty said that he had little confidence that his serum would be of any benefit if used in the case which had shown the marked characteristics of yellow fever. In this case the new serum was not employed. The incipient case was that of a civil engineer who had been associated with the sanitary measures of Gen. Leonard Wood at Santiago. Dr. Doty explained to him that this serum was yet in the experimental stage and gave him the option of trying it. The patient consented and the serum was injected. It may be argued that the serum aborted the case; so far as is ascertainable the patient has not had the true yellow fever, although his condition has been marked by great weakness. Dr. Doty announced at the beginning that it would be unfair to judge the serum by its results in this single case, for at least fifty would be needed to give anything like a fair test of the remedy. At the time when the transport brought these cases into port there was very little serum on hand, a large amount had just been sent to Vera Cruz for experimental purposes, and there was but one horse which had been brought to a condition fit to yield serum of the proper quality. The *New York Herald* is working along the same line; it has procured a supply of the Sanarelli serum from Uruguay, and as soon as it is received will place it in the hands of physicians in the principal centers of the Southern States where yellow fever has reached its highest intensity in former epidemics. Apart from the cases quarantined at New York, the official reports of the Marine-Hospital Service show no cases of yellow fever in the country.

The Army Transports.—For several reasons which have suggested themselves to the Quartermaster-General of the Army and his medical advisers, New York has settled

down into the position of the home-port of the transport service. Medically the controling reason is that the distance of New York from the West Indian ports, from which most of these transports come, is such that the time to be spent in quarantine is reduced to a minimum. The quarantine regulations prescribe that five days shall elapse without disease after leaving an infected port. How that works out in practice is shown by the recent arrival of the transport *Crook*, from Havana. The voyage consumed a little less than four days, the quarantine detention at New York is therefore only 30 hours, a consideration of much moment when the ship is loaded with returning troops, many of whom are about to be mustered out and are anxious to resume the liberty of civil life. On the day of the *Crook's* arrival there were no less than five other transports in the harbor. Two of these, the *Logan* and the *Thomas*, are lying in the stream off the Statue of Liberty, pending repairs. When they have been remodelled they will be employed in transporting the newly recruited regiments of volunteers to the Philippines. The *Dixie* is at the transport wharf at the foot of Atlantic Street in Brooklyn, but will shortly be returned to the navy, which owns her. The *Kilpatrick*, at the same wharf, has since then sailed with troops for Porto Rico. The *McClellan* came up infected from Santiago, and her passengers were put ashore on Swinburne Island for observation. A very careful inspection of the *Dixie*, Surgeon William B. Orear, and the *Logan*, Surgeon Riley, exhibited the system followed in this service for the care of the soldiers afloat. The upper deck has accommodations for the horses in single tiers along the rail, with heads inboard, but this does not interfere with sufficiently wide gangways for the movement of the soldier-passengers to the decks reserved for their needed exercise. The troops themselves are berthed on one or two lower decks, according to their number. Stanchions are permanently set in place which will allow of the swinging of three hammocks in a tier if the number of soldier-passengers calls for so many, but under ordinary conditions only two tiers of hammocks are needed. The transport-surgeon is responsible for the hygienic conditions of the ship, the surgeon of the forces is responsible for the men under his care, and further, that they keep their berth accommodations in proper condition. For cases of illness which may arise during the voyage the transport furnishes a sick-bay, which in the *Dixie* has cot accommodation for 16 men always kept in place, together with a possibility of expansion sufficient to meet all probable contingencies of the work. The system of latrines for the soldiers is kept distinct from that of the crew, in fact the crew and the soldier-passengers are kept rigidly apart in every particular. The latrines are washed out every morning, and after this thorough cleaning are thoroughly disinfected. Entirely disconnected are bathrooms, in which the soldiers can bathe in hot or cold water, fresh or salt, and which they are obliged to use at the orders of their own medical attendant. The galleys for the cooking of food are kept scrupulously clean in all their appointments, and the quality as well as the amount of the rations is directly under the supervision of the commissary officers. The medical officer in charge of each vessel acts independently of the medical officers in charge of the troops and serves as a check on their work. The breadth of their professional education has intervened to prevent any difficulties arising between the medical officers of the ships and those of the troops who are transported. Ventilation of the berth-decks has been carefully studied, and an abundant supply of fresh air is assured by three systems dependent on the weather conditions. These are in the first place scoops set out from the portholes, second, windsails, and lastly electric fans and steam air-exhausts. As fast as the transports can be remodelled to suit their novel service a system of refrigerated air-circulation is to be established through all parts of the ships.

NEW ENGLAND.

Tetanus in Boston.—There was no more than the usual amount of Fourth of July accidents this year, but they have developed no less than 6 fatal cases of tetanus. One died the next morning, one 3 days after the accident, another in 5 days, a fourth in 8 days, a fifth in 9 days, and the last in 11 days. The hospital officials suspect the powder used in the fireworks of containing the cause of the disease.

A Loose Semilunar Cartilage and the Fortunes of Baseball.—The Boston baseball team bids fair to lose the pennant in the National League on account of a displaced semilunar fibrocartilage. "Billy" Hamilton, the champion batsman and base-runner, has only played two games since May 2, on account of a lame knee. His surgeon says that a year ago he dislocated the right external semilunar cartilage, and that he then advised an operation, as rest and immobilization did not cure. It tends to recur. There are certain movements of the leg which are sure to throw it out, and in attempting to use the limb, and at the same time avoid these movements, the player has repeatedly wrenched the muscles about the knee, notably the biceps and the outer head of the gastrocnemius. The player can push the cartilage back himself with the assistance of certain movements, which he has mastered; but it does not stay, and he can never tell when it will become dislocated. In the meantime, Boston's baseball prestige suffers.

Carney Hospital's Out-door Festival.—An out-door festival for the benefit of the Carney Hospital was held July 14, at Apollo Garden, Roxbury. Over 5,000 people attended, and the receipts made a handsome addition to the hospital treasury. A full program of athletic contests was offered in addition to the usual picnic diversions. This hospital has shown a marked growth in the last few years. Twenty years ago it had only 464 patients in its wards in a year, and 317 out-patients. Ten years later the house-patients numbered 1,013 and the out-patients 4,735, and last year the record stood 2,206 house-patients and 9,386 out-patients. There were over 20 visits of old patients to the out-patient department, so that the total number of calls for treatment were 30,000. The expenditures were $17,893.22. An appropriation of $10,000 was granted by the last legislature as annual aid to this charity.

WESTERN STATES.

An Industrial Home for Blind Men is to be established in Indianapolis, Ind. It will be organized and conducted on plans similar to those of the Pennsylvania Working-home for the Blind, of this city, the first institution of its kind established in the United States.

MISCELLANY.

University of Buenos Ayres.—Dr. Christfried Jacob, of Bamberg, Germany, has been invited to accept the professorship of medicine.

Obituary.—DR. CATHARINE N. NORTHROP, resident physician at the State Asylum for the Chronic Insane at Werners-

ville, Pa., July 15, aged 40 years.—Dr. W. N. Alsop, Louisville, Ky., July 13.—Dr. Charles J. Siglinger, Philadelphia, July 12, aged 42 years.—Dr. William A. Dixon, Ripley, O., June 24, aged 64 years.—Dr. Robert L. Lea, Chicago, Ill., July 11, aged 72 years.—Dr. E. S. Garner, St. Joseph, Mo., July 7.—Dr. George V. Converse, Hillsboro, Ia., July 1, aged 41 years.—Dr. E. L. Hamilton, Richmond, Ark., July 5, aged 63 years.

Health-Reports.—The following cases of smallpox, yellow fever, cholera, and plague were reported to the Surgeon-General of the U. S. Marine-Hospital Service, during the week ended July 15, 1899:

Smallpox—United States.

			Cases.	Deaths.
Florida:	Jacksonville	July 1–8	3	
Illinois:	Chicago	June 24–July 1	2	
Kentucky:	Louisville	June 24–July 6	3	
Louisiana:	New Orleans	June 24–July 6	5	1
"	Shreveport	June 24–July 8	1	
Massachus'ts:	Boston	July 8	5	2
Mississippi:	Natchez	July 7	1	
New York:	New York	June 25–July 8	7	1
N. Carolina:	Charlotte	June 1–30	1	
Ohio:	Cincinnati	July 7	2	
"	Cleveland	July 1	2	
Oregon:	Portland	June 29	4	
Pennsylv'nia:	Philadelphia	July 1–7	4	
Virginia:	Cape Charles	July 8	1	
"	Danville	July 6	3	30
"	Norfolk	July 6	6	
"	Portsmouth	July 6	4	
Washington:	Tacoma	July 10	5	

Smallpox—Foreign.

Argentina:	Buenos Ayres	April 1–30		1
Brazil:	Rio de Janeiro	May 27–June 9	77	29
China:	Fuchan	May 6–13	Prevalent.	
Cuba:	Habana	June 29		1
England:	London	June 17–24	1	
France:	Marseilles	June 25–July 2	1	
India:	Bombay	June 6–13		4
"	Madras	May 27–June 2		2
Mexico;	Mexico	June 22–July 2	8	8

Yellow Fever—Foreign.

Argentina:	Buenos Ayres	April 1–30		4
Brazil:	Rio de Janeiro	May 27–June 9		19
Cuba:	Habana	July 6	2	
"	Santiago	June 15–July 10	42	28
Mexico:	Vera Cruz	June 28–July 6		25

On bark "Dolores Romano," at Vera Cruz, Mexico, July 1, 7 cases.

Cholera.

India:	Bombay	June 6–13		1
"	Calcutta	May 23–June 3	3	23
"	Madras	May 27–June 2		3

Plague.

Egypt:	Alexandria	June 16–26	4 cases remaining.
India:	Bombay	June 6–13	53
"	Calcutta	May 27–June 3	32
Japan:	Formosa, Tainau	April 26–May 3	147

Changes in the Medical Corps of the U. S. Army.

Groff, Major George G., surgeon, is relieved from duty in the department of Porto Rico.

Ames, Major Azel, surgeon, is relieved from duty in the department of Porto Rico.

Reynolds, Captain F. P., assistant surgeon, is relieved from duty at Coamo Springs, P. R., and as director of vaccination, division of Ponce, and will report for duty as attending surgeon and sanitary inspector at headquarters, department of Porto Rico.

Wells, Captain G. M., assistant surgeon, is relieved from duty at Ponce, P. R., and will proceed to San Juan, P. R., and take command of the U. S. General Hospital.

Ashford, First Lieutenant Bailey K, assistant surgeon, is relieved from duty at the General Hospital, San Juan, P. R., and will report at Ponce, P. R., for duty.

Hartsock, First Lieutenant F. M., assistant surgeon, is relieved from duty at the General Hospital, San Juan, P. R., and will report at San Juan, P. R., for duty.

Russell, First Lieutenant Frederick T., assistant surgeon, is relieved from duty at Ponce, P. R., and will report at Humacao, P. R., for duty.

Collins, First Lieutenant C. C., assistant surgeon, is relieved from duty at the General Hospital, San Juan, P. R., and will report at Arecibo, P. R., for duty.

De Salazar, W. E., acting assistant surgeon, is relieved from duty in the department of the Province of Havana and Pinar del Rio and will proceed to Matanzas, Cuba, for assignment.

Junco, Leoncio, acting assistant surgeon, will proceed to Sancti Spiritus, Cuba, and take station.

Meyer, Herman, acting assistant surgeon, is relieved from duty at Sancti Spiritus, Cuba, and ordered to Santiago.

Hadley, J. F., acting assistant surgeon, leave granted for 7 days is extended 23 days.

Graves, Leonard K., acting assistant surgeon, leave granted is extended 10 days.

Blake, John C., hospital steward, having relinquished the unexpired portion of furlough granted him May 26, at San Juan, P. R., will be sent to Santiago, Cuba, for assignment to duty in the office of the chief surgeon of the department.

Kean, Major Jefferson R., surgeon, now on duty as chief surgeon of the department of the Province of Havana and Pinar del Rio, Havana, Cuba, Cuba, is relieved from further station at Fort Warren.

White, J. S., acting assistant surgeon, is relieved from further duty in the department of Porto Rico, and will report in person to the Surgeon-General of the Army.

Cottrell, Samuel P., acting assistant surgeon, is relieved from further duty in the department of Santiago and Puerto Principe and will proceed to Camp Meade, Pa., for duty.

De Poorter, Jr., Lieven, acting assistant surgeon, will proceed from New Orleans, La., to Havana, Cuba, for assignment to duty.

Bratton, Captain Thomas S., assistant surgeon, is relieved from further duty at Fort Screven, Ga., and will proceed to Camp Meade, Pa., and report to the commanding officer, Nineteenth Infantry, for duty to accompany that regiment to Manila, P. I.

Cleary, A. P. D., acting assistant surgeon, now on duty at headquarters, department of the Gulf, Atlanta, Ga., will proceed to Fort Screven, for duty.

Bradley, Henry H., acting assistant surgeon, now on duty at the U. S. General Hospital, Savannah, Ga., will proceed to Camp Meade, Pa., and report to the commanding officer, Nineteenth Infantry, for duty to accompany that regiment to Manila, P. I.

A board of officers to consist of Colonel Dallas Bache, assistant surgeon; Major Louis A. La Garde, surgeon, and Captain Charles M. Gandy, assistant surgeon, is appointed to meet at West Point, N. Y., August 22, for the physical examination of candidates for admission to the Military Academy.

Wilcox, Major Thomas E., surgeon, is relieved from further duty at New York City, and on expiration of his present leave will proceed to Fort Schuyler for duty.

Newgarden, Captain George J., assistant surgeon, now at Fort Adams, will proceed to Camp Meade, Pa., for duty at the camp hospital.

Howard, Captain Deane C., assistant surgeon, now at Fort Columbus, will proceed to West Point, N. Y., for temporary duty.

Davis, Francisco Pell, acting assistant surgeon, will report to the medical officer in charge of the yellow fever hospital, Bay of Santiago, Cuba, for duty.

Herman, Meyer, acting assistant surgeon, will report at Boniato, Cuba, for duty.

Cleary, A. P. D., acting assistant surgeon, is relieved from further duty as attending surgeon at headquarters, department of the Gulf, and will proceed to Fort Screven for duty.

Dean, First Lieutenant Elmer A., assistant surgeon, is relieved from further duty as attending surgeon and examiner of recruits at St. Paul, Minn., and will proceed to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

Chmeticek, Joseph F., acting assistant surgeon, will proceed from New York City to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

Temple, Harry S., hospital steward, U. S. General Hospital, Savannah, Ga., is transferred to Camp Meade, Pa., for duty.

Bratton, Captain Thomas S., assistant surgeon, at Fort Screven, has been relieved from duty at that post and ordered to proceed immediately to Camp Meade, Pa., to accompany the Nineteenth Infantry to Manila, P. I.

Raikes, Benjamin T., hospital steward, is assigned to duty at the U. S. General Hospital, Presidio.

Millhoff, First Lieutenant Clarence B., assistant surgeon, now on duty at Camp Meade, Pa., the orders of July 6, this office, relating to him, are amended so as to direct him to report to the commanding general, department of California, on the arrival of the Nineteenth Infantry, at San Francisco, Cal., for assignment to duty.

Bowen, Edward N., acting assistant surgeon, will proceed from Springfield, Mass., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

Nash, Francis S., acting assistant surgeon, in addition to his duties as assistant to the attending surgeon in Washington, D. C., will report to Captain Frank L. Graham, U. S. V., recruiting officer, to make the physical examination of recruits enlisted by him.

Weaver, Frederick C., acting assistant surgeon, will proceed to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

Changes in the U. S. Marine-Hospital Service, for the seven days ended July 13, 1899:

McADAM, W. R., assistant surgeon, granted leave of absence for 14 days. July 11.

RAMUS, CARL, assistant surgeon, relieved from duty at the Cape Charles Quarantine Station and directed to proceed to Havana, Cuba, and report to Surgeon H. R. CARTER, for duty. July 13.

FOSTER, J. P. C., acting assistant surgeon, granted leave of absence for 30 days. July 11.

STEARNS, W. L., hospital steward, relieved from duty at New York, N. Y. (Stapleton, Staten Island), and directed to report to the Medical Purveyor, New York City, for duty. July 8.

ALLEN, G. C., hospital steward, relieved from duty at Baltimore, Md., and directed to proceed to New York, N. Y., and report to the commanding officer for duty and assignment to quarters. July 8.

PECK, F. H., hospital steward, relieved from duty at the Egmont Key Detention Camp and directed to proceed to Baltimore, Md., and report to the commanding officer for duty and assignment to quarters. July 8.

Changes in the Medical Corps of the U. S. Navy, for the week ending July 15, 1899:

BALDWIN, L. B., surgeon, detached from the Key West Naval Station and ordered to hospital New York, for treatment.

BRODRICK, R. G., passed assistant surgeon, granted sick leave for six months.

MCCLANNAHAN, R. K., assistant surgeon, detached from the Naval Hospital, Philadelphia, Pa., and ordered to the Key West Naval Station.

YOUNG, L. L., passed assistant surgeon, sick leave extended three months.

STEELE, J. M., surgeon, detached from duty in connection with recruiting rendezvous at Baltimore, Md., and ordered home to wait orders.

Foreign News and Notes.

GREAT BRITAIN.

A **Government bacteriological laboratory** for Ireland is to be started in Dublin.

Dr. Clifford Allbutt, Regius Professor of Physic in Cambridge University, has been made an honorary Doctor of Science of the Victoria University, Manchester.

Surgeon-General Colvin Smith, C.B., I.M.S., retired, has been appointed Honorary Surgeon to the Queen in the place of the late Surgeon-General W. C. Maclean, C.B.

Dr. R. C. Brown, F.R.C.S., has undertaken to bear the whole cost of erecting and equipping a new operating theater at the Preston and County of Lancaster Royal Infirmary.

The Otological Society of the United Kingdom is the name of a new society that has recently been formed in Great Britain. Mr. Arthur H. Cheatle is the provisional honorary secretary.

The bazaar in aid of St. Mary's Hospital, London, recently held in the Hotel Grand Central, netted £21,500. An anonymous friend paid the expenses, amounting to £584, and thus enabled each table to have the full fruit of its endeavors.

Military Nursing.—At the Women's International Conference, held in London with great success during the last days of June, Mrs. Quintard, a delegate from the United States, spoke of the impulse that had been given to the employment of trained nurses in the States by the recent war. Captain Norton, a Member of Parliament, in commenting upon Mrs. Quintard's address, said that he thought that, in England, there ought to be a lady inspector of military hospitals, responsible for seeing that the standard of nursing was kept properly high. In the country of Florence Nightingale, such a suggestion has considerable force.

The Cambridge Medical Graduates' Club.—The sixteenth annual dinner of this club was held in London on July 3, under the presidency of Dr. Howship Dickinson, consulting physician to St. George's Hospital. The function was a very successful one, for the medical graduates of Cambridge University are now a numerous and influential body in the medical world. Speeches were made by, among others, Sir Michael Foster; Professor Sims Woodhead, the new professor of pathology in the University; Sir William MacCormac, president of the Royal College of Surgeons of England, and Dr. W. S. Church, president of the Royal College of Physicians of London; the last two gentlemen being distinguished guests.

The Late Sir William Henry Flower.—Sir W. H. Flower, who died in London July 1, was a highly distinguished anatomist and anthropologist. After serving in the army medical department through the Crimea he became assistant surgeon to and demonstrator of anatomy at Middlesex Hospital. Over thirty years ago he was elected curator of the Hunterian Museum of the Royal College of Surgeons of England, where his admirable osteological work earned him a worldwide repute; and in 1884 he succeeded Sir Richard Owen as Director of the Natural History Branch of the British Museum, perhaps the most important scientific appointment in the country. This post he resigned a few months ago, when his place was taken by Professor Ray Lankester. Professor Flower's writings are the best English contributions to morphological knowledge, the "Introduction to the Osteology of Mammalia," and the "Introduction to the Study of Mammals, Living and Extinct," being works that must be read by all workers in this field.

The crusade against tuberculosis has been made the subject of representative conference in Ireland. His Excellency, Lord Cadogan, the Lord-Lieutenant, took the chair at a meeting convened by the Royal Academy of Medicine of Ireland on June 30, and as an outcome of that meeting a branch of the National Society for the Prevention of Consumption and other forms of Tuberculosis is to be started immediately in Dublin. The most important speech at the meeting was made by Dr. T. W. Grimshaw, the Registrar-General for Ireland, who gave some startling statistical facts as to the prevalence of tuberculosis in his country. In the period 1871–1880, he said, 10% of all the deaths in Ireland were due to one form or another of tuberculosis, and from 1881–1890, 11%, showing an increase during recent years which has not taken place in Great Britain generally. For although in Great Britain 70,000 deaths are attributed annually to tuberculosis, and the annual figure is increasing, in Ireland only is the population decreasing; in Scotland, and especially England, it is going up by leaps and bounds.

Horseplay Among Hospital Residents.—Not for the first time the resident medical officers of a big Scotch hospital have come before public notice as young gentlemen of singularly ill-restrained manners. This time it is the internes of the Edinburgh Royal Infirmary who have earned the censure of the local papers because of their obstreperous behavior. The general feeling in the medical world about the matter is that the governors of the infirmary and the medical staff should put down the rowdiness of their subordinates with a strong hand. The post of house-surgeon or house-physician, at such an institution as the Edinburgh Royal Infirmary, is a highly important one, and one that brings whoever holds it into close contact with the public. It is

therefore damaging to the whole medical profession to allow the impression—and it seems in this case to have been a just impression—to get abroad that such a position can be held by men who have not outgrown a babyish love of bullying and mischief. The *internes* should be made to understand that they must not indulge in domestic brawling, because their behavior gets not only themselves, but their institution and their profession, into bad odor with the public.

Promotion by Seniority or Merit.—The First Lord of the Admiralty, Mr. Goschen, has caused considerable fluttering in official circles by appointing to the post of Director of the Royal Naval Hospital at Haslar, a Deputy Inspector-General of the Naval Medical Service over the heads of three Inspector-Generals, all willing to hold the valuable and responsible appointment. Opinions will differ as to Mr. Goschen's action. In all the Government services the general feeling will be against it, for it will be argued that all officials start more or less level, and that the best men, who will always be found at the top, having received the same training and undergone the same experiences, are practically level in merit. Therefore, seniority forms an excellent way of selecting for promotion in that it stirs up no feeling of envy, as any process of arbitrary selection may do. But Mr. Goschen's view will commend itself to the public. He considered the office of Director of the Royal Naval Hospital at Haslar one of exceptional importance, and being himself responsible to the country for finding the *best* man, and not only a good or efficient man, he had used his discretion and promoted a deputy inspector. We may add that there is no suspicion of jobbery whatever, and Mr. Goschen is the last statesman in Great Britain to be associated with any wanton act of selfishness.

The Royal College of Surgeons of England.—As is usual at this season of the year, writes a London correspondent under date of July 8, meetings at the College of Surgeons are frequent. Last week there was an extraordinary meeting of the Council, at which, among other things, the question was raised of the advisability of lighting the Hunterian Museum with electricity, a question to which there can be only an affirmative answer. This week there was, on July 5, a special meeting of fellows and members summoned by the Council to consider the proposed application for a new charter, as a way of celebrating the centenary of the old charter. At their meeting a resolution was carried to the effect that the powers asked for by the Council in the new charter were inadequate, and that no charter should be granted which did not give to the members of the college some representation on the Council. Mr. W. G. Dickinson, in behalf of the Association of Members of the College, of which body he is the honorary secretary, urged that the exact form of the new charter should not be settled on until the Council had received a memorial from the members, and in course of signature urging their claims to consideration; and on putting his arguments in the form of a resolution, he obtained the motion he wanted. Next week, *i. e.*, on July 14, there will be an election for the presidency, when it is considered improbable that Sir William MacCormac will be ousted in favor of Mr. Pickering Pick.

CONTINENTAL EUROPE.

Faculty of Medicine of Bucharest.—Dr. G. Marinesco has been appointed professor of diseases of the nervous system.

Obituary.—Sir William Henry Fowler, K.C.B., F.R.S., F.R.C.S., late director of the natural history department of the British Museum, London, July 1, aged 68 years.

Antisepsis Extraordinary.—It is stated in the *Lancet* that a Parisian who was lately traveling by train refused to show his ticket to a traveling inspector of the company. The passenger was accordingly summoned by the company for refusing to show his ticket as he was bound to do by law. He argued, however, that he had not refused to show it (*présenter*), that he had let the inspector see it so that he could easily satisfy himself as to its being in order, but that he certainly had refused to let the ticket inspector take it into his hands because his hands were so dirty. He, the passenger, therefore was unwilling to put into his pocket a ticket which would be contaminated with microbes and might very likely give him some disease. After a long legal discussion as to the exact meaning of the word "show" (*présenter*) the court fined this ardent disciple of modern hygiene the sum of one franc.

The Treatment of Penetrating Wounds of the Chest.—At a recent meeting of the Academy of Medicine of Paris, M. Delorme, it is stated in the *Lancet*, summarized in the following manner the treatment of penetrating wounds of the chest. These wounds for the most part heal very easily, especially if they have been produced by ordinary revolver bullets or by weapons or instruments which inflict cuts or stabs; it is exceptional for them to become septic, so that infection is not much to be feared. The treatment of wounds of the lung, whether simple wounds or wounds complicated with hemorrhage, hemoptysis, hemothorax, hemopneumothorax, or embedded bullet, consists firstly in perfect rest, immobilization of the thorax, and sealing of the wound, and, secondly, according to the varying conditions of the case, in the employment of morphin, ether and caffein. Injections of artificial serum are a powerful means of combating traumatic anemia, provided that the injections are neither too large nor too rapidly administered. If the injections are excessive they are liable to engorge the lung, to increase the difficulty of breathing, and even to prolong the bleeding. These therapeutic means are applicable when the hemorrhage is not very great, but sometimes it becomes excessive and then the only resource is to look for the bleeding point. It is necessary in this case to make a free incision and to find the origin of the hemorrhage which often corresponds to a bronchus that has been opened together with its vessels. The bleeding may then be stopped by ligaturing the part *en masse*, but the operation is a bold one. In two cases, one in the practice of an Italian surgeon and the other in that of M. Delorme, the bleeding was stopped by ligaturing the focus of hemorrhage, but the patients died soon afterwards. When the hemorrhage is accompanied by extensive pneumothorax recourse must be had to direct compression and sealing the wound. M. Lucas-Championnière said that he differed from M. Delorme as to the course to be taken in case of immediate overwhelming hemorrhage. In two instances of this kind he had found that perfect rest resulted in recovery, whereas surgical intervention would have been certainly fatal. When syncope is threatening the slightest wound may cause death. Even extensive wounds of the lung may heal spontaneously if they are left to themselves, and, on the other hand, very small wounds of the same organ may bleed for an indefinite time if they are disturbed by injudicious interference. When the surgeon refrains from operating the prospects of the patient are better than when he opens the pleura freely and gropes about in search of the bleeding vessel.

Society Report.

(From our Special Correspondent.)

AMERICAN PEDIATRIC SOCIETY.

Eleventh Annual Meeting, held at Deer Park, Md., June 27, 1899.

(Continued from page 113.)

A Case of Meningitis Due to the Typhoid Bacillus.—DR. A. H. WENTWORTH, of Boston, saw a patient, 4 years of age, October 1, 1898. She had always been a delicate child, but had never had any previous illness. For 6 days prior to entrance in the hospital she had been feverish, drowsy, without appetite, and was said to have been delirious at times. On entrance in the hospital there was considerable apathy, from which she could not be aroused without difficulty, although she became quite irritable. The urine contained a faint trace of albumin; specific gravity, 1.015. The examination of the blood showed 12,000 leukocytes to the cm. A provisional diagnosis of typhoid fever was made. The next day the night-nurse reported that twice during the night the child's body became rigid, the hands clenched, and the eyes were rolled upwards; this condition lasting about one minute each time. An examination of the eyes was made without result and no growth was obtained from fluid secured by spinal puncture. On the following day, though the child was somewhat improved, an examination of the ears showed a bulging of the right tympanic membrane, and on paracentesis an escape of air but not fluid. Widal's test was negative, though the clinical symptoms were those of a moderately severe typhoid fever. October 15 a second blood-count showed 9,600 leukocytes. On the 16th the child became very stupid and by evening was unconscious. Tonic and clonic convulsions and Cheyne-Stokes respiration supervened. On the following day strabismus appeared and there was general rigidity of the muscles of the trunk and extremities with spasms at intervals. Death occurred on the 17th day. Lumbar puncture was performed a few hours before death and the spinal fluid obtained was turbid and soon showed a deposit of puriform material in the bottom of the test tube. A careful study of this deposit by all methods showed a pure culture of the typhoid bacillus. In considering the diagnosis the author states that in favor of typhoid fever there is the onset, the duration of the disease, the character of the temperature-charts, the enlarged spleen, the failure to obtain evidence of the presence of other diseases by means of physical examination, and the negative result of the first lumbar puncture, showing the absence of meningitis at that time. As against the typhoid diagnosis there was the failure of the Widal test and the occurrence of doubtful convulsions in the early period of the disease. In favor of meningitis, due to the typhoid bacillus, there was the presence in the meninges of a purulent exudate which contained numerous typhoid bacilli, and the failure to detect the presence of other organisms by means of most careful bacteriologic examinations.

Vaccinoid.—DR. F. FORCHHEIMER, of Cincinnati, said that the subject of this paper is the peculiar manifestations of vaccinia which have usually been denominated false or spurious vaccinia. The author reviews the work done by French investigators to show the relations of these conditions to vaccinia. According to their classification, by vaccinoid is meant an atypical course of the lesions produced by the act of vaccination, and they have, in their external manifestations, the same relation to vaccinia that varioloid has to variola. Dr. Forchheimer reports a number of cases observed in his own practice with a careful study of the subject, and offers the following conclusions: (1) Vaccinoid is always modified vaccinia; (2) vaccinoid protects against variola; (3) this protection is less than that of vaccination; (4) vaccinoid in the majority of instances is due to faulty method, rarely to increased resistance or immunity; (5) in primary vaccinations vaccinoid should always be followed by repeated attempts until either true vaccinia is produced or until positive evidences of immunity exist; (6) in the presence of an epidemic of variola vaccinoid should be followed by revaccination, both in primary vaccinations as well as in revaccinations. He believes that the more thoroughly vaccination is done the fewer the cases of vaccinoid, provided the virus is perfect; that vaccinoid is an abortive vaccinia, and abortive vaccinia is not perfect vaccination.

Discussion.—DR. FREEMAN believed that these irregularities following vaccination will become much less frequent now that we have an improved lymph-supply. He reported 70 vaccinations performed on 3 successive days, all of which did well. DR. PUTMAN and DR. DORNING both took exception to the term vaccinoid, as it seemed to be but another word to burden the literature without really describing a condition. DR. FORCHHEIMER disclaimed any responsibility for the term, which has already been used quite extensively.

Acute Articular Rheumatism in Infants Under one Year, with Report of Case.—DR. D. J. MILTON MILLER, of Philadelphia, made an extensive review of the literature upon this subject and finds that acute articular rheumatism in infants is very rare. A number of cases have been reported as such which would not bear the test of the essential features of the disease as seen in adults. He then reports an example of genuine acute polyarticular rheumatism in an infant 9 months old. He considers that in the diagnosis of such a rare condition as acute articular rheumatism in young infants every other possible cause for the joint-affection must be excluded before we can assert that a given case is rheumatic. The points necessary to be established in making such a diagnosis are, mobility, proneness to migrate from joint to joint, absence of all tendency to suppuration, frequency of inflammation of the cardiac serous membranes, the favorable influence of the salicylates, and a family-history, together with the absence of such affections as are apt to be attended with inflammation of the joints. According to this test only 19 undoubted instances of acute articular rheumatism occurring in infants uder one year were found in the literature.

Discussion.—DR. CRANDALL said that he had thought the condition was more common than this in young children, as he had seen a number of acute attacks. DR. JENNINGS reported a case occurring in a child of 7 months and terminating fatally. DR. KOPLIK said that he had only seen 3 cases in the course of his practice, but of course their frequency would vary according to the class of material one meets with. DR. GRIFFITH had never seen but one case.

Urticaria of the Mucous Membranes.—DR. F. A. PACKARD, of Philadelphia, suggests the possible frequency of the condition of internal urticaria as an explanation of certain cases otherwise difficult to understand; such as the so-called "stomach cough," and "sore throat of indigestion." Dr. Packard then reports the histories of several cases of urticaria associated with asthma or bronchitis, and with the cases abstracted from literature finds a total of 34 in which the connection between the skin-lesion and the respiratory symptoms is quite close. The order of the occurrence is not uniform, and while in many cases there seems to be a balancing between the cutaneous and respiratory lesions yet the two systems are frequently involved at the same time.

Discussion.—DR. KOPLIK referred to a paper which he had published in January giving a report of urine-examinations in 65 cases of gastroenteritis. He found albumin and casts in the majority of cases, but could not trace any connection between the presence of these elements and the clinical symptoms. He did find in the most severe cases a peculiar and distinct form of edema, very like that seen in the severe forms of atrophy with impending death. He agreed with Dr. Morse that the great majority of these cases get well under a conservative treatment and thought that their different findings simply meant that he had struck a run of more severe cases. DR. ADAMS had examined a considerable number of cases with practically the same results given by Dr. Morse. DR. CHAPIN said he had been surprised to note what a large percentage of children with diarrhea have albuminuria. As the same condition may be present in other diseases he suggested the advisability of making a study of the urine in all the ailments of infancy to find out in what proportion of cases the kidney is the latter. Inflammatory changes are rare. Albuminuria occurs in about 15% of all cases, and casts are found in 60% of these. The presence of albumin and casts does not justify the term "nephritis," and is not of bad prognostic import.

Discussion.—DR. BLACKADER said that in conditions of bronchitis in children he had frequently noticed an eruption on

the skin, and that during the time this remained there seems to be a subsidence of the bronchitis. DR. DORNING had not seen an urticaria of the mucous membrane of children, but related two cases occurring in adults.

The Renal Complications of the Acute Enteric Diseases of Infancy.—DR. JOHN L. MORSE, of Boston, said that during the summer of 1898 he had examined the urine of 70 infants ill with uncomplicated diarrheal diseases. They were all out-patients at the Infants' Hospital, and hence many could not be examined more than once. All were under 2 years of age, 47 being under 1 year. The urine was obtained by catheterization, scrupulous care being taken as to cleanliness of the catheters. Tables showing the extent of the investigation and the result of the examinations are appended. He believes it probable that more or less marked degenerative changes occur in the kidneys in many, if not most, cases. These degenerative changes are due to the action of bacteria or toxins, usually affected.

THIRD DAY.

Scurvy in an Infant of 6 Weeks.—DR. FLOYD N. CRANDALL, of New York, said the patient was born October 12, 1898. The father was not in good health, having long suffered from chronic rheumatism, while the mother, who had a valvular cardiac disease following rheumatism, was anemic and did not recover from the effects of confinement for many weeks. The child was not strong, and when seen in the sixth week there was a well-marked condition of scurvy. The child had never taken anything but breast-milk, which was very abundant, but thin and watery. So abundant was the supply that though the child nursed frequently it never emptied the breast and consequently only received "fore-milk," which contains a much smaller amount of fat than does the later milk. The child was allowed to continue nursing, but pasteurized cream was given to make up the proper amount of fat, and the results were prompt and satifactory so far as the scurvy was concerned, but the child subsequently died from an attack of pneumonia.

Discussion.—DR. GRIFFITH called attention to the statement in a recent textbook, that in scurvy occurring before the stage of eruption of the teeth, there is no characteristic lesion on the gums, and said that in the collective investigation made by the Society last year, 24 such cases had been reported. Of course, the Society did not assume the responsibility for all of these, but he felt that certainly all of the reporters could not have been wrong. DR. KOPLIK reported a case of scorbutus marked by hemorrhage of the gums before the eruption of the teeth. DR. ADAMS reported two such cases seen in his practice during the past year.

Congenital Cystic Kidneys, with a Report of a Case.—DR. E. E. GRAHAM, of Philadelphia, saw this baby about 20 minutes after birth. It was well developed but distinctly cyanotic, breathing feebly, and the cyanosis appeared to be more marked than the heart's action and feeble breathing should produce. The body was limp and the child could not be aroused. Death occurred 45 minutes after birth. The autopsy made four hours later showed a normal heart, small areas of lung-tissue containing air, liver, spleen and mesenteric glands normal and both kidneys cystic. DR. MILLER gives a full consideration of the etiology and pathology of its condition.

A Case of Multiple Osteomyelitis in an Infant.—DR. T. N. ROTCH, of Boston, said the patient was a female infant, one month old, with a history of previous erysipelas starting from the umbilicus and running down on the left leg. At the time seen the diagnosis of cellulitis and probable osteomyelitis was made. An incision was made along the inner side of the tibia and an abscess was found under the periosteum. A second abscess appeared at the posterior border of the deltoid. Cultures taken from both these abscesses showed the staphylococcus aureus. The infant died 9 days later and the autopsy showed multiple osteomyelitis.

DR. KOPLIK, of New York, exhibited a new form of **binaural stethoscope** for infants and children, and DR. CHAPIN exhibited a **new tongue-depressor** for use in examining the throats of babies.

The officers elected for the next year are: President, Dr. Henry Koplik; secretary, Dr. S. S. Adams; treasurer, Dr. J. Park West.

Adjournment.

The Latest Literature.

British Medical Journal.

July 1, 1899. [No. 2009.]

1. On the Possibility of Extirpating Malaria from Certain Localities by a New Method. MAJOR RONALD ROSS.
2. Some Points Connected with Sleep, Sleeplessness, and Hypnotics. JOHN BUCKLEY BRADBURY.
3. Sequel to a Case of Acute Tetanus Treated by Intracerebral Injections of Antitoxin. WILLIAM F. GIBB.
4. Poisoning by the Tincture of Nux Vomica: Death in Two Hours. LANCELOT H. D. HALE.
5. Operation for Simple Stricture of Rectum. WALTER S. BARNES.
6. Case of Irideremia. H. GOODWYN.
7. Retroperitoneal Tumor Connected with the Sacral Plexus. HARRISON CRIPPS.

1.—Ross' consideration of **the prevention of malaria in certain districts** is based upon the recent discoveries regarding the part taken by the mosquito in spreading the disease. He believes that the culex, the more common mosquito, does not convey malaria. The rarer genus, anopheles, does carry it. The latter can be exterminated in places, as they are puddle-breeding. They can be detected in a given locality by Manson's method. The practical question then is whether these mosquitos breed in spots sufficiently isolated and rare to be dealt with by public measures of repression. Ross inclines to the affirmative answer, but proof is needed. [A.G.E]

2.—Bradbury devotes his second lecture to **the consideration of the effect of various hypnotics.** Alcohols, aldehyds, ketones, and halogen compounds are discussed. In general, the increased toxicity accompanying increased molecular weights in alcohols is not counterbalanced by the greater increase of hypnotic power necessary for practical advantage. Paraldehyd experimentally produces calm sleep without much depression of the respiratory or circulatory system. The ketones are not of much practical value. Bradbury is not prepared to accept the conclusion of Heymans and De Buck, that the order of increasing toxicity in chloroderivatives is not that of the proportionate number of chlorin atoms, but is independent of this. Experiments with chloralamid and chloral hydrate led to the conclusion that the depressing effects on the heart and bloodvessels are less marked in the former. Its toxicity is also less than is that of chloral hydrate. [A.G.E.]

3.—A boy who had been given **intracerebral injections of tetanus antitoxin** recovered from the symptoms of tetanus, but was again taken seriously ill and finally died 8 weeks after the last injection. Postmortem showed abscesses in each frontal lobe with extension of pus into the left ventricle, cultures showed the presence of staphylococcus pyogenes aureus. Great care was taken to secure asepsis. It is believed that repeated injections predispose to sepsis, and hence they are probably unsafe. [A.G.E.]

4.—The case was that of a woman who died in 2 hours after taking 6 drams of the tincture of nux vomica. Points of interest are: (1) That the fatal dose was $\frac{3}{4}$ of a grain of strychnin; (2) the comparatively rapid action of the drug; (3) the pupils were widely dilated and unconsciousness was present on 3 occasions; (4) the failure of apomorphin to produce vomiting; (5) the dangerous symptoms induced by the exhibition of chloroform. [A.G.E.]

5.—Barnes reports a case of **simple stricture of the rectum** on which he operated by passing sutures before excising the stricture. [G.B.W.]

6.—A child of 2 years has complete absence of the iris in both eyes. Well-marked nystagmus is present in both eyes, refraction is normal, visual acuity good, and accommodation present to a considerable extent. [A.G.E.]

7.—A large **tumor,** measuring $3\frac{1}{4} \times 4\frac{3}{4}$ inches, was **removed from the posterior wall of the pelvis,** where it was found in close relation with the sacral plexus. The excision of the growth was attended with some little difficulty and considerable hemorrhage was encountered. The bulk of the tumor proved by microscopic examination to consist of myxomatous and fibrous tissue. But traversing it were

seen large numbers of nonmedullated nerve-fibers, and scattered throughout were large mononucleated multipolar nerve-cells. The tumor was believed to have been connected with the sympathetic nervous system. [G.B.W.]

Lancet.

July 1, 1899. [No. 3957.]

1. On Some Points Connected with Sleep, Sleeplessness, and Hypnotics. JOHN BUCKLEY BRADBURY.
2. On the Importance of Plastic Surgery in Renal Distention (*i. e.*, Nephrectasis), with Special Reference to Stenosis of the Ureter. HENRY MORRIS.
3. The Operative Treatment of Eyes Exhibiting High Degrees of Myopia. F. RICHARDSON CROSS.
4. Note on Some of the Surgical Sequelae of Influenza. J. WARRINGTON HAWARD.
5. A Case of Strümpell's Paralysis (Polioencephalitis) Combined with Infantile Paralysis. EDWARD CECIL WILLIAMS.
6. Three Cases of Chronic Mediastinitis. WM. CECIL BOSANQUET.
7. A Case of Gunshot-wound of the Abdomen. A. J. PEPPER.
8. A Case of Acute Hemorrhagic Pancreatitis Simulating Intestinal Obstruction; Necropsy. E. DEANESLY.

2.—The division which Morris makes of the **ureteral obstructions that may cause nephrectasis** is as follows: (1) A valve formed of mucous membrane and situated near the renal pelvis. (2) Valvular formations caused by the obliquity of the ureter to the renal pelvis. (3) Stricture, including contractions of not more than 1 inch in length. (4) Ureter compressed by a branch of the renal artery, abnormal or otherwise. (5) Calculus impacted in the ureter. (6) A fibrous band that passed along the brim of the pelvis from the promontory of the sacrum and compressed the ureter. (7) Twist of the ureter on its own axis. (8) Compression of the ureter by enlarged lymphatic glands, situated between the ureters and the iliacus muscle. (9) Ureter converted into a fibrous cord. The first four conditions are amenable to plastic operations on the ureter and renal pelvis. The fifth can be remedied by ureterotomy. The sixth and seventh groups can be readily relieved so soon as the ureter is exposed. The last two conditions are the only ones that would demand a ureteral fistula or a nephrectomy. In the present paper he deals only with the first four groups. Stenosis is frequently the result of movable kidney, the sharp bending of the ureter giving rise to hydronephrosis, and finally the formation of a valve in the ureter which decreases its caliber. On the other hand, the weight of the hydronephrotic kidney may cause it to shift its place and become movable. The dilatation of the pelvis may arise during some temporary impediment to the outflow of urine, as in pregnancy, pelvic cellulitis, uterine myoma, ureteral calculus, or movable kidney. This pouch may gradually dilate and come to press on the ureter and occlude it. The orifice of the ureter thus ceases to be at the most dependent portion of the pelvis, and is placed on one side. Stricture of the ureter may be congenital or acquired, and may be found in almost any portion of the ureter. These changes may occur at any age. It appears to be most frequent in females about 30 years of age and in right ureter, but it has also been met with in males, both boys and men. It may be associated with movable kidney or with a tumor, either permanent or intermittent, caused by nephrectasis. There may be pain in the loin extending down into the groin, recurring at intervals of weeks or months, or a period of one or many years. The pain varies in intensity and duration. It may persist in the interval as a dull ache, and increase after even slight exertion or exercise. The urine may be voided with difficulty and a constant desire to micturate. It may be quite normal or may contain only a few blood-corpuscles or numerous crystals of oxalate of lime, or it may be of a dark chocolate color from the presence of blood and urates. Pus has been found in small quantities in some cases. In other cases the urine deposits a thick mucus after standing, and then cystitis is apt to be diagnosed. Tenderness on bimanual examination is generally present. Hardening of the abdominal muscles may result reflexly. The general symptoms are of a neurasthenic character, with some gastrointestinal complications. The only treatment is operative; the constricting cause should be removed by plastic operations on the ureter or pelvis of the kidney. Early operation will prevent the development of hydronephrosis and movable kidney. [C.L.L.]

3.—Cross believes that there are certain high degrees of **myopia** that are best treated by **excision of the crystalline lens,** which, he agrees with Fukala, has the following advantages: It gives distinctness of vision for distance, and improves visual acuity. It enables patients to work at the distance of ordinary useful sight without glasses or with glasses easily borne, and improves the position of the head and body. It enlarges the retinal images, and allows of more light falling on the retina. It simplifies the optical apparatus of the eye by removal of the lenticular reflexes and by the avoidance or wearing of spectacle-lenses, which are otherwise needed. It removes the strain of accommodation and its injurious influence, and lessens the tendency to future development of the myopia. It improves the condition of nearly all the intraocular structures, and tends to develop the functions of the retina. The author removes the lens from one eye only, and employs this method more especially in persons who have to use their sight in their occupations for performing ordinary work. He has employed it in a series of cases, and proved the great benefit it has been to the patient. [C.L.L.]

4.—Haward calls attention to the following conditions which may develop as sequelae of influenza: Inflammation and suppuration of lymphatic glands, inflammation of mucous membranes of the throat and of the nasal maxillary and frontal sinuses; suppuration of the middle ear; synovitis; boils; neuralgias and residual abscesses. He especially notes the recrudescent effect upon syphilitic lesions. [C.L.L.]

5.—In the case described by Williams **the lesion was a double one** and involved the **neurons of both the upper and lower motor segments.** The hemiplegia was undoubtedly due to polioencephalitis. Williams believes the two lesions are the result of the same poison, which more commonly affects the lower motor neurons alone (poliomyelitis), but sometimes the upper (polioencephalitis) as well. [A.G.E.]

6.—An extended description is given of **three cases of chronic mediastinitis.** The patients were all boys, 8, 15, and 6 years of age. The duration of the disease in case 1 was about 3 years; in case 2 considerably more, and in case 3 only 2 years. The most striking feature clinically was the great enlargement of the liver. The heart was small in the first 2 cases, the pericardial cavity being obliterated. Pleurisy with effusion was present in all. Diagnosis is difficult, but the disease should be suspected, especially in children, in all cases of enlarged liver without obvious cause. [A.G.E.]

7.—Pepper reports an **accidental gunshot-wound of the abdomen** in which brass cartridges were driven into the peritoneal cavity, the pancreas and liver broken up, and fragments of the liver carried up through the diaphragm into the lung. The patient of course died. [C.L.L.]

8.—Deanesly reports a case that **simulated intestinal obstruction,** but which was not diagnosed, nor was any obstruction found upon laparotomy, but which proved to be a **hemorrhagic pancreatitis.** There was no way found to make the diagnosis except by laparotomy. [C.L.L.]

New York Medical Journal.

July 15, 1899. [Vol. lxx, No. 3.]

1. The Nature of the Xanthomata. S. POLLITZER.
2. The Relation of Ophthalmology to General Medicine. G. GRIFFIN LEWIS.
3. Some Aspects of Chronic Malarial Infection and Their Treatment. W. H. THOMSON.
4. Phthisis: Its Etiology and Treatment. GEORGE D. BARNEY.
5. The Term Appendicitis, etc. R. ELLIS.
6. Why Fumigation of Apartments Occupied by Tuberculous Patients at Health-Resorts Should be under Municipal Control. CHARLES F. MCGAHAN.

1.—Pollitzer gives the **results of a clinical and histological study of the xanthomata.** The structure of 13 cases of the various kinds were examined. He finds the so-called xanthoma-cell in **xanthoma planum** to be a degen-

erated muscle-fiber. These muscle-fibers are derived from the orbicularis palpebrarum, and are the result of embryonal displacement. The **structure in generalized xanthoma is strikingly different** and there is no histological relationship between the two. The latter is a connective-tissue neoplasm. It depends on an irritative process caused by some systemic disturbance. The possibility of fibrous nodes in chronic rheumatism, belonging to the same general class, is mentioned. [A.G.E.]

2.—An exhaustive list of **the eye-complications of various diseases** is given. Reference is made to the relationship between anomalies of the eye and epilepsy. Lewis thinks **a good rule to follow in determining the etiology of epilepsy is to use atropin** in the eyes of every case under 30 years, noting if the convulsions are affected by paralysis of accommodation. [A.G.E.]

3.—Thomson refers to **periodical neuralgias due to the toxin of malaria.** Dram doses of ergot, repeated in 2 hours if necessary, effectually relieve the pain. Methods of administering quinin are discussed. He gives a mercurial laxative as a preliminary. To prevent irritation of the stomach by a single large dose of quinin he gives the drug in three doses one hour apart, the last from one to two hours before the expected paroxysm. **Equal quantities of powdered ginger are given with the quinin.** In cases where quinin failed to effect a cure opium as an adjuvant proved effective. Paregoric was given in 3 daily doses of one-half ounce each, with doses of 15 grains each of quinin and ginger twice a day. [A.G.E.]

4.—In the treatment of phthisis Barney recommends **promoting the general nutrition.** After discussing diet, ventilation, surroundings, etc., he describes a sponge bath to be taken every morning. The patient should stand in enough warm water to cover the feet, the sponge being dipped in water of 50° to 65° F. He is emphatically opposed to isolation of consumptives. If climate is to be beneficial it is in the early stages, while the person is capable of taking active exercise, but it is essential to the majority to be treated and cured in the same climate in which they have to live and work after restoration to health. The dangerous condition of "consumptive resorts,"—Asheville, N. C., for one,—is graphically described. In hemorrhage, if at all profuse, apply the ice-bag without delay. Guaiacol is recognized as the most efficient drug. Patients who have made an apparent recovery should use a thermometer several times daily for at least a year, and in the event of fever, report at once to their physician, for the reason that fever of any kind may awaken quiescent bacilli to renewed activity. [A.G.E.]

5.—The article of May 20, under the above caption, is criticised pointedly and humorously. Ellis concludes that **an international, or even a national,** *pure* **nomenclature is an impossibility.** Men will coin new words, and a literary "survival of the fittest" determines their fate. [A.G.E.]

6.—McGahan calls attention to **the superficial methods of disinfection** at many of the so-called health-resorts for consumptives and gives reasons why this should be done under the auspices of sanitary authorities. [A.G.E.]

Medical Record.

July 15, 1899. [Vol. lvi, No. 3.]

1. Some Points in the Symptomatology, Pathology, and Treatment of Diseases of the Sinuses Adjacent and Secondary to the Orbit. CHARLES STEDMAN BULL.
2. Some Remarks on Chronic Bright's Disease. ARTHUR R. ELLIOTT.
3. Preparing for the Knife in European Hospitals. J. PRESTON MILLER.
4. The Relations of Cardiac Murmurs to the Events of the Normal Cardiac Cycle. WARREN COLEMAN.
5. Treatment of a Supposed "Kissing-bug" Wound, followed by Prompt Recovery. F. A. BURRALL.

1.—Bull says of these diseases that their location and extent and the involvement of the orbit that has already taken place, or which they will involve secondarily, frequently decides not only the question of operative interference, and the nature and extent of the operation itself, but also the point whether any operation is justifiable. The frontal sinus, the ethmoidal cells, the sphenoidal sinus, and the maxillary antrum are often the seat of disease which subsequently extends to the orbit. It is a well-known fact that **tumors of the bones of the skull,** or of the sinuses contained within these bones, may extend in every direction from one sinus or labyrinth to another, and often exist for a long time and reach a large size before appearing in the orbit. They usually grow forward, and the patient dies from exhaustion rather than from involvement of the brain. He then describes didactically the symptomatology, pathology, and treatment of the various diseases that invade these regions. [C.L.L.]

2.—Elliott gives a brief general discussion of **Bright's disease,** particularly considering granular kidney, and insisting upon the frequency of this disease. As instances of the hemorrhages that may give the first warning of this affection, he notes that he has recently met three instances in which the first symptom was epistaxis, one that was ushered in by hemoptysis, and another in which the first symptom was severe spontaneous renal hematuria. He considers heredity a very important element in the etiology of the disease, and thinks that it is very frequently active. He considers it important both in causing the disease, and in the fact that prognosis becomes very much worse in those who have distinct family-history of kidney-disease. [D.L.E.]

3.—Miller gives a resume of the tour which he made through the various European clinics and describes very briefly the antiseptic and aseptic technic which he saw. [C.L.L.]

4.—The method of determining the time of occurrence of heart-murmurs is based upon the construction of a diagram consisting of concentric circles upon which the normal time taken by the various portions of the heart-cycle are charted, and murmurs and the like are considered in their relation to this diagram, which can be satisfactorily understood only by consulting the illustration. [D.L.E.]

Medical News.

July 15, 1899. [Vol. lxxv, No. 3.]

1. The Treatment of Summer Diarrhea in Infants. HENRY DWIGHT CHAPIN.
2. High Altitude and Heart-Disease. ROBERT H. BABCOCK.
3. Cystitis; Its Cause and Treatment. GEORGE T. HOWLAND.
4. A Case of Placenta Prævia. CHARLES A. HELVIE.

1.—Chapin considers the **points of treatment,** in their order of importance, **of summer diarrhea in children,** to be prevention, careful dieting, and drug administration. He recommends the dilution of milk with decoctions of the cereals as making the curd more digestible. Bismuth subnitrate is the drug most relied upon. Moderate doses of opium are of great value when there is rapid peristalsis and profuse glandular secretion. [A.G.E.]

2.—Babcock describes at some length **the effect of high altitudes upon 9 cases of heart-disease,** various valve-lesions being represented. His conclusions are (1) that all forms of cardiac disease do not contraindicate sojourn at a high altitude; (2) the ill effects of low atmospheric pressure in some forms of cardiac disease are explained by the hypothesis of acceleration of venous flow and corresponding quickening of the heart-beats; (3) high altitude is likely to prove incompatible in pronounced aortic or mitral stenosis, and regurgitant disease complicated by pleural and pericardial adhesions; (4) patients, with uncomplicated regurgitant lesions, or arteriosclerosis, may endure low atmospheric pressure without injury. [A.G.E.]

3.—The causes of cystitis are discussed by Howland. He has never been able to find the gonococcus of Neisser as the sole cause in any case, mixed infection always being present. Cystitis is always caused by the presence of bacteria, but a further predisposing cause is necessary. Under favorable conditions any pathogenic organism may give rise to cystitis, and their entrance into the bladder may be through the urethra, the ureters, neighboring inflammatory areas, or the blood-stream and lymphatics. Irrigation should be begun as soon as evidence of decomposition of the urine is present. Of the drugs in use, Howland thinks urotropin the best. Regarding danger from irrigation, he believes it next to impossible to force fluid into the ureters from the meatus. [A.G.E.]

4.—Helvie reports a case of **placenta prævia** in which

the child died two hours after birth, and the mother on the fifth day after delivery. The cause of death was uremia consequent upon nephritis, with almost complete suppression of urine. [W.K.]

Boston Medical and Surgical Journal.

July 13, 1899. [Vol. cxli, No. 2.]

1. Medicine as a Profession. WALTER B. PLATT.
2. The Cavendish Lecture on the Etiology and Diagnosis of Cerebrospinal Fever. WILLIAM OSLER.
3. The Examinations of Stained Specimens of Blood in its Application to Clinical Work. HENRY F. HEWES.
4. X-ray Examinations in Children. FRANCIS H. WILLIAMS.

2.—See PHILADELPHIA MEDICAL JOURNAL, July 1, 1899.

3.—Hewes recommends staining blood-films with **Ehrlich's three-color mixture** for 4 minutes, washing in water, then staining for from ½ to 10 seconds with **Löffler's alkaline** solution of methylene-blue. The specimen is then washed, dried, and mounted in balsam. This method permits the differentiation of the leukocytes and has the advantage of making the distinction between nucleated red corpuscles and lymphocytes clearer and of staining malarial organisms. [D.R.]

4.—Williams points out the **value of the x-ray in pediatric practice.** He was by its means able to diagnose a central pneumonia that had given no physical signs whatever. In cases in which the symptoms suggest tuberculous meningitis, the x-ray examination of the lungs may decide whether tuberculous foci are present there or not. In pleurisy with effusion or empyema the x-ray assists very materially in diagnosis. Changes in the size, position, or shape of the heart are discernible with the x-ray. The size and position of the liver and spleen, and even of the kidneys, especially of the left, can also readily be determined. By giving bismuth subnitrate with bread and milk, the size of the stomach and its changes in shape after a meal may be studied. [D.R.]

Journal American Medical Association.

July 15, 1899. [Vol. xxxiii, No. 3.]

1. Best Methods in the Treatment of Appendicitis. ROBERT T. MORRIS.
2. Empyema of Antrum. HENRY G. OHLS.
3. Intestinal Anastomosis. J. HENRY BARBAT.
4. Anastomosis of Bladder to Rectum. JACOB FRANK.
5. Seeing Capillary Circulation in One's Own Retina. C. E. NORTON.
6. Chronic Interstitial Nephritis. ARTHUR R. ELLIOTT.
7. Systolic Mitral Murmurs. HORACE D. ARNOLD.
8. Myopia. ALLEN T. HAIGHT.
9. Disorders of the Nervous System. R. S. HILL.

1.—See PHILADELPHIA MEDICAL JOURNAL, June 10.

2.—Ohls describes the anatomy, pathology and symptomatology of **empyema of the antrum,** both in its acute form with patent ostium and with closed ostium. He advocates antiseptic measures with the application of dry heat in the former condition, and the same measures combined with operative interference in the latter. [C.L.L.]

3.—Barbat has made a careful study of the results of **intestinal anastomosis,** carefully studying microscopically the results produced by different methods of anastomosis, he arrives at the following conclusions: (1) it is possible to make a safe and satisfactory end-to-end anastomosis; (2) with practice, a surgeon can, with nothing but a needle and thread, sew a divided bowel together and obtain a result which will almost equal that obtained by the use of the Murphy button; (3) the result obtained by the Murphy button is superior to that of any suture-method yet devised; (4) the Murphy button and Frank coupler give the same anatomic results; (5) contraction following end-to-end anastomosis is usually due to faulty technic; (6) the Murphy button is much safer and more reliable than the Frank coupler; (7) a perfect Murphy button, properly introduced, is the quickest, safest, and most reliable means of obtaining an anastomosis between any two viscera; (8) all devices which are used to support the gut in suture operations are unnecessary, and as good, if not better, results may be obtained without them. [C.L.L.]

4.—Frank makes a preliminary report on some experiments he has carried out on dogs. [C.P.L.]

5.—PHILADELPHIA MEDICAL JOURNAL, June 24.

6.—*Ibid.*, June 10.

7.—*Ibid.*, June 10.

8.—Haight advocates operation by dissolution of the lens by needling and by discission and subsequent **extraction of the soft lens without iridectomy.** He is decidedly in favor of the operation for the following reasons: (1) the length of time required is in some cases less than one-third that required by the first procedure, which he considers a very important point in considering the patient; (2) there is less danger of adhesions forming between the iris and the zonula; (3) there is less danger of setting up a low grade of iridocyclitis from continued pressure of the lens, substance on the ciliary body. [C.L.L.]

Archives of Pediatrics.

June, 1899. [Vol. xvi, No. 6.]

1. The Results in Administering the Antitoxin of Diphtheria as an Immunizing Agent. SAMUEL S. ADAMS.
2. Brief Reports of Interesting Cases. J. P. CROZER GRIFFITH.
3. Remarks on the Diagnosis of Cerebellar Abscess in Children. L. J. HAMMOND.
4. A Case of Abscess of the Lung, Following Pneumonia. Resection of Ribs. Recovery. B. VAN D. HEDGES.
5. The Administration of Antitoxin by Mouth. WARD B. WHITCOMB.
6. Facial Eczema. FLOYD M. CRANDALL.

1.—On account of an outbreak of diphtheria in the Children's Hospital of Washington, 422 children admitted, suffering from diseases of all sorts, and some of them in very critical conditions, received **immunizing doses of diphtheria-antitoxin,** 100 units being given to infants, 250 to those between 2 and 6 years of age, and 300 to 500 units to those above this age. Of this number, 17, or 4.28%, contracted diphtheria. The ages varied from 1 month to 12 years. The list included male and female, white and colored. In those subsequently contracting diphtheria a curative dose was administered as soon as the clinical diagnosis was made. In all these cases the bacteriologic confirmation was given. Brief histories of the 17 cases of contracting the disease are given in order to illustrate the duration of the immunity. In an infant receiving 250 units the maximum duration was 5 months, 24 days, and the minimum duration 11 days in a girl aged 11 years, who received 250 units. The average duration of immunity for the 17 cases was 51.1 days. Of the 17 cases 2 were fatal. One child, 17 months old, received 100 units 15 days before the appearance of the diphtheria and died on the fourteenth day of the appearance of the disease. The other, 2 years old, received 250 units 22 days before the appearance of diphtheria and was discharged from quarantine on the twenty-third day of the disease and died 7 days later from heart-failure. A study of the effect of the injections upon the kidney was made with the conclusion that the immunizing dose of antitoxin has no injurious effect upon the kidney. From his experience Adams was convinced that the immunizing dose used in these cases was too small; a better result would have been obtained with larger ones. The larger the immunizing dose the longer the duration of immunity. Urticaria appeared in 2 cases, which was the only pathologic effect of the antitoxin. [S.M.H.]

2.—Griffith reports a case of **incontinence of feces** in a boy aged 8 years. He had a rather neurotic inheritance, had always suffered from incontinence of urine, both nocturnal and diurnal. The incontinence of feces had existed since birth. He had 2 or 3 stools daily, which were generally formed. The feces did not pass unconsciously. He was seized with a sudden desire to evacuate the rectum and the stool was passed in the clothing before a place for relief could be reached. No cause for the trouble could be discovered. There appeared to be no relation between the degree of general nervousness, enuresis, and incontinence of feces. Under treatment with Fowler's solution and increasing doses of belladonna the condition rapidly disappeared. The discontinuance of the treatment some months later resulted in a mild recurrence.

He further reports a case of **angio-neurotic edema** in a child aged 2 years. The condition was associated with urticaria and appeared to be due to gastrointestinal disturbances. There was also a history of exposure to cold. The child suffered from constipation. The swelling appeared suddenly in both hands. The right was swollen throughout, tense, slightly red, not painful or itching; the entire forearm up to the elbow was swollen, and the outer half of the left hand. There was a small edematous spot, not red, on the chin, and a similar spot on the right cheek. This condition lasted for 5 days, then disappeared and returned again in a week. Constipation was present in the second attack also, and there was associated a slight eruption of urticaria. There was a recurrence of the condition some months later. He gives a brief history also of a case of **pneumonic consolidation** of the lung, which was unrecognized early in the attack on account of the peculiarity of the symptoms, all of which pointed to some difficulty within the abdomen, with tenderness in the right iliac region. [S.M.H.]

3.—Hammond reports a rather extensive experience in cases of **cerebellar abscess** in children, having seen 5 during the past 4 years. He gives a brief report of one case. The outcome of the case is not stated, and there was no pathologic report. He believes it may be stated with a degree of accuracy that in a case of pyemia of the sinuses accessory to the brain, or with a history of trauma with rapid loss of flesh and strength, that the presence of a high temperature for a period of 72 hours, followed by a decline in temperature and an increase in the rapidity of the pulse, with pronounced flexure of the extremities, progressive increase in the dilation of the pupils, a half-unconscious condition with uncontrolable restlessness, peculiar indisposition of the patient to obey requests, the presence of sugar in the urine, slow respirations, tendency when standing to go toward one side, or swinging of the hands always toward one side, and the entire absence of paralysis, comprises a set of symptoms indicative only of abscess within the cerebellum. [S.M.H.]

4.—Hedges reports a case of **abscess in the lung** following pneumonia in a boy aged 6 years, in which about an inch of the overlying rib was removed and an incision with a scalpel was made in the lung-substance for a distance of 2 inches, thus opening up the abscess-cavity and allowing free escape of its contents. A rubber tube was inserted for drainage. The patient was in a very critical condition for 10 days. After this there was a gradual and eventually complete recovery. Three years after the operation the boy had an expansion of 2½ inches, rather distant breathing over the area originally involved and numerous rales heard close under the ear on inspiration. [S.M.H.]

5.—Whitcomb reports having utilized **diphtheria-antitoxin** by the mouth for immunizing purposes in two instances in which the exposure was extreme. The results were perfectly satisfactory. [S.M.H.]

6.—Crandall presents a photograph of an Italian baby, aged 9 months, suffering from **facial eczema.** The child was rachitic, but fat and in fair condition. Breast-milk was its only food. In the way of treatment its diet was changed to fresh cow's milk and codliver oil was given for the purpose of increasing nutrition. No local applications were made. Under this treatment the recovery was rapid and complete. [S.M.H.]

Practitioner.

May, 1899. [Vol. lxii, No. 5.]

. Fractures—in the New Light. EDMUND OWEN.
. Metastatic Pyemia from Trivial Causes. Illustrated by a Case Originating from a Boil. J. MCGREGOR-ROBERTSON and J. SOUTTAR MCKENDRICK, with a Report on the Postmortem Appearances, LEWIS R. SUTHERLAND.
A Clinical Lecture on Some Cases of Intussusception. WM. H. BENNETT.
A Note on Bilharzia of the Rectum. FRANK COLE MADDEN.

1.—In order to avoid legal complications Owen advises pecial care in the **examination of any possible fractures,** the use of an antiseptic and the x-rays, if necessary, nd the calling of some other practitioner in consultation. M.B.T.]

3.—Three cases of **intussusception** are reported, one curring in a male child 4 months old; there was abdominal pain, vomiting, great straining, and passage of bloody mucus from the rectum. The child was very ill. After abdominal incision the intussusception was reduced while attempting to draw the intestine out through the abdominal wound. Recovery followed in a few days. The second case occurred in a boy aged 2 years and 9 months. The usual symptoms of intussusception were present and a sausage-shaped tumor could be easily felt; an attempt was made to reduce the tumor by injection of fluid without result. Operation was performed 5½ hours after the beginning of the attack, and an intussusception of about 2 feet was reduced without much trouble. Uninterrupted recovery followed. The third case was that of a baby boy, 6 months old, who had had symptoms of intussusception for 12 hours; the child was very ill. Abdominal section was performed at once and a tumor was found extending from the cecum into the descending colon: it could be felt by the finger in the rectum; it was easily reduced and the child recovered perfectly. [M.B.T.]

4.—Two cases of **bilharzia of the rectum** are reported. A boy, 10 years old, affected with this disease, had become very pale and weak from loss of blood; there was constant pain and tenesmus, and large polypoid masses projected from the anus. The sphincter was dilated, the masses were cut off from both sides of the anus, and the raw surfaces were touched with the cautery. Not much bleeding occurred. The result of the operation was very satisfactory, the boy ceased to have tenesmus, pain, or loss of blood. In the second case, occurring in an old man, a ring of bilharzia mass protruded around the anus, involving the rectum for 2 or 3 inches. Tenesmus was severe and there was free bleeding. The sphincter was dilated and the diseased tissue was removed, piece by piece, by a modified Whitehead's operation. The mucous membrane was then sutured to the skin around the anus. Considerable improvement followed. [M.B.T.]

2.—A man of 65 years, of robust physique, a month after having had a boil, which had healed, developed a moderate fever; retention of urine set in on the second day, necessitating catheterization on the following morning. The temperature continued, ranging from 101° F. to 103° F.; there were no chills; swelling of the joints developed, a cardiac murmur appeared, the urine became albuminous and contained blood and casts; signs of pulmonary involvement also manifested themselves. The patient soon became delirious and died on the thirteenth day of his illness. At the autopsy metastatic abscesses were found in the lungs, liver, and kidneys, and in the right forearm. The prostate was occupied by numerous abscesses, and outside of the bladder, which itself was normal, in the cellular tissue of the pelvis an abscess containing about 3 ounces of pus was found. The author believes that the **pyemia** was due to the boil from which the patient had suffered some time before the onset of the fatal illness. [We can hardly agree with this view—it appears to us much simpler and more reasonable to consider the prostatic abscesses and the pelvic abscess the source of the disease. D.R.]

American Journal of the Medical Sciences.

May, 1899. [Vol. cxvii, No. 5.]

1. A Study of Leukocytosis Associated with Convulsions. FRED GRANT BURROWS.
2. A Case of Brain-tumor at the Base of the Second Left Frontal Convolution. HERMON C. GORDINIER.
3. Sarcoma of the Testicle. GEORGE MARTIN KOBER.
4. Detachment of the Retina. MATTHIAS LANCKTON FOSTER.
5. Should the United States Pharmacopeia Recognize Veratrum Album and Veratrum Viride as One Drug? HORATIO C. WOOD and HORATIO C. WOOD, JR.
6. Critical Summary of the Question of Fatty Degeneration. ALONZO ENGLEBERT TAYLOR.
7. Some Recent Literature Regarding Cancer. CHARLES H. FRAZIER.

1.—Burrows has made **a study of the blood** in patients suffering from **convulsions** to determine **the effect** of the latter **on the leukocytes.** Owing to the impossibility of anticipating the onset of a convulsion, the blood in none of the cases could be studied before an attack. Examination after the fit in every one of the 7 cases investigated demonstrated the occurrence of a **leukocytosis,** which was of an

inflammatory type. The leukocytosis bore, in a general way, a relation to the severity of the convulsive attack, and was of variable duration, lasting for from 3 or 4 to from 12 or 15 hours after the seizure. As already stated, the leukocytosis was of an inflammatory type, that is, it was characterized by a high percentage of polymorphonuclear leukocytes, and a corresponding decrease in the mononuclear elements. The small mononuclear elements, or lymphocytes, were both relatively and absolutely diminished. The large mononuclear elements were usually absolutely increased after the convulsion, but sometimes they were relatively diminished. By comparing the number of leukocytes in the convulsive patients with that occurring in a man after violent muscular exercise, it was found that the leukocytosis in the latter was purely physiologic, all the different forms being increased proportionately; while in the former, the polymorphonuclear elements were increased out of proportion. The postconvulsive leukocytosis must be made up of two parts—a physiologic one due to muscular work, and a pathologic one, manifesting itself in the disproportionate increase of the polymorphonuclear elements, the cause of which is not yet explained. Postconvulsive leukocytosis was found in general paralysis, in dementia, and in katatonia. It would be interesting to study the blood in convulsions of other diseases, such as epilepsy and hysteria. [D R.]

2.—See editorial, PHILADELPHIA MEDICAL JOURNAL, June 3, 1899.

3.—Kober has collected and analyzed statistics on 114 cases of **sarcoma of the testicle.** In 32 there was a history of injury; in 18 the disease developed in retained testicles, or in such the descent of which had been delayed; in 2 cases there was a syphilitic history; in one instance the history showed mumps, with metastasis to a non-descended testicle. The disease occurs **at all ages**—in 107 cases, in which the age was specified, it ranged from 3 months to 74 years. The greatest number, 76, occurred between 21 and 50; 9.3% occurred between birth and the age of 10 years. In 93 cases, in which the point was mentioned, the tumor involved the right testicle in 47, the left in 41, both in 5. Of 75, in which the histologic structure was specified, 31 (42.6%) were round-celled sarcoma. In the majority of the cases there was at first a painless enlargement of the testicle, and then a rapid growth, accompanied by dull, aching and sometimes laminating pains. The tumor generally retains the shape of the testicle until perforation of the tunica albuginea occurs. The spermatic vessels and scrotal veins enlarge, but there is only rarely involvement of the cord. The **diagnosis** between the soft and rapid forms of sarcoma and carcinoma of the testis is almost impossible without the aid of the microscope; nor is it necessary to make a hair-splitting diagnosis, as the welfare of the patient demands ablation in every case of malignant testicular tumor. The diagnosis from orchitis is not easy, but in sarcoma the growth is more slow, less painful, and the presence of the testicle cannot be so readily made out as in orchitis. The presence of fluid in the tunica vaginalis, and the indistinct fluctuation which accompanies the softening of the tumor may obscure its character and lead to the diagnosis of hematocele or hydrocele. The **prognosis** is grave, especially in children and in the case of rapidly growing tumors. The only treatment that offers any hope is prompt and radical extirpation, and the results of this have been very gratifying. [D.R.]

4.—Foster publishes a review of the subject of **detachment of the retina.** The present opinion seems to be that the condition is symptomatic of disease or of lesions of certain intraocular tissues, rather than that it is a purely local disease between the choroid and the retina. It is met with most frequently in myopic eyes, and is usually associated with choroiditis and with a degenerated or fluid vitreous; but these conditions are insufficient in themselves to explain the retinal detachment. Regarding the **treatment,** the aim generally is to remove the subretinal serum. Diaphoresis, obtained by means of jaborandi or pilocarpin, sodium salicylate, potassium iodid or hot-air baths, is sometimes of equal efficiency with operative procedure in the removal of the subretinal serum and the replacement of the retina; but in order to secure such a result, it, as well as depletion and counter-irritation in the vicinity of the eyeball, must be supplemented by absolute bodily rest in bed with the eyes covered by pressure-bandage. In order to secure a permanent result, it may be necessary for the patient to wear a pressure-bandage for life. Various other operative measures are described, such as electricity and injections into the vitreous, but do not receive the author's unqualified sanction. In a person blind from detachment of the retina, the effort should be made to determine the cause, to restore the best possible degree of vision, and to maintain it as long as possible. If traction-bands exist in the vitreous, they may be divided. If the serous accumulation is great, it may be evacuated; but our main reliance must still be upon rest in bed. [D.R.]

5.—The question has been raised in the Committee upon the Revision of the Pharmacopeia, whether it would be proper for the U. S. Pharmacopeia to allow the **substitution of veratrum album for veratrum viride.** H. C. Wood and H. C. Wood, Jr., have made a series of experiments to determine whether the two substances are physiologically similar or identical. They find the only difference to be that veratrum album more frequently purges man when taken in toxic doses than does veratrum viride, and that some specimens of veratrum album are stronger than some specimens of veratrum viride. Veratrum viride, they have found, also varies greatly in strength, and some specimens may be stronger than some specimens of veratrum album. As it is not probable that a clinician would be able to perceive any difference in the action of the therapeutic dose of the two kinds of veratrum, it would be proper for the Pharmacopeia to recognize both. A National Pharmacopeia should, however, the authors think, favor the use of American drugs, when it can do so without injury to anyone. The recognition of veratrum album would be an aid in the substitution of an American by a foreign drug, which now has very little vogue in American markets, and possesses no advantage whatever over its American congeners. Any difference which may possibly exist between the two veratrums is in favor of the American drug, since it is less apt to disturb intestinal digestion. Under these circumstances the recognition by the U. S. Pharmacopeia of the European drug seems to the writers of doubtful expediency. [D R.]

6.—In a remarkably able critical analysis of the recent work on **the nature of fatty degeneration,** Taylor shows that practically all of the experimental evidence in favor of the origin of fat from proteids, either physiologically or pathologically, is based on false premises or on fallacy of method. Neither a physiologic nor a pathologic formation of fats out of proteids has ever been demonstrated, although the possibility of its occurrence cannot be absolutely denied. As regards the old conception of fatty metamorphosis, the weight of evidence at the present day is in favor of infiltration or the formation of fat from carbohydrates. [D.R.]

7.—Frazier summarizes the valuable articles on cancer that appeared in the April number of the *Practitioner*. It is gratifying to learn that the percentage of cures is growing larger, chiefly owing to a general recognition by surgeons that it is necessary to remove not only the growth itself but the tissues through which the lymphatic vessels run and the neighboring lymph-glands. Regarding the statistical increase of carcinoma, Frazier ranges himself on the side of Newsholm, who considers the increase in cancer-mortality only apparent, ascribing it to more accurate methods of diagnosis and more careful registration, rather than on the side of Roswell Park, who believes that there is, in New York, at least, such a rapid rise in the cancer death-rate that in ten years, if the relative proportions are maintained, the mortality from carcinoma will exceed that from carcinoma, smallpox, and typhoid fever combined. The **parasite of cancer** appears still to be an **ignis fatuus,** although apparently promising observations and experiments are reported from the New York State Laboratories, of which Park has charge. Of all methods of treating inoperable cancer, that of Coley, by means of the mixed toxins of erysipelas and bacillus prodigiosus, is the only one warranting recognition. And even this is far less successful in carcinoma proper than in spindle-cell sarcoma. [D.R.]

Edinburgh Medical Journal.

May, 1899. [N. S., Vol. v, No. 5.]

1. Chronic Splenic Enlargement with Recurring Gastro-Intestinal Hemorrhages. WILLIAM OSLER.
2. Tuberculosis and its Prevention. G. SIMS WOODHEAD.

3. On Acute Mania following Simple Ovariotomy. J. HALLIDAY CROOM.
4. Medico-Legal Cases. HARVEY LITTLEJOHN.
5. A Visit to a German Institution for the Treatment of Pulmonary Disease. A. LOCKHART GILLESPIE.
6. Clinical Lecture on a Case of Typhus, and some Lessons to be drawn from it; Being especially a Plea for the Increased Application of Bacteriological Science to Practical Medicine. W. S. GREENFIELD.

1.—Osler divides the cases of so-called primary **enlargement of the spleen** into: (1) those in which the spleen is enlarged without causing any symptoms other than those due to mechanical pressure; (2) cases of enlargement accompanying anemia. He considers the former condition more common than is ordinarily suspected. Usually in this class the spleen is only moderately large. In the past few years he has seen 4 patients, all women, apparently in perfect health, complaining only of a feeling of pressure in the abdomen, in all of whom the spleen was much enlarged. The term anemia splenica, which describes the second class, should be restricted to those cases in which progressive anemia develops in connection with primitive splenomegaly. The relation of the enlarged spleen to the anemia is still in doubt. Four cases of this class have come to Osler's notice during the present year. The peculiarities manifested in these cases were the remarkably chronic course, extending from 3 to 12 years, the chlorotic features of the blood, the hemoglobin value often not more than 50%; the peculiar bronzing of the skin, and lastly, hemorrhages, which may be toxic, as in leukemia, and widespread or mechanical, resulting directly from the condition of the enlarged spleen. He calls particular attention in this paper to the condition of bleeding, in which for many years hemorrhages occur from the stomach and bowels; the bleedings are profuse, and in the cases which he records, they occurred during a period of from 9 to 12 years, while in the intervals the patients have regained their flesh and strength and have been able to carry on their occupations. The first case showed recurring attacks of hematemesis and melena between 1885 and 1897, with excellent health in the intervals, chronic enlargement of the spleen, with death in an attack. The pathologic investigation showed chronic hyperplasia of the spleen, with a smooth liver, showing macroscopically no signs of cirrhosis and microscopically showing only slight fatty changes. The patient was a man aged 35 years. The second patient gave no history of malaria or syphilis. He had his first attack of hemorrhage from the stomach 10 years ago. Since then at intervals of about a year very severe attacks occurred, in which he vomited blood and passed blood in the stools. The spleen was enlarged. In this case an exploratory laporatomy was done, the stomach and duodenum were found to be normal, the liver smooth and not cirrhotic. The enlarged spleen was removed, the patient, a man aged 33 years, making a complete recovery. The third patient gave no history of malaria or of syphilis. He had his first attack of hematemesis 11 years ago, and for 4 or 5 years recurring attacks of melena. Six years ago he had his second attack of hematemesis, and an occasional attack of melena. In January of last year he had severe hematemesis and melena. Examination showed a great enlargement of the spleen, with chronic anemia of the chlorotic type. This patient was a man, aged 38 years. The special feature of hemorrhages in these cases Osler considers entirely due to mechanical causes. In no case have there been associated cutaneous or retinal hemorrhages. He adopts Watson's explanation of this condition of bleeding, which is as follows: That one of the offices of the spleen is to provide a receptacle or reservoir for the blood when its free passage through the portal vessels is temporarily obstructed. It then becomes a sort of safety-valve which obviates the danger which might otherwise arise to more vital parts from any great or sudden disturbance of the venous circulation. The stress of the congestion is generally felt in the submucous capillary system and the hemorrhage which is apt in such cases to occur from the loaded membrane, receives a simple solution upon principles almost purely mechanical. In support of this view he refers to the anatomic fact that a very large portion of the blood from the stomach is discharged into the splenic vein. It has been estimated that 60% of the blood in the splenic artery passes to the spleen and 40% to the stomach. In diagnosing conditions associated with enlargement of the spleen it is necessary to recognize a primitive splenomegaly with a practically normal blood-count. Cases of chronic enlargement of the spleen extending over many years present, as a rule, anemia of a chlorotic type, with low corpuscular and low leukocyte-count. The more pronounced does the corpuscular anemia become, the more striking are the changes in the red corpuscles, and in advanced cases the blood may be like that of a pernicious anemia. The most confusing and puzzling condition, however, is that in which with enlargement of the spleen, the condition of leukemia may be present during one month, and in the following that of a simple splenic anemia. The question of diagnosis from Banti's disease, primitive splenomegaly, with an associated terminal cirrhosis of the liver and jaundice must be considered. Osler has never seen an instance of such a condition, but calls attention to the fact that two of his cases illustrate how careful one must be in a diagnosis during life. A certain number of cases of splenic anemia present ascites quite early in the course. An instance of this kind is referred to in which the autopsy showed only an enormously enlarged spleen without cirrhosis of the liver. [S.M.H.]

2.—In the **prevention of tuberculosis,** in the first place, one should take every precaution to prevent the dissemination of the virus either from the human subject or from animals. The sputum is the most important means of spreading the tubercle-bacillus in the human subject. So long as it is moist it is easily dealt with. If it can be collected and destroyed or sterilized at once it can never do any harm. If allowed to dry, become pulverized and mixed with the dust, it at once becomes a medium of infection, which may result in the spread of the disease to other patients. No tuberculous patient should ever kiss any one, and should always sleep in a room by himself. Every house in which those affected have lived or are living should be thoroughly ventilated; the windows should be kept open as much as possible in order to maintain through currents of air. There should be sufficient good ventilation to prevent the rising of ground-air, and also to prevent the breathing of air that has previously been used. Dust in a house where a consumptive patient resides is to be avoided by all possible means, and the instructions given as to the cleaning down of walls and of floors with moist cloths should apply at all times. A consumptive should live in fresh air both in and out of doors. Sunlight and open windows are the best treatment and the best preventives. Notification of disease amongst cattle, especially amongst dairy cattle, is equally important. Veterinary surgeons working along with the medical officers of health should be appointed to keep a register of all cattle in their district, and compulsorily test with tuberculin all dairy cattle or other stock at the request of cattle-breeders. There should be a compulsory registration and regular inspection, by medical officers of health, of all milkshops. Official slaughter-houses should be systematically inspected. [S.M.H.]

3.—Croom reports a case in which he removed a simple ovarian tumor. On the third day maniacal symptome manifested themselves. On the fifth day the patient died as the result of an **acute mania** following the operation. The postmortem examination showed no evidence whatever of septic infection. The points of special interest in the case were the early development of the symptoms and the rapid and fatal course of the disease. He briefly refers to a second case of acute mania in which he removed both ovaries. One of them proved to be enlarged and cystic. The maniacal symptoms disappeared shortly after the operation and never recurred. [S.M.H.]

5.—Gillespie describes the **Falkenstein sanitorium.** It is situated 1,300 feet above the sea level, faces to the south, is guarded from winds from other points of the compass by low-topped hills. It is backed by rising tree-clad slopes intersected with paths through the pines. The building is composed of a large main block surmounted by a minaret-shaped tower having two wings, each connected by a covered way with separate buildings. A deep, covered veranda extends right along the south face of the main building and the sides of the wings. It is a step or two above the ground level and is furnished with numerous couches in which the patients lie tucked up in furs for many hours each day. Within the building there is an entire absence of carpets and mats, and there are spittoons filled with water and numberless notices displayed forbidding the use of handkerchiefs or rags for the

reception of the sputum, and insisting upon the employment of Dettweiler's pocket sputum-flask or the numerous spittoons. The system carried out at Falkenstein is not so severe as that insisted upon at Nordrach. The patient is advised, not coerced. The results are admirable. In addition to numerous meals, several glasses of milk, warm from the cows, are expected to be taken each day, and taken slowly; beginning with 4 glasses, the number disposed of gradually reaches to double this quantity. No medicinal treatment for the lung-condition is adopted. Topical applications are made to the larynx, if affected. The treatment depends entirely upon long hours of rest upon couches in open verandas exposed to pure dustless air, upon the ingestion of a large amount of food given frequently and not in large quantities at a time, much of it in the form of milk; in walks of gradually increasing length as the patient increases in strength, along the paths over the hills, these walks bearing only a very small proportion in length of time to the number of hours spent in the recumbent posture. If the patient has no appetite or cannot without discomfort eat more than his appetite or mental fortitude is able to permit, forced feeding is not resorted to. The patient is encouraged to eat as much as he can, and is told the reasons for his doing so. [S.M.H.]

6.—Greenfield, in closing his general lecture on a case of **typhus fever,** makes the following suggestions: That there should exist for each important infectious disease a separate code of directions, a definite simple statement of the more important facts and necessary precautions, which could be given to the friends of the patient. These should be issued to medical men together with slips for distribution to their patients. The sanitary authority should send to the householder a slip containing directions applicable to the particular disease notified. The statement should include: (1) The common mode of infection; (2) the period of incubation, to the time of occurrence of the rash or other leading phenomenon; (3) the common and the possible modes of diffusion of the contagium, whether by the breath, sputa, feces, etc., and how best to avoid and prevent infection; (4) the capacity for existence of the contagium outside the body, the duration of infectiousness, and the conditions which may prolong its period; (5) the known facts as to the agents which most readily destroy the contagium; (6) simple directions as to the points to be attended to in cleaning, dusting, dealing with clothes, and so on; (7) a careful statement of what can be done with various materials and common articles by way of disinfection, *e.g.*, what injures certain fabrics and what does not. [S.M.H.]

7.—Oliver gives a brief report of 2 cases of hydatidiform mole. [S.M.H.]

Berliner klinische Wochenschrift.

May 1, 1899. [36. Jahrg., No. 18.]

1. Upon the Bloodless Reduction of Congenital Hip-dislocation. J. WOLFF.
2. The Watery Extract of Tubercle-bacilli and its Derivative. E. MARAGLIANO.
3. Cases of Acute Nonsuppurating Encephalitis. G. FLATAU.
4. A Case of Congenital Total Absence (Defect) of the Upper Extremities (Abrachius) and Partial Defect of the Lower Extremities (Phocomelus, after Virchow). F. WALLENSTEIN.

1.—Wolff has had under observation 89 cases of **congenital dislocation of the hip** in which the diagnosis was confirmed by the x-rays. In 36 of these cases both sides were affected so that the total number of joints affected amounts to 125; in 104 of these reduction by the bloodless method was tried and it was successful in 97 cases. The dislocation recurred in 46 of the affected joints and was again reduced up to the third time; 73 of the joints have remained permanently in position, the condition of the joints is ideal in a number of cases, the children can walk, run, jump or dance perfectly well. [M.B.T.]

2.—Maragliano has made a **watery extract of tubercle-bacilli** in the following way: A bouillon-culture was filtered, the bacilli on the filter were taken up in an amount of water equal to that of the culture-fluid, and heated for 48 hours on the water-bath, at a temperature of from 90° to 95° C., water being added to supply the loss by evaporation. At the end of the 48 hours, the substance was evaporated down to $\frac{1}{10}$ of its original volume. The residue, called **aqueous tuberculin,** has the same effect on tuberculous human beings, and on tuberculous and healthy animals as the glycerin-extract, except that, while tuberculin locally produces abscess-formation, aqueous extract does not. It is, however, unstable, but can be rendered permanent by the addition of 5% glycerin. In the ordinary tuberculin the amount of glycerin is so large as to contribute to the toxic effect. By comparative experiments, it is demonstrated that water extracts much more toxic material from the bacilli than glycerin. If the watery extract is evaporated to dryness, a residue is obtained from which, by means of alcohol, a very powerful substance, soluble in water, can be obtained. One part of it will kill 20,000 parts of guineapig, and it is the purest preparation of tuberculin that Maragliano has been able to obtain. Koch's tuberculin, TR, is also a watery extract, but the extraction is carried on at a lower temperature. Its biologic properties, however, are analogous to those of the glycerin tuberculin and to the watery extract. The apparent difference between its action and that of the latter two is conditioned on the fact that Koch recommends smaller doses of tuberculin TR than of the ordinary tuberculin. There is a considerable variability in the strength of different tuberculins; this is dependent on the presence of different amounts of toxin contained in them, and not on the fact that different observers have produced a more active toxic principle. [D.R.]

3.—The first patient was a woman who, after a protracted attack of influenza, found that she was unable to hold objects in her hands firmly, that her keens were weak, and that speech was becoming nasal. On admission it was found that mentality was undisturbed. There was no abnormality of the eyes, but there was a left-sided convulsive tic, involving the distribution of the facial nerve and the platysma. There was marked hyperesthesia in the distribution of the left trifacial nerve. The power of the muscles of the left extremity was diminished. The kneejerks were increased, especially on the left side. There was no ankle-clonus and no rigidity. There were no bladder-symptoms. Speech was slightly impaired and the patient had an uncontrolable tendency to sobbing. Under the use of diaphoresis, potassium iodid, and rest in bed, the patient improved in every way, except as regards the convulsive tic. In the second patient, a woman of 36, the first symptom was vertigo, there having been no previous illness. A week after its onset she could not turn her eyes toward the left, there was ptosis of the right upper eyelid, the mouth was drawn to the left, and there was some weakness of the muscles of mastication on the left side. There was no history of syphilis and no alcoholic excess. On admission it was found that the patient's head was turning to the left, not because of spasm or paralysis of any muscle but because of the position of the eyes. The eyes were conjugately deviated to the right and could not be turned to the left. The left pupil was a little smaller than the right. On the right side there was slight ptosis. During mastication the lower jaw was deflected somewhat towards the left. There were no sensory disturbances. There was a slight facial paralysis of the left side. The tendon reflexes on the right side were more marked than on the left. The third patient was a man, 33 years old, who up to five years before his illness had been addicted to alcoholic excess. He had matitudinal vomiting, but denied syphilis. His illness came on with a sudden faintness and a rush of blood to the head, and a tendency to run to the left; there was no headache. On examination a right-sided ptosis, paralysis of the right internal rectus, and a bilateral paresis of the external rectus were found. There was a slight nystagmus. The pupils were normal, speech unaffected; there was some swaying, especially toward the left, when the eyes were closed. Mentality, motility and tactile sense were normal. The patient improved rapidly. The fourth case was that of a boy, of 7 years, who slipped on the street and fell, striking the occiput. He was not unconscious, and had no vomiting. A few days later, gait became staggering, the eyelids drooped, and there was diplopia. The movements of the eyeballs in every direction were restricted, convergence was impossible; the pupillary reflexes were normal. Mastication was difficult, deglutition normal. The lip-muscles were paretic. The masseters and orbicularis oris muscles showed, on electric examination, a quantitative reduction in excitability.

Gait not abnormal; kneejerks increased; left leg weaker than right; eye-grounds normal. Before the fall the boy had been well except for a rather prolonged loss of appetite. Complete cure followed in a few weeks. In the last case the **diagnosis** was difficult. The following possibilities suggested themselves: postinfectious polioencephalitis superior, post-traumatic polioencephalitis, or traumatic late apoplexy. Tumor could be readily excluded; the most likely condition was a **traumatic polioencephalitis,** as there was nothing to support the view of a postinfectious encephalitis, and as the rapid recovery excluded traumatic late apoplexy (Spätapoplexie). In the first case the condition was probably a **post-influenzal encephalitis,** the lesion being in the pons, but distributed irregularly. The facial tic was a curious feature; the coexistence of tic and paralysis in the same nerve-territory has been noted before. The third case was one of **hemorrhagic polioencephalitis;** of special interest was the complete recovery. In the second case all the phenomena pointed to an **encephalitic process.** Syphilis might have been thought of, but was excluded by the history and the results of the examination. As for the seat of the lesion, the author places it in the left half of the pons, at the level of the fifth, sixth and seventh nerves. The interesting feature is, that the symptoms were not, as is usual, due to an incurable disease, especially a tumor, but to a curable encephalitis. There must have been a small encephalitic focus also in the region of the right oculomotor nerve; probably the left pontine focus sent a small process across the median line to the right. It is not impossible, however, that the third nerve was the seat of a neuritis, as such a condition, especially in the optic nerve, is at times associated with acute encephalitis. [D.R.]

4.—Wallenstein describes an interesting monstrosity. The child was born 10 days after term, and died when 8 days old of intestinal catarrh and tetanus neonatorum. The chief abnormity consisted in a total absence of the upper extremities (**abrachius**) and of the lower legs (**phocomelius**). The femurs were present, and to them, without intervening fibulae or tibiae, the feet were attached. The right foot had 4, the left 3 toes. Regarding the cause of the malformations, the author inclines to the opinion, based on the examination of the body with the Röntgen-ray, that it was not pressure by the amnion, but an insufficient developmental energy. On account of this lack of energy of growth there was no "anlage," for the upper extremities and the lower extremities were only imperfectly developed. [D.R.]

Münchener medicinische Wochenschrift.

April 25, 1899. [46. Jahrg., No. 17.]

1. Further Experiences in Tendon-transplanting. O. VULPIUS.
2. Aneurysm of the Right Axillary Artery; Brain-embolism; Hemorrhage following Operation; Recovery. R. STICH.
3. Treatment of Scoliosis. O. v. LEY.
4. Case Reports. ZIEGLER.
5. The Influence of Bodily Exercise upon the Temperature in Health and in Sickness. PENZOLDT and BIRGELEN.
6. Further Experience in Appendicitis. DOERFLER.
7. Recollections of THEODORE BILLROTH.

1.—The results of 80 operations performed by the method which he originated, serve Vulpius as a text for illustrations of the numberless applications of tendon-transplanting in orthopedic surgery. To obtain the strict asepsis which is essential to success, he advises the employment of sterilized thread gloves and the use as suture-material of silk that has previously been sterilized by boiling in sublimate solution. This form of suture has enabled him to avoid the chief source of delay in union which he has found in the discharge of sutures late in the healing process. The field of operation must be made bloodless, as the different muscles can be distinguished readily under these conditions. General anesthesia is also necessary, since local anesthesia does not prevent muscular tremors and twitchings. The incisions must be sufficiently free and all should be made before the plastic operation is attempted, so that the whole field can be surveyed at once. Whenever possible, the operation must be done beneath the fascia, as this prevents adhesions and facilitates the formation of new tendon-sheaths. The sutures must be inserted so that they make the relaxed tendons tense and produce an overcorrected position in place of the deformity. Vulpius has found that certain muscles that apparently have no great function and are frequently found unimpaired, must not be employed with complete loss of their former function. As an instance he cites the extensor hallucis longus. If this is entirely divided a flexion of the great toe results that makes it difficult to put on the shoe. In the case of these muscles he divides the tendon as high up as possible and leaves it a slight connection with part of the muscle through the fascia. In addition he sutures the remainder of the stump to some other neighboring tendon. The **tendon-transplantation** in some instances must be secondary to the correction of an arthritic deformity, and the result is more permanent and with better function. Rest in bed in addition to the fixed dressing must be insisted on for 4 weeks. The fixation dressing prevents movement in the joint, but not the contraction of muscles and consequent strain on the sutures. The fixation must last 2 or 3 weeks longer and be followed by massage, passive motion, and electricity. This treatment is not only applicable to cases of congenital deficiency, but also to that greater number of cases in which groups of muscles are affected by different forms of palsies and paralyses. [C.L.L.]

2.—This case has peculiar interest from the formation of the two sacs of the **aneurysm,** one from the wall of the artery itself and the other, that of the hematoma, resulting from the passage of blood into the surrounding tissues. In addition we find a recurrent hemorrhage, making a second operation necessary, and the passage of an embolus into the brain from the clot in the subclavian artery. The collateral circulation about the aneurysm was rapidly established, and the formation of the clot within it had but a temporary effect upon the peripheral circulation. The embolus that was carried centrally, however, produced a hemiplegia of the opposite side. [C.L.L.]

3.—The early recognition and treatment of **scoliosis** is of the utmost importance, and does not belong to the specialist but to the general practitioner. A deviation of the spinous processes from a straight line is not the first symptom that can be detected. With the patient bowed over, with arms folded across the chest, even before a deviation in the line of the vertebrae can be seen, a difference in the development of the muscles is to be noted. Massage and movements that can be given under the care of a general practitioner will at this early period prevent serious injury to the individual vertebrae and prevent the progress of the disease. [C.L.L.]

4.—Ziegler reports a very interesting case of **injury to the subclavian artery** which he successfully ligated, and again ligated after secondary hemorrhage. The condition was readily diagnosed by the position and direction of the wound, the intense anemia, the marked distention of the pectoral region which only accompanies bleeding after such accidents, the dissimilarity of the pulse in the radials, and the arterial murmur which Wahl has shown accompanies all partial severances of arteries. This murmur is produced by the stenosis of the arterial lumen by the clot resulting from the injury. In complete severance this symptom is wanting. In operating, Ziegler employed a vertical incision which gave better access to the region. If the axillary plexus has escaped injury by the placing of the ligatures the functional activity of the arm is almost entirely restored, abduction, alone, is slightly impaired. He also reports a case of pyloric stenosis in which a perforation took place after a Hacker's gastroenterostomy had been performed. An operation undertaken on the supposition that some of the stitches had torn out, showed the site of operation to be in perfect condition, but a perforation was found at the pylorus which was closed by a series of Lembert sutures. The patient made an uninterrupted recovery. He further reports a case of cancer of the pylorus in which the patient improved to a remarkable degree after a gastroenterostomy. The patient, two months after the operation, had grown fat, and was entirely free from pain that had been almost constant at the site of pylorus. [C.L.L.]

5.—In this article the authors complete the tabulation of their results, which we summarized in a previous number. [D.R.]

6.—Doerfler continues his discussion of **appendicitis,** with the symptoms and treatment of the **acute septic peri-**

tonitis, which ends almost always in death. The symptoms are very mild in type, the patient is cheerful until death There is only occasional vomiting. The abdomen is distended somewhat, but not exquisitely tender. The author would strongly advise examination under ether, after all preparations have been made for operation, as by this means the tumor in the appendiceal region can sometimes be detected when it would otherwise be overlooked. Early diagnosis and operation are the only means of saving life. The after-treatment is greatly helped by the use of intravenous injections of normal salt-solution. He summarizes his operations, dividing them into certain classes according to clinical symptoms, but denying the possibility of making classifications that will serve for every case, as they are individual cases. To the general practitioner, he says that these cases are of more frequent occurrence than is generally supposed, that they should be fully conversant with their symptomatology, and ready to detect their onset and differentiate between their clinical forms, as early diagnosis and early operative intervention are of the utmost importance in some cases, while the conservative medical treatment suffices for others. The knowledge that can differentiate between these cases and apply the proper treatment early is essential to the saving of life. The removal of the appendix in the interval between attacks is almost without mortality, and is a guarantee against future attacks. Undoubtedly, perityphlitic cases can be cured without operation. Undoubtedly, many such cases die at the present day that might be saved by well-timed operation. The results of well-timed operation are better than those of the expectant treatment, *i. e.*, mortality, 6.6% on the one hand, and 14.7 on the other. The proper time to operate is the essential point in the diagnosis. [C.L.L.]

May 2, 1899. [46. Jahrg., No. 18.]

1. Contributions on the Gruber-Widal Serum-Diagnosis in Abdominal Typhoid. KASEL and MANN.
2. Freund's Operation for Uterine Prolapse. ASSÁKY.
3. Vaginal Rupture During Labor. HORN.
4. A Case of Colpaporrhexis. MÜLLER.
5. A Case of Vaccine-Infection of the Genitals. MAILLEFERT.
6. Concerning the Large Quantities of Ammonia and other Nitrogenous Substances in the Soil of Hamburg as a Direct Cause of the Outbreak of The Cholera Epidemic in 1892. v. PETTENKOFER.
7. The Influence of High Locations on the Cholera in Hamburg in 1892. GAFFKY, BUCHNER.
8. From Sonderegger's Autobiography. FRICK.

1.—Kasel and Mann publish their observations on the **Widal reaction in typhoid fever.** They do not think that the method permits an early unequivocal diagnosis of the disease and are of the opinion that the contrary views of authors are based on inaccuracy of technic. They look upon the reaction as an immunity-reaction and not merely as a reaction of infection, as assumed by Widal. The agglutinins are not, however, the true immunizing substances and their quantity bears no definite relation to the degree of immunity. Among their cases were two in which the reaction remained in abeyance throughout the disease. They also observed two cases of croupous pneumonia in which the reaction occurred, but immediately subsided after convalescence. They endeavored to find whether there was any symptom of typhoid that bore any relation to agglutination. and found that there was only one, namely the **relative slowing of the pulse.** The cases with a relative slowing of the pulse showed in general a more marked agglutination There appeared to be no relation between the gravity of the infection and height of the fever, on the one hand, and the time of appearance and intensity of agglutination, on the other. If the duration of the fever is compared with the strength of the reaction in cases of like severity, it is found that those presenting a strong agglutination are shorter in duration than those in which the reaction is weak. It may be said then that, due attention being given to the severity of the case, the stronger the reaction, the more favorable is the prognosis. The authors have made the test in 51 individuals who had had typhoid fever. In 20 cases the reaction was positive during the first year after the the disease, and in 11 negative. Of those examined more than a year after the fever, 6 were negative and 11 were positive, one each after 14, 15½ and 17 months, and three after 4½, two after 4¾, and one each after 5, 10, 15 and 21 years. Of the cases in the first year after the disease, 64.5% were positive. Of 11 cases from the second to the fifth year after the disease, 8, or 72.7%, were positive. If in a case suspected of typhoid fever, the reaction is very strongly positive, it is connected with the present illness and not with a former attack of the disease. The authors were not able to find that the reaction persisted longer after a severe than after a mild attack of typhoid fever. They believe that, like every other symptom of this malady, the reaction is not absolutely reliable, although in some instances it decides the nature of the case. In children under 7 years, the reaction is feebler than in older persons, and it disappears earlier; nevertheless, it is in **children** perhaps the **most valuable sign** of typhoid fever. The authors examined three **nurslings** whose mothers had had typhoid fever, the one shortly and the others some time before the pregnancy. The mothers gave a marked reaction, but the infants did not. They examined the **milk** of three healthy women who had never had typhoid fever, and in 2 of them also the blood. They found that the milk had only a slight agglutinating power. The milk of the 3 mothers previously referred to was examined with the following result: In one case the reaction was positive in the relation of 1:1; in the second, in the relation of 1:12, while in the third case the milk produced agglutination in the proportion of 1:50, although the patient had had typhoid fever 15 years before. The blood examined on the same day gave a weaker reaction than the milk. This is contradictory to all previous experience, and the authors can give no explanation. For the question whether the agglutinins can be transferred with the milk, the last-named case is of importance. While the milk reacted positively in the relation of 1:50, the blood of the infant gave no reaction, even in the proportion of 1:1. [D. R.]

2.—The advantages of **Freund's operation** are that it can be done without anesthesia or special instrument and in a short time. As long as the suture remains in place the uterus is maintained in proper position. Silk or silver may be employed. If the sutures are removed the prolapse recurs. Frequently the sutures cut through, as in cases mentioned by Schanta and others. The first suture introduced is the most important, the upper ring serving as a submucous pessary, and if it holds prolapse will not recur. This operation is indicated particularly where there is great age or doubtful cardiac action, or in those cases in which anesthesia or blood-loss is especially contraindicated. [W.K.[

3.—Horn reports a case of **rupture of the vagina** with the escape of the fetus into the abdominal cavity. The patient had a generally contracted, flat pelvis, and two ineffectual attempts had been made with forceps to deliver her. When admitted to the hospital, the birth-canal was found ruptured and the fetus had passed into the peritoneal cavity. The fetus was extracted by the vagina, as her condition would not permit celiotomy; the vaginal laceration was sutured and as thorough plastic work done as possible and drainage employed. The patient made a good recovery. [W.K.]

5.—Maillefert relates a case of infection of the left labium with vaccine. There were found 4 vesicles about the size of a bean, of pale yellow color, which were painful on locomotion, but the temperature was normal. The diagnosis was obscure until it was ascertained that her youngest child had been vaccinated recently and she had used a linen bandage from the child's arm for the purpose of bathing the vulva. After 6 days the swelling gradually disappeared. [W.K.]

6.—Von Pettenkofer, referring to the **cholera-epidemic at Hamburg,** calls attention to a fact that has recently come to his knowledge, which proves, in his opinion, that the drinking-water had nothing to do directly with the spread of the disease. It had been maintained by his opponents that the sewage system of Hamburg was such as to insure the purity of the soil, but recently Dr. Wohlwill, a factory director at Hamburg, sent Pettenkofer large pieces of copper nitrate that had formed in the Hamburg soil out of copper wire used for carrying an electric current. The copper wire had functionated properly up to 1890, and then the galvanometer indicated a cessation of the current. Examination showed that in places the conductor, which had an area of 9 sq. cm., was reduced to less than needle thickness, and in others the wire was completely interrupted and replaced by a large amount of copper nitrate. Pettenkofer attributes

the decomposition to the presence of ammonia and other nitrates in the soil. As the wire ran for about a meter below the pavement, he thinks that the contamination of the soil was from the sweepings of the houses. The water used for washing purposes, distributed by the Hamburg Water Works, was strongly contaminated. Pettenkofer thinks that it was not the drinking-water, as such, that spread cholera, but the uses of the water for washing and other household purposes. Munich lost its typhoid epidemics before there was any change in the water-supply. The marked diminution in the typhoid fever frequency began when the gutters were made water-tight and with the construction of sewers. Pettenkofer maintains, as heretofore, that it is not sufficient in explaining typhoid and cholera epidemics to demonstrate the presence of the typhoid and cholera bacilli in the water (X), but that there is another factor, a local one connected with the soil (Pettenkofer's Y). [D.R.]

7.—A discussion between Gaffky and Buchner regarding the influence of elevation on the spread of cholera in Hamburg. [D.R.]

Deutsche medicinische Wochenschrift.

April 27, 1899. [25. Jahrg., No. 17.]

1. The Drinking of Blood and Modern Blood-Preparations. W. ROSENSTEIN.
2. Concerning the Growth of Dwarfs and Relative Growth Disturbances. JOACHIMSTHAL.
3. A Case of Æsophagitis and Periæsophagitis Phlegmonosa. L. HUISMANS.
4. Concerning an Unusual Case of Pylorus Stenosis, Caused by a Gallstone (Pylorus Resection, Cholecystectomy). C. FLEISCHHAUER.
5. An Unusual Case of Sigmoidal Hernia. S. WALJOFF.

1.—Rosenstein has undertaken to investigate the various **preparations** produced **from the blood of animals,** partly in **regard to the quantity of iron** they contain, but especially for the purpose of discovering whether they contain the constituents of normal blood or the altered products of hemoglobin. The following substances were subjected to analysis:—Radlauer's hemoglobin pastiles, Nardi's hemoglobin, Pfeuffer's hemoglobin syrup, Hemoglobin cachets, Hommel's hematogen, Fortuna-Hematogen, Theuer's hemoglobin albuminate, Dynamogen, Ferrhemin-Hertel, Dahmen's hemalbumin, hemoglobin-Merck, Hemogallol-Kobert, Haemol-Kobert, Sanguinoferrin, and Krewel's sanguinal medicine; meat-juice puro, meat-juice, ordinary blood-sausage in raw and cooked conditions; and finally an American preparation known as sanguis bovinus exsiccatus. All these preparations were dissolved and examined in solutions of various strength by the Browning pocket spectroscope both before and after reduction with ammonium sulfid. It is unnecessary to give in abstract the detailed results of these examinations. It is sufficient to say that Rosenstein concludes that not a single one of the preparations investigated consists of pure blood, and, therefore, all statements in the advertisements to this effect are false; but he goes on to say that the recommendation of blood-preparations for the purpose of forming blood depends upon an incorrect premise, for the resorption of iron from the gastrointestinal tract has never yet been demonstrated. It is possible that the intravenous or subcutaneous injection of blood may be of service, for the greater portion of the hemoglobin is absorbed and retained in the organism. For chlorosis, however, this method is of little value. The administration of blood-preparations by the mouth are, therefore, to be looked upon either as an evidence of lack of progress or as a direct retrograde step. [J.S.]

2.—Joachimsthal, having had an opportunity to study the **skeletons of various dwarfs** by means of the Röntgen-rays, was able to determine the following features: The first, a male 30 years of age, at the age of 15 was 90 cm. in length. In the following 15 years he increased 10 cm. The voice was like that of a child, and hair was found only upon the head. The skiagrams showed a typical infantile skeleton. The epiphyses of the bones, particularly the smaller bones of the wrist, remained cartilaginous. This condition recurred in 6 of the 8 dwarfs investigated; thus, one 36 years of age, at the age of 22 had been 126 cm. in height, and in 14 years increased 22 cm. This case appears to be a little more developed than the other, and the metacarpal bones are not separated by such wide clear spaces. Nevertheless, the epiphyseal cartilages are still persistent. Another dwarf 134 cm. in height, and now 33 years of age, shows a still further progress towards the adult type, and this corresponds to the relatively rapid increase in height of 25 cm. in 13 years. A female dwarf, 30 years of age and 132 cm. in length, showed the typical infantile type, and had never menstruated. In two female dwarfs, 36 years of age, and respectively 114 cm. and 118 cm. in height, the skeleton was of the adult type, and both had menstruated from the twentieth year. Absolutely no trace of any pathologic alteration could be detected in the skeleton. Similar results have been obtained by other writers. [J.S.]

3.—This case of **esophageal stricture** showed a peculiar variation in the ability of the surgeon to pass esophageal sounds; sometimes they passed easily, at others with great difficulty and pain, and on occasions it was altogether impossible. The patient finally died, without fever, but with marked interference with respiration. Just before death a dulness was found posteriorly, three fingers in breadth, with vocal fremitus and rales. In the jugular fossae, on both sides of the neck, up to the mastoid processes, there was a marked subcutaneous emphysema. The postmortem examination showed a periesophageal abscess, with a stricture of the esophagus. The abscess extended down into the mediastinum, and nearly encircled the esophagus. The symptoms of oppression and the varying difficulty in passing the sounds were due to variations in the size of the abscess, while the emphysema was caused by the gases produced in the abscess, and forced into the tissues. [C.L.L.]

4.—Through the adhesion of the gallbladder to the stomach and pylorus and the ulceration of the intervening tissues a **gallstone** the size of a pigeon's egg **entered the pylorus.** This together with fresh adhesions and scar-tissue had given rise to a **pyloric stenosis** that simulated in all other respects the ordinary stenosis of the pylorus. In the days just preceding the operation the symptoms made the condition resemble an ileus. The operation consisted in the opening of the gallbladder and the removal of a large number of calculi. The pylorus was resected, the wound in the stomach partially closed and the plastic operation completed by the use of a Murphy button supported by serous sutures. The patient made a complete recovery and the button passed on the 27th day. (C.L.L.)

5.—This interesting case showed the presence of an **internal incarcerated hernia** in a pouch that was formed behind the lower portion of the descending colon. There is frequently observable in the pelvis a fold of peritoneum, which can be found by raising the sigmoid flexure, and is formed from the left mesenteric fold. In this particular instance this fold was so situated that the movable portion of the colon became incarcerated and strangulated. This pouch was congenital in its origin. If its possibility had been known and the symptoms correctly interpreted, a high enema would have probably relieved the condition, or a laparotomy would have saved the life of this patient, who died with the recognized symptoms of intestinal obstruction, but without an exact diagnosis having been made, while an exploratory laparotomy was precluded by the severity of the symptoms when he entered the hospital. [C.L.L.]

May 4, 1899. [25. Jahrg., No. 18.]

1. The Knowledge of Atrophy in Infants. A. BAGINSKY.
2. Surgical Treatment of Ascites. TILMAN.
3. Three Cases of Double-sided Symmetrical Contracture of Palmar Aponeurosis (Dupuytren) in Connection with Gout. GEMMEL.
4. Concerning the Growth of Dwarfs and Relative Growth-Disturbances. JOACHIMSTHAL.

1.—Baginsky has endeavored to discover the **cause of marasmus.** Children suffering from this disease may be divided into two groups. The first comprises those who have been starved for a considerable period. The second group those who, as a result of chronic disease or intestinal disorders, have been unable to assimilate the nourishment that has been given them. It is a question whether or not these children are capable of nourishing themselves, even under the most favorable conditions. In three cases in which

Baginsky had performed experiments in metabolism, he found that 57%, 37%, and 44% respectively of the nitrogen in the diet was excreted unabsorbed in the feces, and, as the amount of nitrogen excreted by the urine was greater than the amount absorbed, the rapid emaciation of the children was easily explained. He also investigated the histological structure of the mucous membrane of 10 cases, and found an extensive swelling and proliferation of the mucous membrane with lesions that ultimately produced complete destruction of the glands of Lieberkühn, and these changes were found in all parts of the intestinal tract. Baginsky concludes that **infantile marasmus** is the result of destructive changes in the intestinal tract, leading to disturbance of assimilation. It is possible that a certain degree of autointoxication complicates the process, but this cannot be the most important element. Investigations of the bones showed that a condition similar to that occurring in rachitis certainly does not exist. Chemically, the skeleton contained in one case over 55% of inorganic material, almost 20% more than the quantity found in rachitic bones. Finally, Baginsky calls attention to the impossibility of producing any improvement in any of these cases until radical changes are made in the method of nursing and the environment, finding that the monotony of the treatment, as much as any other element, appears to have injurious effect. [J.S.]

2.—Experimentation on animals has shown that when there has been no previous operation, if the portal vein or its chief branch, the mesenteric vein, is ligated, the dog dies. On the other hand, if by a previous operation a collateral circulation has been established by the adhesion of the mesentery and intestine to the parietal peritoneum, the animal will survive not only the complete ligation of the mesenteric vein, but even the ligation of the portal vein. It is thus seen that a **collateral circulation** can be readily established in this manner. These interesting results do not, however, permit us to draw final conclusions. We can, however, reasonably conclude that this portion of the circulation can be influenced by such operations, and even the reestablishment of the circulation after thrombosis may be effected in this way. If this is possible, it will influence materially the prognosis in such cases. Even in cases also of cirrhosis in which liver-cells are intact, or in cases where inoperable tumors press upon and occlude the portal vein, it may be possible to overcome, by this means, the derangement of the circulation. In ascites, due to the obstruction of a vein by a thrombus or other cause, it is possible to establish a collateral circulation with little danger. [C.L.L.]

3.—The cases reported illustrate the fact that the **Dupuytren's contraction** of the palmar aponeurosis may be bilateral and result from other than a traumatic inflammation, as in these cases it was an illustration of one of the varied forms of gouty irritation and inflammation. The author also points to the fact that gouty deposits make their first appearance at points where the circulation is delayed either by position or pressure, as by tight gloves or shoes, in which the first deposits are seen when the shoemaker takes his measurements and makes the shoe fit the closest. [C.L.L.]

4.—Joachimsthal reports the case of a girl, now 11 years of age, who at birth showed a **remarkable disproportion between the length of the limbs and that of the body and head.** A slight growth took place during the first 3 years, but then ceased. The intelligence of the child, however, was not only normal, but exceptionally good, and the child was able to attend school, and was always among the first in classes of children of her own age. Her height was 83 cm. ($33\frac{1}{5}$ inches). There was no trace of cretinism. The fingers barely reached to the trochanters. The pelvis had become very nearly vertical in order to support the balance, and, as a result, there was marked lordosis. There was bilateral genu vara. The head was well shaped and 51 cm. in diameter, and the expression was quite intelligent. The Röntgen-rays showed ossification at the epiphyseal ends of the bones, and in the bones of the carpus; that is, simulating exactly the condition found in a skeleton of a one-year old child. An operation was performed, relieving the deformity of the knees and increasing the height $2\frac{1}{2}$ cm. Otherwise, the child, in the course of a year's observation, did not grow at all. The curious feature exhibited by the Röntgen-ray pictures was the growing of the periosteum between the epiphyseal cartilages and the spongy tissue of the bone. Joachimsthal classifies the case as one of chondrodystrophia fetalis hyperplastica. Several other cases of various conditions leading to **dwarfism** are also reported; infantile rachitis, fetal rachitis, and infantile myxedema. In the latter case, the development of the bones corresponded to those of a 7-years-old child, although the patient was actually 12 years of age; that is to say, there was more or less delay in ossification. [J.S.]

Centralblatt für innere Medicin.

June 17, 1899. [20. Jahrg., No. 24.]

Concerning the Excretion of the Alloxur-Bodies in Nephritis. C. F. MARTIN.

Salkowski's method was used in the investigations. The patients were fed as definitely as possible upon milk, rice, bread, and soups, and as far as possible were kept in nitrogen equilibrium. Coffee was not allowed, and no medication or baths were used during this period. The daily excretion varied from 13.6 to 47 mg. in the cases examined, this being entirely within the normal range. The uric acid during the same time varied from 286 mg. to 445 mg., averaging 350 mg.; this being also about normal. The results of the examination were practically negative, and there is no evidence that alterations in the excretion of these substances occur in nephritis. [D.L.E.]

June 24, 1899. [20. Jahrg., No. 25.]

A Contribution Concerning the Relation between Hyperleukocytosis and the Execretion of the Alloxur-Bodies. C. POPE.

The investigations were carried out on 1 case of typhoid fever, 5 of pneumonia, and upon the author himself. The total nitrogen was determined as were the uric-acid and xanthin bases, the latter by Salkowski's method. Pope makes the statement that while the physiological amount of xanthin bases varies, it remains about the same in the same individual while taking the same diet. (The experience of others, particularly of Taylor, demonstrates that this is not always so.) In the case of typhoid fever the excretion was about normal, while in the 5 cases of pneumonia there was at times an increase in the amount, though there was no parallelism between the hyperleukocytosis and the excretion of xanthin bases; indeed the increase seemed to occur or reach its highest point at the time of the disappearance of the leukocytes, that is when the pneumonic exudate was undergoing absorption. At this time the total nitrogen increased also The explanation for this is, that during the absorption of the exudate there a destruction of nuclein-bodies as well as of ordinary proteids. The table in one case shows an increase of excretion from .039 gm. to .085 gm. with subsequent decrease. In the other cases the variations were not greater than 20 mg. [We believe that the last mentioned increase is within the normal range. It is noteworthy, however, that the increased output always occurred at about the beginning of resolution. D.L.E.]

July 1, 1899. [20. Jahrg., No. 26.]

On the Estimation of Iron in the Blood and Blood-Serum by the Ferrometer. A. JOLLES.

Jolles first reviews the previous work done by himself and others, and decides that it has been well proven that his ferrometer is a trustworthy instrument and gives accurate results. He details at length a method for determining the iron in the blood-serum, and states that 18 investigations of normal individuals have always given a negative result, while the same was true in 3 cases of chlorosis, 1 of leukemia, 1 of neoplasm, and 1 of interstital nephritis. Two cases of severe diabetes gave determinable quantities of iron and traces were found in the serum of 2 cases of severe anemia. He lays some stress upon the occurrence of notable quantities of iron in the blood-serum in diabetes. [The method seems to have grave faults, the chief of which is that he first places the blood in a tube containing an 0.8% salt-solution and then centrifugates. It is unquestionable that this solution is often not isotonic with the blood of cases of severe anemia, and probably the same may be said of the cases of diabetes. It is not impossible that the iron discovered came from red blood-corpuscles destroyed during centrifugation. D.L.E.]

Centralblatt für Gynäkologie.

April 15, 1899. [23. Jahrg., No. 15.]

1. Three Conservative Cesarean Sections on the Same Patient EMIL POLLAK.
2. An Unusual Cyst of the Round Ligament. A. V. GUBAROFF.

1.—Few cases have been reported of **more than two cesarean sections on the same patient,** although 30 cases have been collected of 2 cesarean sections and 12 of 3 such sections on the same patient. Birnbaum performed the conservative operation 5 times on a Frau Ritter, from 1875–1883, the patient dying at the last operation from an embolism of the pulmonary artery. Pollak's patient had a flat rachitic pelvis with a true conjugate of 7.5 cm. She also had right convex lumbar scoliosis. Three conservative operations were performed on this patient, the last on January 10. [W.K.]

2.—Gubaroff describes a large cyst of the left broad ligament removed by celiotomy. The cyst extended 1½ handbreadths above the umbilicus and was filled with colorless serous fluid. The elongated tube passed over the surface of the cyst without adhesion to it, and the round ligament stretched out in a fan-like manner into the cyst-wall. Macroscopically no ovarian substance was to be found, and the cyst had no connection with the inguinal canal. The cyst with the round ligament was removed. [W.K.]

April 22, 1899. [23. Jahrg., No. 16.]

1. Diseases of the Pelvic Connective Tissue. By A. V. ROSTHORN, in the Handbook of Gynecology. Reviewed by W. A. FREUND.
2. Does the Change in the Meaning of the Term "Puerperal Fever" make Necessary any Change in the Medico-legal Aspect? A. NEUMANN.
3. Eclampsia. Postmortem Cesarean Section. Living Child. R. KOENIG.

2.—Neumann discusses the new movement in Germany to lessen the varieties of the so-called puerperal fever for which the physician is to be held directly responsible. [W.K.]

3.—In literature there is mention of only 5 cases of **eclampsia with postmortem cesarean section** in which a living child was born. Koenig reports a case of a 25-years-old woman with goiter. The patient had had 2 eclamptiform attacks before seen by the author. On his arrival she had a typical convulsive attack, during which she died. The operation was performed immediately and a living child extracted. On section hemorrhage was found in the substance of the goiter which caused pressure on the trachea and probably was one cause of her death. [W.K.]

April 29, 1899. [23. Jahrg., No. 17.]

1. Some Remarks on the Report of Opitz on the Automatic Action of the Heart in Human Fetuses. F. NEUGEBAUER.
2. On Cranioclasia and a Modification of von Braun's Cranioclast. H. PETERS.

2.—Peters, after discussing the different instruments, describes his modification of von Braun's **cranioclast;** the distinctive features are as follows: the solid blade is curved like an S, the point tapered and hooked in the upper concavity. The blade can thus be inserted in the occipital foramen and clinched. A compression-lock is also attached. The instrument admits of 4 methods of application. The chief modification consists in that the author's instrument can be used both as a cranioclast and as a cephalotribe or basiotribe. He also can accomplish with his two-bladed instrument the same as can be accomplished by other 3 or 4 bladed ones. [W.K.]

May 6, 1899. [23. Jahrg., No. 18.]

1. The Etiology, Symptomatology, Diagnosis, and Radical Treatment of Carcinoma of the Uterus. R. FROMMEL.
2. Fifty Mesalliances on Account of Homo-sexuality, and Several Divorces on Account of "Erreur de Sexe." FRANZ NEUGEBAUER.
3. On the Operation for Retroflexion of Uterus. A. MACKENRODT.
4. Remarks on the Article "A Simplified Aseptic Method of Bandaging and Treating the Umbilical Cord." S. J. KUSMAN; published in No. 10, 1899, of this periodical. K. CZERWENKA.
5. On the Treatment of the Remains of the Umbilical Cord. VON BUDBERG.

1.—A review by Alexander Freund.

2.—Of the 50 cases of mesalliances collected by Neugebauer, 46 were between two men and 3 between two women. [W.K.]

3.—An answer to Gottschalk's criticism of Mackenrodt.

4.—Czerwenka criticises Kusman's method of treatment of the umbilical cord by means of plaster bandages. [W.K.]

5.—Budberg also criticises Kusman's new method and recommends his own alcohol treatment. [W.K.]

Centralblatt für Chirurgie.

June 10, 1899. [26. Jahrg., No. 23.]

1. Acute Intraperitoneal Effusion as a Symptom of Intestinal Obstruction. CARL BAYER.
2. Heber Puncture in Abdominal Operations. CARL LAUENSTEIN.

1.—In cases of **acute abdominal trouble** when the diagnosis lies between acute peritonitis and intestinal obstruction the presence of an intraperitoneal effusion, which may be even so great as to be detected by percussion, is a valuable differential diagnostic symptom between a peritonitis and intestinal obstruction, or when peritonitis is already present, an exacerbation and an incarceration. Bayer reports a case in which the diagnosis was in doubt but for the presence of the serous exudate and in which operation based upon this symptom led to the freeing of the bowel from a constricting band of adhesions and the recovery of the patient. [C.L.L.]

2.—The employment of the **Heber puncture** is advocated when fluid is to be removed during any abdominal operation either from the gallbladder or the cyst of the ovary or mesentery. Simple puncture soils the peritoneal cavity, while lifting the cyst out of the abdomen lets in air that is never sure to be sterile. The procedure consists in having in the trocar used a rubber tube that fits it snugly, and is filled with sterile water held in by a hemostat or other clamp. So soon as the trocar is in the cyst the clamp is removed, the water then facilitates the outflow of the liquid from the cyst. [C.L.L.]

June 17, 8199. [26. Jahrg., No. 24.]

1. Formalin in Surgical Tuberculosis. J. HAHN.
2. Absorbable Ligature and Suture Material. W. F. SNEGUIREFF.

1.—The employment of iodoform-glycerin and iodin-glycerin in the treatment of tuberculous abscesses led Hahn to experiment with **formalin,** which he has employed for 2 years with gratifying results. It is especially valuable **in the treatment of tuberculous arthritis,** and has been found valuable in tuberculous pleuritis and empyema. He employs it in glycerin 100 parts, formalin 1 to 5 parts. The tuberculous fluid is aspirated from the joint, the cavity washed out with boric-acid lotion and then about half the quantity of the glycerin-formalin mixture injected that there was of the pus withdrawn. There is a marked reaction, with swelling and sometimes pain that requires morphin. It is well in some cases to repeat the injection before the fluid in the joint has all been absorbed. [C.L.L.]

2.—Sneguireff has employed the **ligamentum nuchæ of the reindeer as ligature and suture material.** It is prepared by dividing the ligament longitudinally in the direction of its fibers. It is freed from fat in ether, placed in juniper-oil for 14 days, the oil removed by ether and alcohol, then it is placed in a ⅓% sublimate solution in 80% alcohol for 2 days, then 2 days in sterile salt-solution, and finally stored in alcohol. He has employed it in 83 major gynecological operations as suture and ligature-material with no suppuration. It is absorbed less rapidly than catgut, and bacteriologic tests have shown it to be readily sterilized by the method described. The question of cost is now the only one to be considered. [C.L.L.]

Practical Therapeutics.

Under the charge of
A. A. STEVENS, A.M., M.D.,
of Philadelphia.

Treatment of Nocturnal Incontinence of Urine.—Phillips (*British Medical Journal*, May 27, 1899) states that he has found antipyrin the most satisfactory drug for general use in functional incontinence of urine in children. It soon gives obvious good effects, often in striking contrast to the doubtful results from such drugs as belladonna, pichi and rhus aromatica. He gives one nightly dose of 8 or 10 grains for a boy 7 years old, and gradually increases this amount. He has continued to do this for a period of 4 months without producing an exanthem or other bad symptom. When the habit appears to be broken or modified a course of arsenic may be added, pushing it if well borne. Of course, any reflex cause must be removed, phimosis, oxyurides, etc. Scolding children, or even appearing to unkindly blame them for this trouble, has a most evil effect on their buoyancy of temperament and character.

Bad Effects of Orthoform.—Brocq (*La Presse Medicale*, No. 30, April, 1899) states that orthoform sometimes produces a decided irritating effect on the skin. When used in solution it excites hyperemia, and sometimes severe pruritus. When used in the form of an ointment it not infrequently caused, in the course of one or two days, a pruritic eruption. Two cases are described in which the local application of orthoform produced very troublesome symptoms. In one patient the application of an ointment (1 to 40) to the face induced great swelling and marked redness, lasting nearly 3 weeks. In another patient the use of the powder on a fissure of the vulva caused intense tumefaction, and nodular swellings in various parts of the body.

Trifacial Neuralgia.—Gelsemium and butyl chloral are invaluable in all minor neuralgias within the territory of the trigeminal, whether they be referred or not. These two drugs, and especially gelsemium, seem to act readily in those cases of primary minor neuralgia in which the antipyrin-group is not so effective. Nitroglycerin ($\frac{1}{100}$ to $\frac{1}{90}$ grain, 3 times daily) in some cases relieves these pains.—HENRY HEAD in *Allbutt's System of Medicine.*

The Treatment of Inoperable Sarcoma with Mixed Toxins of Erysipelas and Bacillus Prodigiosus.—Coley (*Practitioner*, April, 1899) concludes a paper on this subject as follows:

1. The mixed toxins of erysipelas and bacillus prodigiosus have an inhibitory action upon the growth of malignant tumors of whatever variety.
2. This influence is far more marked in sarcoma than in carcinoma, and differs very markedly in the different varieties of sarcoma, being most pronounced in the spindle-celled variety, and least in the melanotic.
3. A considerable number of inoperable sarcomata, the correctness of the diagnosis of which is beyond question, have entirely disappeared under this method of treatment.
4. A large proportion of these cases have remained free from recurrence more than three years after treatment, a period which has generally been accepted as of sufficient length to justify their being regarded as permanent cures.
5. The action of the toxins upon sarcoma must be regarded as a rapidly progressing necrobiosis with fatty degeneration. This action in no way resembles that of a local escharotic, but is rather specific in character, exerting its destructive influence upon the tumor tissue when injected subcutaneously at a distance, as well as when introduced locally.
6. This method of treatment is attended with some risk unless certain precautions are taken. These risks are: (*a*) collapse from too large a dose, especially when injected into a very vascular tumor; (*b*) pyemia from insufficient care as regards asepsis, especially in the presence of a granulating or sloughing surface. That these risks are slight is shown by the fact that, in upwards of 200 cases of malignant tumor treated personally, death occurred in but two as a result of the treatment.
7. The use of small doses of the toxins for a short time after primary operation as a prophylactic measure theoretically has much to recommend it.
8. The action of the toxins upon sarcoma, as shown by the clinical results, is in strict accordance with the known action of the living streptococcus of erysipelas. Hence the method rests upon a perfectly logical and scientific basis.
9. The toxins, to be of value, must be prepared from highly-virulent cultures of the streptococcus of erysipelas.

Vomiting in Scarlatina.

℞.—Cinnamon-water..... 1 ounce.
Lime-water..... 1 ounce.
Tincture of gelsemium..... ½ ounce.
Sig.—A teaspoonful every hour.

—HATFIELD.

Arsenic in the Senile Heart.—Arsenic is another of our most valuable tonics. It is advantageously employed in many forms of disease, and it is quite indispensable in the treatment of the senile heart. It is very useful in those congestive conditions of the stomach which accompany cardiac failure; and its effect in angina is sometimes almost magical, the suffering disappearing like a dream, quite apart from any influence exerted on the cardiac failure upon which that suffering seemed to depend. Masselot and Trousseau have both remarked upon the increased capacity for exercise that follows the administration of arsenic, and this doubtless depends upon the same general tonic influence, affecting the lungs, heart, and blood, that makes breathlessness a thing unknown to the Styrian mountaineer, and restores the blooming coat and friskiness of youth to old and seemingly worn-out horses. The Styrians are accustomed to take large doses, as much sometimes as 5 grains of pure arsenious acid in a day, but such dangerous doses are by no means necessary to obtain the tonic benefits of the drug. Most excellent results, indeed, occasionally follow the prolonged use of almost infinitesimal doses. I well remember one old gentleman, exceedingly sensitive to the action of drugs, to whom the $\frac{1}{50}$ of a grain of arsenious acid was quite poisonous, but who could tolerate the $\frac{1}{100}$ of a grain without difficulty. After taking this minute dose daily for two or three weeks, and nothing else, for a dilated and hypertrophied heart beginning to fail, he said to me, "I don't know what benefit you expect from the treatment, but I know what I have received; I can go upstairs much easier than I used to do." Arsenic may be given alone, and in anemic and very sensitive patients who can only tolerate a very minute dose, this is often the best way of employing it. To these one granule of arsenious acid containing $\frac{1}{50}$ or $\frac{1}{100}$ of a grain may be given after food once or twice a day for many months with only increasing benefit. More usually it is better to combine the arsenic with digitalis or strychnin, or with both. In making any of these combinations, the *liquor arsenici hydrochlorici* is the better preparation to employ, and in combination with the *liquor strychninæ hydrochloratis* it is the only one that ought to be used, as with it the other preparations, the *liquor arsenicalis*, or the *liquor sodii arseniatis*, makes an incompatible and more or less unsightly mixture. As we learn from the histories of the Styrian arsenic-eaters, arsenic is a poison to which the system may be gradually habituated, so that even large doses may be taken for many years, not only with impunity, but with positive benefit. When given, therefore, in the moderate medicinal dose of 2 or 3 minims of one or other of the fluid preparations, we may safely continue them twice a day for as long as we think needful, without any misgivings. Nor need we have any dread of any danger in leaving off the drug after long continuance, as was at one time alleged. A little caution may be required in commencing its use, as idiosyncrasy plays a marked part in relation to arsenic; but it is only rarely that we fall in with those who are extra sensitive to its action.—BALFOUR in *The Senile Heart.*

Gargle in Subacute Tonsillitis.—The following combination will be found useful in subacute lacunar tonsillitis, for its healing and antiseptic effect, as well as for the relief it affords to the soreness following operation.

℞.—Cocain..... 8 grains.
Fluid hydrastis (colorless)..... 4 drams.
Hydrogen peroxid..... 1½ ounces.
Extract of hamamelis (colorless)..... 2 ounces.
Cinnamon-water..... 2 ounces.

—KYLE in *International Medical Journal.*

Original Articles.

AKROMEGALY.[1]

With Report of a Case Presenting Some Unusual Features; Height of Patient, Eight Feet and Six Inches.

By WILLIAM NICHOLAS LACKEY, M.D.,[2]
of Gallatin, Tenn.

Before reporting the case under observation I will review, as briefly as possible, the literature bearing on this now well-known disease, only attempting to bring out points bearing upon the case reported.

M. Perrie Marie, in 1886, first recognized and described akromegaly. From observations based on two patients in the wards of Professor Charcot, he was enabled, after much study, to connect the symptom-complex with hypertrophy of the pituitary body, thus giving to the medical profession the new disease akromegaly, or, as it is often called, in honor of its discoverer, "Marie's malady." Up to this time this disease, even when marked, was not recognized, but was called by a variety of names, such as general progressive hypertrophy, prasopectoria, giantism, etc.

Etiology.—Akromegaly is rarely if ever inherited. Cenas[3] describes a case that occurred in a boy of 15, which he believed to have been congenital akromegaly. At birth there was asymmetry of the face, followed in a few months by deformities of the hands and feet. The disease is more prone to occur during adolescence. A child of 14 months is the youngest patient in whom a case has been reported. In the greater number of the cases reported the male sex has been the most often affected. In the present case, and in the case reported by Berkely, the disease occurred in the negro. Traumatism appears undoubtedly to play a somewhat important part as a causative factor in the production of this disease, as the histories of a number of the cases reported show that there was some injury to the head from falls or blows. Rheumatism also has been cited as a cause, but the pains so constantly present in akromegaly are not of rheumatic origin, but are important symptoms of the disease.

The theories advanced by many experienced observers to explain the factors in the production of this disease have been numerous as well as diversified. We have neither time nor space to consider them here, but it is generally believed that there exists some relation between the pituitary body and the nervous system, so that some perversion of the internal secretion of the pituitary gland, acting on the trophic fibers of the peripheral nerves, brings about the characteristic anatomic changes seen in akromegaly. Marie believed that, owing to some change in the pituitary body which prevented it from neutralizing certain toxic agents, these accumulated in the system, acted upon the tissues, giving rise to the manifest phenomena of this disease. He also believed that the function of the hypophysis in akromegaly was analogous to that performed by the thyroid in myxedema.

Pathology.—Akromegaly is a morbid entity without a doubt. The pituitary body may be found enlarged both in myxedema and cretinism, but akromegaly is the only disease in which it attains any considerable size. Maximilian Sternberg[4] found from a study of 47 autopsies that there was in every case some disease or enlargement of the pituitary body. This is corroborated by Hinsdale[5] from a collection of 57 cases, the largest number yet published. As the pituitary body hypertrophies, or it may be more correct to say enlarges, it hollows out the sella turcica into a cavity of considerable size. The enlargement of this cavity is seen in the skull of most giants, a fact which might lead us to infer that there was some relation between the glandular enlargement and the giant growth, but from the mere enlargement of this cavity we are unable to say that the patient had suffered from akromegaly. As this body enlarges it presses on the optic tract and commissure. In a case reported by Roxburg the pressure of the enlarged gland had caused disappearance of one optic tract and had partially destroyed the other. It may also press on the cavernous sinus, carotid artery, third and fourth nerve, and slightly on the ophthalmic division of the fifth. In some cases it may involve the olfactory tracts. Sarcoma, adenoma, and cystic degeneration of the pituitary body have been found. In a case reported by Caton and Paul a tumor apparently sarcomatous, the size of a tangerine orange, was found. Weir Mitchell and other observers maintain the possibility of tumors of the pituitary body without the occurrence of akromegaly. A case of akromegaly without lesion of the pituitary body was reported in the *Arch. de Médecine*.[6] Arnold has found the peripheral nerves and the lower part of the spinal cord thickened with an increase of interstitial connective tissue and hyalin degeneration of the nerve-elements; the sympathetic nerves may be also markedly thickened and certain cranial nerves enlarged, principally the motor oculi.

The histology of the bone-changes in this disease has not been very fully studied. There is an increase

[1] Thesis winning the prize of the Department of Pathology of the Jefferson Medical College, 1899. Published by permission of the Faculty and under the direction of the Professor of Pathology. The matter herein presented is an abstract of the original, which covered nearly 50 typewritten pages.

[2] I wish to acknowledge my indebtedness to Dr. Woodson and Dr. Love, of Gallatin, Tenn., for their kind assistance in taking the measurements of my case.

[3] *La Loire Medicale*, December 15, 1890. Cited by Hinsdale.

[4] Cited by Hinsdale.

[5] Akromegaly, an essay to which was awarded the Boylston Prize of Harvard University for the year 1898, by Guy Hinsdale, A.M., M.D. Reprinted from *Medicine*, 1898. Note.—I wish here to acknowledge full credit to Dr. Hinsdale's most valuable contribution.

[6] Lloyd presented to the Philadelphia Pathological Society (May 25, 1899) the clinical history of a case and the specimen showing a tumor of the hypophysis; none of the phenomena of akromegaly had been observed during life.

in size from new bone-formation both in the length and breadth of the bone. The foramina for the transnutrient mission of bloodvessels are much increased in size; the canals and spaces traversing the sponge-tissue are also much enlarged. Broca found, on examining a patient of Marie, an increase in the spongy tissue both of the long and flat bones.

The heart may be enormously hypertrophied, followed later by dilatation. Arterial sclerosis may be present. In 1885 Dallemange reported 2 cases; the heart of one of the patients weighed 885 gms.; the wall of the left ventricle measured 3 cm. in thickness; the second patient was 7 years old, the heart weighing 830 gms., the wall and pericardium being somewhat thickened. Boye reports a case of akromegaly with thyroid enlargement, palpitation, tachycardia, trembling, exophthalmia and arterial sclerosis. Fournier believes that the hypertrophy of the wall of the heart is due to insufficiency of the secretion of the pituitary body, and that there is an accumulation within the system of some poison which acts on the trophic centers of the cardiac muscle, producing irritation, followed by hypertrophy of the muscular fiber. Klebs has noted that in the extremities the veins and arteries are enlarged and surrounded by neoplastic growths. The mucous membranes are thickened, the bloodvessels sclerosed. The enlargement of the tongue is due to the great increase of fibrous tissue between the muscle-bundles. The viscera are also enormously increased in size. The kidneys (which may also show signs of nephritis), heart, liver, and spleen may be twice or thrice their normal weights.

SYMPTOMATOLOGY.—The first thing that the patient may notice is that his rings are too tight, that he requires a larger size glove than formerly, or his shoes are too tight. Then to his surprise, and, later, to his horror and dismay, he notices that his hands and feet continue their growth. The fingers become sausage-shaped, thickened, with hypertrophy of all the tissues; the nails flattened, enlarged, and striated; fleshy pads form on the palmar surface of the hands; the cutis and epidermis are thickened, and we now have the so-called "spadelike hand" of the English, or the "battledore hand" of the French. The feet also undergo a corresponding hypertrophy of the bones and soft parts. The pads of fat on the palms of the hands as well as the plantar surface of the feet may be found greatly increased in size. This enlargement of the feet, especially to women, is very mortifying, giving rise to melancholia and a desire for seclusion. The face of akromegaly is so characteristic that a diagnosis can sometimes be made on the street. Unlike osteitis deformans the bones of the cranium are not attacked. The cranium, however, is increased in its anteroposterior diameter. The bones of the face are the ones principally affected; the face is much elongated, assuming the oval shape so peculiar to this disease; the forehead is low, the orbits thickened from dilatation of the frontal sinuses. There may be exophthalmos, or the eyes may be small and out of proportion, as in the case here reported. The lids are thickened and the tarsal cartilages hypertrophied. Back of the orbit, on the anterior part and external aspect of the temporal bone, is frequently observed a depression similar to that seen in the cow. The cheek bones are very prominent. The changes in the nose are characteristic and may be so marked that in a short time the patient becomes unrecognizable to his most intimate friends. The organ becomes elongated, broadened, and much flattened, the nostrils enlarged and the septum hypertrophied. The lips are much increased in size, the lower one being the one most affected; it may be slightly everted. The tongue is sometimes of an enormous size; it may be so enlarged as to interfere with pronunciation. The upper jaw is little hypertrophied compared with the lower one, which is much broadened and increased in length, causing a marked projection of the chin and giving the face its oval shape. The growth of the lower jaw causes the upper dental arch to fit inside of the lower one, thus interfering with the proper articulation of the teeth. The teeth in the present case are larger than normal, white, perfectly sound, and none missing. Henrot reports the only other case where the teeth were hypertrophied. The spine is markedly altered, one of the most common alterations being a cervicodorsal kyphosis, due to the changes in the bodies of the vertebrae and the intervertebral substance. There may be a bony deposit producing ankylosis. This deformity of the spine, causing the head to drop forward on the chest, taken together with the enlarged hands and feet, gives to the patient, as has been aptly described, an "ape-like" appearance. The antero-posterior diameter of the chest is increased as compared with the lateral. The abdomen may be pendulous, which is not the case with my patient. The sternum and clavicles are hypertrophied, the ribs flattened, increased in size, and sometimes, as is seen in rhachitis, beaded, as is the case in my patient. The pelvis may be enlarged, or little changed. The long bones are usually affected only in the giant form of akromegaly.

The following are some of the inconstant symptoms: Enlarged and thickened neck; the thyroid gland has been found hypertrophied, normal, and atrophied. There is a tendency among observers to maintain some relationship between the thyroid and the pituitary body, as in 5 cases of akromegaly, exophthalmic goiter existed, and in one case of Osboin there existed supernumerary or aberrant thyroid glands. The larynx is also much increased in size from thickening, with or without partial ossification of the cricoid and thyroid cartilages. These changes, together with the dilated sinuses of the face, the changes in the hard and soft palate, and the enlarged tongue, give rise to the peculiar deep, resonant voice that is so frequently heard in

patients suffering from this disease, and which is present in my case. The thymus gland is not commonly enlarged; it may, however, be sufficiently enlarged to give dulness on percussion over the upper part of the sternum, the so-called Erb's sign.

The external genital organs are hypertrophied, while the uterus and testicles are atrophied. The mammae may be soft and atrophied. Stoppage of the menstruation and loss of sexual desire are early and constant symptoms.

Tachycardia and palpitation are occasionally seen. The heart is hypertrophied; a systolic murmur may be sometimes heard at the apex. The temporal and radial arteries may be felt to be sclerosed. Varicosity of the veins of the lower extremities and hemorrhoids occur.

If the case be seen early the muscles may be hypertrophied and the patient capable of exerting great strength, but later in the disease the muscles become soft and flabby, the patient weak and easily exhausted. Finally the muscles may become so atrophied as to make the patient quite helpless. The joints may be involved, and on motion may crack and produce friction-sounds.

The kneejerk is present in the majority of the cases, though it may be diminished, present on only one side, but never totally absent.

Marie and other observers have noted on the skin of patients suffering from this disease small reddish, pedunculated warts, and mollusca fibrosa, which he considers are produced by changes in the nutrition of the skin. The hair is thickened in diameter and increased in quantity. The quantity of urine excreted may be much increased; 2,000 cc. to 8,000 cc. may be excreted daily; Walker reported a case in which 12,600 cc. was passed in 24 hours; sugar and albumin have been found; sp. gr., 1036 to 1040.

Disorders of sensation are rare, but we sometimes have anesthesia, analgesia, and increased susceptibility to cold.

Constant subjective symptoms: One of the most prominent symptoms of akromegaly is headache, in fact this symptom alone may cause the patient to consult a physician. The pain may be remittent or occur at longer or shorter intervals; it may be felt in any part of the head, but is usually confined to the occiput. Pick cites a case in which a patient was driven to suicide by the distressing headache. Neuralgia of the cranial nerves may be severe enough to demand surgical interference, as in the case reported by Professor Hare, which was operated upon by Professor Keen. Less persistent pains are also felt in the bones and joints; these may be brought on by different causes, such as being jolted in a carriage, or they may arise spontaneously.

The eye-symptoms are numerous; we can, however, only mention a few; exophthalmos, nystagmus, paralysis of one or more of the external ocular muscles. Vision may be normal, but in the majority of cases it is impaired, from a slight amblyopia to a complete amaurosis produced by optic atrophy; the form-field and sometimes the color-field are restricted; bitemporal hemianopsia has been observed in a large proportion of cases; temporal hemianopsia of the left eye by Hare and Dercum; a case having left homonymous hemianopsia was examined by Professor de Schweinitz. The ophthalmoscope may show a venous congestion and later papillitis; optic atrophy occurs from changes in the nerve, the result of changes in the bones of the skull or optic foramen, or from pressure of the enlarged pituitary body.

One of the peculiar and interesting symptoms shown by cases of akromegaly is the intense thirst and great appetite. A patient of Remington, it is said, could drink a gallon of beer. Patients, owing to the great increase in appetite, will complain of hunger a half-hour or one hour after eating an enormous quantity of food. The only explanation afforded for the absence of dilatation of the stomach in some of these great eaters is that the digestive functions must be carried on with greater rapidity than normal. Disorders of taste and smell may be present. Epilepsy has also been associated with akromegaly. Drowsiness during the day and horrible dreams at night are occasional manifestations. The mental depression may be very marked, owing to pain and mortification aroused by the horrible deformities.

Diagnosis.—The diagnosis of akromegaly is not difficult if the disease is well established, but a diagnosis could hardly be made before the occurrence of the deformities of the hands and feet.

For the differential diagnosis I must refer the reader to the many exhaustive articles upon akromegaly, where it is gone into very fully, mentioning here only the most likely sources of error. Akromegaly may closely resemble osteitis deformans, or Paget's disease; the following are a few of the prominent points of difference:

OSTEITIS DEFORMANS.	AKROMEGALY.
Increase in the bones of the cranium; bones of the face rarely affected; face triangular shaped.	The bones of the face are the ones that especially undergo hypertrophy; face oval in shape.
More prone to attack long bones.	The bones of the hands and feet are the ones attacked.
A curving out of the femur and tibia.	A curving out of the femur and tibia rarely present.
The disease makes its appearance after the age of 40.	Makes its appearance between the ages of 15 and 35.
The bones involved in an irregular manner.	Bones involved symmetrically.
There is no increase in height; the reverse may be true.	Generally an increase in height.

In myxedema there is present the puffy, full-moon instead of oval face of akromegaly. The soft structures are the ones affected, not the bones. The skin is branny and waxy, not movable over the underlying structures, while in akromegaly the skin is movable and elastic. The thyroid is usually atrophied in myxedema, the stature dwarfed and the mind much impaired. In akromegaly intelligence is unimpaired. In my case the intelligence is above the average for a man of his race.

Another rare disease which might be mistaken for

akromegaly is pulmonary hypertrophic osteoarthropathy. I give the following parallel by Rauzier :[7]

AKROMEGALY.	PULMONARY HYPERTROPHIC OSTEOARTHROPATHY.
1. Large, stumpy hands; fingers uniformly hypertrophied, with preservation of the proportions of the phalanges; nails small and flattened.	1. Hands deformed; fingers greatly enlarged; club-shaped tips; nails enlarged, lengthened, curved, striated and cracked.
2. Great increase in size of the carpometacarpal regions.	2. Slight hypertrophy of the heads of the metacarpals. Nearly normal size of the carpometacarpal regions.
3. Hypertrophy of the wrist proportionate to that of the hands.	3. Great deformity of the wrists, which are large, swollen, and form a considerable prominence above the dorsum of the hand.
4. Same degree of change in the feet as in the hands.	
5. The lesions are in the bones and in the soft tissues alike.	5. Alterations affect only the bones, particularly the epiphyses in certain joints. The soft parts do not partake in the enlargements affecting the bones; slight edema.
6. Kyphosis common symptom, cervico-dorsal.	6. Kyphosis not so frequent and late in onset; scoliosis frequent.
7. Great hypertrophy and exaggeration of the curves of the lower jaw.	7. Lower maxilla normal. Occasional thickening of the alveolar border of superior maxilla.
8. Obscure pathology, probably defect of nutrition.	8. Pulmonary origin.

In many cases of akromegaly when seen early, the diagnosis of chronic rheumatism has been made, but as we have mentioned before, the pains are symptoms of the disease and are not of rheumatic origin. While considering the matter of diagnosis it would be well to mention that the x-ray has been used with some success in recognizing the changes in the bone during the progress of this disease.

PROGNOSIS AND COURSE.—The course of akromegaly is slow; it is a slowly progressing disease, covering a period of 10, 20, or 30 years. Gauthier recognizes two stages of the disease, the erethic stage and a cachectic stage. The first stage is characterized by headache, rheumatic pains, hypertrophy of muscles, with increase of muscular power; palpitation of the heart, also hypertrophy of that organ; finally the polyphagia and polyuria. The second stage is marked by a period of decline or cachexia; muscular atrophy; feebleness of the circulation, cardiac dilatation. All these conditions tend to make the patient quite helpless. The patient's sufferings are terminated by the progressive cachexia, which frequently ends by syncope, or, as in one case, by an epileptic convulsion.

TREATMENT.—As my case has had no treatment I will say only a few words in regard to this subject. The pains must be relieved by appropriate remedies; iron and arsenic for toning up the enfeebled muscles in the later stages; the glycosuria controled by suitable diet, codein, caffein, alkalines, etc. Since the introduction of animal extracts the treatment of this disease has become more hopeful. Thyroid gland, alone or combined with extract of pituitary body, has been given in ascending doses by a number of clinicians, with seemingly good results. The headaches and pains were markedly decreased or relieved. In a very few cases an actual diminution in the size of the bones has been observed.

[7] From Hinsdale.

HISTORY OF CASE.—B. R., Gallatin, Tenn., age 28, colored, unmarried; worked on a farm up to the beginning of the present trouble.

FAMILY HISTORY.—Father was a rather large man, but was well proportioned. No deformities of either feet or hands; died at the age of 50, of heart-disease. Mother living, aged 61, has been a hopeless cripple since the age of 6 or 7 years; the right hip joint has evidently been the seat of a tuberculous arthritis; the left hip is dislocated, from what cause I was unable to determine. A brother and sister are both dead; the former still-born, the latter, so far as we can judge from the history, must have died of tuberculosis. Patient's grandfather (maternal side) is said to have been a giant, requiring an extra large saddle which had to be made to order; he wore a No. 13 shoe.



FIG. 1.—From a photograph of the patient. This illustration shows: (1) The external strabismus; (2) the great length of the extremities; the extraordinary fingers of the right hand; (4) the enlargement of the knees; (5) the evident muscular atrophy; (6) the great length of the right foot; (7) the increased length of the great toe and the toe next to it (which overlies the great toe) of the left foot.

PERSONAL HISTORY.—Suffered from the diseases of childhood; had pneumonia and typhoid fever, but the dates of their occurrence are uncertain. Up to the age of 13 he was a strong, healthy boy, fat and chubby, and rather large for his age, with feet and hands no larger than are usually found in boys of his race. At this time the patient plowed and did other work on the farm. At the age of 13 he began to suffer with excruciating pains in right hip and in the extremities. These pains, he was told by the physician who attended him, were due to rheumatism. The pains increased in severity, and finally he was forced to take to his bed, where he remained for over two years, suffering much from the continuance of the severe pains, and horrible attacks of headache which about this time made their appearance. During his confinement in bed he states that his hands and feet increased in size with remarkable rapidity; also his stature increased in height. He says that he suffered much from thirst; drank large quantities of water, although his appetite was comparatively small and variable. After the patient was able to leave his bed, he managed for a while to

hobble around on two walking-sticks; then finding his difficulty increasing on attempting locomotion, he began using crutches. At the present time the patient is unable to walk.

Present Condition.—The patient still suffers occasionally from headaches; the pains in his feet and legs continue with much severity. He consumes daily large quantities of water, but his appetite remains small. His tongue is coated; bowels constipated; sleeps well at night. He says that during the last few years he has noticed a great decrease in strength; especially is there weakness of the muscles of the back and extremities. He is now able to move his feet. Otherwise the patient seems to be in fairly good health.

Physical Examination.—The hands measure from the carpo-ulnar articulation to tip of ring-finger, 11 inches.[8]



Fig. 2.—The hand, foreshortened, giving a slight idea of the degree of contracture, the striations of the skin, and comparison with normal hand.

Circumference of hand at knuckle, 11 inches.

Thumb, circumference at base, $5\frac{1}{2}$ inches; length, 4 inches.

Index-finger, circumference at base, 4 inches; length, 6 inches.

Ring-finger, circumference at base, 4 inches; length, $6\frac{3}{4}$ inches.

Middle finger, circumference at base, $4\frac{1}{2}$ inches; length, 7 inches.

Little finger, circumference at base, $3\frac{1}{2}$ inches; length, 5 inches.

[8] Length of fingers is taken from metacarpo-phalangeal articulation to tip. Circumference of base of fingers is taken around proximal phalanx just clear of the web.

If the reader will make comparative measurements of the largest person in his acquaintance he will be better able to appreciate the gigantic dimensions of the patient here reported.

The joints of the phalanges are slightly enlarged; the skin is loose, dry, and horny; the nails large, thick, and striated. The fleshy pads often seen in these cases are absent in the hand. The palmar fascia is tense, and has slightly contracted, drawing the fingers in toward the palm, giving the hand a clawlike appearance. In spite of the large size of the hands, the patient can use them with remarkable dexterity, making his own go-cart and harness, which is his only means of locomotion. The feet are also much hypertrophied. They measure from os calcis to the tip of great toe, 13 inches.

Circumference of ankle, $12\frac{1}{2}$ inches; of instep, 16 inches.

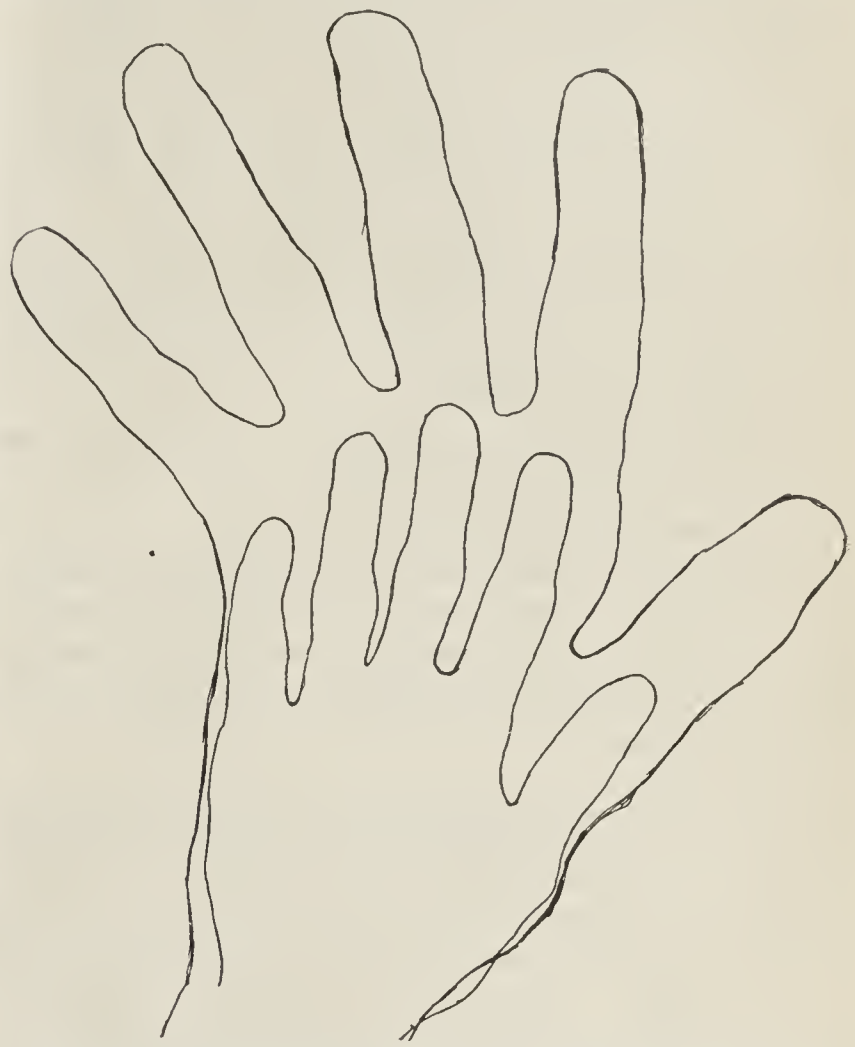


Fig. 3.—A comparison of the hand of the patient with that of a large-sized man. The tracing was made by placing the hand upon a sheet of paper and running around it with a tracing pen. Upon the first tracing a second was made. It was intended to reproduce the resulting illustration full size, but it was found much too large to go on a page of the Philadelphia Medical Journal.

Great toe, circumference at base, 6 inches; length, 3 inches.

The second toe is $3\frac{3}{4}$ inches in length, and overlaps the great toe, as is shown in the accompanying illustration. (Left foot Fig. 1.) The fleshy pads are well shown in the feet. The tarsophalangeal articulation of great toe is much enlarged.

The patient's face is anything but prepossessing. It is oval in outline; the forehead is low; the eyes small; the edges of the orbit thickened; the temporal bones are hollowed out, as has been before mentioned; the cheek-bones are prominent; the nose is much deformed, measuring $3\frac{1}{2}$ inches from frontal bone to tip; much flattened, being $3\frac{1}{2}$ inches across alae! The septum is thickened, the nostrils very large. The lips are extremely thick and prominent, but contrary to the rule,

the upper lip is the more hypertrophied. The tongue is large and much broadened. The teeth, as has been before mentioned, are of large size, evidently hypertrophied, and fairly regular. The lower jaw is markedly increased in size and length.

MEASUREMENTS OF HEAD.—Occipitomental diameter, 11¼ inches; cervicobregmatic diameter, 10 inches; occipitofrontal diameter, 8¼ inches; suboccipitobregmatic diameter, 8 inches; frontomental diameter, 9½ inches; biparietal diameter, 7 inches; bitemporal diameter, 6 inches. Distance from angle of jaw to median point of chin, 6 inches; circumference of head at level of eyebrows, 25 inches. The ears are normal in size, but, owing to the large head, they appear even smaller.

The eyes, I regret to say, have not been examined very fully, on account of inability to reach an ophthalmologist. As is clearly shown in one of the pictures (Fig. 1), there is an external squint of left eye. The patient complains that his vision is very dim. From the rude test that I employed, there is evidently some contraction of the field of vision. In reading, there is a blurring and running together of the type, followed by pains back of the orbit.

The spine shows a rotary lateral curvature, with the resulting deformities of the chest.

The abdomen is flat and not pendulous. The circumference of chest at level of nipple is 43 inches. The clavicles are hypertrophied, and plainly outlined beneath the skin; the sternum also much enlarged. The ribs are large and flattened, close together and slightly beaded.

The physical examination of the chest, with the exception of a few rales, probably the result of a chronic bronchial trouble, shows nothing abnormal. There is dulness over upper part of sternum, suggesting an enlargement of the thymus gland. The heart is much hypertrophied. The apex-beat is forcible, and is placed downward and to the left. The patient at times complains of palpitation. On auscultation, both sounds of the heart are clear and distinct. The radial arteries are slightly sclerosed. There are no varicose veins of lower extremities. The patient has never suffered from hemorrhoids.

This must, undoubtedly, be the giant form of akromegaly, as there is a great increase in length of the bones, as is well shown by the following measurements:

Length of arm, from head of humerus to external condyle, 17 inches.

Forearm, from external condyle to carpo-ulnar articulation, 16 inches.

Circumference of elbow, 12 inches; circumference of wrist, 9 inches.

The patient has a reach of 105 inches (8 feet, 9 inches)!

The distance from crotch to knee is 28 inches, and from knee to heel, 31 inches, a total "inner seam" measurement of 58 inches.

Circumference of groin, 24 inches; circumference of knee, 23 inches; circumference of calf, 11 inches. The thigh is flexed at about an angle of 90° and abducted 45°, and permanently fixed by bony ankylosis of hip-joint.

The height of patient is 8 feet 6 inches, exceeding by 2 inches any height I have seen reported in medical literature.

Lest my readers should look upon this statement with some degree of doubt, I will state that Dr. Duncan Eve, professor of surgery at Vanderbilt University, has also measured this patient, and our measurements coincide. The difficulty in making accurate measurements, when there is ankylosis of the knee and hip joints, has been overcome so far as possible, by measuring to and from the axial centers of the joints. It is believed that the results of measurements conducted in this way are the same as those obtained by the usual method. A number of normal individuals were measured in this manner, and it was found that measurements could be made which would not vary over one-half inch from the measurements made in the usual manner. The patient, with all this great bony frame, weighs only 175 pounds.

The right testicle is very small, much atrophied, while the left testicle seems to be increased in size. The penis is slightly hypertrophied. The patient now has total loss of all sexual desire.

The circumference of neck is only 15 inches. The left lobe of the thyroid gland is much enlarged. The larynx is also found hypertrophied. The voice is strong and deep, and has a peculiar, indescribable quality. He complains occasionally of hoarseness.

The patient early in the disease was capable of exerting great strength, but at the present time there is great muscular atrophy of the muscles of the lower extremities, the patient being unable to move his feet unless he lifts them with his hands. The muscles of the upper extremities are in a fairly good condition. The patellar tendon reflex is absent on both sides; the skin shows no tumors or warts; on the right shoulder there is a small fatty tumor.

The urine is clear, light-amber colored, no sediment, faintly acid, specific gravity 1,007, no sugar, and no albumin. Urea normal. On microscopic examination no casts were found.

The patient complains of a numbness of the feet and hands, which extends up midway between the knee and ankle. During the last year his hearing has been much impaired. The patient also complains of tinnitus aurium. His mental condition, as has been mentioned, is unimpaired.

The report of the case is necessarily not so complete as I had desired, owing to the difficulty in getting the patient to consent to an examination; he fears doctors and avoids talking with physicians; any attempt to elicit a detailed history is strongly opposed.

FIRST-AID PACKAGE IN MILITARY SURGERY.[1]

BY N. SENN, M.D., PH.D., LL.D.,

of Chicago.

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IT IS fortunate for the armed forces of the world, unfortunate for military surgery, that no great wars have occurred since antiseptic and aseptic surgery came into general use. During the time the Franco-Prussian war was fought, the last great war since our own great Civil War, Lister quietly was at work framing the great principles which have recast the work of the surgeon. Antiseptic and aseptic surgery have not had, as yet, an extensive and fair trial on the battlefield. Carbolic-acid solutions were employed to some extent by the German surgeons during the Franco-Prussian war, but Billroth's extensive observations in a number of large military hospitals led him to the conviction that they did not exert any special influence in the prevention of wound-complications. So late as 1861, Strohmeyer advised in his classical work on military surgeons the use of a wet compress in the treatment of wounds on the battlefield, a method of treatment that had been in use from time to time since military surgery was practised. The only innovation was a guttapercha-tissue cover over the compress, which was used for the purpose of retaining moisture until the patient could reach the field-hospital, where the compress could be changed as often as was deemed necessary. This treatment was a decided improvement over some of the old methods, such as the common practice of stuffing the wounds with infected charpie, and the barbaric use of boiling oil, but it was a step backward, judging from the present standpoint of wound-infection, from the treatment of wounds by the local use of turpentine, which at one time was sanctioned and extensively practised by German military surgeons. The moist septic compress had a trial on the most extensive scale during the Civil War, and we are familiar with the results. The terrible experience with gunshot-wounds by all of the old methods of treatment turned the attention all military surgeons to the modern treatment of wounds as soon as it became well established in civil practice. The surgeons in civil life built the bridge across the river which separated the old from the new methods of wound-treatment, and the military surgeons willingly followed the advance columns crossing it, eager and anxious to extend the benefits of the new discovery to the wounded soldier. The wars among civilized nations have been too few and on too small a scale to perfect the technic of aseptic surgery on the battlefield; a sufficient experience has, however, accumulated to warrant the statement that asepsis will eventually bring about as great changes in military surgery as it has already accomplished in civil practice. The first tentative efforts to practise asepsis in military surgery were made during the Russo-Turkish war. Reyher and von Bergmann, who took a conspicuous part during that campaign, made known promptly the results of their observations, and their writings laid the foundation for the modern treatment of gunshot-wounds. Two things were brought out clearly during that war, viz., the value of a first-aid antiseptic occlusive dressing in the prevention of wound-infection, and the importance of immediate immobilization of gunshot-fractures.

It was during that war, too, that the too common practice of searching for and extracting bullets on the battlefield and in the hospitals was violently opposed and strongly condemned by both Reyher and von Bergmann. The value of antiseptic and aseptic precautions in military practice has been demonstrated since that time on a limited scale in Bulgaria, Servia, Chili, Greece, Turkey, Japan, and at different points in Africa in small engagements between the British, Italian, and French troops, and the natives, and lastly during the recent Spanish-American war. It is evident that aseptic military surgery will never equal in its results aseptic civil surgery, owing to circumstances over which contending armies and governments have no control. Military surgery is and always will be emergency surgery. The difficulty in obtaining and transporting the necessary medical supplies and, in large engagements, the number of wounded, render it impossible to follow out the aseptic precautions with the same pedantic care as in private and hospital-practice. Absolute asepsis in military surgery on the field is out of question for reasons that are apparent to anyone who has taken part during an active campaign. The limited experience of the past has, however, shown that the imperfect aseptic precautions which are applicable in the field have done much to minimize the horrors of war.

The modern small-caliber bullet inflicts wounds which are particularly well adapted to successful treatment by a primary antiseptic occlusive dressing. All civilized nations have taken advantage of the modern treatment of wounds in their efforts to extent its benefits to military surgery. Suggestions from different sources in this direction came soon after antiseptic surgery became a generally recognized procedure. It is interesting to know what has been done in the way of recommendations for asepsis on the battlefield. Antiseptic powders, sterile and medicated cotton, gauze, wood-wool and other hygroscopic substances have been proposed. As antiseptics, iodoform, salicylic acid, carbolic acid, mercuric chlorid, zinc-chlorid, and salol have been most frequently mentioned and used. The many difficulties which are met with in war in the transportation of medical supplies make it necessary to restrict the requirements for procuring and maintaining asepsis as much as is compatible with the immediate demands of the principles upon which it is based; that is, asepsis

[1] Read before the American Surgical Association, June 7, 1899.

on the battlefield must be attempted by the employment of the most efficient and simplest precautions.

The value of the first-aid dressing applied behind the fighting line by the wounded himself, his comrades or members of the hospital corps, is as yet not generally admitted. Legouest, Delorme, Niemir, French military surgeons, do not favor the first-aid package. Chauvel does not share their view, and makes a strong plea for its general introduction into military practice. But until 1889, no such packages were in use in the French army. Patin suggested the following first-aid package: One elastic bandage, 1 antiseptic gauze bandage, 2 graduated compresses of the same material enclosed first in paraffin-paper, and as a cover strong paper made waterproof by linseed oil and a siccator. Bedoin proposed as a dressing-material for first-aid filtering paper sterilized by dry heat and immersion in a 1 to 1,000 bichlorid solution, to which a little glycerin is added when the paper is slowly dried. Six to eight layers are applied over the wound, besides cotton, and the dressing held in place by bandage. The package which he recommends for service in the field contains 6 sheets of aseptic filtering-paper, 40 cm. square, properly folded, a piece of guttapercha-tissue, 45 cm. square, in which the paper is wrapped, a thin rubber bandage from 1 to $1\frac{1}{2}$ meters in length, and several safety-pins. The package weighs 40 grams.

Forgue recommends iodoform and cotton as an occlusive first-aid dressing.

The first-aid package of the French army in use at the present time is quadrangular in shape, the gray cloth wrapper bearing on one side printed directions for use. It is opened by extracting the thread used in sewing the wrapper. It contains an impermeable fabric, a small cushion of sublimated jute, a sublimated gauze compress bandage, and two safety-pins.

Mosetig v. Moorhof advises dusting of the wound with iodoform, over which a gauze compress is supplied, then mackintosh, or some other impermeable material, which is made to overlap the gauze for at least an inch, and over this a large hygroscopic dressing and bandage.

Wein recommends iodoform gauze between two layers of hygroscopic cotton wrapped in guttapercha-tissue in a compact package. Before applying the dressing it is to be immersed in a strong solution of mercuric chlorid, or a carbolized solution to insure absolute asepticity, when the iodoform gauze is applied next to the wound, and over it the cotton, guttapercha, and lastly the retaining bandage. Langenbuch advocated strongly the closure and sealing of the wounds by suturing and adhesive plaster, a part of the field-service which he wished to assign to the litter-bearers. Lübe believed that this method of dealing with gunshot-wounds would prove more effective if the wound were first dusted with iodoform or salicylic acid.

Port has modified the recommendations of Langenbuch in so far that he applies the adhesive plaster in the form of a Maltese cross, with a central opening the size of the bullet-wound, which, when the plaster is in place, is covered with iodoform gauze and cotton for the purpose of guarding against retention of wound-secretions. The margins of the gauze dressing are sealed to the surface with a rubber solution and the whole retained by strips of adhesive plaster. In 1869 v. Esmarch devised the triangular bandage with printed illustrations for its use. During the early history of antiseptic surgery, he recommended balls of zinc chlorid jute, and later wipers of sublimated sawdust in gauze bags, for the field-service. His typical first-aid package was a later product of his fertile brain. It consists of his bandage, two compresses of sublimated gauze, 10 cm. broad, and 100 cm. long, each wrapped in waxed paper, and an antiseptic cambric bandage, 10 cm. broad and 2 meters long. The whole package in rubber cloth weighs 100 grams. According to Seydl, the first-aid package of the German Army in 1893 contains a sublimate gauze bandage, 5 meters in length, two compresses of the same material, one safety-pin, the whole wrapped in a compact form in waterproof linen cloth, which is sewed into the skirt of the uniform of officers and men.

In 1885 an order was issued in England from the Medical Department which required that a field-dressing should form a component part of every British soldier's kit in active service, so as to be available at all times, and in all places, as a first dressing for wounds. The materials and form of the first field dressing were ordered to be as follows: Bandage of fine calico, 4 yards long, 3 inches wide; fine lint 12 inches long, 3 inches wide; folded flat and flattened by four pins. It was ordered to be carried in the soldier's knapsack. During the Ashanti War, 1873–74, the dressing included a packet of lint, on which a little simple ointment had been spread, enclosed in waxed paper; a triangular bandage, two safety pins, and a small packet of ordinary pins. The whole of these articles were folded into a small flat package, 4 inches by $3\frac{1}{2}$ inches by 1 inch in dimensions, which was covered by waxed paper. It was carried in a breast-pocket, which was made of suitable size to contain it in the lining of the left side of the tunic. Later this package was ordered to be carried with a sewn-up pocket on the inside of the skirt of the soldier's jacket. Since 1891 the package is made up as follows: Within an outer gray fine linen cover is a thin waterproof cambric inside cover, which is rendered air-tight by being cemented at the edges. Both covers can be readily opened when necessary. The inner cover contains two safety pins, a piece of waterproof cambric, 12 inches by 6 inches, and this encloses a gauze-bandage, $4\frac{1}{2}$ yards long, folded flat into a package, 4 inches by $2\frac{1}{2}$ inches, a piece of gauze, 17 inches by 13 inches, also folded flat, and about 160 grains of compressed

flax charpie between layers of gauze. All the dressing materials are rendered antiseptic by impregnation with mercuric chlorid, 1 in 1000. The weight of the complete dressing is 2 ounces.

Metallic cases have been recommended for the safe keeping of the dressing materials by Majewski, Port, and others. Port suggested a piece of tin which, when folded, would be about the size of an ordinary envelope, and which was to be sewed into the uniform over the region of the heart, for the double purpose of protecting this important organ against bullets, and at the same time serve as a case for the dressing-material. During the Spanish-American war the Surgeon-General issued 270,000 first-aid packages to the troops in Cuba and Porto Rico, and the soldiers in the home-camps. Two kinds of packages were used; the one in pale red cover contained two antiseptic compresses of sublimated gauze in oiled paper, one antiseptic sublimated cambric bandage, with safety-pin, one triangular Esmarch bandage, with safety-pin. Directions printed on package: "Place one of the compresses on the wound, removing the oiled paper. In cases of large wounds open the compress and cover the whole wound. Then use the triangular bandage as shown by illustrations on the same." The other package in yellow cover contained the same materials and directions, but was different in shape, somewhat larger, narrower, and thicker. All of the first-aid packages which have been described, including those furnished our own army, are too bulky for first-aid dressing in the field. The packages used during the Spanish-American war did excellent service in the field-hospitals, but there is no place in the uniform of the soldier where they would be tolerated for any length of time for the purpose for which they are intended. Longmore made the statement that during the Egyptian campaign the first-aid packages issued to the troops were used for almost everything else except as a dressing for wounds. During my service in Camp Tanner, I supplied the Illinois troops with a small first-aid package, and every soldier left the State with one of these packages sewed into the skirt of the uniform on the left side. These packages remained in place, and were often made use of in the treatment of accidental wounds. No definite conclusions have been reached as to the best place for these packages on the person of the soldier. The helmet, knapsack, the cartridge-box, a hollow space in the but of the gun, the uniform at a place over the heart, and the skirt have all been recommended as the most convenient place for carrying the package during an active campaign. As the officers and non-combatants do not carry a gun, some place in the uniform or the accoutrement must be found where such a package can be carried without inconvenience and without coming in conflict with military regulations. It must be stored in some part of the soldier's outfit which he is not likely to throw away during a forced march or in the heat of battle. The cartridge or sword-belt is about the last thing a soldier will part with, and it is for this reason that a number of years ago I made the suggestion to sew the first-aid package in the middle, and upon the inner side of the belt. As the modern cartridge-belt is made of canvas cloth, no difficulty presents itself in fastening the package by stitching it to its inner surface. Oiled linen cloth or thin leather would recommend themselves for the outer wrapper. To be worn in this locality without objection on part of the soldier or the military authorities, the package must be small. Large packages of any kind will never prove satisfactory as a first dressing in the field. The first-aid package for use in the field must meet the following requirements:

1. The material it contains for dressing of the wound must be not only aseptic, but antiseptic.

2. The antiseptic used must be nonvolatile and resistant to chemical changes for a long time.

3. It must contain a fixation-material which will prevent displacement of the dressing after it has been applied.

4. Its size must be such as not to inconvenience the soldier or to prove a source of objection to the military authorities.

5. The dressing employed should not interfere with the free evaporation of the wound-secretion.

As the quantity of dressing-material must be necessarily limited in the dressing of gunshot-wounds behind the fighting line, it is evident that better results will be obtained if it is impregnated with an antiseptic substance than if it is composed simply of sterile material. Perfect asepsis on the battlefield is a happy dream which will probably never be realized. Disinfection of the wound and its immediate vicinity before the application of the dressing under such circumstances is absolutely out of question. Bullet-wounds should never be touched, much less explored, before the first-aid dressing is applied. The necessity for the use of antiseptic dressings in the treatment of recent gunshot-wounds has been shown most conclusively by the ingenious experiments of Bogdan. This investigator showed, by bacteriologic experiments, that the skin of soldiers, protected by the regulation clothing, when in active service, contains on an average, to every 5 cubic cm., 4,429 pathogenic microbes; and he found, by further investigation, that in gunshot-wounds treated by sterile dressing material, the microbes increased much more rapidly than under sublimated gauze. He studied the results of 22 dressings after 24 hours, and found that under the sterile dressing the microbes had increased in the space mentioned to 780,729, and, under the sublimated gauze, to 19,668, the relative proportion of increase being 4 : 176 or 1 : 44. These experiments only prove what we would naturally expect, that the increase of microbes is diminished by the employment of antiseptic dressings in the treatment of wounds that can never be regarded as aseptic.

Carbolic acid is volatile, and is not adapted for dressings in the field. Corrosive sublimate, the most important antiseptic employed at the present time, is a very fickle chemical substance, prone to decomposition by chemical changes which destroy its antiseptic properties when incorporated in dry dressing-material. Iodoform has no decided antiseptic properties, and cannot be relied upon in the protection of recent wounds against infection. Salicylic acid has been often proposed from different sources as the most valuable antiseptic for the first-aid dressing. Boric acid is another stable and valuable antiseptic, but cannot be relied upon exclusively as an antiseptic in a small dressing in preventing wound-infection. For years I have relied on a combination of these two antiseptics as an antiseptic powder as an aid in the treatment of recent wounds. The formula used is boric acid, 4 parts; salicylic acid, 1 part. The line of suturing is covered with a layer of the borosalicylic powder, deep enough to bury the sutures out of sight before the hygroscopic sterile dressing is applied. The primary wound-secretion dissolves a part of the powder applied, and the resulting antiseptic fluid resembles in its effects very closely Thiersch's solution, which has, for good reasons, become very popular as a safe, nonirritating and yet efficient antiseptic. Several years ago I recommended the borosalicylic powder in the above proportion as a valuable component part of the first-aid package, and an extensive experience has only served to strengthen my faith in its antiseptic properties. Fixation of the dressing by the triangular or roller-bandage cannot be relied upon in preventing displacement during the transportation of the patient from the field to the hospital. The dressing must be held in place by one or two strips of rubber adhesive-plaster, which must constitute an essential component part of all future first-aid packages. The size of the package must be reduced to a minimum to do away with the most serious objections against its employment in field-service, and this can only be done by selecting only such materials which are essential in a primary dressing for small wounds. All primary dressings for recent gunshot-wounds should be dry, and nothing must be placed in the way of free evaporation of the wound-secretion, hence, all impermeable covers outside of the hygroscopic dressing must be abolished. A dry dressing is one of the very best means of preventing wound-infection, and nothing should interfere with the conversion of the wound-secretion and dressing employed in securing a dry crust which hermetically seals the wound. Sterile absorbent cotton is far superior to gauze as a primary dressing for bullet-wounds, as its hygroscopic capacity is much greater, and at the same time it furnishes a more efficient filter for the exclusion from the wound of microbes from without. I would suggest the following first-aid package for field-use and emergency work: Two pieces of lintin, a form of compressed cotton, 4 inches wide and 16 inches long, sterilized and folded twice lengthwise; a teaspoonful of the borosalicylic powder in a small waxed aseptic envelope; between them a piece of sterile gauze, 44 inches square, with 2 safety-pins, folded to correspond in size with the lintin compress; all of these articles wrapped in tin-foil; 2 strips of rubber adhesive plaster, 1 inch wide and 8 inches long, the whole to be sewed in an impermeable canvas or linen cover. In using the package the powder is applied to the wound, when the lintin is used as a compress held in place by the strips of adhesive plaster and the gauze bandage over it. If two wounds are to be dressed at the same time, as is usually the case in modern warfare, the contents of the package are equally divided and used, which can be done without materially impairing the efficiency of the dressing. The slight hemorrhage in wounds inflicted by the small-caliber bullet will soon saturate a part of the dressing, which by evaporation will soon convert the antiseptic powder and the cotton into a dry antiseptic crust, the very best protection for the wound against infection.

The important question arises: Where and by whom should the first-aid dressing be applied? A number of prominent military surgeons of the present time, among them Longmore, W. Roth, Wein and Tiroch, are of the opinion that the first duty of the military surgeons when in action consists in concentrating their energies in providing for a speedy removal of the wounded from the firing line to a place of safety. It is their belief that little or nothing can be done in the way of treating wounds until this has been accomplished. Many of the military surgeons have expressed themselves recently as being opposed to the employment of the first-aid package by any one else except medical men. This position will be found untenable during any great war, when the number of wounded would greatly exceed the working capacity of the limited number of surgeons. Additional and equally strong arguments against such limitation of the first-aid dressing behind the firing line are the well-known facts that the sooner a recent wound is properly dressed the greater is the probability of its remaining practically aseptic, and that the simple dressing proposed in this paper can be efficiently applied by any person of average intelligence who can be made to understand and follow the imperative rule never to touch the wound. Every soldier must be taught the danger of hand-contact, and the importance of the first-aid dressing and its manner of application. The trained hospital-corps men of the future can be trusted with this part of the field service. I am confident that the prompt first-aid dressing applied by well-instructed hospital-corps men and litter-bearers will do more in the way of preventing wound-infection than the delayed dressings in skilled hands. The clothing of the patient, if allowed to remain in contact with the wound for any length of time, is a very serious source of infection, probably nearly on a par with hand-con-

tact, and the sooner the wound is protected from it by the first-aid dressing, the greater will be the chances of preventing infection. I fully agree with those who are opposed to the removal of clothing from the wounded part in the firing line for the purpose of inspecting and dressing the wound. The wounded must be removed to a place of safety as promptly as possible. The first-aid dressing can be applied in a few moments without the removal of any of the clothing except the shoes or boots in dressing wounds of the foot or lower part of the leg. In gunshot wounds of the extremities, the seam of the trousers can be ripped open sufficiently to expose the wound, the underclothing can be cut to the requisite extent to expose the wound or wounds sufficiently for the application of the first-aid dressing. The dressing is fixed in place with the strips of adhesive plaster, and the retaining bandage should be applied, not under, but over the clothing. In dressing wounds of the chest, abdomen and pelvis, the dressing and bandage are applied in a similar manner. In gunshot-fractures of the extremities, an extemporized fixation dressing of the simplest kind completes the first-aid, and prepares the patient properly for transportation to the rear. The value of the first-aid dressing became very apparent during the Cuban and Porto Rican campaigns. One thing that was supplied liberally and timely by the Medical Department was first-aid dressings, and to this we must attribute largely the speedy healing of most of the gunshot-injuries and the few wound-complications which later required operative interference. In conclusion I would emphasize the following:

1. First-aid packages are indispensable on the battle-field in modern warfare.

2. The first-aid dressing must be sufficiently compact and light to be carried in the skirt of the uniform, or on the inner surface of the cartridge or sword belt, to be of no inconvenience to the soldier or in conflict with military regulations.

3. The Esmarch triangular bandage is of great value in the school of instruction, but in the first-aid package it is inferior to the gauze bandage.

4. The first-aid package must contain in a waxed aseptic envelope an antiseptic powder, such as borosalicylic powder, 2 sterilized safety-pins wrapped in tinfoil, and between this package and the outside impermeable cover, 2 strips of adhesive plaster 1 inch wide and 8 inches long.

5. The first-aid dressing must be applied as soon as possible after the receipt of the injury, a part of the field-service which can be safely entrusted to competent hospital-corps men.

6. The first-aid dressing, if employed behind the firing line, should be applied without removal of the clothing over the injured part and fastened to the surface of the skin with strips of rubber adhesive plaster, the bandage being applied over and not under the clothing.

7. The first-aid dressing must be dry and should remain so by dispensing with an impermeable cover over it, so as not to interfere with free evaporation of the wound-secretion.

8. The first-aid dressing should not be disturbed unnecessarily, but any defects should be corrected at the first dressing-station.

CONCERNING CORPUSCULAR PHOSES AND APHOSES.

By GEORGE M. GOULD, M.D.,
of Philadelphia.

As quoted by Dr. Jos. E. Willetts, of Pittsburg, Pa.,[1] from p. 768 of Howell's Physiology, Bowditch thus describes certain phenomena of vision:—

"When the eye is directed toward a surface which is uniformly and brightly illuminated, *e.g.*, the sky, or a sheet of white paper on which the sun is shining, the field of vision is soon to be filled with bright bodies moving with considerable rapidity, in irregular curved lines, but with a certain uniformity which suggests that their movements are confined to certain definite channels. They are usually better seen when one or more sheets of cobalt glass are held before the face, so that the eyes are bathed in a blue light." He further says: "That the phenomenon depends on the circulation of the blood-globules in the retina is evident from the fact that the moving bodies follow paths which correspond with the form of the retinal capillaries as seen by the methods above described, and also from the correspondence between the rate-movement of the intraocular image and the rapidity of capillary circulation in these organs in which it can be directly measured under the microscope."

Dr. Willetts also says that in 1862 Vierordt measured the rate of movement of these bodies, claiming that they were explained as retinal blood-corpuscles. Dr. Willetts gives a number of reasons which seem to him conclusive that the bodies are the white corpuscles of the corneal circulation. Dr. C. E. Norton, of Lewiston, Me., at the meeting of the American Medical Association at Columbus, in 1899, read a paper before the ophthalmic section on the subject, and gave the members lenses of tinted glass to aid in the observation of the moving bodies. He, with Bowditch, thinks them located in the retina. I am sure I have in my reading seen a number of allusions to the phenomenon, and it would perhaps be a useless task to attempt discovering who first described it in literature. For purposes of mere naming they may tentatively be called Bowditch's bodies,—or, as I prefer to say, phoses.

For I think the discussion concerning these and similar phenomena would be rendered easier by the adoption of two terms which I suggested four years ago in writing of muscae. If we call all positive entoptic visual sensations, those that are light-making, self-illuminating, or as if bright-appearing objects (such as phosphenes, scotoma scintillans, etc.), by the neutral, yet descriptive, term *phoses*, and all negative sensations, such as pathologic scotomas, muscae, etc., *aphoses*, we

[1] Address on Ophthalmology, *Pennsylvania Medical Journal*, September, 1897

shall be etymologically and clinically correct, and thereby greatly expedite a common understanding. I shall for the present, therefore, designate the sensations under discussion as *Bowditch's phoses.*

I take it that the majority of people, those without great ametropia, and with sensitive retinas ($\frac{20}{10}$ or $\frac{20}{15}$) will be able to repeat the following experiences. By the method to be described I can see the entire double field of vision with the naked eyes (*i. e.*, without tinted lenses) filled with Bowditch's phoses as if with hundreds of darting zigzag light-points. A day not too bright is best, the sky being filled with gray or bluish clouds. Shade the eyes with the hands and narrow the palpebral apertures to slits about the pupillary width. If the upper lids tremble too much hold them them softly with the fingers. Gaze steadily toward the clouds, but "vacantly," *i. e.*, without accommodation or fixation. Hold the eyes perfectly still, and do not wink (a change of position, definite fixation, or winking destroys or vastly lessens the number of sensations), and within a half minute the entire field for nearly 180° laterally will be filled with innumerable darting points of light (phoses), moving in every conceivable direction, appearing and disappearing with puzzling illogicality and irregularity. By this method the aphoses of the tinted lens have been transformed into phoses—they are no longer dimly illuminated bodies, shadows, shadowy objects, or light-negations, but brilliant and spark-like. These darting objects are the same, or caused by the same objects, as Bowditch's phoses. The tinted lens may be interposed, and though their number will be reduced to a few, these few will be recognized as having the same character and rate of movement. The reduction in number is, I think, due to the accommodation and fixation almost necessitated by the different lighting of the corpuscles, and what is more important, to the use of a single eye, as suggested by Dr. Norton. By using a large piece of cobalt-glass over both eyes, and looking toward a brightly sunlit white cloud, the aphoses are more numerous and fill a wider expanse of the field than when a single eye is used. In this way the two classes of sensations are recognized as due to the same objects or causes. Let us try to solve the questions of the origin, location, and nature of the cause.

Dr. Willetts adduces a number of reasons to prove that the moving bodies are not located in or near the retina; among these are that the blood-corpuscles are too small to be separately perceived by the retina, if they are located in the retinal capillaries, that they travel singly, that they enter the field from the periphery, that they have ameboid movements, etc. To these I would add four apparently more decisive objections:—

1. They pursue no regularity of path. If they were corpuscles they would, at a given position, follow one another in a definite direction. But the movements, as I observe them, are in every possible direction in any given locality. They fly in and out and across a place in the most irregular manner and at all angles, and one never follows in the path of another.

2. They are not more numerous in one part of the field of vision than in another, but are scattered about equally over the entire field. If they were products of capillary-streaming they would be observable in large crowds or masses in the large capillaries. There is no such clustering or crowding. This is clearly proved by the method of observing them which I have described.

3. As suggested in a letter by Dr. Willetts to me, they are observed to cross and recross the fixation-point; and as the macula is without capillaries they could not be observed with the retinal cones of that region.

4. They could not have such extensive, nor such rapid motion as they do if they were due to retinal corpuscles either seen directly or by means of the direct shadows they cast.

These objections at first seemed conclusive, and to negative the theory that the phoses are due to blood-corpuscles; but, as I cannot consent to Dr. Willetts' opinion that they are located in the cornea—the mathematic difficulty alone being conclusive—and as the retinal corpuscles are conceivably the only possible causative bodies, I am forced to hold them of retinal origin.

A single thought explains all the contradictions:—The corpuscles are not seen *directly*, nor by means of the *shadows* they throw upon the retinal end-organs, but arouse sensations only when they *reflect* and focus an incident beam of light upon an unaccustomed and sensitive portion of the retina. Analogous to this is the fact that the shadows of the capillaries, arteries. and veins do not produce visual sensations in ordinary vision, but when, as by the "autofundoscope" (which I exhibited at the Denver meeting two years ago), light is alternately, unusually and repetitively reflected from their sides upon the retina not accustomed to the habitual shading; there is then formed a clear picture of the entire system of the retinal vessels.

Taking up now each of the four objections given, we see that the new standpoint harmonizes and explains them in such a satisfactory manner that they serve, not only not to negate or neutralize, but positively to prove the theory:—

1. The constantly changing direction, movements, and shapes of the corpuscles, as well as the variations in the amount or intensity of the incident rays of light in ordinary vision, in that with a single eye and in tinted glass observations, together with the influence of accommodation, could only for an instant enable a few corpuscles, at the right angles (and we are dealing with infinitesimals here!) to reflect and focus a pencil of light in a way that it could set up a sensation effect. Hence these sensations can only arise discontinuously and in the haphazard manner as we observe them.

2. No matter how many corpuscles are crowded in a larger capillary, the ones that will happen to reflect in such a way as to create sensation, may not be more numerous at that point, rather less numerous indeed, and also the reflections would not necessarily strike lines or groups in the retina, but must impinge any and everywhere, just as we see them. The changes in contour, facetings as it were, of the corpuscles, and their refractive action as globes, would, only at certain angles with the ever-varying incident light, and at comparatively rare intervals, produce focalizations of the rays sufficiently exact and strong, and upon comparatively shaded and sensitive portions of the retina, to arouse distinct sensational reactions. Note the effect, for example, when one stands before a fish-globe filled with water, of a slight change in position and distance upon the reflex-glinting.

3. The corpuscles themselves do not cross the macula nor their shadow-images, but the reflections of the light from them may cross it in any and every direction.

4. It is plain that the movements of the phoses are more extended and rapid than are the movements of the corpuscles in the capillaries. But if they are due to imaging reflections from corpuscles, sweeping over considerable retinal spaces, the extent and rapidity of movement is recognized as corresponding to that required.

The objection that the corpuscles at the retina are too small to be separately perceived, holds good so long as we think only of either direct vision or shadow-vision, but it does not hold if we suppose the sensations due to mirror-like reflections from them upon more distant parts of the retina. I do not find by my method, that the moving bodies enter the field from the periphery; with the other method (*i. e.*, with accommodation, fixation, the tinted lens, etc.), this may be true.

The imagination may be helped by the analogy of the glintings from a mirror carried through the street, or better, of the light-reflexes from a million wavelets; only the few striking the wavelets at precisely the right angle enter the eye and produce sensations.

With this explanation or theory in mind, we can also understand the great increase in the number of darting points by the use of both eyes without tinted lenses, in the manner I have described, over the few seen by a single eye and with a tinted lens. The aphoses become phoses when, by my method of naked-eye non-accommodative binocular illumination, a larger number of the corpuscles become brilliant reflectors or microscopic mirrors.

For the present, I doubt if we can form any valuable opinion as to whether the corpuscles producing the phenomena in question are the red, or the white, or both.

There is still another interesting discovery I have made in this connection. Everyone, when looking vacantly at the sky, has noticed, and many books have described, another kind of entoptic visual sensation consisting of pinpoint sparks of light flashing in and out of existence, not changing in position because not lasting long enough, and seeming like a sky filled with infinitesimally small and brilliant stars, each flashing for a thousandth part of a second and again disappearing in the blue. By my method of observing, one can convince himself that these dots of light are the acmes or turning-points of reflectional intensity and focalization by individual corpuscles, which, with the method of Bowditch, or by my own, are held longer in sensation, but which in ordinary inattention and with the eye accommodated and the retina dulled by flooding light, are recognized only as discrete instantaneous points of light. They are thus only the culminating points of intensity of the corpuscle-reflexes, which by another method are seen to be more continuous. When they strike an exceptionally sensitive point of the retina, and with a sufficient intensity to overcome the lesser general illumination of the retina, they then flash forth as single and instantaneous sparks. They are not, as has been commonly supposed, spontaneous or idiopathic retinal sensations.

I am convinced that the Bowditch phoses, the Norton aphoses, those described by Willetts as originating in the cornea, and the so-called spontaneous phosphenes of the retinae, are all due to reflections from corpuscles of the retinal capillaries, varying in appearance according to the method of observation, the illumination, etc.

REPORT OF A CASE OF ABSCESS POSTERIOR TO THE APPENDIX, DISCHARGING THROUGH THE UMBILICUS, REFILLING AND CAUSING PERITYPHLITIS AND GENERAL PERITONITIS.[1]

A Contribution to the Study of Abscesses Caused by Infection of the Vitello-Intestinal Vestige.

By SAMUEL H. FRIEND, M.D.,
of Milwaukee, Wis.

During the latter part of September, 1895, I was hastily summoned to attend a girl, aged 13, a member of a family whom I had been attending for several months. The mother being dead, the children were in charge of an aunt who was a trained nurse. The previous history of the case, which probably bears only a remote relation to the final termination is as follows: During January, 1895, the child had several accessory tonsils extirpated. The only symptoms worthy of note after the operation were great languor and excessive expectoration of salivary secretion, which persisted for some months, and in consequence she was unable to attend school during the early part of that year. Although previous to this period she had been very active in the daily routine of school and play, she lost all ambition for both. The condition of the bowels during this period varied, there being either excessive constipation or diarrhea. Upon my arrival the following history was given:

Twenty-three days previously the child was constipated and retired early, complaining of slight nausea. At 5 o'clock the next morning the nurse was alarmed by her cries and found her doubled up and in intense agony, and learned

[1] Read at the Fifty-Third Annual Meeting of the Wisconsin State Medical Society, held at Oshkosh.

that she had been awakened by an excruciating pain in the abdomen. She was much nauseated, yet did not vomit. Hot applications were immediately applied to the abdomen and an enema of soap and water was given. The bowels moved freely and the pain subsided. Sterilized milk was taken and retained, and at 8.30 o'clock she was at school and in an apparently normal condition. On the evening of the twenty-third day the child ate some uncooked beef-sausage, swallowing the casing with the rest of the meat. At about 8 o'clock the next morning she was nauseated, vomited continually, and complained of intense pain around the umbilicus.

Upon close questioning I learned that in addition to the symptoms already noted the child and nurse had noticed a discharge of pus from the umbilicus after the first attack, but there were no symptoms of umbilical infection. All things considered, the case appeared to be appendicitis with accompanying peritonitis, and I suggested the advisability of a consultation with a surgeon if the vomiting did not cease in 2 or 3 hours. An operation even at that time seemed imperative, yet the prejudices of the family against operative measures were such that I deferred action for the time being and ordered that divided doses of calomel and crystals of magnesia sulfate be administered at regular intervals. Upon my return, a few hours later, the general condition was found to be the same. In consultation with the surgeon, whose diagnosis was against appendicitis and in favor of a strangulated gut, it was concluded to wait until the following morning before operation.

When morning came the condition was practically the same, and the patient was removed to the Wisconsin General Hospital. At 4 o'clock that afternoon the operation was performed, a median incision being made in view of the fact that the case might be one of strangulation. The protrusion of gut was great, all that were seen presenting deeply injected vessels, and the usual appearance of incipient general peritonitis. No strangulation or pus was found. The incision was enlarged and the appendix exposed. This was lying with the end slightly bent, the distal portion pointing downward. It was of a deep-red color, was not perceptibly enlarged, and appeared to be adherent to the peritoneum. As it was lifted we found an abscess at the point of the bend, from which about 1½ drams of thick pus oozed. The appendix, which was about 1½ inches in length, was ligated and removed, the parts cleansed and the wound drained by means of gauze. The abscess-cavity posterior to the appendix was about the size of a small English walnut, the anterior wall being very thin. A bacteriologic culture of the pus showed the presence of staphylococci and bacteria coli. A microscopic examination of the appendix showed no disease except a perityphlitis. Five days later the patient died of general peritonitis. A postmortem examination was not permitted.

The symptom in this case which requires explanation is the discharge of pus through the umbilicus. This peculiar symptom, which occurred after the first attack, came from the abscess posterior to the appendix.

A patulous vestige of the vitello-intestinal duct is the only passage-way in the umbilicus through which pus can discharge without producing symptoms of infection, as is shown by the investigations upon the vitello-intestinal vestige by Meckel,[2] Roth,[3] and Sutton,[4] and the reports of cases by Paget,[5] Davenport,[6] Fullerton,[7] and many others.

The position of the abscess which was posterior to the appendix and in line with the vitello-intestinal vestige, indicated clearly the cause of the discharge. The abscess could not have been caused by infection from the appendix, as was demonstrated by: (1) the normal deep tissues of the appendix; (2) the position of the appendix and its attachment to the abscess-wall at the slightly bent end; (3) the organized lymph upon the appendix at the slightly bent end; (4) the perityphlitis.

I conclude (1) that the abscess was caused by an infection, which came from the intestine, of a small vestige of the vitello-intestinal duct; (2) that the symptoms of the first attack were caused by a destruction of the anterior abscess-wall; (3) that then the appendix closed the destroyed wall, and so prevented a general infection; (4) that after the abscess-cavity refilled the process of evacuation of pus followed the course of least resistance, viz., the pathway through the umbilicus; (5) that the final attack and the general infection were caused by the pressure of adhesions which obliterated the patulous duct at the seat of the abscess.

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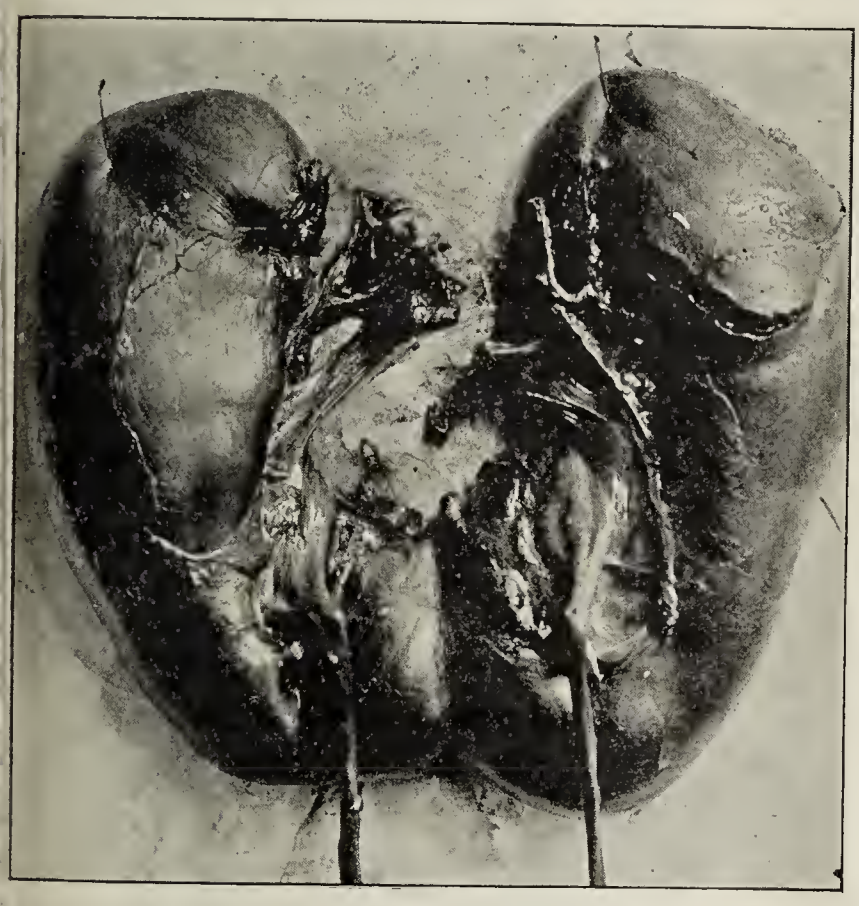
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HORSESHOE-KIDNEY.

BY D. E. HILLS, M.D.,
of Detroit, Mich.

THE accompanying cut shows a horseshoe-kidney taken at postmortem from a woman 45 years old, well developed and of previous good health. The cause of death was suicide by "Rough-on-rats" during temporary despondency over financial conditions.



The kidney lay at normal height, close to spinal column, and equidistant from it on each side. The weight was about 14 ounces; length, from highest point of one to highest point of the other, around external border, 5 in.; breadth $2\frac{1}{2}$ in. (each kidney); thickness $1\frac{5}{8}$ in.; circumference of band $3\frac{1}{4}$ in.

The pelves were distinct and the connecting band was true renal tissue. The blood-supply was peculiar in the vessel seen on the face of the left organ and in the two vessels entering the connecting band, the cut ends of which can be distinguished; the pelves and ureters were normal. The convexity of the kidney was downward. The kidney was acutely congested from effects of the poison taken. The constriction seen in the connecting band is from the thread supporting the specimen before the camera.

According to Morris the anomaly averages about once in 1,600 autopsies. Morgagni reports one case of aortic aneurysm caused by pressure of a horseshoe-kidney.

The literature on the subject is not extensive; with limited investigation I find no case in which the anomaly has caused complications in an operation, most cases being reported from autopsies.

A MECHANIC LAXATIVE TAKEN BY THE MOUTH.

BY HENRY S. UPSON, M.D.,
of Cleveland, Ohio.

ONE of the conditions capable of causing the greatest variety of symptoms, both reflex and toxic, is constipation. While some people with an intact mucous lining of both the stomach and the intestines may overcome the tendency to constipation by laxatives taken every night or every few days without bad results, the mucous membrane, which reacts badly to irritants, is the despair of physicians. Laxative foods, bran, oatmeal, figs, mustard-seed, and the acid fruits are either mechanic or chemic irritants. They leave a constipated condition of the bowel after the immediate laxative effect is past. The drug-habit, or the drastic-food habit, is soon established, and the condition is intensified rather than improved. Cannon-balls, electricity, and poundings have been brought into play to relieve this condition without irritating the gut. The best remedial agent of the mechanic class which I have found is the product known as white or liquid petrolatum given by the mouth in doses of two or three ounces, or say a quarter to a half tumblerful. Liquid petrolatum has the great advantage over olive oil and cotton-seed oil that it does not become rancid either in the body or out of it. It is better taken by the mouth than used as an injection, because it reaches and soothes the mucous membrane of the whole alimentary tract. It is absolutely non-irritant, it is lighter than water, it does not distend the bowel, and, in my experience, it diminishes flatulence. It is readily taken and well borne by infants.

Strangulated Hernia; Enterotomy.—W. L. Cuddeback (*Albany Medical American*, May, 1899) reports a case presenting the following interesting points: The hernia, strangulated by the mass of peritoneal covering, was returned *en masse* into the abdominal cavity unassisted. Relief from symptoms of strangulation continued 12 or 14 hours after the return into the abdominal cavity of the hernia, which was still strangulated. The rapidly developing collapse of the patient was relieved during the operation. There were 30 inches of small intestine removed during the subsequent operation. The sac, as well as the intestine, had become gangrenous, and was completely removed. The Murphy-button was employed with complete success, while the patient rapidly increased in weight during the convalescence, showing that nutrition had not been interfered with by the removal of the large portion of small intestine. [C.L.L.]

A PICTORIAL DEMONSTRATION OF A NEW METHOD FOR BALLOONING THE RECTUM AND FOR THE REMOVAL OF FOREIGN BODIES FROM THE ANUS AND RECTUM WITHOUT ANESTHESIA.

BY THOS. CHAS. MARTIN, M.D.,
of Cleveland.
Fellow of the American Proctologic Society.



FIG. 1.

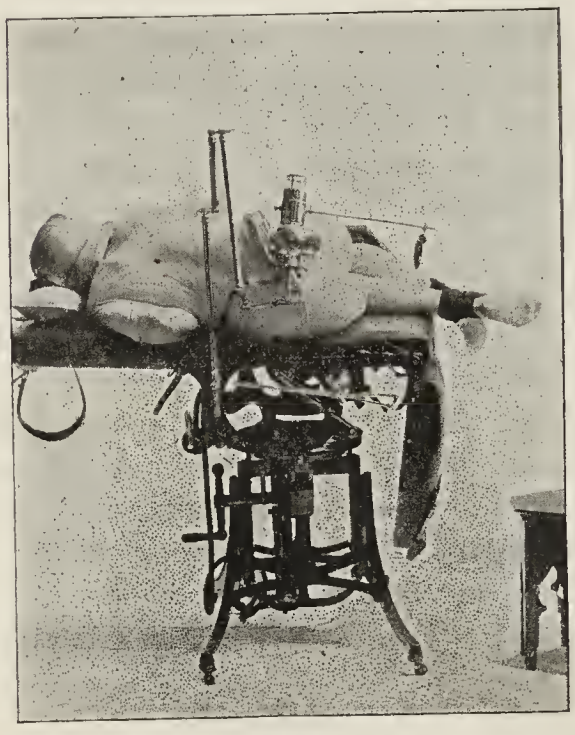


FIG. 2.



FIG. 3.

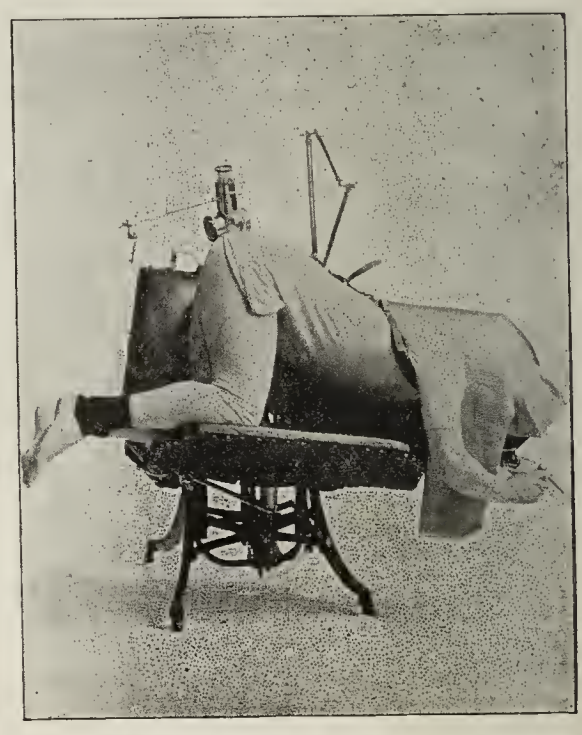


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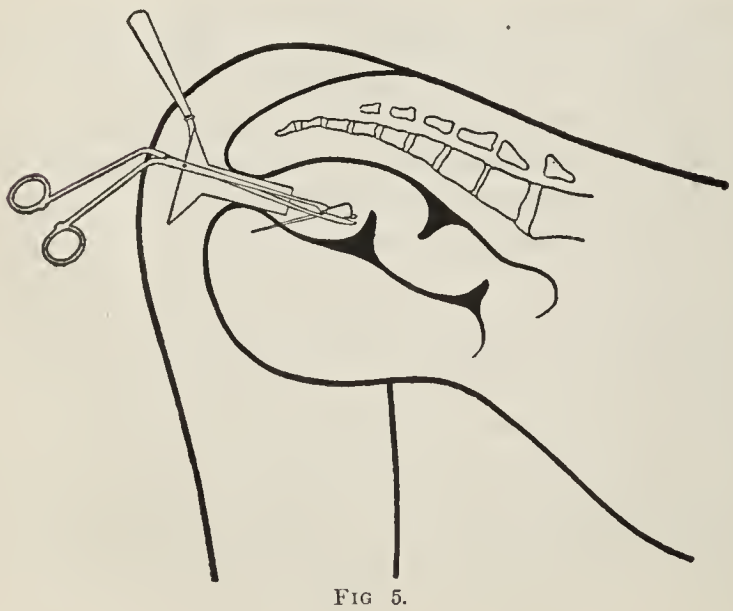


FIG 5.

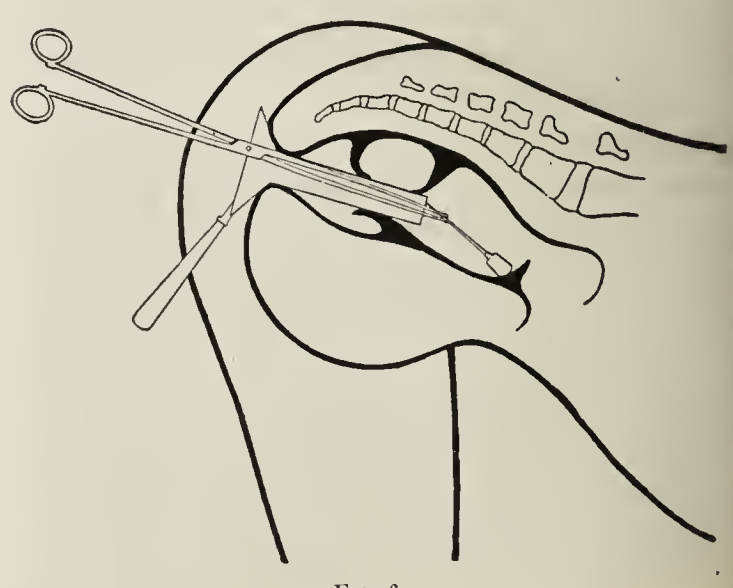


FIG. 6.

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See Advertising Page 19.

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The utility of sand-filtration for purposes of water-purification is amply confirmed by the results of an investigation recently made by Professor Dewar and Sir Wm. Crookes at the request of the chief water-examiner of London. Two hundred and seventy-two samples of water, unfiltered and filtered, obtained from various sources and on different days, were carefully studied bacteriologically and chemically. The mean number of bacteria per cubic centimeter in the unfiltered water from the Thames, the Lea, and the New rivers, respectively, was 10,622, 2,490, and 908; while in filtered water from the same sources the mean number of bacteria was 22, 5, and 8 respectively. Besides, the filtered water was found to contain less soluble organic matter in solution. The results of this investigation amply confirm the opinion of those who hold that the best means for providing large communities at once with clear and pure water for all purposes consists in sand-filtration by gravitation.

"Death from lockjaw" figures with striking prominence in the mortality-lists of the past few weeks. The numerous fatalities from tetanus that have followed gun-shot wounds inflicted on the Fourth of July by unwise celebrants who confounded noise with patriotism must impress the authorities in many cities with a sense of their responsibility in permitting, tacitly or otherwise, the needless discharge of firearms on that day. These are avoidable deaths, and could have been prevented by intelligent administration of existing laws, and the failure is due to the faithlessness of the proper officials. Nor can any excuse be offered for the injuries inflicted, or destruction of property by fire, and the distress and annoyance to which large numbers of helpless members of the community were subjected, as a direct result of the wasteful and senseless mode of observing the great national holiday. Surely there must be more rational ways of manifesting patriotism, and future Fourths of July should be celebrated in a manner becoming the dignity and intelligence of a civilized and progressive nation.

Jingoism and death seem, somehow or other, to be fatally bound up with each other. In view of the thousands of victims sacrificed in the Cuban War, and the other thousands in the Philippines, the allusion to a hundred or two Fourth-of-July deaths seems trivial, and so it would be were it not for the purpose of pointing out the logical connection between jingoism and death, and of endeavoring to make such an impression upon the minds of parents and those who have influence as to the celebrations of the next and ensuing years. The toy-pistol in the hands of children means swagger, brag, and the real pistol in the hands of grown-ups. The mimicry of crime by children bears sooner or later the harvest of adult criminality. It may take a long time to reap the harvest; even a hundred years may be required, and we may have to go as far as Manila to reap, but it is an old lesson that whatsoever ye sow, that shall ye also reap. The McCoy-Hatfield feud has cost so far 141 lives, and there are, it is said, more homicides each year in our country than there were deaths in the Gettysburg battle. Since July 4, there have been 25 or more deaths in our city due to the toy-pistol, and the number in the United States would probably run into hundreds. Every good and especially every patriotic citizen should urge the passage of stringent laws against the sale or use of fire-crackers, toy-pistols, etc., and should see that these laws are executed in downright earnest.

Public Appropriations for Private Enterprises.—That is a novel proposition that was recently made by a candidate for a congressional nomination in Ohio to put the nomination up at auction and have it knocked down to the highest bidder. He agreed himself to start off with a bid of $10,000 and to donate the salary yielded by the position to educational purposes. This incident illustrates but too forcibly the methods that are coming into vogue in American politics, and their practice is not confined to the professional politicians. The same insidious influence is making itself apparent in the matter of securing public appropriations for private enterprises. Almost daily, hospitals and medical colleges offer, and legislators (especially members of committees on appropriations) accept bribes in the form of dinners, the reception of patient-friends, and like privileges. It is time the abuse were stopped. The hospitals and the colleges deserve support and encouragement, but these should be derived in legitimate ways from legitimate sources. Public moneys should be appropriated only for public purposes. If the city or the State wishes to pay tuition-fees or for hospital-service let the amount be estimated accordingly. Pay-

ment should be made only for the number of scholarships utilized, or the number of days of occupancy of hospital-beds. It is time that the doctrine were repudiated that the largest and the choicest plums in the political orchard belong to those with the longest and strongest pull. At any rate medicine and politics make a nasty mixture.

The Employment of Prisoners.—The grand jury of Philadelphia, in its report to the Court, has just made a strong plea for the employment of prisoners. It appeals "to the press, to philanthropists, and to every honest, industrious citizen of the State" to seek to obtain from the Legislature a correction of the great wrong which that body has inflicted upon prisoners. Under the existing law only 10 per cent. of the prisoners in this Commonwealth are permitted to work. This law was evidently passed in order to placate the labor vote, for the fact is notorious that the more unintelligent of the laboring classes are always ready to clamor against what they call competition with prison-labor. The grand jury (composed presumably of men who know practically something about wage-earning and wage-earners) has now been so impressed, while inspecting the prisons, with the injustice and evils of this law, that it has condemned the measure in most vigorous language. We have expressed, on a former occasion, our own opinion of this iniquitous legislation, and are only too glad now to reecho the sentiments of the grand jury. From this responsible body of citizens such condemnation may have more weight than from most other critics, and will have more chance of being publicly read. One obstacle to obtaining a repeal may thus be overcome—an obstacle which exists in the indifference of the public. Only the rankest kind of class-legislation is exemplified in this law. The rights of taxpayers, not to speak of the rights of the prisoners themselves, are grossly ignored by it. The supremely selfish agitators, who seek for this kind of proletariat law-making, are a menace to any free community; they not only gain an unfair material advantage for themselves, but even subvert the public conscience, because no State has a moral right to shut men up for years between stone walls and deny them their inherent right to work. To do so, is to prescribe disease, insanity, and death.

Employment and Exercise for the Imprisoned.—That idleness, voluntary or enforced, is a demoralizing and destructive influence has long been recognized, though the practical application of the fact has not always been made. A sound body is essential to a good mind, and it has been shown that no agency is more capable of good in the management of such obstinate conditions as epilepsy and insanity than out-of-door exercise, especially in conjunction with suitable manual occupation. What is true of these two groups of unfortunates, as well as of those in health, is none the less true of those confined within penal institutions, and for its salutary moral, and physical effect these last should be given every opportunity for work and exercise. Vice and virtue may be considered complementary qualities, the evolution or the suppression of the one having the opposite effect upon the other. Emphasis is given to the foregoing considerations by the complaint, made most reasonably and most intelligently, in the presentment of the Philadelphia grand jury, that only 10 per cent. of the prisoners in the Eastern Penitentiary of the State of Pennsylvania are by law permitted to be employed, that "in the new County Prison at Holmesburg there are no provisions for bathing," and that "the prisoners are never taken from their cells for open-air exercise." These are serious defects, and there should be no delay in their correction. They constitute a serious reflection upon our modern civilization which should not be permitted to continue.

Pseudo-Science vs. Sanitary Reforms.—We are surprised to see an esteemed and progressive medical journal like the *Cincinnati Lancet-Clinic* give space in a late issue, without comment, to an article on "Societies for the Suppression of Consumption." The writer opposes the establishment of sanatoria, believing, on what grounds is not stated, that the home-treatment is better; he denounces the use of tuberculin as a test for tuberculosis in cattle, and seems to hope for a rise of the vast agricultural interests—the owners of cattle-herds, whose property he claims is jeopardized by the official inspectors. His kindly sympathy also goes out to the poor house-owner who, his tenant having had tuberculosis, is compelled to disinfect, whitewash, and repaper the infected premises. The writer, as a landlord, may be disinclined to incur the enormous (?) expense entailed by such a renovation, but we wonder whether as a prospective tenant he would rent a house for himself and family in which a consumptive had lived and died, without having exacted from the owner those measures that every sensible sanitarian the world over considers not only prudent but essential. If he had carefully studied the writings of Cornet, of Flügge, of Flick, and of many others, he would probably neither maintain that not the smallest amount of circumstantial evidence exists in support of the doctrine of the contagion of tuberculosis, nor would he utter the incomprehensible statement that the tubercle-bacillus has not been proved to be dangerous. His antagonism to all things bacteriologic is so bitter that he desires appropriations for experimental studies hitherto made by State legislatures cut off and the experiment-stations abolished.

We should not deign to comment on this extraordinary article if it were not for the fact that such unscientific stuff, coming from a member of the profession, is generally used as a basis of argument by the opponents of sanitary progress, as has been exempli

fied so often in the antivaccination and antiviviseetion agitation.

Pension Abuses.—A pension service should be like Cæsar's wife, above suspicion. It is unfortunately not so in this country. The pension system has been under grave suspicion, and has been growing more and more unpopular year after year. The United States Government is paying more for pensions every year than Germany pays for the support of her immense standing army; and this in a country in which the politieal evangelists are forever proclaiming that we are free from the burdens of an oppressive militarism, sueh as that under whieh the effete monarchies of Europe are groaning. This cant would long since have been exposed, and the public would have rebelled, were it not that the pension evil has wormed its way into so many households, and touches so many secret springs of selfish interest, that myriads of mouths that might speak are dumb.

It is now reported that the Loyal Legion threatens to retire from the Grand Army, unless the latter organization ceases to permit itself to be used in the interest of undeserving pensioners. About the merits of the issue between these two veteran eorps we know nothing, but we take it as significant that sueh an issue has been raised at all. Our object here is to speak of the pension business from the strietly medical standpoint.

A certain part of the contempt and suspicion into which the system has fallen is visited upon the medical profession through the various examining-boards. Most of this criticism is, doubtless, unjust; but some of it may be deserved. The tendency of physicians is toward leniency and indulgence in cases of suffering (or alleged suffering), and, doubtless, many a charitably-minded doctor has strained a point in favor of a pensioner. We believe whatever fault there may be is largely due to such feelings, instead of base motives. Judgment is difficult, also, in many eases, espeeially 35 years and more after the military serviee was rendered; and here a wide field exists for divergence of opinion as to what does, and what does not, constitute a claim. The subjeet is too broad for minute discussion here, but we wish to say that the full responsibility is not on the medical profession, but on the general government. These pension abuses and frauds should be stopped, and to that end the government (undeterred by threats of eongressmen and attorneys) should establish a system of still more rigid and impartial expert examinations and cheeks. There must be something wrong in a pension system that calls for this great drain upon the resources of the country more than one-third of a century after the war. An intelligent newspaper in New York has reeently suggested that the large number of small medical boards should be replaced by a few more centrally located and more responsible bodies.

No one has a greater interest in the purity of the pension system than the deserving pensioner. Nothing threatens his own award more than the suspicion of corruption, for this might in time lead to a radical cut in rates all along the line. To the members of the medieal examining-boards especially we would reeommend the utmost care and exactness.

Medical Sermonets, No. 3. The Passing of Materialism.[1]—Some 25 years ago the materialists and atheists had placed in their hands a weapon called science, with which they wrought much havoc in the minds of the earnest but untrained younger generation. Forthwith, the majority of young men who had got a glimpse of the Darwinian explanation of evolution, and had been captivated by Spencerism, but who knew nothing of the history or methods of psychology and metaphysics, rushed pell-mell into blank materialism, with its pessimistic bias and with its crudeness, which were really and profoundly unscientific. Büchner, with his Kraft und Stoff childishness, was even rated as a philosopher. Impelled by the same fatal tendency, men who imagined themselves scientific, and called themselves physiologists, began the investigation of the phenomena of life by dogmatically denying that there is such a thing as life. Every schoolboy thought it smart to sneer at "vitalism," and the poor "vitalists" were quickly reduced to silence. Some clodhopper (Cabanis, I think) said, "the brain secretes thought as the liver secretes bile," and this, with similar nonsense, more eruditely worded, perhaps, passed for wisdom. Possibly no one is more responsible for the deep mordant of materialism with which English scientific thought has been bitten than Herbert Spencer, who by example and precept taught that problems essentially beyond the physical could not be handled by minds ignorant and untrained in psychologic and metaphysic method. The world is at last learning that he has contributed little or nothing to the evolution of philosophy and genuine science, while he has steeled and obtunded many plastic minds into a sphinx-like attitude of stare into cosmic vacuity. Even so late as 1893, an English professor (Thorpe) could bring himself to write such claptrap as this:

> "By demonstrating that urea can be made synthetically by ordinary laboratory processes and from substances inorganic in their origin, Wohler proved that vital force is only another name for chemical action."

The warnings which soon began to appear went unheeded by the careless, and even up to the present one may hear or read of so-called physiologists who, with all the bigotry of theology, parade their silly explanations that all vital phenomena are explainable on mechanic principles, and who slash valiantly at "moonshine, metaphysics, and vitalism." At least if they cannot now quite succeed in such explanations, why, of course, these explanations will soon be forthcoming. I have vivid recollections of one of my medical professors who was blissfully unaware that his "explanations" only deepened the mystery, that his "science" was unscientific, and that his "knowledge" was ignorance.

Happily, all this, except for the cheap intellects which never unlearn old fallacies and prejudices, is rapidly passing away. Even the blindest prejudice is learning that there is an unbridged chasm between the nature of intimate biologic processes and any mechanic or chemic processes, and, although the dogmatic belief may not be given up that the former will finally be explained by the latter, it is recognized

[1] Read before the American Academy of Medicine, Columbus, O., June 3, 1899.

that even the belief itself is disloyalty to true science which dares have no prejudices. How completely physiology has renounced mechanicalism may be seen by consulting the recently published works of the best physiologic investigators. We cite as examples a few that we have happened upon:

"Mechanical arrangements play but little part in the work of organs; the results of their activity can in no way be explained on simple mechanical principles."—*Michael Foster* (*Encyclopædia Britannica.*)

"The chemical operations performed by the living cell cannot be imitated in the laboratory, or explained by any known chemical laws."—*Halliburton, Handbook of Chemical Physiology and Pathology.*

"Mind must be guarded as one of the 'specific energies' of the organism, and should on that ground be included in the subject-matter of physiology. If on the one hand protoplasm is the basis of life, on the other, life is the basis of protoplasm."—*Professor Burdon Sanderson, before British Medical Association.*

"We are now nearly everywhere compelled to assume a specific, yet absolutely unknown activity of the living cell. We know very little about the secretion, absorption, and motility of the stomach. The study of the organ has been undertaken with two many physical propositions, whereas here, as in the digestive tract, biological laws are more important."—*Ewald, Diseases of the Stomach.*

"In his Doctorate thesis, Joh. Müller took for his subject, 'Psychologus nemo nisi Psychologus.' The time will come when the reverse, 'Physiologus nemo nisi Psychologus,' will need no defender."—*Bunge.*

"There is more in life than the processes it controls."—*Gowers.*

"The deeper, wider, more profoundly we seek to penetrate into life-processes, by just so much do we perceive that what we once thought to understand by physical and chemical laws is of a much more recondite nature, and especially that it mocks every mechanical explanation."—*Bunge, Lehrbuch der physiologischen und pathologischen Chemie.*

"The influence of animal or vegetable life on matter is infinitely beyond the range of any scientific inquiry hitherto entered upon. Its power of directing the motions of moving particles is infinitely different from any possible result of the fortuitous concourse of atoms."—*Lord Kelvin.*

"The fundamental conceptions of biology are, and from the nature of the phenomena dealt with, must be entirely different from those of physics and chemistry. To any physiologist who candidly reviews the progress of the last 50 years, it must be perfectly evident that so far from having advanced towards a physico-chemical explanation of life, we are in appearance very much farther from one than we were 50 years ago. Attempts to analyze life into a mere series of physical and chemical processes are based on a mistaken theory."—*John Haldane, Lecturer on Physiology, Oxford.*

"The living cell, and not the amount of oxygen in the blood, regulates the consumption."—*Pflüger.*

"To our reasoning and even to our imagination, there is a great gulf fixed between the physical stimulus and its psychical consequence; they seem incommensurable quantities; the transition from light to sensation of light is certain but unthinkable."—*G. N. Stewart.*

"Psychical life is not the product of the bodily organism, but the bodily organism is rather a psychical creation."—*Professor Wundt.*

"Cells are no more the producers of vital phenomena than the shells scattered in orderly lines along the sea beach are instruments by which the gravitation force of the moon acts upon the ocean. Like these, the cells mark only where the vital tides have been, and how they have acted."—*Huxley.*

"Life is a power superadded to matter; organization arises from, and depends on, life, and is the condition of vital action; but life can never arise out of, or depend on, organization."—*John Hunter.*

This motto from Hunter is placed by Dr. G. N. Stewart at the head of the introduction to his superb Manual of Physiology. The opening words of Stewart are as follows:

"Living matter, whether it is studied in plants or in animals, has certain peculiarities of chemical composition and structure, but especially certain peculiarities of action or function which mark it off from the unorganized material of the dead world around it."

Materialism is therefore officially declared unscientific. If young men imagine they are scientific when they indulge themselves in the dogmatisms of materialism, they have to learn the true fundamentals both of object and method of scientific research.

The lessons to be derived from this glance at the history of physiology are many. Let us epitomize but a few:

1. The method of science is by logical and legitimate induction from facts correctly observed, without prejudice or dogma. Starting upon the investigation of life with the pronounced dogma that there is no such a thing as life, that all its phenomena are explainable in a certain way, was to begin where the study might end, and was the very acme of unscience and topsyturvydom. Denying life and sneering at vitalism was only a change of name of the God and the style of worship. The God and the worship continued exactly as before. Robespierre, Louis XIV, or to-day's army of anti-dreyfusards—it is all the same. Nomenclature is the principal change.

2. The individual, also, may err, and plunge into the blind alley of false method, at the bottom of which is the sign, *No thoroughfare!* In obedience to the fury of prejudice and passion, or driven by historic momentum, he rushes heedless against the walls long after more expert drivers have stopped. We thus find some teachers continue their erring courses when wiser men have pulled up and turned about into the open ways. But for the foolish there is only regret and tragedy. They learn too late, or never learn, that osmosis will not explain secretion, that the heart is something more than a pump, that cell-activity and nutrition are far other and more than chemism has dreamed of, etc., and also that they have indoctrinated a thousand young men with false scientific methods which must go until they also exhaust the momentum by wasted effort and resultlessness.

3. Not only to the individual is there injury, but also to the science of medicine. From unscientific science arises by logical reaction the superstitions founded upon the half-truths ignored; the scorned metaphysic and biologic facts do not cease to exist because of the scorn, and upon their warped, partial, and morbid recognition rises the fantastic and pathologic nonsense of Christian science, faith cure, spiritualism, modern miracle-mongering, and the endless folderal of the numberless 'pathies. These, when true science comes to its own, she has to fight down, and the irony of fate is manifest in this fitting punishment of her early sin, which really encouraged them into criminal luxuriance. Popular error and popular superstition are the bastard children of science. The illegitimates of medical science become the pretenders of quackery, waging war with the legitimate prince for the inheritance of power. Better never the sin of the father; but ours the battle!

Plagiarism Extraordinary!—We wish to spare our little New York contemptuary, ably edited by William Would & Couldn't, the trouble of a discovery and a correction, and therefore hasten to say that one of the editorials in the present issue of the PHILADELPHIA MEDICAL JOURNAL is "lifted bodily" from advance sheets of our esteemed contemporary, the *Bulletin of the American Academy of Medicine.* Our "hypocrisy and falsehood" were recently "shown up" with great gusto by our contemptuary, who said we had stolen several editorials from the pages of another journal. In that case as in the present instance the *lies* and the *lifted bodilies* were originally written by the editor of the PHILADELPHIA MEDICAL JOURNAL and were printed in the various journals with the consent of all the editors concerned. Our urbane rival will hardly deny that it is less ignominious, at least less humiliating to steal from oneself than from a Catholic priest who may never find the thief. Our advice as to "riven breeks" seems not to have been understood in Manhattan. We can be more explicit if desired!

The Philadelphia Monthly Medical Journal, mailed to subscribers this week, contains an exceptionally fine selection of original articles, embodying original research in the fields of pathology and therapeutics, besides essays upon ethical questions of interest to the profession in general.

Reviews.

Christ Among the Cattle. A Sermon preached in the First Congregational Church, Portland, Oregon. By Frederick Rowland Marvin. 8vo, pp. 41. New York: J. O. Wright & Co. 1899.

This is an earnest plea for consideration toward lower animals in every relation, but it is an appeal to the emotions rather than to reason. It is written by a fervid enthusiast and is lacking in judicial discrimination. It presents no new facts and it will please those who agree, while it will fail to convince others.

An Epitome of the History of Medicine. By Roswell Park, A.M., M.D., Professor of Surgery in the Medical Department of the University of Buffalo, etc. Based upon a course of lectures delivered in the University of Buffalo. Second edition. Illustrated with portraits and other engravings. 6½ x 9½ inches. Pages xiv-370. Philadelphia: The F. A. Davis Co., publishers, 1914-16 Cherry Street. Extra cloth, $2.00 net.

That there is a genuine interest in the history of medicine is proved by the fact that within a year after the issue of the first edition of this valuable work a second should be called for. The present edition comprises all that appeared in the first and presents in addition a supplementary chapter on iatrotheurgic symbolism, tracing the development and adoption of many of the signs originally relating to medicine and now in symbolic use in different religions of the world. Certain trifling inaccuracies which might have been detected by close scrutiny in the first edition have been eliminated in the present, and a general polishing of details is noticeable. As an epitome of the history of medicine the book is valuable and complete, and it is with approbation that we note the author's implication that it may eventually develop into a larger and more comprehensive work. Recently frequent allusion has been made in medical literature to the early development of surgery, so fully illustrated by Dr. Park in his quotations from Paré and Vesalius, and the source of this matter has seldom been known. If there is a point of criticism to be made in regard to the book it is concerning the use of tinted inks for the illustrations. It seems to us that black is preferable.

The Treatment of Disease by Physical Methods. By Thomas Stretch Dowse, M.D., A.B.D., F.R.C.P. Ed., formerly Physician Superintendent Central London Sick Asylum; President North London Medical Society; Associate Member of the Neurological Society of New York, etc., etc. New York: E. B. Treat & Co., 241, 243 West Twenty-third Street.

To those who have read the author's "Lectures on Massage and Electricity in the Treatment of Disease," it is sufficient to say that the present work is simply a new edition of the former excellent volume under an altered title and with additions. The change of title leads to a slight disappointment on the part of the reader, who naturally expects to find a somewhat general discussion of all physical methods possible in the treatment of disease. Instead, massage and electricity are still, with slight exceptions, the sole subjects considered. These exceptions are found in the chapters on the "Weir Mitchell Treatment" in which rest and diet are touched on, and on "The Nauheim or Schott Treatment of Diseases of the Heart," in which the physiologic action of the Nauheim bath is considered.

Of the 400 pages, 330 are devoted to massage, and the remaining 70 to electricity. Of the 75 illustrations which the work contains only 28 are designed to illustrate the methods of performing massage and administering passive or actopassive movements. This is in accordance with the author's indorsement of the dictum of the late Dr. Fothergill, whom he quotes as follows (p. 35): "The knowledge which one man acquires by the sweat of his brow after years of patient toil and painstaking cannot be transferred in its entirety to another. Individually acquired skill cannot be passed from brain to brain, any more than the juggler, who can keep six balls in the air, can endow an onlooker with like capacity by merely showing him how it is done. The muscles, and still more their representatives in the motor area of the brain hemisphere, require a long training before this manual skill can be acquired." To this the author adds: "I must also remark here that it is next to impossible to explain to you every form of massage-manipulation. You must, in a measure, think for yourselves; you must bring your judgment and your reason to bear upon every movement." In this expression of opinion all who have had practical experience in teaching massage will agree. A light-witted youth ventured to ask the painter Opie what he mixed his colors with. "With brains, sir," was the prompt reply. The masseur must not only use his brains as well as his muscles, but his brains must have had a proper amount of education as well as his muscles and sentient digital nerves. This work should be in the hands of every general practitioner in order that he may understand how thoroughly rational and scientific a method of treatment for chronic affections we have in massage, and give his patients the benefit of it.

Atlas of Diseases of the Skin, including an Epitome of Pathology and Treatment. By Prof. Dr. Franz Mracek, of Vienna, edited by Henry W. Stelwagon, M.D. With 63 colored plates and 39 full-page half tone illustrations. Philadelphia: W. B. Saunders, 1899. Price $3.50, cloth, net.

The author states that the illustrations are from patients in his own wards, and from those of his colleagues. The chapters on general therapeutics and on the treatment of the individual skin-diseases are from the pen of his assistant, Dr. S. Grosz. The text of the book is brief, numbering 191 pages, many of the diseases therefore necessarily receiving but scant recognition and mention. The plates consist of small chromolithographs and reproductions of photographs, some of them good, others indifferent, some vague. A brief account of the case depicted accompanies each portrait, which enhances its value. The varieties and forms of the diseases represented are for the most part positive, the result being that the diseases are striking in form and color, and are far more pronounced than ordinarily met with in this country. The translator and editor has done his part of the work conscientiously. The atlas is small octavo in form, and we think will prove a useful guide to the subject. A few rare forms of disease are depicted, as, for example, actinomycosis of the neck and pemphigus vegetans of the vulva, which add to the value of the volume.

Addresses and Papers by the Members of the Instructing Staff of the New York State Veterinary College. For the years 1896–1898. Ithaca, N. Y., 1898.

This collection of 58 papers and addresses, representing nearly 500 pages of matter, is a selection from the published work of the Instructing Staff of the New York State Veterinary College, during the two years of its existence, and should prove useful and interesting to members of the veterinary and medical professions, to other scientific men and to stock-raisers. The following general subjects are considered: The value of certain forms of scientific study as a means of mental training; physiology and other scientific courses in common schools and academies; results of scientific investigations in natural history; laboratory-methods that systematize, simplify and render more effective scientific research; the results of laboratory-work in their bearing on the economic management of the live-stock industry, and the sanitary protection of the human race; advances and improvements in medical and surgical methods; the feasibility and importance of the extinction of microbes of certain plagues now prevalent on this continent, and the best means of maintaining and advancing the standard of veterinary education and practice in the State and Nation. The contributors are James Law, Walter L. Williams, Pierre Augustine Fish, Veranus Alva Moore, Simon Henry Gage, Grant Sherman Hopkins, Benjamin Freeman Kingsbury, Raymond Clayton Reed, and Ray Jones Stanclift.

Hand-Atlas of the External Diseases of the Eye. Including a Brief Treatise on Pathology and Treatment. By PROF. DR. O. HAAB, of Zurich. Authorized translation from the German, edited by Geo. E. DE SCHWEINITZ, A.M., M.D. With 76 colored plates and 6 engravings. Philadelphia: W. B. Saunders, 1899. $3 00, net.

This volume, which is one of the series of hand-atlases issuing from the same publisher, represents a most praiseworthy intention to bring within the reach of the undergraduate, the practitioner, and the beginner in ophthalmology (and, for that matter, even the skilled ophthalmic worker), accurate pictures of all the commoner as well as most of the unusual diseases of the eye. Prof. Haab will find few to disagree with his prefatory remark as to the difficulty in portraying in colors the external diseases of the eye. Nevertheless, there is a very satisfying truthfulness in most of the plates, each of which has an added interest in that the clinical history of the case from which the plates were taken is to be found in the text Moreover, the pictorial side of the book is led up to by a fine chapter on "The examination of the eye in disease," and all through the volume the simplicity of the text and the apt commentary lend a charm seldom to be felt in looking through books of this ilk. Dr. Haab is to be congratulated on the collaboration of so distinguished an American editor, whose foster-fathering of the volume in America will win for it a short route to the hearts of most of its English-speaking readers.

To the teacher of ophthalmology the work will be invaluable as an aid, and as a time-saver, while to all but ophthalmologists of the widest experience the work offers a wonderfully satisfactory substitute for actual clinical observation. It is not too much to say that along with Dr. Haab's other "Atlas of Ophthalmoscopy," any wide-awake student or general practitioner ought, with these two books, to be able to prosecute the home study of ophthalmology successfully.

The great adaptability of the work, fitting it to the needs of the undergraduate, the general worker, the beginner in ophthalmology, and the ophthalmic teacher, justifies, we believe, the prediction that this hand-atlas will meet with a most enthusiastic and appreciative reception.

Pulmonary Tuberculosis. Its Modern Prophylaxis and the Treatment in Special Institutions and at Home. Alvarenga Prize Essay of the College of Physicians of Philadelphia for the year 1898, revised and enlarged. By S. A. KNOPF, M.D. (Paris and Bellevue, N. Y.); Physician to the Lung Department of the New York Throat and Nose Hospital; Former Assistant Physician to Professor Dettweiler, Falkenstein Sanatorium, Germany, etc. With descriptions and illustrations of the most important Sanatoria of Europe, the United States, and Canada. 8vo, pp. 343. Philadelphia: P. Blakiston's Son & Co., 1899. Price, net, $3.00.

The agitation going on the world over concerning the prevention and treatment of pulmonary tuberculosis and the great interest with which the subject is always endowed render the appearance of this monograph most timely and insure it a most cordial reception. Dr. Knopf knows his subject from both practical experience at home and abroad and wide reading. He starts out with the proposition, to which the world has learned to give assent, that tuberculosis is both preventable and curable, and he indicates the numerous ways in which the desired result can be secured. Following a brief historic resume there are discussed consecutively the mortality from tuberculosis, pathologic proofs of the curability of the disease, its communicability and the means to combat its propagation through both animals and man by individual and public prophylaxis, preventive treatment, sanatoria, special hospitals, camps and colonies, climato-therapy, the ideal sanatorium and therapeutics, the rest-cure, exercises, the pneumatic cabinet, hydrotherapeutics, personal hygiene and dress, dietetic treatment, symptomatic treatment, laryngeal complications, intercurrent diseases, educational treatment, prognosis, marriage, childbirth, tuberculin and other culture-products, serums, etc., treatment at health-resorts, in special hospitals, at home of ambulant cases in private and in dispensary practice, special institutions for the tuberculous poor, the social aspects of the disease and clinical evidence of its curability by hygienic and dietetic treatment. The illustrations are numerous and satisfactory. The book will afford encouragement and stimulation in the treatment of a widespread and destructive disease, not less than renew hope of successful result. The Alvarenga Prize of the College of Physicians of Philadelphia for 1898 has been well bestowed.

Die Multiple Fettgewebsnecrose. Von DR. ARTHUR KATZ und DR. FERDINAND WINKLER. With 15 illustrations, and a preface by PROF. DR. L. OSER. 139 pages. Berlin: S. Karger, 1899. Price 4.50 Marks.

At the suggestion of Professor Oser, the authors have undertaken a study of the obscure condition known as fat-necrosis. They have searched the literature with great care and have collected, including one of their own, 125 cases of the disease. Of these 84 occurred in men; 41 in women. The condition is distinctly more frequent in alcoholic and very obese individuals, although it is not especially connected with obesity. Usually the symptoms come on suddenly, the most prominent being disturbances of the digestive tract: belching, hiccough, vomiting, hematemesis, and, rarely, stercoraceous vomiting. The bowels are generally constipated; the epigastrium is tender and painful, and there is not rarely a distinct resistance or tumor in this region. Fever is not a constant phenomenon. Symptoms referable to the pancreas are at times present, among others, glycosuria and fatty stools. In some cases the clinical picture is that of intestinal obstruction. Collapse may occur within a few hours or death may be postponed for several days or even a few months. Recovery is possible. The chief lesion at autopsy consists in changes in the pancreas and in the presence of spherical, shining nodules of necrotic fat, sharply demarcated from the surrounding tissue. They are most numerous in the immediate neighborhood of the pancreas, in the peripancreatic adipose tissue, and in the organ itself. They are also found in the omentum and the mesentery. The pancreas is generally the seat of hemorrhages or necrotic processes. The spleen, although in some cases enlarged, appears generally to be reduced in size.

It is not necessary for us to describe in detail the histologic picture. The authors point out that the appearance of the necrotic fat resembles that seen in xanthoma glycosuricum. A number of good illustrations of microscopic sections are incorporated in the text.

The pathogenesis of fat-necrosis is the most obscure phase of the whole subject, although the recent researches of Williams, Flexner, and others, have pretty well demonstrated that the lesions are due to the action of the fat-splitting ferment of the pancreas. The authors have made a most extensive series of experiments on animals, ligating the pancreatic duct, constricting the pancreas with ligatures, etc., and have come to the conclusion that the factors in fat-necrosis are the fat-splitting ferment and congestion or ischemia of the tissues. They observed a marked hyperleukocytosis in their experimental cases, which they attribute to the absorption of the nuclein liberated during the karyolysis of the pancreatic cells. The blood of the animals is more coagulable than normal blood and shows a tendency to the formation of hemoglobin-crystals. Perhaps the most interesting fact pointed out by them is the reduction in the size of the spleen in cases of fat-necrosis. For the explanation of this, they refer to the intimate relation which exists between the pancreas and the spleen, as shown by comparative anatomy and embryology.

Regarding the treatment of fat-necrosis, it goes without saying that most of the cases are hopeless, death generally occurring very promptly. In a few instances, however, life has been saved by laparotomy.

In view of the importance of the disease, the authors deserve praise for having collected into such an excellent monograph as theirs, all the data extant. By merely remembering that such a condition as multiple fat-necrosis exists in association with pancreatic disease, it will at times be possible to make a probable diagnosis. Like all of Karger's publications, the book is attractively printed.

Correspondence.

HYPNOTISM AND CIGARETS.

By H. D. McQUADE, M.D.,
of Kansas City, Mo.

To the Editor of The Philadelphia Medical Journal:—

The article, page 1018, May 13 issue, "Hypnotism and the Cigaret habit," deals with a remedy which has for some time been known to the hypnotist. I trust I am not an erratic on the subject, but after a thorough investigation from a skeptical standpoint, I became convinced that not only the tobacco-habit could be cured, but the liquor-habit as well. I have on record the cases of two cigaret-fiends and one of the liquor-habit. While I do not practise hypnotism in my profession, knowing and realizing the laity is not ready as yet to accept this art or convinced that the mind does dominate the physical, I can say of these cases in which hypnotism was tried by me, that they were permanently cured of the cigaret and liquor habit, in the last case a nerve-tonic was also necessary. The susceptibility to suggestion is greater in some people than others; some respond in from two to three treatments, while in others it requires much longer time. I would suggest that those interested read, "Suggestive Therapeutics," by H. Berheim, M.D., professor in the faculty of medicine at Nancy.

A PONTILE TUMOR.

By FRANK I. DRAKE, M.D.,
of Antigo, Wisc.

To the Editor of The Philadelphia Medical Journal:—

A few weeks since Dr. Theodore Diller, of Pittsburg, Pa., reported a pontile tumor so strikingly similar to one that came under my observation a year ago that I ask an opportunity to report it. My notes of the case follow:

January 11, 1898. F. D., male, laborer, 38 years of age, has had no sickness whatever since reaching mature years. Both parents, two brothers and two sisters are all living and healthy. About the first of September, 1897, he experienced some trouble with his eyes; a month later his ears troubled him; and a month later still he noticed his left arm and leg growing weak. He went to Milwaukee and consulted a prominent oculist of that city, who pronounced his malady that of cerebral hemorrhage.

An examination of the patient at this time reveals an almost complete paralysis of external rectus muscle of the right eye; deafness of both ears, particularly the right; and more or less weakness of the entire left side of body. Within the last two months his memory has failed perceptibly, and he says he chokes easily. He sees double and both patellar reflexes are exaggerated; pulse 114, temperature 97.4°. Urinalysis, negative.

January 27, 1898. His side is worse, feels as if something light were on it; hearing is poorer; has nausea this morning but did not vomit. "Staggers around as if drunk," he says; slept poorly last night; if he lay on his right side he soon got tired; couldn't lie on the left (affected) side, and when he lay on his back he soon "filled up," mucus accumulated in his throat; very nervous and irritable.

January 31, 1898. Says he is feeling better.

February 24, 1898. About the 7th inst. he went to Chicago and consulted Dr. Hugh Patrick, who confirmed the diagnosis of brain-tumor given by my associate, Dr. T. L. Harrington, and myself, and suggested that he be given dram-doses of potassium iodid three times a day. This I did immediately and to-day the patient reports himself better in every respect.

April 9, 1898. Since my last note he has had two "choking spells." He complains of a peculiar sensation starting in the right temple, moving backward across the side of his head and down the back of his neck. Again a feeling of numbness starts in his left wrist, travels upward to the shoulder and thence into his chest. He complains of his flesh "jerking" at night for a minute or two at a time. When he lies down he has spells of suffocating which last an hour or an hour and a half. Speech affected, hesitates, his words seem smothered.

At this time he passed from my observation into the hands of a semi-quack, who promised him relief speedily. He died August 1. From his relatives I learned that his last days were days of misery; speech failed him entirely, his left side was completely paralyzed, spells of suffocation gradually became more frequent, coming at last at intervals of one or two hours. He vomited profusely and suffered from pain in the back of his head and neck.

Fortunately I was able to attend a postmortem examination of the body. The hemispheres of the brain were perfectly normal. The bulb was enlarged and near its lower extremity on the right side anteriorly was a hard nodular mass the size of a small filbert.

The localizing symptoms indicated a lesion of the medulla. The involvement of the sixth, seventh, eighth, ninth, twelfth, and probably the tenth and eleventh cranial nerves, together with a paralysis of the opposite side of the body, clearly pointed to the diagnosis.

SUCCESSFUL VERSION AND DELIVERY IN A DWARF.

By L. BERND, M.D.,
of Philadelphia.

To the Editor of The Philadelphia Medical Journal:—

The following case of interest came under my notice on June 5:

Previous History.—Russian, married, aged 28, on November 22, 1893, was delivered of a living female child (8½ lbs.) by cesarean section (Sanger method). Height of patient, 4 feet 5 inches; anterior superior spines, 21 inches; crests, 22½ inches; exterior conjugate, 15¾ inches; interior conjugate, 4.7 inches; trochanters, 27 inches. In 1894 she aborted at 3 months. On January 15, 1896, she was admitted again to the Jewish Maternity in labor. At 6 A.M., on the 16th, there was complete dilatation, but no engagement of the head. Symphysiotomy was performed, followed by axis traction forceps delivery. The child weighed 6½ pounds and died on the second day. Seven months later she miscarried again. In December, 1897, she was delivered of a premature child, which lived 2 hours. In 1898 she miscarried again. June 5, 1899, I saw the patient at her own home through the courtesy of Dr. Kirshbaum. The abdomen had three small abdominal hernias in the cicatrix of the cesarean operation. The cervical lips, from previous tears, hung out of vagina. Dilatation was complete, the child presenting transversely. The child's head was grasped internally, while externally the body was rotated, converting the position into a vertex. After some difficulty forceps were applied, but owing to the shape of the patient traction could be made only when she was held off of the bed. After some traction a living child (5½ pounds) was extracted, which is still alive. During contractions the scar in the uterus could be plainly felt. The puerperium was normal.

British Pharmaceutical Society.—Dr. D. J. Leech, professor of materia medica and therapeutics at Owens College, Manchester, will deliver the address inaugurating the winter session of the Pharmaceutical Society on October 2. On the same occasion, the Hanbury Medal will be presented to Professor Albert Ladenburg, of Breslau, whose researches into the chemistry of the atropin alkaloids, especially his synthesis of homatropin, have made his name well known to pharmacologists as well as to pharmacists.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

The New Jersey Training-school for Feeble-minded Children receives $100,000 by the will of the late Benjamin D. Maxwell, of Vineland, N. J.

The president of the Board of Health of Philadelphia has issued a circular letter to the physicians of the city stating that in view of the prevalence of diphtheria, a supply of diphtheria-antitoxin has been placed at each police station for the gratuitous use of physicians among the poor.

The Huston Memorial Hospital, of Coatesville, Pa., erected by Mr. and Mrs. Charles L. Huston, as a memorial to Mr. Huston's parents, Dr. Charles and Mrs. Isabelle Huston, was formally dedicated July 23. The principal address was delivered by Rev. E. B. Hodge, D.D., of Philadelphia, secretary of the Board of Education of the Presbyterian Church.

The Moses Taylor Hospital, Scranton, Pa.—The Directorate of the Moses Taylor Hospital, a charity founded some years ago through an endowment by Moses Taylor, of New York City, for the benefit of the employes of the Delaware, Lackawanna and Western Railroad and Coal Companies and of the Lackawanna Iron and Steel Company, underwent radical changes at a meeting July 20. Moses Taylor, Jr., of New York, son of the founder of the hospital, was made president of the board. E. E. Loomis, the new superintendent of mines, succeeds W. R. Storres as secretary and treasurer, while President W. H. Truesdale, General Superintendent E. G. Russell, and Mr. Loomis were made members of the directorate, replacing W. F. Halstead, W. R. Storres, and W. H. Storres. It was decided that hereafter no private patients will be received at the hospital, and that the institution will hereafter be free not only to the employes of the companies for whom it was founded, but also to wives and children of such employes.

Vital Statistics of Philadelphia for the week ending July 22, 1899:—

Total mortality		510
Children under 5 years of age		211
Diseases.	Cases.	Deaths.
Cholera infantum 73, gastroenteritis 33, cholera morbus 4		110
Pulmonary tuberculosis		69
Marasmus 31, inanition 19, debility 3		53
Heart-disease 22, fatty degeneration of the heart 2, inflammation of the heart 1, enlargement of the heart 1		26
Nephritis 29, uremia 9, kidney-disease 1		39
Carcinoma 17, tumor 1		53
Apoplexy 11, paralysis 5, softening of the brain 1		15
Inflammation of the brain 13, congestion of the brain 4		17
Pneumonia		17
Diphtheria 13, membranous croup 2	53	15
Convulsions		15
Senility		13
Casualties 8, burns and scalds 4		12
Scarlet fever	55	3
Typhoid fever	35	2
Traumatic tetanus 7, septicemia 6, pertussis 6, drowned 5, diarrhea 4, appendicitis 4, abscess 3, cirrhosis of the liver 3, inflammation of the liver 3, locomotor ataxia 3, teething 3, anemia 2, cyanosis 2, diabetes 2, dropsy 2, dysentery 2, erysipelas 2, intussusception 2, intestinal obstruction 2, poisoning 2, shock 2, sore-mouth 3, alcoholism 1, hip-disease 1, knee-disease 1, gangrene 1, hemorrhage 1, hernia 1, bronchitis 1, metritis 1, jaundice 1, pyemia 1, suicide 1.		

Bradford County (Pa.) Medical Society.—The next meeting will be held at Mountain Lake, and ladies are invited to be present. The following is the program: "The importance of a county medical society to the physicians and the community," by Dr. S. M. Woodburn, of Towanda; "The relations of Physicians, inter se," by Dr. C. H. Ott, of Sayre; the discussion to be opened by Dr. E. G. Tracy, of Troy.

Pennsylvania State Board of Medical Examiners.—At the examinations held in Philadelphia and Pittsburg 425 candidates presented themselves—325 at Philadelphia and 100 at Pittsburg. The Board completed its report at Harrisburg, July 22, the following being the result: 374 received the required average and were recommended to the Council for license; 51 failed to attain the requisite average. The following are the questions asked:

ANATOMY.

1. Name the different kinds of articulation, and give an example of each.
2. Describe the shoulder-joint, and name the bones and ligaments entering into its formation.
3. Name the ligaments of the lower jaw.
4. From what arteries do the mammary glands receive their blood-supply?
5. State the relation of the intercostal bloodvessels to contiguous bones.
6. State the relations and give a general description of the parotid gland.
7. Describe the endosteum and the periosteum.
8. By what principal venous trunks is the blood brought back to the heart from distant parts of the body?
9. Outline the position of a normal heart and name the point at which the apex beat will be found.
10. Give a short general description of the skin, its origin, and period of development.

PHYSIOLOGY.

1. Describe the special function possessed by each nerve factor concerned in a vasomotor action, and state how either affects arterial tension.
2. State with what principal functions pulmonary endothelium is endowed, and describe the origin and character of the blood which an alveolus utilizes during its physiological action.
3. Give the source and state the character of the blood, supplying hepatic parenchymatous cells, and describe the two principal functions they possess.
4. Describe the general functions possessed by renal endothelium of both the glomerules and convoluted tubules.
5. Describe the clotting of blood, and give a theory for the genesis of fibrin.

PATHOLOGY.

1. Describe the physical alterations characterizing the lesions of the cardiac valve leaflets and the effects of these upon the sounds of the heart.
2. Name several morbid conditions giving higher or lower than normal temperature, and explain how such change is effected.
3. Describe the macroscopic and microscopic characteristics of diphtheric membrane.
4. Describe thrombosis and embolism of a cerebral vessel, with the changes induced in surrounding brain-tissue.
5. In any form of obstruction of the biliary duct, explain through what component elements of the liver and by what blood-channels bile enters the economy and occasions icterus.

THERAPEUTICS.

1. Mention two drugs used to allay the cough of phthisis pulmonalis, and state how they accomplish it.
2. Name three remedies used in the treatment of typhoid fever and give the reason for their administration.
3. Differentiate the physiological action of chloral hydrate from opium.
4. How do nux vomica and belladonna, when given with a purgative, assist in its action?
5. State the conditions of the circulatory system indicating the use of nitroglycerin and digitalis.

PRACTICE.

1. Name five diseases in which Cheyne-Stokes respiration is commonly found.
2. Give the symptoms and sequels of epidemic cerebrospinal meningitis (cerebrospinal fever).
3. Locate the lesions in the following given cases: Right-side hemiplegia without loss of consciousness, with aphasia; and, the same condition, with impaired sensation.
4. Name five lesions of the lungs that cause an increase of the rate of respiration.
5. Give the symptoms and treatment of dilatation of the stomach

Surgery.

1. Give the symptoms and treatment of acute synovitis of the knee-joint.
2. Describe the symptoms and treatment of acute periostitis.
3. Enumerate the recognized degrees of burns, and give the treatment for the second degree.
4. Give the symptoms and treatment of fracture of the upper third of the femur.
5. Give three important diagnostic symptoms indicating vesical calculus in children, and detail the most approved operation for extraction.
6. Enumerate the symptoms of any condition in which trephining of the skull is necessary.
7. Under what conditions is it advisable to wait for development of a line of demarcation in gangrene, before amputating?
8. Differentiate complete inguinal hernia, varicocele and hydrocele.
9. Detail the operation for ligation of the primitive carotid artery, below the omohyoid muscle.
10. Describe any of the several dislocations of the elbow-joint, giving the mode of reduction and treatment.

Obstetrics.

1. Enumerate the symptoms of one form of etopic pregnancy.
2. How would you treat a normal case of labor aseptically?
3. How would death of the fetus in utero be recognized after period of viability? How would you manage such a case?
4. Give the causes, import, and management of antepartum hemorrhage.
5. Give treatment for retained placenta after abortion.
6. What anatomic features of the pelvis are of special importance in the process of labor?
7. Give four positions in head-presentations, the order of their frequency, and the mechanism of the most common.
8. Give causes, dangers, and management of prolapse of the funis.
9. From what condition does puerperal eclampsia proceed, and how would you recoguize and manage a case?
10. Mention the most frequent causes of puerperal mammary inflammation, and give prophylaxis and treatment.

Materia Medica.

1. Give symptoms and treatment of a case of cannabis indica poisoning.
2. Write a prescription for a diarrhea mixture containing at least three drugs. Use no abbreviations.
3. Describe the physical properties of tr. ferri chloridi, acidum salicylicum, and liquor plumbi subacetatis.
4. Give the doses of atropinae sulfas, hyoscinae hydrobromas, ext. conii fld. and acidum carbolicum.
5. Give the habitats of ipecacuanha, coca erythroxylon, cascara sagrada, and strophanthus.

Chemistry.

1. Write out the chemical formula to represent the reaction that takes place on boiling Fehling's solution with diabetic urine.
2. What new compounds are formed when corrosive sublimate and potassium iodid are combined in solution? Write out the formula for the reaction.
3. What are the chlorids of the urine? How are they chemically recognized in urinalysis?
4. How should water be distilled, and at what temperature is its specific gravity standard?
5. What is carbolic acid? State its antidotes.

Diagnosis.

1. Diagnosticate infantile spinal paralysis.
2. Differentiate follicular tonsillitis from diphtheria.
3. Name the distinctive symptoms of typhoid fever.
4. Differentiate acute cerebral meningitis from syphilitic gumma.
5. Differentiate angina pectoris from intercostal neuralgia.

Hygiene.

1. By what process may disease-germs be removed from contaminated water?
2. How many cubic feet of fresh air per hour are required by an adult?
3. Name five common communicable diseases of school-children.
4. What parasites, dangerous to man, are found in the flesh of animals; state in what animals they are found?
5. Describe the proper hygienic measures for the infant during the first three months of life.

NEW YORK.

A Scottish Opinion.—In a recent issue the *Scotsman*, of Edinburgh, devoted rather more than two columns to a comment on certain superficial aspects of American medicine. While the comment is evidently that of a layman, although extremely well informed and most observant, it is worthy of consideration for the reason that the ancient capital of Scotland is the seat of what all will acknowledge to be excellent medical education, and which many consider the best in Great Britain. This note-taking Scot develops the thesis that the Americans are a race of drug-consumers, and from this he passes to consideration of faith-healers and osteopaths. Yet he has a lively appreciation of the honest work that is being done in the American medical profession and writes in commendation, certainly a rare thing to find expressed in the prints of Great Britain. "For the future," he says in summation, "flippant London journalists will do well to be cautious in directing their shafts of satire against American medical men and their ways, for they are always liable to be reminded of the beam in their own eye which stands in need of removal. All through its five days' session the American Medical Association showed a sobriety of tone and earnestness of purpose which augur well for the future of the medical profession in America. It is at gatherings such as these that the better element of Americans is seen to most advantage, and the contrast they present to meetings of the political sort is pleasing in the extreme. The path of the medical man, here as elsewhere—perhaps more here than elsewhere—is a hard one to travel, but nowhere, probably, is it trod by large numbers of men with greater cheerfulness or courage, or with a more single eye to the discharge of their important duties. It is the grossest injustice to hold them in any way responsible for the charlatans who bring disgrace at once on the profession and the country." When it is so common to find abroad only a recognition of the worst in American medical life, it is refreshing to meet with an observer who is willing to recognize the verities and to give credit for faithful labor.

Christian Science Repression.—There have been instances enough of faith healing, christian science, and the like class of delusions in and about New York to call for some action in repression of the evil. But it happens that those who should lead in such a movement seem content to let things take their course, and when charged with their neglect, to content themselves with the reply that the condition will correct itself in time, and that active measures would dignify the delusion by making martyrs. When the leaders thus refuse to lead there can be no ground for complaint if the work falls into less efficient hands. Accordingly it happens that the only people in New York to busy themselves with a deplorable condition are the members of the little known Medical and Legal Relief Society, which recently held a public meeting at the Waldorf-Astoria for the purpose of devising some legal remedy for suppressing the evils of the various schools of healing by suggestion. The announced aim of the assembly was to debate a bill proposed by Mr. Okie, of the Board of Aldermen. This purposed legislation seeks to permit faith curists and christian scientists to continue their peculiar industry to such an extent as is countenanced by the patient or his friends, but to make it possible for all such practitioners to avoid all responsibility for their fatal errors. That is not announced in so many words as the purpose of the bill, but it is what it practically amounts to. The bill provides that any person who advises another person not to call in the services of a physician or surgeon in case of illness, or injury, shall be considered a misdemeanant, and in cases in which said injury or illness results in death the person so advising shall be guilty of manslaughter. Such a law opens an entrance for the proverbial coach and four. To satisfy its requirements all that is required of any christian scientist, or faith curer, is that he or she shall refrain from advising against the calling of competent medical advice. The result will be that the faith folk will preserve a discreet

silence on that one point, and will raise no objections if the patient or family should ask for a consultation with some regular practitioner. Whether a regular practitioner would appear in consultation with any "D.C.S.," (Christianae Scientiae Doctor), is quite another matter, and one with which the Okie bill has nothing to do. This proposed legislation, instead of representing this particular form of quackery, really gives it a legal standing and definition in the State of New York, which it lacks at present, and in fact will relieve it from the penalties of the law which might be enforced. Despite the hopes of this Alderman, legislation is not what is needed, the whole matter could be settled out of hand by the enforcement of laws already on the statute books.

Autointoxication and the Newspapers.—There is something Athenian about New York in the way in which it tumbles over itself to be in haste to take up the last new thing and get the most out of it before the next newer thing, always expected to loom on the mental horizon, comes up to provide a new set of sensations. Of course there is a solid basal element of society which, like Gallio, cares for none of these things; but if the community be judged by its most marked and superficial manifestations it is essentially volatile after the system of classification which F. C. Burnand once happily applied to the New Zealander who has bulked heavily on the mind since Macaulay brought him to notice in connection with London bridge. In nothing is this more clearly shown than in the popular interest in the more picturesque divagations of medicine with which the monstrous daily papers are now filling their valueless columns. The swallowing capacity of the average editor of the lay papers in New York is so limitless when it comes to the deglutition of medical "news" that it almost leads to the conclusion that there must exist something like the ophidian arrangement of disengaging jaws, and that the elasticity of the skin is the only limit to the size of the morsels gulped. The sole criterion applied to such medical news is its adaptability to pictures and the use of head-lines constructed on the plan of an auctioneer's handbill issuing from a job-printing establishment. A Jenner or a Harvey might make his discoveries in New York and never be known outside the Academy of Medicine and the belated publicity which the New York medical press gives to the work done in their own field after the lapse of a month or so. Right here it may be interjected that the profession of this city are learning to look to Philadelphia for the first news of local doings, for the JOURNAL has shown itself capable of presenting accurate reports of society meetings within a week of their occurrence. In England they have a more cynical, or possibly more honest, appreciation of summer journalism when they call this the silly season. New York insists on something practical; it must feel a thrill and a creeping of the flesh with each new issue of its favorite daily sensation. Therefore medicine is the best recourse of editors. Where one leads others follow, horror heaps on horror, and when the last possibility of picture and of head-line has been exhausted a new sensation must be sought. One feels some pity for the medical men who are pumped dry by the insatiate reporters, made to divulge something which will make them responsible for grotesque medical views and then cast aside as the next news sensation exploits other victims. Young as the summer yet is it has none the less a considerable list of pseudomedical sensations, too many in fact to catalog for edification. About the first was the "kissing bug," that monster which distorts the lips of patients of an imaginative tendency. When it was entomologically identified, when it was found to be Melanolestes picipes, the satisfaction was even greater than when it remained a mystery; as there is a blessing in the word Mesopotamia so the binomial system of zoological nomenclature was accepted as conferring dignity in the case of this popular pest. It was promptly illustrated, the illustrations from day to day were of the various orders of insect life. One day coleoptera, the next in some other paper hemiptera, in fact everything but the lepidoptera was portrayed and the entomologist could take his choice. The water-supply of the city before the breaking of the drought afforded scope for more science; the people were duly impressed with the terrors of a greatly enlarged photomicrograph, magnified to almost the diameter of a dinner plate, showing five diatoms and four foraminifera. The death-rate among the babies of Brooklyn was used by some to blame the water-service and by others to cast doubt on the supply of milk, this was, while it lasted, a very catchy sensation since the Brooklyn suburb has somewhat of a reputation for babies. Another burst of activity was grounded on the yellow-fever serum, which took all the newspapers by storm, and which has already been fully discussed in the JOURNAL. The current sensation is the "epidemic" of tetanus. Its illustrations are the most complete yet, the bacillus "like the shadow of a teaspoon," the test-tube containing beef-tea or other nutrient medium (beef-jelly and agar look very much alike in a newspaper cut), and most interesting of all the drilling of the hole in the middle of the forehead for the injection of the serum. These things, and the other sensations which will surely develop during the summer, are in a sense amusing, yet they are also deplorable. The results are shown immediately in the hospitals and are probably just as marked in private practice. The number of people who have been kissed by the kissing bug has passed even beyond newspaper reckoning. The cases of tetanus, according to domestic diagnosis assisted by the newspapers, are now something enormous. It is easy to appreciate the element of autointoxication and the combination of hysteria and morbid tendencies; yet none the less is damage done to the unthinking people who find in the newspaper sensations a reliable guide to their own ailments.

NEW ENGLAND.

Boston Lying-in Hospital.—The latest report states that during the past year 8 cesarean section operations were performed, and that all the patients and 7 of the children survived. The recovery was hardly longer than in the normal puerperium. The conclusion of the report is that cesarean section can now be performed in cases with a larger percentage of success than a few years ago attended the general cases of childbirth. The total expense of running the institution last year was $19,680.60; the cost per week for each patient treated was $12.73; of the 625 house patients 207 contributed $3,490, an average of $16.86 per week for each paying patient. In 20 years the number of house-patients has increased from 213 to 625; the number of out-patients from 7 to 1,675. The average stay in the hospital has remained near 28 days throughout all its history

CHICAGO AND WESTERN STATES.

Wisconsin State Board of Medical Examiners.—Dr. Henry B. Hitz, of Milwaukee, has been appointed member to fill the vacancy created by the resignation of Dr. F. E. Walbridge.

North Chicago Medical Society.—At the annual meeting, held July 5, the following officers were elected for

the ensuing year: President, Dr. Carl Wagner; vice-president, Dr. A. Belcham Keyes; secretary and treasurer, Dr. J. N. Washington.

Colorado State Medical Society.—According to the *Colorado Medical Journal*, which publishes "an official report six months ahead of the transactions," the following are the officers elected at the annual meeting, held in Denver, June 20, 21, and 22: Dr. J. N. Hall, of Denver, president; Dr. P. J. McHugh, of Fort Collins, first vice-president; Dr. L. O. Moffitt, of Colorado Springs, second vice-president; Dr. Millard Harrison, of Boulder, third vice-president; Dr. H. B. Whitner, of Denver, corresponding secretary; Dr. Minnie C. T. Love, of Denver, recording secretary; Dr. W. T. Little, of Canon City, assistant recording secretary; Dr. William J. Rothwell, of Denver, treasurer; Dr. C. K. Flemming, W. W. Grant, of Denver, J. Tracy Melvin, of Saguache, and N. McNeelan, of Basalt, committee on admissions; Drs. Samuel A. Fisk, W. R. Whitehead, Arnold Stedman, W. E. Wilson, J. T. Eskridge, of Denver, Hubert Work, of Pueblo, S. E. Solly, of Colorado Springs, trustees for the ensuing year.

SOUTHERN STATES.

Orleans Parish (La.) Medical Society.—At a meeting held July 8, DR. DYER presented a paper on **linear nevus,** with photographs, chromolithographs and engravings of the different varieties. By the term nevus is meant a natural mark or circumscribed deposit of pigment in the skin. From the etymology of the term it might be considered congenital, but the greater number of nevi usually occur after birth. Merrow, of New York, has applied the term nevus to a class of eruptions distributed apparently along a nerve-trunk or its branches.

DR. MILLER reported a case of **fatal uterine hemorrhage** following puerperal sepsis. X, colored, aged 28, admitted to Charity Hospital, June 22, in an exhausted condition, having been in labor for three days. History of previous difficult confinement was given, complicated with puerperal fever. Temperature was 101°, pulse 124°, rigors and profound shock. A decomposing fetal foot and leg were found in the vagina with a very fetid discharge. Dr. Bloom after chloroforming the patient, extracted the child and placenta, followed by an antiseptic douche, and cleansing of the uterus with hydrogen peroxid. Gauze pack was also inserted; she was placed in the ward, her temperature was then 99°, pulse 124, and respiration 30. Active stimulation and alimentation were resorted to, at regular intervals. On the following day the temperature rose to 104°, combated by repeated cold sponging. The gauze-pack was then removed and a thorough intrauterine douche with four gallons of a 1% formaldehyd solution was given. Immediately after 20 cc. of antistreptococcic serum was injected hypodermatically. Phenacetin was ordered when temperature reached 102.5°. The serum had no apparent effect. Another dose of serum was given June 24, the uterus being twice flushed with a 1 to 1000 formalin and normal salt solution. June 25, temperature ranged from 99.5° to 105°; several uterine douches were given (one of bichlorid, 1 to 5000). The same evening a profuse hemorrhage from the womb took place, necessitating thorough uterine packing and intravenous saline infusion. Patient succumbed the next day from hemorrhage, 16 hours after the first one. This last hemorrhage occurred with the uterus packed with gauze. Postmortem held by Dr. Pothier, pathologist of the Charity Hospital, revealed fatty degeneration of liver and kidneys. The uterus was enlarged and a necrotic slough whence came the hemorrhage was found in the lower left segment just above the internal os. The uterine cavity showed no changes elsewhere. This localized uterine necrosis was evidently due to a prolonged (3 days) labor, and impacted fetus. From the localized uterine necrosis we can understand how all the septic complications might have been averted by an early hysterectomy.

DR. BRUNS reported two **cases of practical interest.** Firstly, a robust laborer, aged 30 years, with a large tumor displacing the right eye downward and outward. Antisyphilitic treatment was instituted without benefit for one month. The tumor increased steadily and rapidly in size. Operation was proposed with permission to enucleate the eye if necessary. An **exostosis** was revealed, with smaller ones all around, narrowing the orbital cavity and pushing the eye out. The eye and most of the orbital contents were removed, the tumor was found to be sessile, the apex dull, the larger part being the outer part. For fear of cracking the orbital plate, the growth was not removed, and continues to grow. The second case was that of a delicate negress, aged 45 years, with a tumor pressing the eye downward. It felt like the small end of an egg. It had developed so rapidly that it was thought malignant; however, before operating, mercurial inunctions and potassium iodid were administered and at the end of three weeks the tumor had vanished.

DR. CHAVIGNY reported a case of **vicarious nasal menstruation** in a colored woman aged 32 years.

DRS. HAMILTON JONES and GRANER also reported somewhat similar cases.

DR. WALET spoke of a case of **cephalomeningocele** in a stillborn child of a primipara.

The impositions on the Charity Hospital, 20,000 cases having been attended to in that institution during the past year, elicited some discussion as to the propriety of self-protection among the visiting staff and profession at large. The President, Dr. Dyer, referred this matter to the Committee on State Legislation, with instructions to report at the next meeting.

MISCELLANY.

Obituary.—DR. JOSEPH D. LAMOX, resident physician at the Marshall Infirmary since 1863, at Troy, N. Y., July 23.—DR. SIMEON T. LINEWEAVER, Lebanon, Pa., July 16, aged 70 years.—DR. JAMES GEARY, for two years coroner's physician in the borough of Bronx, New York, July 17.—DR. RUSSELL S. STURGIS, Boston, Mass., July 17, aged 42 years.—DR. CHARLES HOWARD HILL, Germantown, Philadelphia, July 18, aged 85 years.—DR. CYRUS N. CHAMBERLAIN, Andover, Mass., at Jamaica Plain, Mass., July 18.—DR. J. WILLIAM NIEDECKER, Brooklyn, N. Y., July 18, aged 39 years.

The Ideal Army Ration.—Dr. Louis S. Seaman, late major-surgeon, First Regiment, U. S. Volunteer Engineers, has offered, through the Military Service Institution, a prize of $100 or a gold medal of that value, as may be elected, to the author of the best thesis on: "The ideal ration for an army in the tropics." The competition is open to all commissioned medical and other officers of the army and navy, regular or volunteer. The executive council of the Military Service Institution, at its meeting of the 14th instant at Governor's Island, adopted a resolution of thanks to Dr. Seaman for his offer, and decided that all papers on this subject should be submitted by March 1, 1900, and that Colonel Weston, Acting Commissary General; Lieutenant-Colonel Charles Smart, Deputy Surgeon-General, and Lieutenant-Colonel William E. Dougherty, of the United States Infantry, be requested to act as the Board of Award.

One Newspaper Keeps its Head as to Antivisection.—"Certain remarks about antivivisection—or perhaps they were about antivivisectionists—which appeared in this column several months ago created a tumult of emotion in the minds of half a dozen people who before that had favored us with frequent communications on the wickedness of hurting animals for any purpose whatever, and especially for the purpose of increasing the knowledge of physicians and surgeons. When the tumult of emotion was at its height the half-dozen solemnly informed us that *The Times* was no longer a child of theirs, and that they would send it letters never again. The deprivation was a dreadful one, but as the weeks passed our sense of loss slowly diminished, and, to be frank, the

whole subject had been happily forgotten, when yesterday there came from the President of the New York State Anti-vivisection Society a communication of the suavest kind, evidently intended to intimate that our long-lost correspondents think we have been punished enough. This is most kind of the President, and to show that we appreciate it we hasten to extract from his letter and publish to a deeply interested world these facts: "The New York Anti-Vivisection Society has not only done in the last two years as much as the four other American societies of the same kind in 'circulating literature' and obtaining signatures to petitions for the abolition of every form of experiment upon living animals, but it has accomplished more than all the other societies put together in this way, writing letters to the papers and getting them published." Just why we should be expected to announce facts like these is a rather dark mystery, for, believing very thoroughly in the usefulness of vivisection, and as thoroughly in the unwisdom of people who make abuses an argument against uses, we naturally lack sympathy with this society's work. Still, it is nice to be forgiven, and therefore do we feel that it would be ungraceful not to do what our correspondent wishes."—[*N. Y. Times*, of July 14, 1899.]

Health-Reports.—The following cases of smallpox yellow fever, cholera, and plague have been reported to the Surgeon-General of the U. S. Marine-Hospital Service, during the week ended July 21, 1899:

SMALLPOX—UNITED STATES.

			Cases.	Deaths.
California:	Oakland	July 2-3	2	1
Connecticut:	Stanford	July	1	
District of Columbia:	Washington	July 12	Last 3 cases discharged.	
Georgia:	Montgomery Co.	July 12	9	
Kentucky:	Louisville	July 8-13	1	
Maryland:	Baltimore	July 2-15	1	
Massachus'ts:	Boston	July 8-16	1	
Texas:	Marine Pass	July 8-15	1	
Washington:	Elmira	July 5	9	
"	Mariano	July 1-8	3	
"	Tacoma	July 1-8	2	

SMALLPOX—FOREIGN.

Austria:	Hungary, Budapest	June 15-July 2	2	1
"	Vienna	June 14-July 1		1
Belgium:	Antwerp	June 17-July 1	4	1
"	Trent	June 27-July 1	1	
Equador:	Guayaquill	June 8-16	1	
England:	London	June 27-July 1	2	
Egypt:	Cairo	June 3-17		4
France:	Nantes	June 1-10	1	
Greece:	Athens	June 27-July 1	22	9
India:	Bombay	June 13-29		6
"	Calcutta	June 1-10		7
Mexico:	Mexico	July 2-9	7	2
"	Laredo	July 1-8		1
Russia:	Moscow	June 10-17	16	8
"	Odessa	June 17-24		5
"	St. Petersburg	June 17-24	13	3
"	" "	June 14-July 1	16	5
"	Warsaw	June 3-24		4
Straits Settlements:	Singapore	May 1-31		15
"	"	June 3-10		4
Turkey:	Constantinople,	July 1-11		4

YELLOW FEVER—FOREIGN.

Brazil:	Bahia	June 17-July 1	65	31
Columbia:	Barranquilla	June 10-24	2	2
"	Panama	June 27-July 10	17	7
Costa Rica:		July 10	Reported.	
Cuba:	Santiago	June 10 17	4	1
Mexico:	Mexico	July 8-15		25
"	Vera Cruz	June 3-30	471	191
"	" "	June 20-July 6	56	24
San Salvador:	San Salvador	July 1	1 case from Guatamala.	

CHOLERA.

India:	Bombay	June 12-30		1
"	Calcutta	June 3-10		10
"	Madras	June 3-9		1

PLAGUE.

Africa:	French Ivory Coast,	June 3		340
Egypt:	Alexandria	June 20	43 cases to date, no deaths.	
India:	Bombay	June 13-20		53
"	Calcutta	June 3-10		21
Japan:	Formosa, Tamsui	May 3-24	614	325
Persia:	Bunshir		Present.	
Straits Settlements:	Penang	Jan. 1-June 2	30	17
"	Singapore	May 1-31		4

Canadian Medical Association.—The thirty-second annual meeting of the Canadian Medical Association will be held at Toronto, August 30 and 31 and September 1, 1899. The meeting will be held in the building of the Education Department. This building is most centrally situated. The program will be of exceptional interest, and the very important subject of Interprovincial Registration will receive full discussion. A number of entertainments have been provided for, including a reception and musicale for members and their friends on the first evening; a lunch at Exhibition Park; an afternoon tea at the Royal Canadian Yacht Club on the Island; a smoking concert, and other entertainments, including a moonlight excursion on steamer "Chippewa." There will be an exhibition of instruments, drugs, and physicians' supplies in connection with the meeting. The committee of arrangements is making every possible effort to insure a successful meeting, and trusts that there will be a very large attendance. As the meeting is held during the first week of the Industrial Exposition, railway tickets to Toronto and return may be obtained a single fare. The following is the program:

The President's Address will be delivered on the afternoon or evening of the first day, by Irving H. Cameron; the Address in Surgery will be given by W. B. Coley, of New York; the Address in Medicine, by J. T. Fotheringham, Toronto; In the Skin Clinic, by G. Chambers, A. A. Small and A. McPhedran, Toronto, and A. R. Robinson, New York, and others will take part.

The following is a partial list of the papers to be read: The Best Method of Dealing with the Consumptive Poor, by E. J. Barrick, Toronto; Floating Kidney Simulating Disease of the Ovaries and Tubes. by A. Lapthorn Smith, Montreal; Observations on Adenoids and Enlarged Tonsils and their Removal, with Notes of 80 Cases in Private and Hospital Practice, by D. J. Gibb Wishart, Toronto; The Methods and Ultimate Results of Operations for Hallux Valgus, by N. A. Powell, Toronto; Report of a Case of Abdominal Pregnancy, by H. Meek, London; An Experience in Formaldehyd Disinfection, by F. Montizambert, Ottawa; An Inquiry into the Etiology of Chronic Bright's Disease, by A. G. Nicholls, Montreal; Operations for Extra-Uterine Gestation, by H. H. Chown, Winnipeg; Tuberculosis in Cattle and its Prevention, by J. George Adami, Montreal; The Hospital Room in Each Dwelling, by W. J. Telfer, Montreal; The Treatment of Spina Bifida, by Geo. A. Bingham, Toronto; Complications and Treatment of Fractures of the Skull. by J. M. Elder, Montreal; Recurrent Paralysis of the Third Nerve (Charcot's ophthalmoplegic migraine), by J. W. Sterling, Montreal; Tuberculosis and Insurance, by J. Hunter, Toronto; (*a*) Typhoid Infection without Intestinal Lesion, (*b*) Gastroptosis, by A. McPhedran, Toronto; Some Observations on the Treatment of Cancer, by A. R. Robinson, New York; Gallbladder Surgery, by J. F. W. Ross, Toronto; Typhoid Epidemics I have Met, by Wyatt Johnston, Montreal; The Treatment of Cataract, by R. A. Reeve, Toronto; Christian Science, J. H. Richardson, Toronto; Anesthesia by Chloroform and Ether, by Wm. B. Jones, Rochester; Treatment of the Acute Digestive Disorders of Infancy, by A. R. Gordon, Toronto; Rhinoliths, by Hubert D. Hamilton, Montreal; Observations on the Relations of the Thyroid Gland to the Uterus, by C. R. Dickson, Toronto; The Question of Operation on Thyroid Tumors, by Geo. A. Peters, Toronto; A Case of Malignant Disease of the Gallbladder Simulating Hydronephrosis (feeding through the gallbladder for three days), by F. N. G. Starr, Toronto. An Original Method for the Direct Estimation of Proteid Digestion in the Stomach, by A. L. Benedict, Buffalo; Nephrolithotomy, by B. J. Riordan, Toronto; The Mastoid Operation in Chronic Middle-Ear Disease, by J. M. MacCullum, Toronto; Ringworm in Toronto, by Graham Chambers, Toronto; The Great Lakes as a Health Resort, by E. H. Adams, Toronto; A Case of Subcutaneous Emphysema, by F. Fenton, Toronto; Craniectomy for Microcephalus (with patient), by W. J. Wilson, Toronto; Curetage, Its Use and Abuse, by R. Ferguson, London; Notes on a Case of Jacksonian Epilepsy with Operation, by D. C. Meyers, Deer Park; Massage and the Relief of Eyestrain in Treatment of Glaucoma, by George M. Gould, Philadelphia.

Papers have also been promised by G. H. Burnham, Toronto; A. B. McCullum and J. J. McKenzie, of Toronto, and a number of others.

During the meeting, T. G. Roddick, of Montreal, will ad-

dress the association on the subject of "Dominion Registration."

The Pathological Museum, in charge of a committee with A. Primrose as chairman, will add much to the interest of the meeting. A great many specimens have been promised, among which are the following:

Lower Half of Rectum Removed for Cancer, by A. L. Smith, Montreal; Ectopic Pregnancy, by H. Meck, London; Extrauterine Gestation, and others, by H. H. Chown, Winnipeg; Rarer Forms of Aneurysm. Hearts. Calculi. Disease and Fractures of Bone, and others, by J. George Adami, Montreal; Cast of Hand from a Case of Akromegaly, by J. M. MacCullum, Toronto; Congenital Atresia of Small Intestine, by W. B. Jones, Rochester; Eustrongylus Gigas in Kidney of Mink. Formaldehyd Preparations. Dry Anatomical Preparations, by F. N. G. Starr, Toronto; Obstructions of Colon by Large Gallstone. Superfetation, Abortion at 4th month, 2 sacs 4 months and 6 weeks. Elevated Fracture of Skull. Heart and Aorta. Fusiform Dilatation of Latter Due to Syphilitic Endarteritis. Carcinoma of Prostate with Terminal Suppurative Cystitis. Columnar-celled Carcinoma of Stomach. Diffuse Infiltration from Cardiac to Pyloric Orifices. Solid Ovarian Tumor (Filseo-Myo-Sarcoma) 12 pounds, etc., by W. T. Connell, Kingston.

Lung—Chronic Tuberculosis, Acute Miliary, Tubercular Bronchopneumonia, etc. *Female Generative Organs*—Adhesions of Pelvic Organs, Pyosalpinx, Cysts, Tumors, etc. *Bladder Urinary*—Prostatic Changes, Sacculation, Calculi, etc. *Bladder Biliary*—Hydrops, Calculi, etc. *Kidney*—Cirrhotic Changes, Cysts, Tumors, Hydronephrosis and Pyonephrosis, Calculi, Tuberculosis, Anomalies and Faults. *Esophagus*—Stricture, New Growths. *Stomach*—Ulcer Simple, Carcinoma. *Intestine*—Adeno-carcinoma, Colitis, Enteritis Chronic, Typhoid Changes, Tubercular Ulcerations. *Appendices: Heart*—Anomalies and Developmental Faults, Pericarditis, Myocarditis, Myomalacia Cordis, Endocarditis, Chronic Valvular Disease, New Growths, Dilation and Hypertrophy without Valve Lesion. *Blood-vessels*—Atheroma, Aneurysms, Ectases, Varicose Veins. *Liver*—Abscess, Cirrhotic Changes, Venous Congestion, Amyloid, Syphilis, New Growths. By W. Goldie, Toronto.

Tumor of Heel, Cystic Tumor of Groin, by G. W. Carnett, Toronto.

For further particulars, address

F. N. G. STARR, *General Secretary*,
Biological Dept., Toronto.

Changes in the Medical Corps of the U. S. Army.

RICHARDS, First Lieutenant WILLIAM E., assistant surgeon, is granted leave on surgeon's certificate for one month, with permission to return to the United States and apply for an extension of three months, to take effect on or about July 10.

JOHNSON, D. J., acting assistant surgeon, now at Fort Warren, will proceed to Plum Island, for duty.

KENNEDY, JAMES S., acting assistant surgeon, is relieved from further duty at Columbus Barracks, and will proceed to Fort Sam Houston, for duty.

WILCOX, STARLING S., acting assistant surgeon, now at Columbus, Ohio, will report at Columbus Barracks, for duty.

The following-named medical officers are detailed to represent the medical department of the Army at the eighth annual meeting of the Association of Military Surgeons of the United States, to meet at Kansas City, Mo., Sept. 27 and 29: Colonel CHARLES H. ALDEN, assistant surgeon-general; Major GEORGE H. TORNEY, surgeon; Major JUNIUS L. POWELL, surgeon. The officers named will proceed to Kansas City, Mo., in time to reach there on or before Sept. 27, and upon the adjournment of the association will return to their proper stations.

MAZZURI, PAUL, acting assistant surgeon, will proceed from New Orleans, La., to Havana, Cuba, and report to the commanding general, division of Cuba, for assignment to duty.

INGRAM, THOMAS D., acting assistant surgeon, is granted leave for one month on account of sickness.

MCGLOIN, PATRICK, hospital steward, is assigned to duty at the U. S. General Hospital, Presidio.

The following-named medical officers will proceed to the Philippine Islands on the transport "City of Para," to sail July 13: Captain C. E. B. FLAGG, and First Lieutenants P. C. FAUNTLEROY, BASIL H. DUTCHER, ELMER A. DEAN, H. S. GREENLEAF and OTWAY W. RASH, assistant surgeons. Acting Assistant Surgeons S. CHASE DE KRAFT, ERNEST C. SCHULTZE, JULIUS C. LE HARDY, JAMES W. VAN DUSEN, STEVENS T. HARRIS, ROBERT P. ROBINS, GILBERT E. SEAMAN and J. C. GARLINGTON. Upon arrival at Manila the medical officers above-named will report to the commanding general, department of the Pacific, for instructions.

HARTSUFF, Lieutenant-Colonel ALBERT, division surgeon-general, will proceed to Fort Thomas to investigate and report upon the disposition of a certain amount of medical property accumulated there and to inspect and report upon the sanitary condition and medical administration at that post, and thence to Columbus Barracks to inspect and report upon the sanitary condition at that post.

HOWELL, JR., EVAN P., acting assistant surgeon, will proceed to St. Helena Island, S. C., for duty.

DEVEREUX, JOHN RYAN, acting assistant surgeon, will proceed from Fort Hamilton to Camp Meade, Pa., for duty at the camp hospital.

DISNEY, F. A. E., acting assistant surgeon, will proceed from New York City to Camp Meade, Pa., and report to the commanding officer, Nineteenth Infantry, to accompany that regiment to Manila.

GILHULEY, JOHN J., acting assistant surgeon, will proceed from Bridgeport, Conn,, to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

The following-named acting assistant surgeons will proceed from the places designated to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty: L. B. SANDALL, from Au Sable, Mich.; GEORGE H. CALKINS, from Tonawanda, N. Y.

ANDERSON, CARL H., acting assistant surgeon, will proceed to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

SCHRAMM, JOSEPH, hospital steward, now at Fort Columbus, will report for temporary duty at Fort Wardsworth, pending the departure of the hospital ship "Missouri," on which vessel he is under orders to proceed to Manila, P. I.

The following-named officers, now on duty in the Philippine Islands, are relieved from further station and duties in the department of the Columbia: Captain PAUL F. STRAUP, assistant surgeon, from station at Fort Wrangle (camp at Skagway, Alaska); First Lieutenant FRANKLIN M. KEMP, assistant surgeon, from station at Vancouver Barracks.

FLETCHER, RICHARD M., acting assistant surgeon, is relieved from further duty at Camp Wardner, Idaho, and will return to his proper station, Fort Harrison.

Changes in the U. S. Marine-Hospital Service

for the seven days ended July 20, 1899:

BAILHACHE, PRESTON H,, surgeon, to proceed to New York, N. Y., for special temporary duty in the Purveying Depot. July 20.

BANKS, C. E., surgeon, relieved from duty at Washington, D. C., and detailed as Medical Purveyor of the Service at New York, N. Y. July 17.

GEDDINGS, H. D., passed assistant surgeon, to proceed to New York, N. Y., for special temporary duty. July 15.

ROSENAU, M. J., passed assistant surgeon, detailed as inspecting quarantine officer for the island of Cuba. July 19.

FRICKS, L. D., assistant surgeon, to proceed to the Brunswick Quarantine Station, Brunswick, Ga., for special temporary duty. July 18.

MCADAM, W. R., assistant surgeon, granted 7 days extension of leave of absence. July 18.

RICHARDSON, T. F., assistant surgeon, relieved from duty at the Immigration Depot, New York, N. Y., and directed to proceed to Cienfuegos, Cuba, for temporary duty. July 17.

THORNBURY, F. J., assistant surgeon, to procced to Point Pleasant, N. J., for special temporary duty. July 18.

BURFORD, R. E. L., sanitary inspector, granted leave of absence for 7 days. July 18.

APPOINTMENT.

WEEKS, ALANSON, of Michigan, to be acting assistant surgeon, U. S. Marine Hospital Service, for duty at the port of Chicago, Ill. July 13.

Foreign News and Notes.

GREAT BRITAIN.

Scarlet Fever at Cheltenham College.—Cheltenham College, a modern public school, which is particularly popular with parents designing to send their sons into the army, has been visited with scarlet fever in rather a bad form.

Continental Anglo-American Medical Association.—Following the precedent set last year at Edinburgh, the members of this Society present at the annual meeting of the British Medical Association at Portsmouth will lunch together on Wednesday, August 2, at 12.45 at the Pier Hotel. The chair will be taken by Professor Osler, M.D., F.R.S., of Baltimore.

A memorial to the late Professor William Rutherford, formerly professor of physiology in the university of Edinburgh, was unveiled July 8. The memorial, which consists of a marble bust, was subscribed for by the past and present members of the class in physiology, all of whom are undergraduates. The unveiling was performed by the principal, Sir William Muri.

The Professorship of Physiology at Birmingham.—Dr. E. W. Wace Carlier, who for many years acted as senior assistant to Professor Rutherford at Edinburgh, and who after the lamented death of his chief carried on the University classes in physiology at Edinburgh last winter, has been appointed professor of physiology at Birmingham. There is not yet a university at Birmingham, Mason College being only a branch of the Victoria University, but it is known that this great and wealthy city means at an early date to be the seat of a midland university, so that it is possible that before long Professor Carlier may find himself occupying as important if not so historically dignified a chair as that which he temporarily filled at Edinburgh so well.

The Metropolitan Hospital Sunday Fund.—The contributions to the Metropolitan Hospital Sunday Fund for 1899 reached the sum of £50,000 by the second week in July. This was the sum especially appealed for by the executive of the Fund, as it was required to bring the total contributions to the Fund from 1873, the year of its inception, up to one million sterling. Of the £50,000 received this year £10,000 was given, as we reported some weeks ago, by one generous donor. The congregations which have been chiefly instrumental in providing the remaining £40,000 are those of St. Peter's, Eaton Square, £1,076; St. Jude's, South Kensington, £742; St. Mary Abbott's, Kensington, £565; St. Michael's, Chester Square, £1,340; the London Jewish Synagogues, £923; Christ Church, Lancaster Gate, £1,375; All Saints', Ennismore Gardens, £402; St. Paul's, Onslow Square, £491; and St. Peter's, Cranley Gardens, £471.

American Meat in Edinburgh.—We read in the *Lancet* that Mr. Rufus Fleming, United States Consul in Edinburgh, in a recent report to his Government on the possibilities for American trade in Scotland, dealt with the openings in Scotland for American autocars, boots and shoes, printing and binding machinery, cement, and meat. Regarding the last-mentioned, he spoke of the severity of the laws dealing with meat-inspection in Scotland under the Public-Health Act of 1897. During the past year in Edinburgh the inspectors had paid over 6,000 visits to butchers' shops, while the quantity of meat seized or given over as unfit for human food was 149,163 pounds. One Canadian carcass had been seized. Notwithstanding the severity of the regulations not one pound of American meat had been condemned during the past year, although the quantity of American chilled beef alone used in Edinburgh, not including Leith, amounted to, on an average, 31,500 pounds per week.

The Sexual Differences of the Fetal Pelvis.—At the last meeting of the Obstetrical Society of London Prof. Arthur Thomson, professor of anatomy in the University of Oxford, gave a highly interesting demonstration of the sexual differences of the fetal pelvis. By arguments, drawings, and lantern slides he supported an opinion, much at variance with the teaching of many learned obstetricians, that during fetal life the essentially sexual characters are as well defined as they are in adult forms, and that any differences which occur during growth between the adult and fetal forms affect both sexes alike. He held that such differences, attributable to the influences of pressure or of muscular traction, are in no way accountable for the characteristic features of the pelvis of the female as contrasted with that of the male. Prof. Thomson's demonstration was in exact contrariety to the very usually accepted belief that with the establishment of the function of the ovaries the peculiarities of the female pelvis developed, the pelvic change being dependent upon the ovarian changes. His views are already leading to discussion.

The Pathology of Cancer.—Some flaring announcements appeared recently in the English lay papers to the effect that an English physician had "discovered the cause of cancer;" and Dr. H. Lambert Lack, a rising laryngologist, has had to send to the medical press a repudiation of the fame thus indiscreetly thrust upon him. Dr. Lack, it appears, made *one* experiment to test a theory: "that if normal epithelium by some accidental means obtained entrance into the lymph-spaces, it would find no barrier to its continued growth, and would produce all the phenomena of cancer." The experiment consisted in the injection into the peritoneal cavity of a healthy rabbit of an emulsion of the epithelial cells of a healthy ovary. The animal died 14 months afterwards and masses of growths were found postmortem in the abdominal and thoracic cavities, "having the characteristic features of typical ovarian cancer." This is the single experiment upon which columns have been written—probably much to his chagrin—hailing Dr. Lack as the discoverer of facts revolutionizing modern pathology. The lay reporter is a deuce of a fellow when treating of medical matters.

The International Congress upon Tuberculosis.—The report of the British delegates, the Right Honorable Sir Herbert Maxwell, F.R.S., and Dr. Pye-Smith, F.R.S., at the recent International Congress, held in Berlin, upon tuberculosis, has been published as a parliamentary paper. Dr. Pye-Smith has added a memorandum to the report, in which he sets forth the accepted theories at the Congress, concerning the causation and prevention of phthisis. As this memorandum is written in untechnical language, and has been largely reproduced by the lay press, its lessons will probably be taken deeply to heart. To the medical man, such assurances as this:—

The prevention of infection by tuberculous milk may be accomplished either by boiling all milk given as food to children, or by inspection of dairies, so as to prevent tuberculous milch-cows being used;

or this:—

The prevention of infection by meat can be secured by careful and thorough inspection of carcasses, or by diagnostic testing of cattle with tuberculin. This, the only undoubtedly useful application of the so-called tuberculin, has the drawback that, after the effect of the inoculation has passed off, a tuberculous animal becomes immune to it for a time, and and so may be passed as healthy;—

may seem necessary; but it is an excellent thing that the people at large should have information conveyed to them with all the authority that is conferred by government *imprimatur*. Dr. Pye-Smith's memorandum closes with the following sanguine expression of belief:—

"The prospect of improved success in the treatment of tuberculosis in general, and of consumption in particular, by the advance of pathology and the progress of surgery and medicine is a hopeful one, almost as hopeful as that of limiting the spread of the disease by preventive measures."

The Royal College of Surgeons of England.—A quarterly meeting of the Council of the College was held on July 13, the special business being the choice of a president. As we anticipated in the JOURNAL that they would, the Council decided to reelect Sir William MacCormac, who thus enters upon his fourth term of office, having been first elected to serve in 1896. Sir William MacCormac is not only a strong president, but a man of very dignified presence, making, in every way, a good figurehead for ceremonials. As next year the College celebrates the centenary of the charter under which it

now works by seeking a new and extended charter, there will undoubtedly be several fête occasions, and it is rather with an eye to these that Sir William MacCormac has been chosen by the Council to preside. The vice-presidents for the year, who were elected on the same occasion, are Mr. Henry G. Howse, senior surgeon to Guy's Hospital, and Mr. John Tweedy, ophthalmic surgeon to University College Hospital. Mr. Tweedy's call to office—though the office is of a purely honorary character, and probably gives him no more influence in College affairs than he previously enjoyed, as an able and independent member of Council—will gladden the hearts of those members of the College who are urging that while the Council are seeking to revise their charter, it would be as well, if they included in their scheme of amendment, clauses which would confer some measure of the government of the College upon the members; for Mr. Tweedy is *par excellence* the champion of reform in the College, and, having its history at his fingers' tips, is able to recognize in a way that less-informed councillors cannot, that the members have an absolute right to what they demand, year by year.

Public Vaccination in England Under the New Act.—A provision in this much discussed act has been found in some districts (especially in the hands of public vaccinators not sufficiently careful to refrain from anything that might wound the susceptibilities of their professional brethren) to prejudice the interests of private practitioners. There is a duty imposed under the act upon the public vaccinator that under certain circumstances he should visit the homes of the unvaccinated children in his district and arrange for their vaccination. When it is borne in mind that all public vaccinators are also private practitioners it is obvious that such visitations to the patients of other medical men will, unless the greatest tact and delicacy are observed, lead to most unfortunate friction. In a district in Yorkshire, a medical society, the Bradford and West Riding Medical Union, have held three discussions on the matter, and both the public vaccinators of the district and the general practitioners not holding such office, took part in the debate. It was elicited that the tact and delicacy necessary to carry out the act without offence has not always been manifested. A great many complaints were made of public vaccinators endeavoring to induce parents who had arranged for vaccination to be performed by their family doctor to accept the services of the official by laudation of their special brand of vaccine "with the government guarantee of purity." Other examples were cited in which the public vaccinator had pointed out to the heads of families the folly of spending money on vaccination when the county provided for its being done gratuitously with the additional advantage of free medical attendance if the operation should lead to any bad results. It is probable that the excess of zeal on the part of the public vaccinators was due to a laudable desire to get their district properly protected against smallpox and not to any underhand schemes for stealing the general practitioner's patients, but the Bradford and West Riding Medical Union condemned all such practices in a series of outspoken resolutions, which have received general professional commendation.

CONTINENTAL EUROPE.

The French Association of Urinologists will meet in fourth annual session in Paris, October 19 to 21, 1899.

School of Medicine of Tours.—Dr. Delageniere has been appointed professor of surgical pathology and operative surgery to succeed the late Dr. Herpin.

A phonographic record of the different cries of the insane, paralytic, epileptic, idiotic, and of those in various deliriums, is being collected by Dr. Dupont, of Paris.

Menstruation Through the Ear.—At a recent meeting of the Société Médicale des Hôpitaux de Paris, Dr. Lermoyez presented a young girl, aged 16 years, who for three years had menstruated regularly from the right ear. The discharge was of non-coagulable blood and had a peculiar odor.

Obituary.—Dr. Paulo Cesar de Andrade, senator of the Brazilian Republic, sometime president of the Municipal Chamber of Nictheroy, and a deputy to the Provincial Assembly of Rio de Janeiro.—Dr. Anastacio di Bomsuccesso, of Bahia, whose name was well known in Brazilian literature.—Dr. Barrault, of Paris, for many years editor of the *Revue de Thérapeutique Médico-Chirurgicale*.—Surgeon-General Wenzel Hoor, formerly chief of the Medical Service of the Austrian Army.—Dr. P. Gingeot, physician to the Hôtel-Dieu, Paris.

Dr. W. S. Halsted, of Johns Hopkins, Baltimore, Extended the Courtesies of Professor Kocher's Clinic at Bern, Switzerland.—As an illustration of the interest which European surgeons are taking in the work of their American colleagues it is a pleasure to note that Professor Kocher, of the University of Bern, extended the courtesy of his clinic to Dr. W. S. Halsted, of Johns Hopkins, July 7. Dr. Halsted performed his operation for hernia, demonstrating his method to the originator of one of the most famous operations for this class of surgical cases. The case proved to be one with a deficiency of the conjoint tendon and particularly favorable for Dr. Bloodgood's transplantation of the rectus muscle, which was done.

Dr. Kocher was especially impressed with the resection of the veins of the cord and the precaution against hemorrhage in order to prevent pressure on the vas and consequent atrophy of the testicle.

A Case of Interest to the Medical Profession.—It is stated in the *Lancet*, that on July 5, in the Edinburgh Small Debt Court, Sheriff Hamilton decided a case brought by Dr. D. R. Murray against a lady patient whom he had attended during 1895 and 1896. The pursuer rendered an account to defender for his professional services, stating that it was for 20 visits during the time of attendance. The defender declined to pay, on the ground that she was entitled to a detailed account giving the date of each individual visit. She did not dispute the amount of the account. Dr. Murray declined to send any further details, as the amount was not disputed, and as he in his rendering of the account had followed the common usage of medical men. The sheriff held that the defender was entitled to get a further detailed account, and as the same had not been given when it was asked for, he declined to award pursuer the expenses of the summons.

The Pushkin Centenary.—During the past few weeks the centenary of the birth of Pushkin, the most popular, if not the greatest, of Russian poets, has been celebrated throughout the length and breadth of the Russian empire and in some of the adjoining Slavonic countries. The occasion was obviously not one which appealed in any special manner to the medical profession, but one of the leading medical societies of St. Petersburg—the Society of Russian Practitioners—has taken the opportunity of joining in the effort to commemorate the occasion worthily, and has opened a subscription for the endowing in one of the sanatoria of the society either a bed or a library for the patients, which is to bear the name of the illustrious poet.—[*Lancet.*]

The Latest Literature.

British Medical Journal.

July 8, 1899. [No. 2010.]

1. A Description of a new Pathogenic Microbe of Sewage—Bacillus Pyogenes Cloacinus. E. KLEIN.
2. Remarks on Plastic or Croupous Bronchitis. THOMAS OLIVER.
3. The Croonian Lectures on some Points Connected with Sleep, Sleeplessness, and Hypnotics. JOHN BUCKLEY BRADBURY.
4. Cases of Septicemic Infection Treated with Antistreptococcus Serum; Rapid Recovery. J. MITCHELL BRUCE.
5. Treatment of a Case of Puerperal Fever by Antistreptococcus Serum. DAVID ARTHUR.
6. On Some Unusual Cases of Blood-poisoning. THOMAS HARRIS.
7. Notes on 215 Cases of Enteric Fever. WILLIAM CECIL BOSANQUET.
8. An Unusual Case of Cardio-Pulmonary Rale. JAMES CARSLAW.
9. Arterial Tension under Anesthetics. WALTER BROADBENT.
10. Circumcision under Cocain. F. J. W. PORTER.
11. Hypodermic Injection of Quinin in Malaria. CAPTAIN W. YOUNG.
12. Antipyrin Poisoning. HENRY BLAKENEY.
13. The Use of Suprarenal Extract in Conjunction with Cocain to Obtain Bloodless and Painless Operation. E. A. PETERS.
14. Failure of Respiration during Administration of Chloroform. WILLIAM DICK.
15. Acute Yellow Atrophy of Liver in Hindu Coolies. H. NOBLE JOYNT.

1.—Klein describes **a minute bacillus found in sewage,** and for which he proposes the name of *bacillus pyogenes cloacinus.* The growth in culture-media is described. The microbe is pathogenic for animals. At times only a local abscess is produced by inoculation; in other instances, a large minority of cases, general disease follows. [A.G.E.]

2.—Notes of 2 cases of **plastic bronchitis** are given. Points of interest were: (1) The absence of previous illness that could give rise to fibrinous casts in the bronchi; (2) the attacks apparently not influenced by weather or season of the year; (3) sensation of an impending seizure; (4) paroxysmal cough with straining and dyspnea almost to suffocation; (5) absence of pronounced physical signs in the intervals; (6) absence of high temperature. Treatment is unsatisfactory. [A.G E.]

3.—Bradbury continues in Lecture III **the study of the chloral derivatives.** Chloralose increases reflex activity, and its toxicity is greater than that of chloral hydrate. For this latter reason, although it depresses the circulation less than chloral hydrate, he is unwilling to admit its harmlessness in cases of heart disease. Of the **urethanes,** ethylurethane is the only one of therapeutic utility. Of the **sulfones**, sulfonal, trional, and tetronal are discussed, the above being their order of toxicity. The views of different observers on their action are given. Of **the vegetable hypnotics,** opium and its alkaloids are selected first. Bradbury differs radically from other observers in only one instance—that of papaverin. This he finds to have a depressant action instead of being a convulsant. Morphin is the hypnotic *par excellence* when pain is present. It is one of the best hypnotics we possess in advanced heart-disease, but it is by no means free from danger. The next lecture will consider some less dangerous substitutes for it. [A.G.E.]

4.—Antistreptococcus serum gave good results in 2 cases—one of septic endocarditis, the other a septicemia of cerebrospinal type. The most practical point is that after one serum had failed in the second case, a second was used with prompt results. There was no suggestion of the first serum being bad, it having been obtained from an unimpeachable source. [A.G.E.]

5.—Arthur reports a case of **puerperal sepsis** in which the uterine douching and medicinal treatment had failed and the patient recovered after the use of 8 injections of 10 cc. each of streptococcic serum for 9 days. [W.K.]

6.—Harris gives extended notes of **3 cases of blood-poisoning;** 2 were in women recently confined, but there was no evidence that infection was from the uterus, and it was believed to have arisen from the intestinal tract. This suggests the possibility that puerperal women may be more susceptible to septic absorption from the intestinal tract, and lays stress on the importance of overcoming constipation during pregnancy. The third case was that of a woman who had been attending case 1. Infection was supposed to be through the respiratory tract. [A.G.E.]

7.—In 215 cases of enteric fever the mortality was 18.5%. The routine medicine was dilute hydrochloric acid, with sirup of orange and water. Excessive fever was treated by tepid, cold, or iced sponging. [A.G.E.]

8.—The case described is that of a young man with incipient phthisis. When he held his breath after a long inspiration **a clicking sound, of musical quality and synchronous with the heart-beat, could be heard** at a considerable distance from the patient. The explanation given is that there was a small cavity (the patient had been ill 2 months) impinged upon by the heart or aorta, which by its impact caused the sound. [A.G.E.]

9.—Administration of different anesthetics to the same patient, for preliminary examination and operation, showed that **gas and oxygen lowered the arterial tension, while chloroform did not affect it.** [A.G.E.]

10.—Porter **circumcises** exclusively **under cocain-anesthesia.** One grain in 20 minims of water is injected into the prepuce in two places and 4 grains in 2 fluidrams of water is held between the prepuce and glans. In about 10 minutes the operation is begun. Eucain was tried, but, because of sloughing and edema, was soon discarded. [G.B.W.]

11.—Young finds **the hypodermic injection of quinin very efficient in malaria,** especially so in children, in doses of 1 or 2 grains daily of the soluble hydrochlorate and hydrobromate. [A G E.]

12. A dosc of 10 grains of antipyrin caused acute pain in the abdomen, emesis, and rapid swelling of the face, almost closing the eyes. This was followed by two periods of collapse, one lasting a half hour. Recovery followed. The patient had taken similar doses before with no ill effect. [A.G.E.]

13.—In using cocain and **suprarenal extract,** solutions of 10% are best adapted for the nose or throat, and 20% for the ear. Double the quantity of suprarenal should be used over that of cocain. Though bleeding is absolutely checked at the time of operation it is very apt to occur some 2 hours later. [G.B.W]

14.—In this case of **failure of respiration from chloroform-anesthesia** the pulse kept good all the time the artificial respiration was being carried out. After normal respiration had been established the operation was completed safely under ether anesthesia. [G.B W]

15.—Joynt reports **3 cases of acute yellow atrophy of the liver,** with results of necropsy in each. The liver was shrunken and soft, and dark red in one case. Ascites was present in one case. [A.G.E.]

Lancet.

July 8, 1899. [No. 3958.]

1. Some Points Connected with Sleep, Sleeplessness, and Hypnotics. JOHN BUCKLEY BRADBURY.
2. Tracheotomy in Diphtheria. GEORGE THORNTON.
3. Four Cases of Abdominal Panhysterectomy for Fibroid Tumors of the Uterus. ARTHUR H. N. LEWERS.
4. A Case of Hemorrhagic Infarction of the Small Intestine Due to Thrombosis of the Superior Mesenteric Vein: Necropsy; Remarks. HAMILTON A. BALLANCE.
5. The After-history of Excision of the Entire Breast. A Record of 100 Consecutive Cases Operated on by A. E. Barker. J. E. SIMPSON.
6. Partial Dislocation of the Spine. W. BALFOUR FERGUSSON.
7. A Case of Tetanus Treated by Intracerebral Injection of Antitetanic Serum. THOS. D. GIMLETTE.
8. Chinosol in Phthisis. ALEX. MACGREGOR.
9. Two Cases of Abdominal Surgery. E. STANMORE BISHOP.
10. Two Cases of Acute Rheumatism Treated Surgically. O'CONOR.

2.—Thornton reports the **effect of antidiphtheritic**

serum on 151 cases of diphtheria in which there were 102 recoveries, or a death-rate of 32.4% in contrast to a death-rate of 70% before the employment of the serum. His statistics also show the remarkable effect of the specific serum in reducing the death-rate of cases of tracheotomy for diphtheria. This effect he ascribes largely to the fact that the injection of the serum is followed very shortly by an arrest of any tendency of the disease to spread. Since the introduction of the remedy he does not remember seeing a single case in which the trachea or bronchi became affected if they were not already so at the time of the operation. The early administration of the serum made tracheotomy unnecessary in many cases, while the cases that required tracheotomy required it immediately on admission or before the serum had had time to act. [C.L.L.]

3.—Lewers reports 4 cases of successful **panhysterectomy for uterine fibroids.** The method of operating was that described by Christopher Martin, of which the essential features are as follows: The abdomen is opened by the usual incision and the tumor if possible brought out of the wound; the upper and middle thirds of each broad ligament are then tied successively from above down by double ligatures about an inch apart, and the ligament is divided between them. A transverse incision is then made across the anterior aspect of the tumor, about an inch above the line of reflection of the peritoneum to the bladder. This incision only divides the peritoneum, so that it can be stripped down and forwards, thus enabling the operator to detach the bladder from the anterior aspect of the cervix. The anterior vaginal fornix immediately in front of the cervix is then made to project into the wound by a long pair of Wells's pressure forceps bent on the flat, passed up the vagina by an assistant. The vagina is opened into by cutting on the point of the forceps. The finger passed through the opening serves as a guide in similarly opening the posterior fornix. The uterus at this stage is thus only still attached by the lower third of the broad ligament on each side containing the uterine arteries. The next thing is to tie the uterine arteries on each side, taking special care to avoid the ureters. The uterus can now be separated from its remaining lateral attachments, and is then loose and can be taken away. The ligatures on the upper part of each broad ligament are cut short, but the ligatures on the uterine arteries are left long and are drawn down into the vagina. A thick strip of iodoform gauze is then drawn down into the vagina from above, about an inch of it being left projecting into the peritoneum. The abdominal wound is then completely closed. [W.K.]

4.—Ballance reports a case of **thrombosis of the superior mesenteric vein,** which resulted in a hemorrhagic infection of the small intestine, which produced signs of obstruction. The patient was, however, in too precarious condition to permit of operation, and died shortly after admission. The necropsy disclosed the true condition. [C.L.L.]

6.—Fergusson reports a remarkable case in which his patient fell backward from his cart and partially **dislocated his cervical spine** at about the fourth or fifth vertebra. When first seen his skin was cold and clammy, his breathing was diaphragmatic; his pulse was soft, slow, and compressible, and his pupils were dilated and did not react readily to light. He had partially lost power in his arms and legs, and appeared to be dazed. His head was inclined backward, resting against the spine. The front of the neck was distended and swollen, and the vessels were engorged. The moment an attempt was made to move the neck he was thrown into a violent spasm, the spasmodic contractions lasting a few minutes. He finally reduced the dislocation by placing one hand underneath his chin and the other in the nape of his neck and jerked the head upwards, at the same time forcibly bending the head forwards over the chest. A sensation of a bone slipping into place was communicated to the hand and made the operator feel certain that a dislocation had been reduced. The patient's symptoms were immediately relieved, and after two weeks he was out of doors and walking. [C.L.L.]

7.—Gimlette says of a case of **tetanus** which he **treated by intracerebral injections of antitetanic serum** that the diagnosis was confirmed by bacteriological examinations, and that judging from the severity of the symptoms before the operation and for 2 days following it, it may be fairly stated that, humanly speaking, but for the serum this patient must have inevitably died. No "brain symptoms" followed the introduction of the long needle and injection of serum into the brain-substance—in fact, the patient made a steady, progressive, and perfect recovery. [C.L.L.]

8.—Macgregor hesitates to add to the long list of drugs used in the treatment of phthisis, but believes it justifiable, while waiting for a reliable tuberculin, to give a fair trial to any which promise help to the patient. He has used **chinosol in more than 100 cases of phthisis and obtains better results than from creasote or guaiacol.** Notes of 6 cases are given. The drug is well borne in 3 to 5-grain doses, 3 times a day, after food. [A.G.E.]

9.—Bishop reports 2 cases of **abdominal surgery,** one a hysterectomy by the combined method for a sloughing myoma, the other the removal of a large multilocular ovarian cyst. Both patients recovered. [W.K.]

10.—The two cases of **acute articular rheumatism treated on surgical principles** show the value of this method of treatment in cases that remain rebellious to internal medication. O'Conor says these cases evidently tend to show that surgery is a curative agent in acute rheumatism, and that the sooner the latter term is dropped and acute infective arthritis substituted, the sooner shall we be in a position not only better to understand the complaint, but to combat it more successfully by prompt operative measures. The treatment adopted was identical with that in severe cellulitis. [C.L.L.]

New York Medical Journal.

July 22, 1899. [Vol. lxx, No. 4.]

1. A Study of Delirium. William Hirsch.
2. The Importance of Early Diagnosis in Locomotor Ataxia, as Affected by the Newer Pathology. William B. Pritchard.
3. The Properties of Buffalo Lithia Water. John V. Shoemaker.
4. Remarks Based Upon a Further Experience with Calomel in Diphtheria. L. D. Judd.
5. The Administration of Atropin in Epilepsy. F. L. Wachenheim.
6. A Case of Typhoid and Malarial Fevers. W. H. German.

1.—Hirsch considers **delirium from a purely clinical standpoint,** and explains its origin by a suspension of activity in the areas of various cerebral functions. The differential diagnosis between it and similar conditions is discussed at length. In **maniacal exaltation** the patient is conscious of his acts and remembers them afterward, while in delirium he is absolutely unconscious of these. **States of agitated confusion** arising from pathologic passions or affections are distinguished by their origin and the feeling of fear which dominates the patient. The distinction between delirium and **hallucinatory confusion** may be much more difficult. The diagnostic and prognostic role of delirium appearing in the course of various diseases is then considered. Lastly, the treatment of delirious conditions other than the therapeusis of the underlying disease, is touched upon. [A.G.E.]

2.—The newer pathology of locomotor ataxia as based on the neuron-theory is reviewed. This makes the changes in the tabetic spinal cord the expression of a progressive degeneration of the posterior root-fibers, due to nutritional or irritative disturbances. Pritchard considers this a theory rather than a demonstration as yet, but its foundation is sound and it explains many of the erstwhile inconsistencies of the disease. With this as a working hypothesis the importance of early diagnosis is emphasized. One of the most important prodromes is periodical vesperian headaches associated with insomnia in the fore part of the night. Disturbances of common sensation, ocular symptoms, genitourinary and trophic symptoms are discussed. [A.G.E.]

3.—A series of cases is given to show the good effects of Buffalo lithia water in various diathetic and digestive disturbances. [A.G.E.]

4.—Judd still obtains excellent results from the use of **calomel in diphtheria,** but thinks smaller doses than he has formerly reported will perhaps exert as specific an action. Half or sixth-grain doses every half hour often give good results. The main point in this treatment is to give calomel fearlessly according to the severity of the case, until

the characteristic "frog-spittle" stool is obtained. He has never seen salivation or other ill effect from the use of calomel in *pronounced diphtheria*, and believes that to change to the use of antitoxin or other remedies would be to abandon a certainty for an uncertainty. [A.G.E.]

5.—The attacks in a case of epilepsy in a young girl were reduced to 3 a week by the use of $\frac{1}{150}$ grain of **atropin sulfate** and 10 grains **potassium bromid** three times a day. Flechsig's opium treatment was then begun, but the attacks increased. Atropin was then pushed and the bromid diminished, with the result that the case is now under control, if not entirely cured. [A.G.E.]

6.—In a case of typhoid and double tertian malarial fevers, 1,470 grains of quinin were given in 28 days. Cinchonism was not extreme. [A.G.E.]

Medical Record.

July 22, 1899. [Vol. lvi, No. 4.]

1. Liquid Air; Its Application in Medicine and Surgery. A. CAMPBELL WHITE.
2. Shock in Modern Surgery. GEORGE F. SHRADY.
3. Hemostasis in Intrapelvic Surgery. A. C. HEFFENGER.
4. The Exercise Treatment in Tabes Dorsalis. ALFRED WIENER.
5. Hydrophobia a Disease Easily Cured. BEVERLY OLIVER KINNEAR.

1.—White first reports that the exposure of **anthrax diphtheria and typhoid bacilli to liquid air** for so long as 90 minutes had no effect upon these organisms, and that Huddleston had the same result when investigating its action upon vaccine virus. In using liquid air as a therapeutic agent he has applied it as a spray or by means of a swab. It causes pronounced anemia of the part to which it is applied. Within a few weeks the color comes back and the skin becomes congested. If the spray is even continued for less than a minute the part becomes frozen. White has had the most excellent results from the use of liquid air as a local anesthetic, the only precaution necessary being to avoid freezing the part solid. It was also found very useful in the local treatment of leg-ulcers, chancroids, and of some specific ulcers. Its application to abscesses, boils, carbuncles, or buboes, in the early stages, nearly always resulted in their immediate abortion, if the part were thoroughly frozen. It gave almost immediate relief in cases of sciatica, herpes zoster, and intercostal neuralgia. The results in erysipelas were somewhat doubtful, but he was much encouraged by its use in lupus so far as his experience has gone. [He expresses great hopefulness concerning the results of treatment of carcinoma by this substance, but we are regretfully obliged to believe that this is over-sanguine. D.L.E.]

2.—Shrady calls attention to an element which is productive of a great amount of the shock and the consequent death of patients after modern aseptic operations. The older surgeons secured their results by the rapidity and cleanly-cut expertness of their technic. The modern surgeon is too prone to be deliberate and take his time, as he is certain of his asepsis and that the patient is free from pain, but is forgetful of the **serious element of shock which prolonged anesthesia and tedious operating and exposure of nerve and tissue** add to the patient's depressed condition. He says: "We must not forget that prolonged administration of an anesthetic is, independently of the operation, a means of shock in itself. While ether may tend at first to modify shock, its prolonged use adds to the depression of the patient. The same may be said for chloroform. The bodily temperature is lowered if the administration of ether continues longer than an hour or an hour and a half. Often, especially in chloroform cases, the normal temperature is not restored until the lapse of twenty-four hours. This delayed reaction is an evidence of serious mischief done to the nervous centres." "It is not inconsistent with carefulness that we should do our work more quickly. We should shorten not only the period of anesthesia, but that of the operation itself. To do whatever is absolutely necessary and do that quickly is the primary consideration. In grave and prolonged operations it is much safer to divide the work into two periods, if possible, rather than to strain a point to finish it in one." "Quick operation is followed by quick reaction. The two hold a proper relation to each other for good. On the contrary, the longer the operation the longer is the reaction delayed." The conclusion of the whole matter would seem to be that we are sacrificing precious time to unnecessary detail. [C.L.L.]

3.—Heffenger discusses the **control of operative hemorrhage** between the pelvic peritoneum above and the mucous surfaces of the bladder, vagina and rectum below. Ligature and suture material should be confined to catgut, silk, and tendon. Of the three, catgut meets the greatest number of requirements. The chief causes of secondary hemorrhage according to Kelly are: (1) Defective tying; (2) cutting too close to a ligature; (3) undue traction on a ligature after tying; (4) the shrinkage of the tissues within the grasp of the ligature; (5) an extensive capillary oozing. To these must be added the stiffening and untying of catgut ligatures, even though well tied, and this is especially apt to happen if the ends are cut too short. The chief symptoms are: (1) Sudden quickening of the pulse and diminution in volume without apparent cause, or an entire loss of pulse; (2) quickened sighing respiration and the use of the extraordinary muscles of respiration; (3) increasing pallor and a pearly conjunctiva; (4) cold, clammy skin; (5) vertigo; (6) restlessness, throwing the arms and legs from side to side; (7) desire to be raised in bed (orthopnea); (8) pain in the abdomen, often severe; (9) vomiting sometimes. [W.K.]

4.—Wiener states that his exercises are not based upon the use of any complicated apparatus, and that nothing is considered necessary by him, excepting such apparatus as is always at hand or can be readily constructed. He first teaches the patients to go through exercises while lying upon the back with their eyes open; then the eyes should be shut, and gradually they are to be accustomed to carry out the movements when sitting, and ultimately when standing or walking. The movements should be made progressively more difficult and complicated. The kind of movements to be used may be determined by the physician's own judgment and ingenuity, but they should be under the observation of a competent person. He reports excellent results in several cases from the use of this treatment. [D.L.E.]

Medical News.

July 22, 1899. [Vol. lxxv, No. 4.]

1. The Serum-Treatment and Its Results. HERMAN M. BIGGS.
2. Light and Air in the Treatment of Consumption in Colorado. CHARLES FOX GARDINER.
3. Arrest of Development; Spina Bifida, and Cleft Palate. W. A. MCFARLANE.

1.—Biggs contributes the first part of an article dealing with the **statistics of the diphtheria antitoxin.** For immunizing purposes, 5,103 patients were given injections varying in strength from 200 to 800 antitoxin units. Among these, 26 cases occurred within the first 24 hours, with one death. All were probably infectious before the immunizing dose was employed. From 1 to 30 days, 23 cases occurred, with one death in a patient in whom the disease developed on the second day. After 30 days 7 cases occurred, with 2 deaths; that is to say, in the total number of cases immunized, all of which had been more or less directly exposed to contagion, there were only 4 deaths in 56 cases. A series of tables is appended to the paper, in which the data obtained from various sources is summarized. Biggs calls attention to the striking difference between the death-rates in Paris and New York, where the serum is very generally employed, and can be obtained free of charge for the asking, and in London where it is practically employed only in the metropolitan asylums, and where the serum sold is generally of poor quality. Among the most remarkable reports is that obtained in Chicago, where, during the month of November, 1898, 98 cases of true diphtheria were treated with antitoxin, with only 3 deaths; as 10 of the patients had required intubation, the disease was of a severe type. Since the introduction of the serum-treatment in that city in October, 1895, 3,822 cases of true diphtheria were treated by the Board of Health, with 259 deaths, or 6.7%. This is compared with the previous mortality of 35%, showing a saving of about 1,100 lives in a space

of slightly more than 2 years. The statistics also show that there has been a great reduction in the number of cases of diphtheria in the city of New York last year as compared with the 6 preceding years. This is ascribed (1) to the general use of the antitoxin, which diminishes the severity of the cases, the severe cases being more likely to spread infection; (2) to the employment of the antitoxin as an immunizing agent; (3) to the more careful inspection of the schools. The first table gives the results in the city of New York. The mortality of 3,073 cases from January 1, 1895, to January 1, 1899, was 13.9%. The second table gives the result of the treatment of the cases of laryngeal diphtheria for the same period; the mortality, deducting the moribund cases, was 16.9%; 13% in the nonoperative and 28% in the operative. The third table gives the same statistics according to age. The most fatal period was apparently during the first 2 years of life. After that, the mortality decreased rapidly until, above the age of 10, it was always less than 3% under the antitoxin treatment. In the fourth table the cases are arranged according to the day of the disease on which the injections were first made. This, as all similar tables, shows the great advantage of early injections. The fifth table shows the results of the immunizing doses already mentioned. The sixth and seventh tables give the results of treatment in private practice or ordinary laryngeal cases. The eighth table shows the gradual reduction of the death-rate from diphtheria for 100,000 of population, in Paris, Berlin, and New York. In the former cases, in 1886 it was 72 8; in 1898, 12. In Berlin 125.7 and 32.4. In New York 187.5, and 45.1; that is to say, the death in all cities was reduced more than one-third. Table 9 gives the statistics of New York for 1891, and table 10 the mortality in the hospitals in Paris, Berlin, and London. This for the years 1893 and 1897 was in Paris respectively 51.4% and 15%; in Berlin 38.8% and 13.5%; and in London 30.3% and 17.4%. [The paper is unfinished. J.S]

2.—Gardiner claims that it is important to secure a **suitable climate for the consumptive** as well as fresh air. The air should be free from dust and germs, dry, light, and contain an excess of ozone and electricity. Sunshine is by far the best form of light. Such a climate is found in Colorado, and is particularly adapted to consumptive patients. As, however, the open air is the most important factor in the treatment, he believes that the patients should remain 24 hours in it instead of a fraction of a day. For this purpose it is desirable that tents should be employed, and he has devised one that he believes gives a maximum of protection, ventilation and comfort. This consists essentially of a circular tent with a hole at the top several feet in diameter, and a wooden floor raised 8 inches from the ground, and separated all around for 1 inch from the walls of the tent. The air enters through this space and escapes from the circular opening at the top. The tent should be made of the heaviest duck. The cooking should be done in some adjoining shelter. [J.S.]

3.—McFarlane reports 2 cases of **spina bifida** occurring at consecutive births to the same mother. Both children died shortly after birth. [G.B.W.]

Boston Medical and Surgical Journal.

July 20, 1899. [Vol. cxli, No. 3.]

1. Not the Disease Only, but Also the Man—The Shattuck Lecture. JAMES J. PUTNAM.
2. The "Right-Angle" Continuous Intestinal Sutures. HAYWARD W. CUSHING.
3. The Examinations of Stained Specimens of Blood in Its Application to Clinical Work. HENRY F. HEWES.

2.—Cushing claims that the **right-angle continuous intestinal suture** is the most satisfactory intestinal suture. Reinforcement by a similar one superimposed, or by the interrupted "Lembert," may often be advantageously added. The reasons for this conclusion are: (1) The suture does not involve the mucous membrane; (2) the intestine is closed by a suture, which acts so that the greater the tension to which it is subjected, the closer it is drawn; (3) it can be inserted very rapidly and easily; (4) its technic is simple. Its application to a resected intestine is as follows: begin at one side of the mesenteric attachment by an inverted "Lembert," which is tied. The needle, held parallel to the incision, is inserted through the peritoneum down to the submucous layer of the intestine, not perforating the mucous membrane, and out again at a point equidistant from the cut edge with the point of insertion. The suture is then carried across to the other gut-end, and inserted in like manner. In this way the intestine is encircled until the starting point is reached, when the suture is tied just tight enough to bring the serous surfaces in contact, without constricting the bowel. [G.B.W.]

3.—A good résumé of the subject of leukocytes and leukocytosis. [D.R]

Journal American Medical Association.

July 22, 1899. [Vol. xxxiii, No. 4.]

1. The Uterus. ALBERT GOLDSPOHN.
2. Uterine Retrodisplacements. C. E. RUTH.
3. Cerebrospinal Meningitis. GEORGE LOUGHEAD EYSTER.
4. Cerebrospinal Meningitis. T. N. MILLER.
5. Appendicitis. A. J. OCHSNER.
6. Appendiceal Pus. JOHN B. DEAVER.
7. Accidental Heart-Murmurs. GEORGE W. WEBSTER.
8. The Uterine Fibroid. D. TOD GILLIAM.
9. Cataphoresis in Trachoma. GEORGE F. KEIPER.

1.—See PHILADELPHIA MEDICAL JOURNAL, June 10, 1899.
2.—*Ibid.*
3.—*Ibid.*
4.—*Ibid.*
5.—*Ibid.*
6.—*Ibid.*
7.—*Ibid.*
8.—*Ibid.*, June 24, 1899.

American Journal of Obstetrics.

April, 1899.

1. The Diagnostic Value of Pain in Gynecology. RICHARD LOMER. Introduction by A. SÄNGER.
2. The Clinical History of Uterine Polyps. B. C. HIRST.
3. A Convenient Technic for the Delivery of the Aftercoming Head when Gross Disproportion Exists: with Comparative Considerations. FRANK A. STAHL.
4. Phthisis in Pregnancy and Labor. W. REYNOLDS WILSON.
5. The Treatment of Asphyxia in Children by the Use of a Soft-rubber Catheter. Report of Two Cases. S. ORMOND GOLDAN.
6. Influenza Complicating Uterine and Pelvic Disease and Pregnancy. F. C. AMEISS.

1.—Lomer, of Hamburg, Germany, in an article prefaced by Sänger, discusses the value of **pain as a diagnostic symptom in gynecology.** Often there is much difficulty in distinguishing genuine from hysteric pain, and we may be just as far from relief after as before the removal of an organ which has undoubtedly been the cause of the pain. A description of normal hysteria is given, and the relation of gynecology to neurology discussed. The extensive dissemination of hysteria is noted, and its various degrees described. A detailed history of 27 illustrative cases is given in the paper, and among the various special therapeutic measures for the relief of pain, attention is called to the value of a weak galvanic current. Sometimes the currents used are so weak that the patient can hardly feel them or does not feel them at all. He admits that in all these treatments the influence of suggestion cannot be excluded. Electricity is an agent to prove with, whether we accept its suggestive or its specific action. Suggestion is the first, most important, and, indeed, sovereign remedy. The third therapeutic means is removal from home and family and treatment in an institution. Lastly he speaks of drugs, of which the most important is iron. Blaud's pills should be taken persistently for four months, and often an interval of as long again. Too much emphasis cannot be laid upon the fact that chlorosis or anemia is a fertile field in which hysteria occurs, and that we always strike the right path when an energetic iron-medication is used. Narcotics are of very little use in hysterical pain, so much so that from this fact we are frequently led to make a diagnosis of hysteria. Valerian and asafetida are useful in convulsive forms of hysteria. [W.K.]

2.—Hirst asserts that **uterine polypi** present a greater variation in their clinical history, termination, and treatment than is usually supposed by the general practitioner. He reports a series of cases; in the first a complete myxomatous degeneration of a large submucous fibroid was found. In the second a gangrenous fibromyomatous polyp was associated with inversion of the uterus. The growth was removed and the uterus successfully reinverted. The third case was a myomatous polyp springing from the lower uterine segment with malignant degeneration of its distal periphery. Other interesting cases were detailed and the difficulties in diagnosis and the liability to error in spite of every precaution were discovered. [W.K.]

3.—Stahl describes his method for the **delivery of the aftercoming head** when gross disproportion exists between the head and the pelvis. He considers that the advantages lie with the perforation and extraction of the advancing head rather than with the perforation and extraction of the aftercoming head, and that the following conditions will obtain no matter how skilful the obstetrician: (1) The cephalic parts in the aftercoming head are more difficult of access; (2) the avenue of approach, because of its embarrassment, is more awkward for operation than when clear of obstacles like the neck and trunk; (3) the assistance required is greater and more complicated; (4) the length of time of operation is longer; (5) the evacuation and breaking down of the brain is accomplished with less facility; (6) extraction of the aftercoming head manually or with instruments requires greater and more delicate efforts; (7) the dangers from slipping of instruments, ruptures, lacerations, and pressure inflammations are greater; (8) with the aftercoming head choice of vantage puncture is limited; the head cannot be turned or adapted as emergency or advantage may suggest; in the advancing head, and more especially when decapitated, the head can be turned, without difficulty or danger, into any form of presentation desired, so that any point, as a fontenelle or suture, may be chosen for attack; (9) the extraction of the aftercoming head presents more difficulties for the general practitioner, as well as for the specialist, than does the extraction of the advancing head; (10) as Winternitz declared, decapitation, turning, excerebration and extraction (his case with craniotomy) require, comparatively speaking, little time. [W.K.]

4.—Wilson discusses **phthisis in pregnancy and labor.** The proportion of abortions and miscarriages is comparatively small. Interruption to pregnancy is more apt to occur in pluriparous than in primiparous women. The influence of the disease upon the fetus is discussed, and the prophylactic and obstetric treatment considered. The question of the interruption of pregnancy can have no bearing upon the treatment of the disease unless it be under exceptional conditions, as, for instance, extreme dyspnea and anasarca, conditions which call for treatment to save the patient, and which are therefore directed rather toward the preservation of the child's life than toward limiting the disease in the mother. [W.K.]

5.—Goldan reports 2 cases in which the introduction of a soft-rubber catheter into the larynx, and exhalation through this catheter during the inspiratory phase resulted successfully in the treatment of asphyxia in children. [W.K.]

6.—Ameiss finds that very serious **inflammatory complications of the uterus and pelvic organs** are often found in cases of **influenza infection.** Menorrhagia and metrorrhagia are of frequent occurrence, and even acute salpingitis and pelvic peritonitis are occasionally met with. Influenza has a dreadful effect upon the course of pregnancy, abortion and premature labor frequently occur, and are generally accompanied by excessive loss of blood, and usually demand instrumental interference. When influenza attacks a woman about to be confined, the labor frequently proves a very tedious one, with considerable uterine inertia. Excessively bloody and offensive lochia at times continue for weeks beyond the normal duration, induced, very likely, by a diminution of the normal postpartum involution of the uterus. [W.K.]

Archives of Pediatrics.

May, 1899. [Vol. xvi, No. 5.]

1. Meningitic Typhoid Fever; Acute Yellow Atrophy of the Liver; Two Cases of Thigh Friction in Infants. J. P. CROZER GRIFFITH.
2. Recent Advances in Surgery of the Skull. SENECA D. POWELL.
3. Report of 25 Cases of Laryngeal Diphtheria Treated by Antitoxin and Intubation. THEODORE J. ELTERICH.
4. The Successful Treatment of Chorea with Trional and Sulphonal. J. HOWE ADAMS.
5. Onanie Infantum: Clitoridectomy—Recovery. LOUIS FISCHER.
6. Enormous Doses of Laudanum Taken by an Infant. WALTER F. BOGGESS.

1.—Griffith reports a case of **typhoid fever** in which the very sudden onset and rapid development of wild delirium misled him into considering the case one of meningitis. Even in the presence of a positive Widal reaction, he was still inclined to think that there existed a complicating meningitis. The symptoms suddenly changed, taking on the ordinary typhoid type and leaving the character of the case no longer in doubt. He reports also a case of **acute yellow atrophy of the liver** occurring in a boy aged 7 years. There was no autopsy made in this case, but the diagnosis seemed undoubted, since there existed the characteristic combination of intense jaundice, coma, great diminution in the size of the liver, and the presence of leucin and tyrosin in the urine. He directs attention to the rarity of this disease in children and refers to reports of 5 cases which he has observed in the literature. He reports further 2 cases of **thigh friction** in infants, 1 in a little girl aged 16 months, and the other in a little girl 13 months old. He believes that the occurrence of masturbation in infancy is frequently overlooked by physicians and parents and the subject is one that has not received much notice in the literature. It is important in the treatment of these cases to remove all sources of irritation; especially important is the mastering of the habit by constant watchfulness. In obstinate cases mechanical means should be sought which will prevent the approximation of the thighs. For this purpose he recommends the application of some apparatus above the knees of such a nature that free motion is allowed, yet no approximation is permitted. [S.M.H.]

2.—Powell, in 104 **craniectomies** has had 6 deaths. Of 57 adults operated upon, none died from the shock of the operation. In many the operation was futile, owing to the conditions under which it was performed. Three died from sepsis, 1 from hemorrhage, and of the other 2, one 7 days, the other 10 days after the operation from complications arising from teething. His patients were removed from the operating-table without showing any shock or unfavorable symptoms other than those usually following a serious operation. He performs the operation by means of an electric saw. The patient's head is shaved, a rubber bandage 1 inch wide and 10 yards long, which has been previously thoroughly soaked in water, is wound about the head just above the eyebrows, just above the ears, and just below the occipital protuberance. It is wound snugly, but not tightly, about the head until all is used. The numerous thicknesses of the bandage act as a compress upon the bloodvessels, when over this is drawn tightly a strip of rubber adhesive plaster of the same width. Three turns around the head are made with the rubber plaster. The object of this band is to control hemorrhage. The patient's head is then placed upon a sand-bag, slightly projecting over and held firmly on either side by an assistant, so as to prevent rolling, thus enabling the surgeon to make a straight incision in the median line. The point of a sharp, stiff knife is introduced under the bandage in the median line of the frontal bone. It is pressed down and well on to the bone through the periosteum, and the incision is carried along this median line to the upper border of the bandage at the occipital protuberance. The periosteotome is then introduced and half the scalp, including the periosteum, is dissected back until half of the upper skull is exposed down to the temporal muscle. The scalp is turned over and held out of the surgeon's way with a retractor. Two sizes of trephines are used. The larger openings are made at least an inch from the median line, the lower openings $\frac{3}{8}$ of an inch, are about $1\frac{1}{2}$ or 2 inches distant, approximating the lower border of the parietal bone and converging towards each other. A shield, made of German silver, $\frac{3}{8}$ of an inch wide and $\frac{1}{32}$ of an inch in thickness and varying from 4 to 7

inches in length is slightly curved, by drawing it through the fingers. This is then introduced between the dura and the skull and carried from one of the larger holes above downward to one of the smaller openings and brought out. This shield protects the dura from any possible injury. One of the buttons of bone which have been removed is then placed against the edge of the electric saw, and the cutting depth of the saw is regulated by a screw at the top of the saw, and made to conform to the thickness of the bone. The saw is then driven along this line on either side so that the width of the bone corresponding to the width of the two openings is cut through. This piece is then lifted out as a whole. The same step is then taken for the corresponding openings. The shield is then carried forward from the posterior incision to the anterior incision at its shortest approximating point. A strip of bone is then taken between these two points, the width depending upon the object of the surgeon. The dangers to be avoided in this step are the opening of the sinuses and injury to the brain-tissue. When the operation has proceeded to this point very little remains to be done. Flaps in the dura can be made and it can be turned back and the brain-tissue inspected or invaded at the surgeon's option. The surface should be flooded with sterilized water at blood temperature during the entire operation to prevent the shock resulting from undue exposure and chilling of the brain if the room should be cold, and also to wash away the detritus resulting from the use of the saw and to keep the saw from becoming overheated. The operation completed, the scalp is folded back into position and a few stitches of silkwormgut are taken to hold the edges of the wound in position. Drainage is not used. Compresses of gauze from 2% solution of carbolic acid are applied in sufficient quantity to cover the entire skull. These are held in position by a roller-bandage skullcap. The electric current in this instrument is transmitted to the saw by a cable and can be controlled by the surgeon through a button on a foot-plate or by an assistant. The motion of the saw is steady, continuous and free from vibration. The saw-blade is very thin and the teeth are widely set, so that the liability to fixing the saw-blade in the bone is remote. [S M.H.]

3.—Elterich reports 25 cases of **laryngeal diphtheria** treated by antitoxin and intubation; 3 cases were injected on the first day, 3 on the second, 9 on the third, 5 on the fourth, 3 on the fifth, and 2 on the seventh. The tube was worn on the average of 2½ days; 4 cases required no intubation; 5 cases terminated fatally, a mortality of 20%. Antitoxin should be used as early in the disease as possible and will often thereby obviate the necessity of intubation. Intubation should not be deferred too long, restlessness and unremitting dyspnea being the important indications. The tube should remain in place until the diphtheric membrane has disappeared from the throat and the expectoration has become thin and viscid. [S.M.H.]

4.—Adams, having had some unsatisfactory results in the treatment of **chorea** by Fowler's solution, was led to give a thorough trial to certain other drugs. He refers to the case of a girl aged 9 years, in which the choreic movements seemed to increase under Fowler's solution. The child was becoming exhausted from sleeplessness and constant motion of the body. He administered trional in 3-grain doses every 4 hours. Good results were manifested almost at once. The patient ultimately recovered. He has tried the same drug in several other cases with equally happy results. Trional and sulphonal have very excellent reputations in the treatment of this condition. They should be given in doses of 2 grains every 4 hours to a child of 10 years. The dose can be increased or diminished as the case may indicate. In Adams's experience the use of these two drugs stands next to Fowler's solution in point of efficiency. [S.M.H.]

5.—Fischer reports a case of **thigh rubbing** in an infant aged 9 months. The mother observed for some time a peculiar rubbing of the legs and thighs. Examination showed the child to be raw between the thighs and there was a slight vulvitis, but no vaginal discharge. After an observation of several months, the condition was recognized as one of periodic masturbation. The attacks occurred more often when the child was placed on a bed or sofa or on the floor. They consisted of a distinct rubbing of the thighs for several seconds, sometimes lasting a minute or more. The child's face became much congested, the eyes bulged, the hands assumed a distinct cramp-like character. This attack would be followed by rotary movements in which the whole body seemed to participate. The child usually slept from exhaustion afterwards. After the free use of all forms of medication through a period of several months, there was no improvement in the condition. Examination by a surgeon showed the prepuce of the clitoris to be firmly adherent. Clitoridectomy was advised. The operation was performed and the child has remained well since. [S.M.H.]

6.—Boggess had under his care a little child 9 months old, rather under-sized, but perfectly developed, to whom the mother administered from 4 to 20 drops of laudanum 5 or 6 times a day in order to relieve colicky pains. She began with 4 or 5 drops and gradually increased to the maximum number. With the correction of the diet and gradual diminution of the dose, the child eventually recovered. [S.M.H.]

Practitioner.

June, 1899. [Vol. lxii, No. 6.]

1. The Clinical Investigation of Chest Cases. Frederick T. Roberts.
2. Some Results following Needle-puncture. W. H. Jalland.
3. On Cases of Myopathy. C. E. Beevor.
4. Rupture of the Uterus at Full Term; Large Ovarian Cyst; Abdominal Hysterectomy. Nathan Raw.
5. On a Form of Disease of the Joints Occurring in the Later Stages of Syphilis. Arthur Whitfield.

1.—Roberts presents a scheme for the **examination of chest cases,** which is given in tabular form and can best be consulted in the original. [D.R.]

2.—The **seriousness of needle-puncture** is forcibly illustrated by two cases in which injury of this character about the knee-joint resulted in one case in infection and subsequent amputation of the limb; in the other, in ankylosis. The author advises special care in the treatment of the apparently trivial wounds. The Röntgen-ray diagnosis permits us to establish the presence or absence of such intruders, but it does not enable us to tell whether infection has taken place or not. [C.L.L.]

3.—In a brief clinical lecture Beevor describes the recognized forms of **myopathy,** viz., the pseudohypertrophic muscular paralysis, the juvenile form of Erb, and the fascio-scapulohumeral type of Landouzy and Déjerine, and gives details of cases of the first and last form. [D.R.]

4.—Raw reports a case in which **labor was complicated by an ovarian dermoid and rupture of the uterus** had occurred. The rupture was evidently caused by the uterus contracting severely upon the obstruction to delivery produced by the cyst, which contained several pints of thick, dark yellowish, putty-like matter, with hair and bone; and had a twisted pedicle. Out of 113,138 cases of labor, rupture occurred in 85, or 1 in 1,331. He summarizes the causes and symptoms as follows: The causes are, during pregnancy, (1) injury; (2) diseases of the uterus during labor; (3) direct injury from instruments or turning; (4) inordinate action of the uterus, particularly when arising from obstructions to the passage of the child; (5) previous disease of the uterine parietes: its effects are heightened by inordinate uterine action, by obstructions to the passage of the child, or by malposition of the child. The symptoms are varied by the extent and rapidity of the laceration and by the seat of it (in neck or fundus). When the laceration is complete and rapid; (1) pain severe and sudden and a feeling of laceration, tenderness and distention after a time; (2) abdominal pain; (3) the shape of the child and of the uterus can be felt; (4) recession of the presentation; (5) diminution or arrest of uterine action; (6) hemorrhage from the vagina; (7) death of the child; (8) constitutional symptoms: (*a*) shock, small pulse, cold skin, etc.; (*b*) sympathetic vomiting (dark). [W.K.]

5.—Whitfield calls attention to an important condition, a form of **arthritis occurring in the later stages of syphilis.** He has seen four cases of the affection, the histories of these being briefly as follows: Case 1 was in a laborer, aged 35 years, who gave a history of having had an attack of subacute rheumatism which had affected all the joints slightly and had yielded to rest in bed in the case of all but

the left wrist. This was markedly swollen and was very tender. The swelling pitted somewhat on pressure and the color was a light pink. The patient recovered very slowly on the administration of potassium iodid and sodium salicylate. Eight months later a painful swelling of the left elbow developed, and the pain was so excruciating that he could not sleep. The joint was enormously swollen in a fusiform manner. The skin was dark-red and the surface shiny. There did not appear to be much fluid in the synovial cavity, the swelling being due rather to thickening of the synovial membrane and the lower end of the humerus. He was placed on potassium iodid three times a day and mercurial inunctions, and made a prompt recovery. A periosteal node, it should be added, had been found on the tibia. The second patient was 23 years old and complained of pain and swelling in the right elbow and wrist. He had had a severe attack of syphilis 2½ years previously. Examination of the joints showed swelling, a purple redness, edema, shiny skin, and engorged veins. There was a large node on the subcutaneous surface of the left elbow. This rendered the diagnosis easy. The same treatment was employed with the same result. The third patient, a carpenter aged 40, had pain and swelling of the right thumb. He had had syphilis three years before. The joint looked extremely like one recovering from acute gout. Under specific treatment he recovered in less than a fortnight. The fourth patient was a married woman of 33 years, with pain and swelling in several joints. Both knees and ankles were much swollen and quite tender to the touch. The ends of all the bones entering into the articulations of the affected joints were apparently enlarged and the synovial membranes much thickened. There was no redness of skin over any of the joints. She had had syphilis eleven years before. Under potassium iodid and daily inunctions of mercury she improved rapidly. The author considers these cases to have been a form of gummatous arthritis and finds that this has been described by Finger. [D.R.]

Annals of Surgery.

June, 1899. [Vol. xxix, No. 6.]

1. Observations in the Sterilization of Catheters and Bougies, and on the Presence of Bacteria in the Urethra. JAMES H. NICOLL.
2. Uretero-Ureteral Anastomosis for Traumatism. FRANCIS H. MARKOE and FRANCIS C. WOOD.
3. Movable Kidney. JOHN B. DEAVER.
4. Preliminary Report on the Surgical Anatomy of the Gall-Bladder and Ducts from an Analysis of 100 Dissections. GEORGE EMERSON BREWER.
5. Inspection of the Abdominal Cavity and its Viscera in Postmortems. BYRON ROBINSON.
6. Notes on Cancer of the Fundus Uteri. CHARLES B. PENROSE.
7. Operative Relief of Vesico-Rectal Fistula. GEORGE S. BROWN.

1.—After having conducted a series of careful and comprehensive experimental tests on the **sterilization of bougies and catheters,** Nicoll expresses the following opinions: It appears clear that ordinary careful washing of a soiled bougie, followed by careful drying with gauze or towel which has been sterilized by steam or boiling, may be relied upon to render the instrument sterile.. Ingenious antiseptic solutions are not necessary to destroy the bougie. Instruments must not be employed after their surface has become broken. Metal bougies on which the plating has become broken or scratched, and soft bougies with chipped or scratched surfaces, offer sites for the lodgment of septic material, from which it is not dislodged without further destruction of the surface. Soft bougies cannot be repaired and must be thrown away. In regard to catheters no such positive opinions can be expressed. It, however, can be said that the metal catheter, and the soft, red rubber composition, or Jaques' catheter, may be readily and certainly rendered sterile for an indefinite number of times either by boiling or by washing and immersion in sufficiently powerful antiseptic solutions, and this without sustaining damage. There is no way that is reliable for sterilizing "gum elastic" or "varnished" catheters, though some are reasonably secure. He avoids the use of catheters where bougies will serve as well. He uses a rubber catheter when possible or a metal one. Metal catheters are sometimes an essential, but should not be used by patients; if a stiffer catheter is required, he employs a gum-elastic. When the urine is purulent or septic the catheter must be destroyed. If not very purulent or offensive the catheter is washed with soap and water, then with antiseptic solutions, followed by internal steaming. Those that survive are retained. When a gum-elastic has to be used he sees that it is well finished within. After use the patient holds it under the tap for a few minutes, then lays it aside in a dish of boric, weak perchlorid, or other weak antiseptic solution. This does not produce asepsis, but gives a reasonable chance. [C.L.L.]

2.—Markoe and Wood report a case in which the **ureter was divided in the removal of a fibroma of the uterus.** The accident was not discovered till after the tumor was removed and the abdomen closed, when the patient complained of pain, and anuria was found to be present. On examining the tumor the ureter was found imbedded in it. The abdomen was opened and both ureters found to be distended with urine. The right was not injured but bent so sharply that the urine could not flow through it till a stitch was removed. The other ureter was united by end-to-end anastomosis over a catheter which was passed into the upper portion of the ureter, then through the stump of the lower segment into the bladder and out through the urethra. The patient made a complete recovery without a permanent urinary fistula, although the healing was delayed by a slight amount of urinary extravasation and a slowly healing fistula. The authors deal historically with the subject of ureteroureterostomy, and describe the method and the indications for various operations. [C.L.L.]

3.—Deaver deals with the subject of **movable kidney** from a practical clinical standpoint, dealing specifically with all the conditions that may simulate it, and the differential diagnosis which each involves. With regard to the cure of the condition he differs from the majority, who have seen no harm and frequently good results follow the ordinary nephrorrhaphy operations. His results with nephropexy, by means of gauze backing and bands of gauze placed beneath the two poles of the kidney, have been in every way satisfactory, and he has found no reason to look for better or more lasting results than have been obtained in the nine cases in which he has performed this operation. [C.L.L.]

4.—A comparative anatomic study of the relations of the biliary system of ducts and reservoirs has been productive of valuable statistical and anatomical data, which are especially interesting to those interested in the surgery of the gallbladder. Brewer directs special attention to a falciform fold of the duodenal mucous membrane, which bears a fairly constant relation to the internal orifice of the common bile-duct, and may be depended upon as a guide when searching for this point in surgical operations. He also gives the surgical relations of the various nerves that supply the abdominal muscles, and shows how incisions should be planned to avoid them. [C.L.L.]

5.—The value of the **study of the relation of the abdominal viscera in autopsies** is emphasized by Robinson. He also points out the value of the colon in dividing the intestinal from the other visceral contents of the abdomen. By inflating the colon with a syringe, the air within it enables us to separate growths connected with the space within the different portions from those viscera that lie external to it. [C.L.L.]

6.—Penrose notes the fact that cancer of the fundus of the uterus is much more frequent than was supposed, and that the proportion in relation to cancer of the cervix is much greater in his cases than the proportion generally given; he finds that the ratio is about 16%. On the other hand, the percentage of recoveries is much greater after the operations upon the fundus than in operations on the cervix. [C.L.L.]

7.—The case reported was one in which extreme difficulty was met with in closing a **recto-vesical fistula** that resulted from a perineal operation for stone. Brown finally did a temporary inguinal colotomy to free the rectum from infection, and succeeded after a series of attempts in closing the fistula. The patient took ether sixteen times. Had pneumonia once, and finally became so tolerant of the ether that he was readily and rapidly anesthetized, but recovered almost immediately so soon as the ether was withdrawn. [C.L.L.]

Wiener klinische Wochenschrift.

May 11, 1899. [12. Jahrg., No. 19.]

1. Commemoration of the 500th Anniversary of the Vienna Medical College. R. R. v. TÖPLY.
2. I. The Chemical Composition of Tropon and Several Tropon Nutrients. R. KUNTZ. II. The Digestibility and Usefulness of Tropon. I. KAUP.
3. Correction.

2.—A further study of tropon, a prepared compound of animal and vegetable albumin. (See PHILADELPHIA MEDICAL JOURNAL, Vol. III, page 543.) [D.R.]

May 18, 1899. [12. Jahrg., No. 20.]

1. Concerning Paralysis of the Ocular Muscles, and Strabismus. SCHNABEL.
2. The Various Methods of Gastroenteranastomosis. R. LUCKE.
3. A New Reaction for Proving Acetic Acid in Urine. V. ARNOLD.
4. Upon Argyrosis. MENZEL.

1.—Schnabel describes a method for **differentiating between paralysis** followed by double vision, paralysis with single vision, and squint with double and single vision. There is a group of cases in which these conditions are so merged in their symptomatology that it is difficult to tell whether the individual case belongs to the one or the other and yet an operation that would benefit one group would be inefficient and harmful to the other. Such a method of differentiation is therefore very valuable. [C.L.L.]

2.—The author discusses the various forms of **gastro-anastomosis** and deals especially with the difficulty that has been found in preventing the regurgitation of bile and intestinal contents from the portion of the intestine above the anastomosis into the stomach through the efferent loop of intestine. When the operation has to be completed rapidly this difficulty can be overcome by forming the lateral anastomosis between the intestines, in portions of the intestine in which the peristalsis is in the same direction in each, and by resecting the afferent portion of the excluded loop of intestine at a point just before it reaches the stomach, to form the lateral anastomosis. Where the patient's condition permits a more protracted operation he advises the resection of the intestine, the suturing of the resected ends and the formation of a lateral anastomosis, posteriorly if possible with the stomach by the distal end of the intestine, which is further supported by suturing it to the stomach-wall and the formation of a lateral anastomosis between the proximal end and the afferent intestine from the stomach at a point lower down. By this arrangement the peristalsis takes place in the same direction in both branches of the intestine and regurgitation is prevented, while all the secretions of the upper intestine are utilized. [C.L.L.]

3.—Arnold recommends a **new reaction for diacetic acid in the urine.** Two solutions are employed: First, a **solution of paramidoacetophenon.** One gram of this substance is dissolved in from 80 to 100 cc. of distilled water, hydrochloric acid being added drop by drop, with agitation to aid in the solution. Enough concentrated hydrochloric acid is then added, drop by drop, to make the yellow solution perfectly colorless, an excess of acid being avoided. Second, **a 1% solution of sodium nitrite.** From these two solutions, which keep indefinitely, the reagent is always freshly prepared by taking two parts of the paramidoacetophenon-solution and one part of the sodium-nitrite solution. To the reagent an equal or little larger quantity of urine is added and then two or three drops of strong ammonia, the tube being inverted several times. All urines give a more or less marked brownish-red color. (When there is a great deal of diacetic acid an amorphous reddish-brown precipitate occurs.) A little of the reddish-brown solution is then taken and placed in a conical glass and a large excess of concentrated hydrochloric acid added (for 1 cc. from 10 to 12 cc. of hydrochloric acid). If diacetic acid is present in the urine the mixture assumes a beautiful violet purple color. If the urine is highly colored it is well to filter it through animal charcoal before performing the test. The last part of the test can be varied by adding the reddish-brown solution to the hydrochloric acid. No other substance save diacetic acid and its ethyl ester gives the reaction. The test belongs to the so-called "diazo" reactions, but differs from Ehrlich's diazo reaction. It is true that the latter has been claimed as dependent upon the presence of diacetic acid in the urine, but Arnold disputes this. Bilirubin also reacts with Ehrlich's test, but not with Arnold's. (The test for bilirubin with Ehrlich's reagent is performed as follows: To a 1% solution of hydrochloric acid, sulfanilic acid is added in excess; 4 cc. of this solution is mixed with ½ to 1 cc. of the 0.5% solution sodium nitrite, and the whole diluted with distilled water to 50 cc. A few cubic cm. of this solution are mixed in a conical glass with one-third to one volume of the urine. If bile-pigment is present the solution assumes an orange-red color, becoming violet on the addition of a few drops of concentrated hydrochloric acid.) Glucose, which gives a diazo-reaction, does not react with Arnold's reagent; the latter applies only to diacetic acid and its ethyl ester. The reaction is more delicate than that of Gerhardt. Acetone and oxybutyric acid do not respond to the test. The common antipyretics, as well as salicylic acid, do also not react with paramidoacetophenon. [D.R.]

4.—The **argyria** in Menzel's patient had a curious origin. The man had been under treatment in the laryngologic clinic for 9½ years for chronic pharyngitis and laryngitis, and his throat had been painted with a 5% and 10% solution of silver nitrate during all those years. The author thinks that the general argyrosis was the result of the unavoidable swallowing of some of the solution during the application. The man was 45 years old and well nourished. The posterior wall of the pharynx was gray and the lateral parts grayish-green. The interior of the larynx was bluish-gray. The other mucous membranes had a normal appearance. The skin of the face, neck, and backs of the hands was of a leaden-gray color. The sclera and the palpebral conjunctiva had a slight grayish tinge. The parts of the body covered by clothing had a sallow color. An interesting symptom was the frequent change in the hue of the skin, usually as the result of emotion, and after the throat had been painted. The color changed from a dark to a light gray. The change was connected with variations in the congestion of the vessels. Another peculiar feature was the development of **abstinence-symptoms** when the throat had not been painted for some time. The patient became restless and unable to work, insomnia developed, the appetite became poor, and some irresistible power drew him to the dispensary for another application. Whether these phenomena were actual abstinence-symptoms, like those seen in morphinism, or were dependent upon auto-suggestion, the author is unable to decide. The isolated involvement of the parts exposed to light suggests that light plays a part in the reduction of the silver. In autopsies on cases of argyria a deposit of silver is found in all internal organs with the exception of the brain and spinal cord. The pigmentation occurs only in the connective tissue-cells, not in the epithelial elements. The possibility of the removal of the pigment from the skin must be admitted. [D.R.]

Berliner klinische Wochenschrift.

May 8, 1899. [36. Jahrg., No. 19.]

1. Encephalitis in Infancy, in Connection with a Contribution upon Symptomatology of Facialis and Hypoglossus Paralysis. H. OPPENHEIM.
2. Further Studies upon Scab-Infection. P. COHN.
3. The Simplification of the Phenylhydrazin-Test. A. KOWARSKY.
4. Upon the Bloodless Reduction of Congenital Hip-Dislocation. (*Continued.*) J. WOLFF.

1.—The patient was a girl of 19 years, who had had an obscure illness when a year old, during which she was unconscious and in spasms for several days. At the end the **left side of the face was found paralyzed.** Improvement occurred, and the girl's chief complaint was the injury to her beauty and a tremor of the muscles of the left side of chin and mouth, as well as a sensation as if the left side of the upper lip was too thick and hard. There was asymmetry of the face, the muscles of the left side were weaker than those of the right, and there was a constant fibrillary tremor of the left chin and lower-lip region, with occasional

tic-like contractions synchronous with the closure of the lids. The tongue was deflected toward the left and the left side was somewhat atrophied; the raphé on the floor of the mouth also deviated from the median line. On electric examination there was a quantitative diminution in the excitability of the muscles of the left face, and especially in the left platysma. Perhaps the most interesting feature was that on stimulating the *right* facial nerve with a weak current contraction occurred in the muscles of the chin and lower lip on the *left* side, even with a current that had scarcely any influence on the muscles of the right side and none at all on the left when directly applied to it. This crossed contraction occurred only in the parts of the muscle close to the median line. The reflexes of the knee and ankle were a little stronger on the right than on the left side. All the symptoms pointed to a cerebral lesion, and the question arose as to whether this was of nuclear, *i. e.*, bulbar, origin, or whether it involved the peripheral nerves. Oppenheim thinks the condition was a **pontile or bulbar infantile cerebral palsy,** believing, as he does, in the existence of a poliomyelitis, or acute encephalitis of the nuclei of the motor nerves in the pons and oblongata. That the disease involved only the left facial and hypoglossal nerves, is not surprising in view of the fact that in poliomyelitis isolated and distant spinal nerve-nuclei may be singled out. The curious phenomenon developed on electric examination the author explains as dependent on collateral innervation of the muscles contiguous to the median line by the facial nerve of the other side. He believes that in cases of paralysis of the muscles of expression in early life, fibrils from the healthy side cross over the median line to innervate the other side. [D.R.]

2.—Cohn had previously demonstrated that **eschars from burns** and **caustics** were, to a certain extent, **protection against bacterial infection.** The experiments had been made with the solid stick of the caustic; in the present paper the results, after using caustic solutions, are published. Solutions of silver nitrate, of copper sulfate, of ferric chlorid, of silver lactate (actol), were employed. The solution of silver nitrate (10%) was applied to a fresh wound in the ear of a rabbit, washed off with a 20% salt-solution, the eschar dried, and a culture of the bacillus of hog-cholera placed on the wound. The other substances were used in a similar manner. All the eschars, except the one made with actol, were protected against infection. The copper and iron solution were also tested, as regards the anthrax-bacillus. The control-animals died,the others did not,except a ferric-chlorid animal inoculated with anthrax. It died on the twelfth day, apparently of coccidiosis; no anthrax-bacilli were found. The diphtheria-bacillus was also employed to test the resistance of the eschars. The copper-sulfate animal died, but apparently not of diphtheria; the ferric-chlorid animal survived; the control died. These eschars, then, may be used as a means for **preventing the infection of fresh wounds.** If it is necessary to open an encapsulated bacterial focus, the bacteria can be kept from penetrating into the blood and lymph-channels by applying caustic to the incision-wound before opening the abscess. It might also be advisable to cauterize tracheotomy-wounds. In 10 tracheotomy-wounds, made for diphtheria, Cohn found diphtheria-bacilli in all, streptococcus 7 times, staphylococcus aureus 5 times, and staphylococcus albus 4 times. Animal experiments showed that if the tracheotomy-wound was cauterized with silver nitrate, some of the caustic was apt to damage the tracheal mucous membrane, and lead to the death of the animal; but copper sulfate and ferric chlorid, although not so strongly antiseptic, proved satisfactory. The author, however, seems not as yet prepared to recommend their use in medical practice. [D R.]

3.—The **phenylhydrazin-test for sugar** in the urine has been condemned on the ground that other substances besides glucose, as for instance glycuron-compounds, also produce a crystalline formation which is similar to that of the glucosazon-crystals. Kowarsky shows, however, that the test is adapted to clinical purposes and recommends the following **method of application:** Five drops of a saturated solution of a pure phenylhydrazin is placed in a test-tube and shaken with ten drops of glacial acetic acid, and then one cc. of a saturated solution of sodium-chlorid is added. The phenylhydrazin hydrochlorate and the sodium acetate which form appear as a white, cheesy mass. Three cc. of urine is then poured into the test-tube and the mixture heated for 2 minutes over a Bunsen or alcohol flame. The mixture is then **allowed to cool slowly.** A precipitate occurs after a shorter or longer time, according to the amount of sugar present. The greater the amount, the earlier does this precipitate appear. If there is more than 5% of sugar, it appears in about 2 minutes. The presence of albumin in small quantities does not interfere with the test; larger quantities must be removed by boiling. If typical crystals are not formed, it may be concluded that less than $\frac{1}{10}$% of sugar is present. To exclude all traces of sugar, the urine should not be examined under an hour for the precipitate. The microscope can be dispensed with when the sugar exceeds .5%, as the golden yellow precipitate is then visible with the naked eye. [D.R.]

May 15, 1899. [36. Jahrg., No. 20.]

1. Concerning the Pseudo-influenzal Type of Disease. R. v. JAKSCH.
2. A Contribution upon Ankylosis of the Jaw from Scar-tissue. KAREWSKI.
3. Concerning X-Ray Examinations of Lung Echinococcus. L. DORN and ZADEK.
4. Asterol as an Antiseptic Compared with Sublimate. M. VERTUN.

1.—Von Jaksch describes a series of cases under the name of **pseudoinfluenzal affections,** conditions which clinically resemble influenza, but which on bacteriologic examination show the absence of the characteristic germ. In the first case reported the sputum contained a pure culture of streptococci. Streptococci were also present in the second and third cases. In the fourth case the diagnosis was that of influenzal pneumonia, but bacteriologic examination showed no influenzal bacilli, no streptococci—in fact, the case was one of pneumonia of unknown etiology. Several other cases with peculiar fever-curves, in none of which the influenza-bacillus was found, are described. There must be other morbific agents capable of producing a condition resembling influenza. In some cases it may be a streptococcus of mild virulence. An interesting observation was made in connection with these cases of pseudo-influenza: since the occurrence of the plague in Vienna, all cases of pneumonia in von Jaksch's clinic have been studied with great care. Those examined in November and December were always diplococcus-pneumonias; one studied in February and one in March, or about the time during which the pseudoinfluenza occurred, were streptococcus-pneumonias. The streptococci in these cases were highly virulent. It is possible that the streptococcus was not the cause in all the cases of pseudoinfluenza, and there may have been another unknown factor. [D.R.]

2.—The case of a girl is reported who, when 10 years of age, had an **ulcerative affection of the mucous membrane of the mouth.** The ulcerated condition was increased by the use of stick nitrate of silver, and during healing the condition became so bad that the patient could not open her mouth. A number of operations had been performed dividing the scar-tissue. Finally a transverse incision was made through the cheek from the mouth to the angle of the jaw; the tissues were divided down to the bone and dissected away from the upper jaw. The upper and lower jaws were separated by a stroke of the chisel, and a piece of the lower jaw was chiseled away. As a result of the operation the patient is now able to chew all her food, and the difficulty in opening the mouth is entirely removed. The operation is more successful from a practical than from a cosmetic point of view. [M.B.T.]

3.—Levy-Dorn and Zadek report an interesting case of **pulmonary hydatid disease in which the Röntgen-ray clearly revealed the seat of the lesions.** They think it is better to take the picture during inspiration than during expiration.

4.—Steinmann (see PHILADELPHIA MEDICAL JOURNAL, May 27, 1899, p. 1162) had recommended **asterol** as an ideal antiseptic because, unlike corrosive sublimate, it does not precipitate albumin-solutions nor tarnish instruments. Vertun, in his experiments, found that it had no appreciable advantage over the mercuric chlorid, despite the claims made for it. [D.R.]

Münchener medicinische Wochenschrift.

May 9, 1899. [46. Jahrg., No. 19.]

1. Anthrax of the Tongue, Followed by Cure, with Remarks upon Treatment of Anthrax-Carbuncle. Rammstedt.
2. Hematoma of the Pia-mater in Anthrax of Man.
3. Examination of Germ-developments in the Normal Bronchial Gland. Kälble.
4. The Physiology of the Hearing Organs. Zimmermann.
5. Autotransfusion and Prophylaxis in Tuberculosis of the Lungs. Jakoby.

1.—This case of **anthrax of the tongue** occurred in a laboring man, 28 years of age. Inspection showed swollen and edematous face and lips. The jaws were partially opened, and from between the teeth protruded a portion of the enormously swollen, reddened and ulcerated tongue. All the parts were extremely sensitive. No fluctuating areas could be found. Microscopic and bacteriologic examinations of bits of the tongue showed the presence of the anthrax-bacillus, whereas cultures from the sputum and blood gave negative results. The treatment consisted in rest, stimulants, local applications of ice, and washing the mouth with an astringent antiseptic solution (essigsaurer Thonerdlösung). The patient was discharged healed in 21 days. [G B.W.]

2.—This case of **anthrax** developed in a woman, 28 years of age, the wife of a man whose business for the past 20 years had been that of sorting hides. The patient died on the fifth day of the disease. The postmortem showed malignant pustule of the cheek with extensive edema of the whole face. Of more especial interest was the intense infiltration of blood into the meninges, accompanied with proliferation of the connective-tissue cells especially around the vessels of the pia. The walls of these bloodvessels had undergone inflammatory changes. The infiltrate of blood contained well-preserved and numerous anthrax bacilli, while within the bloodvessels only very few were found. In other portions of the body the bacilli were only sparsely present. The author believes that the hemorrhage and pathologic changes in the bloodvessel were due solely to the influences of the anthrax bacillus and not to any other complicating microorganism. [G.B.W.]

3.—Kälble has studied **healthy bronchial glands,** both pathologically and histologically, for the purpose of determining whether bacteria are present or not. The glands of 20 hogs were examined; in 5 of them the cultures were negative, in 3 cases animal-inoculations gave positive results, and in 12 the cultural results were positive. Staphylococcus albus was found 6 times, the streptococcus 4 times, Friedlander's pneumobacillus 3 times, and the diplococcus of pneumonia once. These results show that only in the rarest cases are the bronchial glands of healthy hogs free from germs, and it is reasonable to assume that the same thing is true of man. In the second part of the investigation the bronchial glands of individuals who had died of acute diseases or in consequence of accidents were examined, and for the purpose of determining the presence of tubercle-bacilli only those were studied in whom all the organs of the body were free from tuberculous lesions. In 2 out of 23 cases, or in 8%, **tubercle-bacilli** were found in the bronchial glands of nontuberculous individuals. As the human organism rarely suffers from the effects of the bacteria retained in the bronchial glands, it must be assumed that the latter have some antibacterial influence. The glands are not only filters, but they also render the organized poisons innocuous. It is possible that the bacilli sometimes enter the blood stream, they may be destroyed there or they may be carried to some other part of the body and multiply. The author thinks that the bronchial glands play a part in the pathogenesis of such diseases, the mode of infection and the portal of entrance of which have not been found, as, for instance, in cryptogenetic septicemia, in osteomyelitis,and in traumatic or spontaneous caries. [D.R.]

4.—Helmholtz had enunciated the theory that the vibrations of the membrana tympani were conveyed to the labyrinth through the medium of the ossicles vibrating as a whole, but otologists had frequently observed that even after the removal of the ossicles the hearing was at times but little impaired, and sometimes the destruction of the stapes, labyrinthian or nerve-disturbance being absent, was followed by improvement in audition. Zimmermann, in view of these and other facts, has come to the startling conclusion that **in the act of hearing** neither the tympanic membrane nor the ossicles have anything to do with the transmission of the sound. In ordinary sound-transmission the membrane and the chain of ossicles remain in almost absolute quiescence, and the membrane admits the passage of the air-vibrations from the auditory canal into the middle ear only in accordance with the arrangement of its molecules, the vibrations then impinging on the broad surface of the promontory and the subjacent concha. The **functions of the tympanic membrane** are, in the first place, **protective** through the membrane's action; a column of air of the same tension and of the same temperature is always maintained directly over the promontory; and secondly, it constitutes, together with the chain of ossicles, a **regulator** for the pressure-changes in the labyrinth. In order to accommodate for changes in tension, the two windows act in the manner of valves, and yield in response to the intralabyrinthian pressure. The chain of ossicles, with their muscles, regulate the amount of yielding. A strong point which the author makes in favor of his theory is the following: If the ossicles really constituted the vibrating sound-conductor, the two striped muscles fixed to the malleus and stapes, respectively, would necessarily be in constant motion day and night. The possibility of such constant motion on the part of voluntary muscles is physiologically scarcely tenable. The membrana secundaria of the round window constitutes an automatic valve, while that of the oval window acts reflexly under the control of the two muscles; the one, the tensor, fixes the stapes on the inner side; the other, the stapedius, on the outer side. By the action of these two systems of valves, the delicate contents of the inner ear are protected against all violent influences striking the ear. The author then gives interesting explanations of the Weber and the Rinne tests. In the latter test the tuning-fork is heard in front of the ear after it has ceased to be heard when held against the mastoid process. This is due not to any marked difference between air and bone-conduction, least of all to a superiority of the former over the latter; it is due to physical causes and depends upon the formation of nodal points in the tuning-fork, which only permit a vibration of the ends. These vibrations are not audible at any great distance, but are heard as soon as the tuning-fork is brought close to the ear. The author's final theses are as follows: (1) The membrana tympani and the chain of ossicles during sound-conduction suffer only molecular vibration; (2) the tympanic membrane, together with the ossicles, constitutes an excellent reflex-regulating apparatus under the precise control of a set of muscles, the round window acting as an automatic valve; (3) there is only **one sound-conduction** through the labyrinth, namely, **bone-conduction.** This may be direct, from the source of sound itself, as from the tuning-fork, or indirect, through an intercalated medium, namely, a column of air. [D.R.]

5.—In a previous publication, Jacoby, of Bayreuth, recommended two therapeutic measures in the treatment of phthisis, which he designated as **thermotherapy** and **autotransfusion,** both having for their object the production of a hyperemia of the apices of the lungs. In the first procedure the chest was exposed to streams of hot water, but the apparatus was not very satisfactory—too complicated—and the method has for the present been abandoned. **Autotransfusion** is secured by position, the patient lying with his shoulders depressed and the pelvis and lower extremities elevated. Jacoby has had a reclining-chair constructed, by means of which the assumption of this position is rendered easy. He also recommends the use of autotransfusion prophylactically during sleep, by dispensing with pillows. The hyperemia induced by autotransfusion is supposed to permit a better action of the alexins, a better nutrition of the lung and a more complete moistening of the bronchial mucous membrane, so that the secretion may become less tenacious and the expectoration freer. At Jacoby's suggestion, the method was employed at a sanatorium by Weicker. The latter had his patients lie flat on the floor on blankets and breathe systematically. While lying thus, the patients coughed a little more, but very little during the day afterwards, and the improvement was very marked. With a new reclining-chair which the author has had constructed the patients rest for 5 minutes in a semi-sitting posture, then for 5 minutes in a horizontal position, the elevation of the pelvis and lower extremities being gradually increased. [D.R.]

Deutsche medicinische Wochenschrift.

May 11, 1899. [25. Jahrg., No. 19.]

1. Bacteriologic Condition in Stomatitis and in Tonsillitis Ulcerosa. H. SOLOMON.
2. Hypospadia Perinealis. H. WAITZ.
3. Syphilis of the Spinal Marrow, with Cavernous Formations. A. JAPHA.
4. The Importance of Alcohol in Nourishing Therapeusis. R. ROSEMANN.
5. Toxemic Delirium in Heart-Disease. J. TELGMANN.
6. The Transfusion of Natrium-Saccharate Solution. A. SCHÜKING.

1.—Solomon refers to the microorganisms previously found by others in cases of **stomatitis.** These were a combination of bacilli and spirilla. He reports 3 cases of ulcerating tonsillitis in which he made a similar discovery. He believes that the fact that these bacilli and spirilla are found so frequently in such conditions, and are at present in almost pure culture is an indication that even if they are not the actual cause of the condition they are sufficient basis for prognosticating the relatively harmless form of disease with which they are usually associated. [D.L.E.]

2.—Waitz reports a case of **hypospadia** which was completely healed by a number of operations. The penis was first straightened out, then an operation for forming the urethra at the glans was successfully done. The formation of the rest of the urethra was only after numerous operations had been resorted to. [G.B.W.]

3.—The case occurred in a woman of 50 whose trouble began with pains in the hips and uncertain gait. The condition grew worse, and within 2 years she had become very atrophic; she had first a spastic and subsequently a flaccid paralysis of both arms and legs which had finally resulted in almost total paralysis of all four members. There was nowhere complete anesthesia, though all forms of sensation were lessened, the pain and temperature senses being most markedly lowered in quality; there were no distinct symptoms of disease of the bladder or rectum. The coincident disturbance of motion and sensation excluded a system disease. Postmortem the spinal cord was found sclerotic in the lumbar region, and from here upward the consistency diminished and in the cervical swelling there was a softened portion about 4 cm. in length. The dura was reddened and adherent to the pia, the latter was much thickened and very adherent. In the posterior columns there was softening. There was also hyalin thickening of the pia on the anterior horns, and in the softened area there was a cavity of about the thickness of a goose-quill extending upward and downward from the cervical thickening. There were multiple sclerotic areas in the cord, and collections of cells and induration about the spinal ganglia. The brain was somewhat hydrocephalic, but showed no other changes. There were gummata in some of the viscera. The microscopic examination showed degeneration of the white substance particularly affecting the pyramidal and lateral columns in the lower part and above the columns of Goll, Gower's bundle and the lateral ceribellar tracts. The cavity was found in the apex of the posterior column, distinctly separated from the central canal and having no relation to it. The vessels showed especial change, consisting chiefly in marked thickening of the adventitia, and in some places such thickening of the intima as almost to close the vessels. Surrounding the vessels was a sclerotic tissue. From these vessel-changes and the fact that almost all parts of the spinal cord showed collections of granulation cells, with subsequent transformation into sclerotic scar-tissue, together with the visceral signs of chronic syphilis, the case was considered one of **syphilis,** and the cavity-formation was believed to be due to syphilis. [D.L.E.]

4.—Rosemann first speaks of the fact that **alcohol is generally considered a valuable nutriment,** particularly in those cases, such as acute fevers, in which there is a rapid destruction of tissue, and it is desired to control this by administering some form of nourishment that may be readily oxidized and thus spare the tissue. The previous investigations of Riess, Stammrich, Miura, and Schmidt have not shown that alcohol controled in any way the loss of proteids. Rosemann, however, says that in none of these cases was there an active loss of nitrogen going on, as the individuals were all in metabolic equilibrium. He has, therefore, had Schöneseiffen put a patient upon a diet which contained somewhat too little nitrogen. The patient therefore lost nitrogen. He was then given alcohol in much more than sufficient amount to make up the total amount of calories that a man of his weight should take during 24 hours. If, then, alcohol controls nitrogen-loss this patient should, when upon alcohol, have lost no excess of nitrogen as compared with the amount taken in in the food; this, however, was not true, as the alcohol caused a lessening of only about 100 mg. of the daily loss of nitrogen, and that amount is within the error-range. There is no doubt that alcohol controls the loss of fat to a considerable degree. This may be valuable at times, but in some ways it is more harmful because the patient is really constantly losing muscle, but remains apparently well nourished, so that alcohol in acute diseases or at other times is likely to delude one into believing that the patient is doing much better than he is, and in Rosemann's belief we must give up the hope of controling proteid loss by the use of alcohol. [This is too extreme a statement. One experiment on a man apparently healthy cannot be considered to have established a rule for all, sick or well. D.L.E.]

5.—There are 5 extremely interesting cases reported. The ages of the patients varied from 45 to 76 years. In none of the cases was there fever. Albumin was present in the urine in only 3 cases and only in slight amounts, never in more than 0.10%, and it always disappeared after rest in bed or strengthening the heart with digitalis. The amount of urine was excessive; it grew less after an attack. In the second case the urine was entirely normal in amount and contents. In the 3 other cases the amount was decreased. In all the cases the patients were taking a sufficient amount of nourishment. In 2 cases there had been overstrain just before the attack, and in both these cases there was a rapid onset of a delirium with confusion with wild gesticulation, lack of recognition of the surroundings, and belief that the attendants were preventing the patient's return to his home. There was no twitching, no tendency to sleep, but rather marked activity. These attacks were repeatedly experienced. They disappeared after quiet and rest and strengthening of the heart. The duration and severity of the attacks was in direct relation to the extent of the edema and cardiac weakness. In the 3 other cases there was severe dyspnea, the attacks were similar to those described in the other cases. In the third case death was sudden after the fifth attack. In all 6 cases there was a blowing systolic murmur over the heart. In 3 of them there was marked atheroma. In one there had been a severe attack of influenza and pleurisy shortly before. In all cases the attacks were repeated a number of times. The delirium was always very much the same in all cases, very active, always associated with the idea of being in a strange place and being obliged to remain there unwillingly. There was marked gesticulation with outcries and endeavors to escape. There were no signs of uremia and none of embolism—in none of the cases was there even the slightest paralysis. Eichhorst is inclined to attribute the attacks to **intoxication with substances from the fluid of the edema.** This cannot be considered the cause of all, however, as in 2 of the cases here reported there was practically no edema, the attacks coming on merely after temporary overstrain, and seeming to be in direct association with the heart-weakness itself, though Telgmann expresses his unwillingness to offer any definite explanation as yet. He thinks, however, that the diagnosis of this form of delirium can be made by observing the presence in most cases of edema with sudden onset of delirium, with active gesticulations and outcries, flushed face, deep inspiration, and the constant belief that the surroundings are strange. [D.L.E.]

6.—The object of using **sodium saccharate solutions** was to cause a combination of the sugar with the excess of CO_2 in the blood, since CO_2 has a strong affinity for this substance. In order to stimulate the cardiac action, calcium was also tried, but this caused so much pain that it was given up. The use of the sodium saccharate, however, was very satisfactory. The solution which is finally used contains .08% of sodium chlorid and .033% of sodium saccharate. He reports a case in which there had been severe hemorrhage, and the use of this solution caused rapid improvement in the pulse, the disappearance of lividity and the return of warmth to the skin. A similar case is also reported. [D.L.E.]

Centralblatt für Gynäkologie.

May 13, 1899. [23. Jahrg., No. 19.]

1. The Adherence of the Inferior Portion of the Fetal Membranes as a Cause of the Delayed Period of Dilatation. H. Lohlein.
2. On the Question of Tubal Pains. W. Thorn.
3. A Case of Cesarean Section with the Transverse Fundal Incision of Fritsch. Leopold Thumim.
4. Notes on Conservative Cesarean Section with the Transverse Fundal Incision of Fritsch. J. von Braitenberg.
5. Three Conservative Cesarean Sections with the Opening of the Uterus by Means of the Fundal Incision of Fritsch. Siedentopf.
6. Cesarean Section with the Fundal Incision of Fritsch. W. Perlis.
7. The Surgical Preservative Treatment of Chronic Inversion of the Uterus According to the Method of Kehrer. P. G. Spinelli.
8. The Atmocausis and Zestocausis of Pincus. Ottocar Gerich.
9. A Cheap Celiotomy Table. Otto Wille.
10. A New Ointment Syringe. Oscar Beuttner.

1.—Lohlein believes that one of the chief causes of **delay in the period of dilatation** is the persistent adherence of the lower portion of the fetal membranes to the lower uterine segment. This interferes with the opening of the internal os and the rupturing of the membranes. One of the chief causes of this condition seems to be a chronic endometritis. An unnatural thickening and resistance of the membranes has very little to do with the case. Lohlein cites 2 cases as examples of his theory. Other causes of delay in the period of dilatation are true placenta prævia, unusually thick and tough decidua, and fibrin infarcts on the lower edge of the placenta. Lohlein especially states that this adherence is not identical with the growing together of the membranes and the inner wall of the cervix. [W.K.]

2.—According to their anatomy the healthy **tubes must have the power of contraction,** and there seems to be no reason why the pregnant tubes should not have the same power, if their structure has not been radically changed by the growing fetus. As a matter of fact, many cases of tubal abortion in the first 10 weeks occur with pain of the same character as in uterine abortion. The result of an ordinary case of this sort is the opening of the abdominal ostium of the tube and of the cervix uteri, the expulsion of the ovulum through the former, and through the latter of the decidua uterine into the vagina. The musculature of the tube diminishes toward the abdominal ostium, so that the tendency to expulsion would be in that direction. The most probable mode of expulsion would be by the combination of muscular contraction and pressure of intratubal hemorrhage. The author cites a remarkable case of his own, and another of Engstrom's as proof of his statements. [W.K.]

3.—Thumim reports a typical case of cesarean section with the transverse fundal incision of Fritsch, with living mother and child. [W.K.]

4.—Von Braitenberg also reports a typical, successful case of **cesarean section** with transverse fundal incision of Fritsch. He thinks that the most apparent advantages of this method are the avoiding of the lower segment or thinnest portion of the uterus, and its neighborhood, and the easy extraction of the child. Tne fundus having the thickest portion of the muscular wall offers larger surfaces for the healing of the wound of incision. [W.K.]

5.—Siedentopf reports 3 cases of typical, successful **cesarean section** with fundal incision. According to his views the advantages of this method are (1) great cleanliness in the operation; (2) complete protection of the abdominal cavity from the escape of the uterine contents by drawing the uterus out of the abdomen and provisionally closing the wound; (3) easy extraction of the child; (4) the fundal incision may be so placed as to avoid the placenta. [W.K.]

6.—Perlis reports a case of **cesarean section** with fundal incision, and considers one advantage to be that this method causes less hemorrhage than the longitudinal incision, possibly, for the following reasons: The incision runs parallel to the direction of the uterine bloodvessels; the forcible contraction of the hollow muscle tends to stop the bleeding; the fundus uteri is in general less rich in bloodvessels. The only inconvenience of the operation seems to be the difficulty in applying the seroserous suture after the placing of the deep muscle sutures, since the peritoneum is very intimately connected with the uterus here. [W.K.]

7.—After describing Brown's and Küstner's operations, Spinelli explains **Kehrer's modification of Küstner's method.** In the latter the incision extends along the entire collum. After the edges of the wound are separated, the inverted fundus is pushed upward per vaginam. Then the wound is closed by deep catgut sutures from the upper angle to the region of the internal os; the body of the uterus is then pushed into the abdominal cavity, during which process the lips of the internal os are fixed with Martin's hooks. Afterward the wound is completely closed and the vagina packed with iodoform gauze. Kehrer considers the advantages of this proceeding to be as follows: (*a*) The incision of the anterior wall is easier than the posterior; (*b*) this method does not demand the previous opening of the vaginal fornix; (*c*) Douglas' pouch is not entered. The disadvantages of the method are that after the wound is sewed to the internal os, the uterus still remains in the vagina and must then pass through the small wound in the collum to enter the peritoneal cavity; in other words, there is a simplification of reinversion and an increased difficulty in reposition. Spinelli believes that this fact will prevent the use of Kehrer's method. It can only become workable when anterior colpoceliotomy and Duhrssen's vaginal fixation are used. Spinelli has used this latter modification and recommends it, reporting a case as follows: After a vagino-peritoneal incision the collum was fixed with Martin's hooks and the uterus was cureted. Then the anterior colpoceliotomy according to Duhrssen was performed. The forefinger introduced through the vaginoperitoneal incision reached the infundibulum formed by the inversion, and using this finger as a guide the collum and anterior wall of the uterus were cut through to the fundus, the reinversion was easy, the uterus being afterwards in a forced anteversion. Interrupted sutures of catgut were then introduced and the organ reduced through the colpoperitoneal wound. After having passed the fixation sutures which included the vagina, peritoneum, and anterior wall of the uterus, there followed the vertical suturing of the peritoneum and the transverse suturing of the vaginal wall. [W.K.]

8.—Gerich reports 7 cases from his private practice in which he has used **Pincus' steam treatment** and concludes that in cases of incomplete abortion atmocausis produced firm contraction of the uterus, controled the hemorrhage, and in those cases in which the temperature had been high it fell to the normal and remained there. All remains of the placenta must be previously removed, otherwise the method does not give good results. In two cases zestocausis resulted in the complete recovery of the patients, although only one application was made. [W.K.]

Centralblatt für innere Medicin.

July 8, 1899. [20. Jahrg., No. 27.]

1. Concerning the Therapeutic Activity of Digitalis Dialysate. H. Bosse.

1.—The dialysate is obtained by using the special apparatus made by Golaz. The beginning dose was 20 drops 3 times a day. It is believed to be much more active than other preparations because it is made from the freshly-gathered plant, before there has been any opportunity for fermentation or decomposition. A number of cases, including myocarditis, valvular disease of the heart, emphysema, and interstitial nephritis, are recorded. There are striking tables of the effects of the drug upon the total daily amount of urine, and the sphygmograms show pronounced effects upon the pulse-curve. The most noticeable thing was the increase in the amount of urine. In several cases this went rapidly from less than 200 cc. per day to 4,000 cc., and in one case to 6,000 in 24 hours. Dropsies diminished rapidly; the dyspnea became much less, and no unfavorable effects were observed. The lack of cumulative action is attributed to the fact that the dialysate is absorbed rapidly. In only one case reported was any nausea observed. Bosse concludes that it is too early to express any positive opinion concerning the dialysate, but that the use of it so far leads him to believe that it may prove very valuable. [D.L.E.]

Practical Therapeutics.

Under the charge of
A. A. STEVENS, A.M., M.D.
of Philadelphia.

Gout and Rheumatoid Athritis.—Ewart (*International Medical Magazine*, April, 1899), in discussing the relation between gout and rheumatoid arthritis, states that the distinction between pure gout and pure arthritis deformans is not difficult, but in ill-developed forms uncertainty arises. For practical purposes, the diagnosis lies on the surface. The symmetrical implication of many joints declares the rheumatoid characteristic of inherent delicacy and vulnerability of articulations, whilst the history and the general features and aspect of the patient may be so strongly gouty as to make it evident that the exciting cause of the arthritic change must have been of a truly gouty nature. Cases of this kind present to us that association which exists more frequently than is commonly supposed, in which a gouty lesion may have been the starting point of a rheumatoid arthritic change, or in which an early rheumatoid arthritis may have been fed up into gout. Had the case been straightforward, with creaking joints and a velvety palm, as in rheumatoid arthritis, no doubt would exist. But the palm may be as dry as that of gout, and creaking may not be obtainable. In such cases there is doubtless much of gout, in spite of the evidence of arthritis deformans, and it is reasonable to infer that the one condition has supervened upon the other.

While the treatment of gout is directly the opposite of that of rheumatoid arthritis, yet there is a considerable basis common to both. Hygiene is essential to all classes of sufferers, but especially to those afflicted with chronic ailments, and *internal* hygiene is more particularly needed by all sufferers from joint-trouble, whether this be gout, rheumatism or rheumatoid arthritis—in addition to the essentials of pure air, light, and of a wholesome dietary. The difficulties begin with the management of the mixed forms. When the indications are not absolutely clear, our action is, of necessity, somewhat tentative. In most of the cases to which reference has been made, there is, besides the rheumatoid basis, a suspicion of the gouty element. In many of these cases it is best to heat the rheumatoid arthritis as thoroughly as this may be wisely done, and to be sparing with the more energetic remedies for gout. The most important duty seems to be not to add in the slightest to the depressing conditions under which the rheumatoid patient is suffering. A much less evil would be temporarily to increase his gout. But even this need not occur if treatment be happily conceived. There is one direction in which the treatment of both affections can be carried out with safety and benefit, almost irrespective of their special character, that of the local measures of relief to the joint.

We are now provided with additional and most effectual means of local treatment. It had long been noticed that the old-fashioned balnear treatment, that is, prolonged immersion in a hot bath, which is often most serviceable in gout, led to very imperfect and often detrimental results in rheumatoid arthritis. The same debilitating effect would result in some of the mixed varieties of rheumatoid arthritis, in spite of their gouty complication. The general balnear treatment had, of late years, been abandoned in all such cases for the more local measures of steaming, hot douching, and massage, applied more specially to the joints affected, and our chief success had hitherto been derived from his method. We are now provided with various means of treating the joint by dry heat up to very high temperatures. The careful application of these new methods, graduated to each ease, will enable us to feel that a great deal is done for the joint, whilst no possible harm is suffered by the patient, whichever be the stage of his articular complaint.

Dr. Levison, in a most interesting article, has provided us with suggestions as to the diagnosis between rheumatoid arthritis and gout by the x-rays, and as to the treatment of the gouty joints by the electrolytic method. Thus electricity, which had long been known to be of considerable use, whether in the shape of the electric bath or of the constant current directly applied to the limb in cases of rheumatoid athritis, has now found a yet more direct application in gout, since it addresses itself to the removal of the material which is the source of local irritation and pain.

Meanwhile, internal treatment of such cases may be carried out on lines comformable not only to some of the obvious indications, but also to theories which are in some respects divergent. The abundant use of water as the means of accelerating excretion of waste products and of all forms of toxins, and assiduous attention to the activity of the bowels, are clearly desirable in gout and in rheumatoid arthritis, and fulfil the indications claimed by the neural as well as by the humoral theory as to the latter.

In mixed cases occurring in mature age, it may be best not to complicate the position by any vigorous tonic treatment, nor even by the iodid of iron, which has found so much favor since first advocated by Sir A. Garrod, which is admirably suited to the uncomplicated form witnessed in children and young adults. There may, nevertheless, be room for the administration of arsenic in small doses, and of sulphur, in addition to the purgatives. These have also been largely prescribed by the same authority before the more recent ideas concerning the septic origin of rheumatoid arthritis had been set forth. It may be said for arsenic that, in addition to its antiseptic properties, it must approve itself to those who regard arthritis deformans as conditioned largely by disordered nervous function.

Those are some of the general lines upon which doubtful cases may be treated safely and with the promise of much benefit.

In acute and painful forms of rheumatoid arthritis, frequently monarticular, in which an inherited gouty proclivity or an acquired tendency to gout may be a factor, the diagnosis may be aided by treatment. Antirheumatic remedies in these cases are harmful. Ewart regards this variety of complaint as a special form of rheumatoid arthritis with predominating vasomotor type, and the best treatment is the application of heat or cold. The application of cold locally is often successful when the case proves refractory to heat.

The *general* and *medicinal* treatment of this special form must vary with the individual characteristics of the patient, but in the average case most advantage would be gained by our disregarding indications derived from a mistaken diagnosis of rheumatism and by our not being deterred by the gouty family-history or personal antecedents from endeavoring to raise the general strength of the patient. This practical view would also meet the indications suggested by any toxic theory which might be entertained by some preference to the neural and vasomotor theory.

The antiseptic treatment by the internal administration of creosotes, phenols and naphthols recommended by Bannatyne, and the local germicidal intraarticular treatment by means of iodoform, carbolic acid and other germicides prac tised by Max Schüller, are too important to be passed altogether unnoticed, but they are specially intended for the infective form of the disease.

As regards *diet* and *alcohol* the rheumatoid patient needs, above all, to be fed, and wine suits him well; but if he should turn gouty, we cannot disregard his gout. It is preeminently in this connection that the practical purpose of this discussion is revealed. How to diet the patient and whether to allow him alcoholics, are points not to be safely decided except on the strength of an accurate diagnosis, not only the general character of the case, but of its special phase.

In doubtful cases there is probably more rheumatoid arthritis about the patient than gout, and the policy of running the risk of a slight gouty exacerbation rather than of incurring the reproach of intensifying the depression and debility inseparable from the rheumatoid state is a good one. The gouty element, if present, may, however, restrict the choice of the stimulants to those more suited to gout, whereas, in uncomplicated rheumatoid arthritis, particularly that of the young, the prevailing anemia calls for a supply of the red wines. In both cases the delicacy of the digestion has always to be borne in mind, and the diet should be easily digestible and sufficiently varied and nutritious.

Headache.

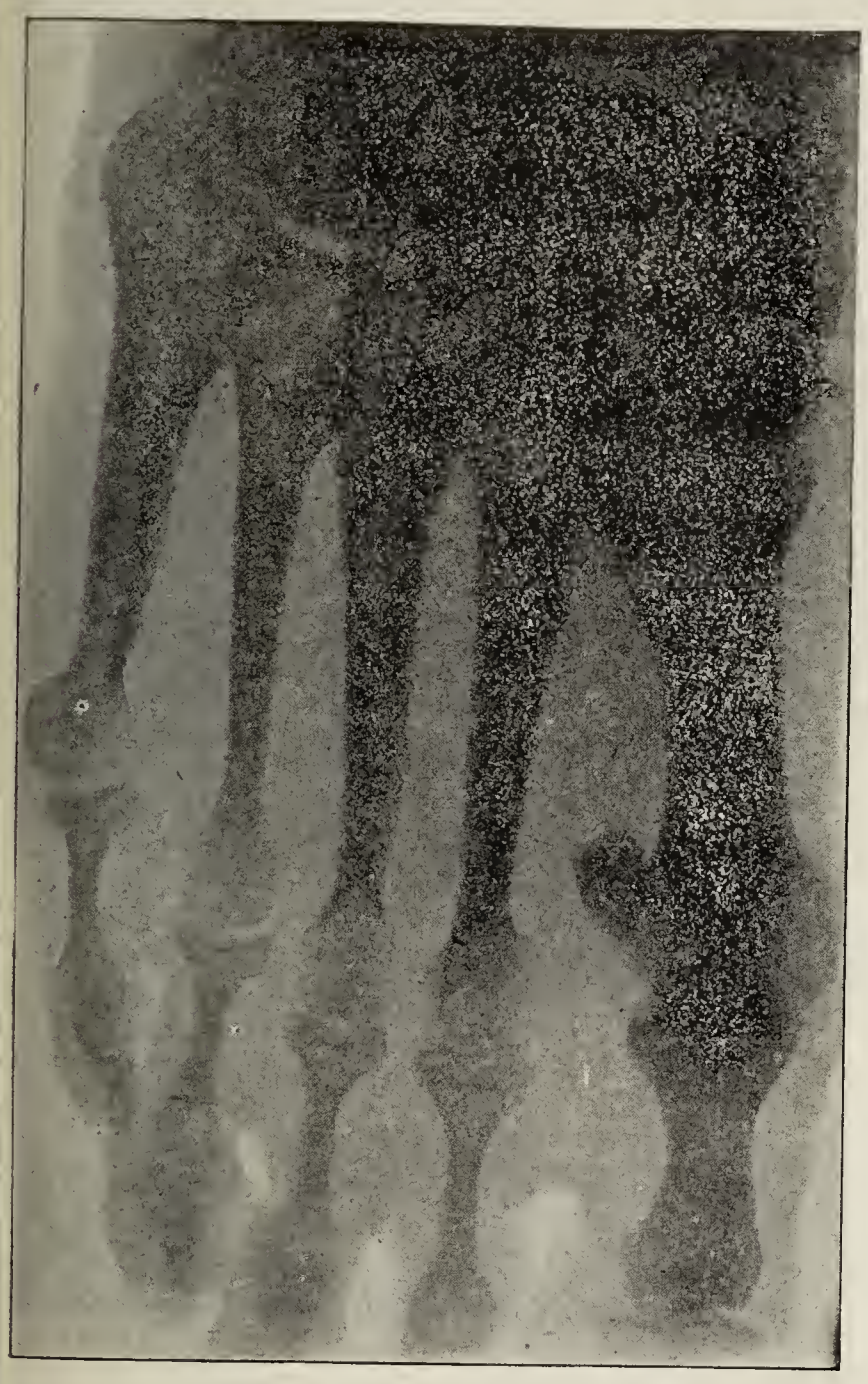
℞.—Antipyrin.....30 grains.
Sodium salicylate..... 1 dram.
Cinnamon-water to make..... 1 ounce.
Teaspoonful as required for an adult.
—MCCONACHIE in *Maryland Medical Journal.*

Original Articles.

IRRITATION-EXOSTOSES OF THE HUMAN FOOT.[1]

By E. H. BRADFORD, M.D.,
of Boston, Mass.

So much attention has been paid to the rheumatic inflammation of the foot, that the impression is strongly entrenched in the mind of the profession, that all pain of the feet is of a rheumatic nature, and if the great toe is affected it is regarded as the gout. This impression has led to the exhibition of all forms of antirheumatic and antigout treatment in cases of this sort; so much so that it is difficult to regard any enlargement or stiffening of certain portions of the foot as anything except of a rheumatic or rheumatoid nature.



Thickening on outside or head of fifth metatarsal.

It is, however, known that under certain circumstances of irritation, bone will become thickened very much as callosity of the skin will develop under the same condition, and the situations in the foot, where this has taken place, are those exposed to pressure from shoes in walking. That they do not develop in all individuals is due to various causes, partly because in some cases the feet are better protected by adipose tissue, partly because owing to the existence of muscular strength, or joint flexibility, pressure is not so constant, and partly by some shoes less pressure is exerted than by others.

It is not to be denied that in cases of chronic rheumatoid arthritis, enlargement of the joints takes place as elsewhere, especially in the hands, and this is characterized by the other symptoms of rheumatoid arthritis, and especially by the fact that there are other manifestations in other portions of the body. The parts where the enlargement from bone-pressure or irritation takes place, are necessarily the parts most exposed to pressure, and these are in the portions of the foot where the strain is greatest, and where the bone is the least protected by fat. These are as follows, at the first and fifth metatarsal phalangeal articulation; in certain instances at the dorsal-surface articulation of the cuneiform and first metatarsal, and on the dorsal surface of the head of the first metatarsal, and on prominent portions of the posterior part of the os calcis. The projections may be so large as to cause bursae or callosities of the skin, which at times may be so annoying as to necessi-

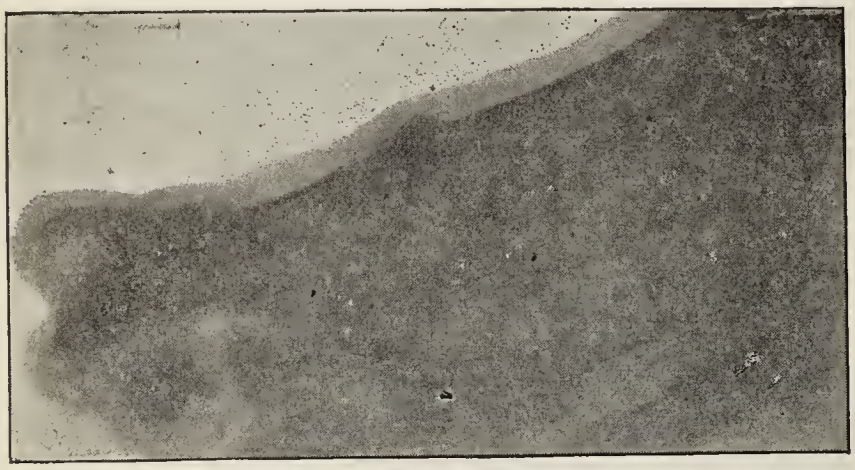


Thickening on outside of head of first metatarsus.

[1] Read at the Annual Meeting of the American Orthopedic Association in New York, June 2.

tate excision of the exostosis, or enlarged portion of the bone.

The most common of these irritation-changes in bone are those seen at the head of the first metatarsal. These may, or may not, be accompanied by the protrusion, or growing-out of the metatarso-phalangeal joint. The former is more frequently the case, owing to the prevalence of shoes which are broader or more stretch-



Thickening on the upper surface of the head of the first metatarsal, viewed from the sides.

able at the ball than at the toe. Furthermore, owing to the obliquity of the articulation of the metatarsal with the first cuneiform an inward divergence of that bone is possible. When the great toe is held at the tip and an inward motion of the metatarsal bone is possible, the growing out of the joint takes place naturally. This may be accompanied by a subluxation of the first metatarsal and the exposure of the side of the head of the metarsal to irritation, causing the thickening which is so common. Less common than this, but still not infrequent, is an irritation and thickening on the upper portion of the head of the first metatarsus. This results from the pressure of the fold of the shoe, or of the cross welt, and may be found so great as to



Thickening of a recent development in a young adult and partly cartilaginous. Thickening at the articulation between first metatarsal and cuneiform bone.

interfere with the play of the extensor tendons of the great toe, or cause a tenosynovitis.

As, however, in a majority of cases, persons who wear shoes sufficiently tight to cause this irritation do not as a rule in walking make much use of the toes and metatarsophalangeal articulation, the pressure causes but little inconvenience. A similar enlargement on the head of the fifth metatarsal is occasionally seen resulting from the same cause. This is less common than that on the first metatarsal for the reason that the tendency of the fifth metatarsal to divergence from the axis of the foot is not as common as that in the first metatarsal.

A ridge-like thickening and projection of the proximal end of the first metatarsal, or of the cuneiform bone, is not common, though occasionally seen. It is situated as a part of the foot where the irritation of the lacings over the dorsum of the foot would press upon the unprotected tissues, as in each step the foot glides forward and encounters the pressure of the resisting portions of the shoe, especially when high heels are worn.

It is, perhaps, strange that the thickening in this latter place is not more commonly seen, for the reason that these parts of the foot are not as a rule covered with fat, and the bone is exposed to the shoe-irritation. This may be explained by the fact that individuals do not as a rule lace their shoes so tightly as to cause the



Bone-enlargement at the upper edge of the end of os calcis.

irritation which is productive of trouble. That in certain instances this takes place is, perhaps, due to some anatomic variation, which causes a projection of the proximal end of the first metatarsal, more than is usual. This could result from a contraction of the plantar fascia developing into what is commonly known as high arched instep.

From the skiagraph pictures here shown, it would appear that this irritation produces thickening of the bone by a development of the periosteum, which afterwards becomes ossified. For it will be seen that in some of the more recent cases the thickening, which is as hard on palpation as ordinary bone-structure, transmits the x-ray, producing only a slight shadow as if cartilaginous or cellular over firm bone. In the case here illustrated, the projection had only existed for a comparatively short time.

The thickening around the end of the os calcis near the insertion of the tendo-Achillis has been already described in papers presented before this Association.

The nature of this affection has also been carefully discussed, and its origin is due to the pressure of the seam of the shoe over an unprotected portion of bone.

The local nature of these enlargements is made clear by the fact that they frequently exist in young persons without any other evidence of rheumatism or gout and may disappear when pressure is removed.

A CASE OF SYPHILITIC FEVER WITH A DISCUSSION OF THE DIAGNOSIS OF FEVERS.[1]

By D. W. PRENTISS, A.M., M.D.,
of Washington, D.C.,
Professor of Therapeutics, Medical Department of the Columbian University.

The case here reported appears at first sight as a very simple one, devoid of any special interest. But the difficulties attending diagnosis were such as to make it more than usually instructive.

It was at first thought to be a form of malarial fever—with the possible alternative of commencing typhoid, although the patient stated that he had had typhoid at the age of 15 years. Quinin had no influence over the fever.

The blood was examined for the malarial parasite, and for typhoid fever by Widal's test with negative results.

Respiration was exceptionally full and easy. There was a throat cough and expectoration of glairy mucus.

This was examined for tubercle-bacilli, but none found.

Case 1.—Mr. C., aged 24 years; clerk; family history, negative; previous history, health good until 15 years of age when he had typhoid fever, from which he entirely reeovered. From that time until the beginning of the present illness his health has been good.

History of the present illness: Last summer he became very much run down and toward its close felt languid and indisposed to exertion of any kind. Lost appetite and relish for food. Early in September he had dizziness, headache, pains in the right shoulder and sore throat; strength failed gradually.

His landlady stated that the pain in his shoulder became so great that he could not use the arm. With the sore throat was thiekness and labored speech as, in the words of the landlady, of "commeneing paralysis." This latter information was only obtained late in the attack. It was difficult to obtain history of the patient—either from dulness of intellect or indifference, though he seemed perfeetly clear in his mind in other respects.

An eruption appeared about September 1 on his temples and eheeks—dark red papules beeoming pustular. Turpentine was applied and they disappeared, leaving faint pink maeules. September 29 I first saw the patient at my offiee. He was suffering from subacute pharyngitis, exhaustion, and fever; his temperature was 102° F. Silver nitrate solution, 2%, was applied to the throat and Seiler's solution used as a gargle. He was directed to go to bed. September 30 I saw him during the morning in his room, and found his temperature normal. Milk diet was ordered. Quinin, 9 grains eaeh morning and a mixture of sweet spirits of niter and spirits of mindererus every 3 hours.

The aecompanying temperature-chart shows but little ehange in the fever for the 19 days. The quinin was then increased to 12 grains, but on Oetober 16, in spite of the increased dose of quinin, the fever was higher than ever, rising to 102.4°.

In the meantime a sore had developed on the right tibia to which my attention had not been called. He had been treating it himself, thinking, as he said, "that it amounted to nothing."

It looked suspicious—though he strenuously denied ever having had any venereal disease. An examination failed to discover any sign of previous lesion, although the glands of the groin were slightly enlarged. However, taking into consideration the pharyngitis, which still continued, it was deeided to put him on speeific treatment. This was done September 17, with the result shown in the chart of immediate and permanent subsidence of the temperature and corresponding general improvement. The sore on the tibia healed rapidly and the pharyngitis disappeared at once.

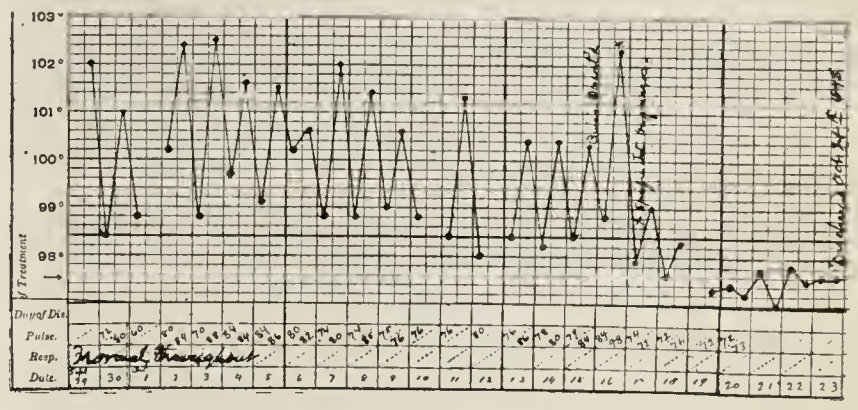


Chart 1.—Syphilitic Fever.

The accompanying chart shows an average rise in the evening of about 101.6° and fall in the morning to below normal; the extremes being 102.3° on the nineteenth day and the lowest 97° on the twenty-fourth day.

This chart bears a very close resemblance to that given by Musser in his "Medical Diagnosis." In his case the highest temperature was 103.2° on the fourth day recorded and the lowest 97° on the fifteenth day. In both cases the pulse-rate is very slow, ranging in the one here reported from 74 A.M. to 80 P.M., averages. The lowest pulse was 60, the highest 98. In Musser's chart the range was almost identical.

These slight variations of the pulse are suggestive of syphilic fever in doubtful cases. (The chart of Musser's case is reproduced for comparison.)

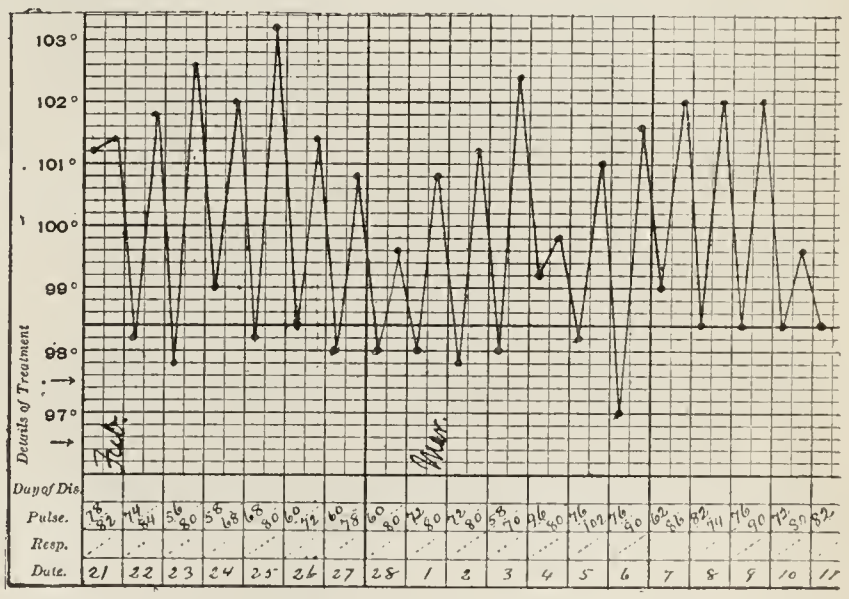


Chart 2.—From Musser's Medical Diagnosis. Intermittent Syphilitic Fever.

It would appear from the history in this case, that a diagnosis ought to have been made sooner, but it is to be remembered that the history narrated was not brought out until just before specific treatment was begun. The blood had been examined for the malarial

[1] Read before the Medical Society of the District of Columbia, March, 1899.

parasite and by Widal's test for typhoid—and the sputum examined for the tubercle-bacillus,—all with negative results.

The effect of antisyphilitic treatment was little less than marvelous—the fever immediately ceased, the pharyngitis got well and the sore on the tibia healed. The treatment consisted of potassium iodid and mercury protiodid with mercurial ointment to the ulcer.

The question of diagnosis in such cases of fever is all-important as bearing upon the selection of treatment, and involves a discussion which to be complete would fill a book. I think, however, it will not be amiss to give a brief epitome of the subject summarized largely from "Musser's Diagnosis."

It may be stated at the outset that the presence of fever excludes hysteria or feigning.

Fever is due to (1) infections, acute or chronic; (2) inflammations; (3) intoxications.

1. Infections.—Zymotic fevers; fever due to ptomains or toxalbumins produced by action of a parasite. Infections that act upon the heat-centers.

2. Inflammations.—Traumatic, from an injury. Inflammation of organs, as in pleuritis, meningitis, peritonitis, pneumonia. Though we now know that the formerly so-called "idiopathic" diseases are the result of definite causes—usually of germs in some form. Suppurative or septic fever also of ptomain or toxalbumin origin, characterized by sudden high temperature; temperature-curve irregular.

3. Fever of central origin from direct irritation of heat-producing centers, as in brain-tumor, apoplexy, sunstroke. The temperature is high and irregular.

4. Fevers of autointoxication, as from ptomains of gastrointestinal fermentation, affections of the liver; or fevers from forms of external intoxication. They have been classified into (*a*) From suppression or disturbance of the functions of an organ, as in myxedema, diabetes, etc.; (*b*) anomalies of metabolism, as in gout and oxaluria; (*c*) retention of the metabolism as carbolic-acid poisoning, uremia; (*d*) overproduction of physical and pathological products; (*e*) certain disorders of gastrointestinal tract, as indigestion in the stomach and intestines.

5. Fever of anemia or starvation, irregular in form; caused by autotoxication from imperfect action of organs, or from altered secretions.

6. Marked peripheral irritation or severe pain will produce fever by irritation of the central heat-producing functions.

7. Cases of continued fever are often seen in which the temperature ranges from 100° to 103°, which cannot be classified. Such cases are usually met with in persons who are run down or nervously exhausted from any cause. A case is mentioned by Musser, of a nurse who had worked constantly for 2 years, had fever of 100° to 103° for 2 months, good appetite and otherwise fairly good condition. He calls this nervous fever, an expression of exhaustion.

Since the advent of the grip there is another unclassified form of continued fever to be noticed; that is the fever sometimes attending or following the grip and continuing three or four weeks, leaving the patient much prostrated. It is more common in older persons and very fatal to the aged. The fever in the case (Case 2) here reported persisted for 68 days, and is a type of many others like it. With the case a partial chart is here given. (Chart No. 4.) The patient, male, aged 55 years, a neurasthenic, but otherwise in fairly good health, was taken sick December 27, 1898, with a temperature of 102°, with severe pains in different portions of the body, but especially in the head, fronto-occipital.

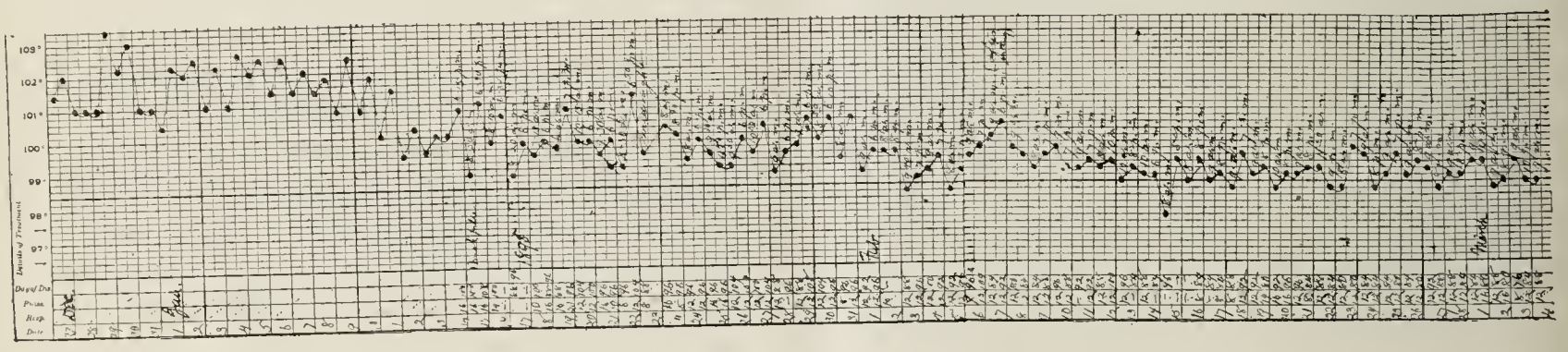


CHART 4.—Case of fever following grip.

The blood was examined for plasmodium and by Widal's reaction, without result. There were no marked symptoms throughout the attack except the severity of the headache, which the patient (a physician) thought must be due to meningitis, on account of its severity. There was, however, no meningitis, and the case run an uneventful course, as shown by the chart. There was one exception, and that was an attack of heart-failure in the seventh week, when the action of the heart became so weak and irregular as to threaten life. Convalescence was not established until the sixty-eighth day.

I saw another case, last spring, in which the symptoms and temperature-curve were almost identical. Also a third case in an old man. The fever immediately followed the grip, and proved fatal in the fourth week, without complication.

To this last or unclassified fever I think belongs the fever of convalescence after typhoid. That is to say, after the disease has run its course and convalescence is established, he begins to have a slow fever, with a tem-

perature of 99° to 102° or 103° without other symptoms from day after day until the doctor, patient and friends all become discouraged. This goes on two or three weeks, but with patience, rest in bed, good diet, and cheerful surroundings, *minus meddlesome drugs*, recovery is assured. I have seen a number of such cases. They must not be confounded with a relapse of typhoid fever, which they in no way resemble.

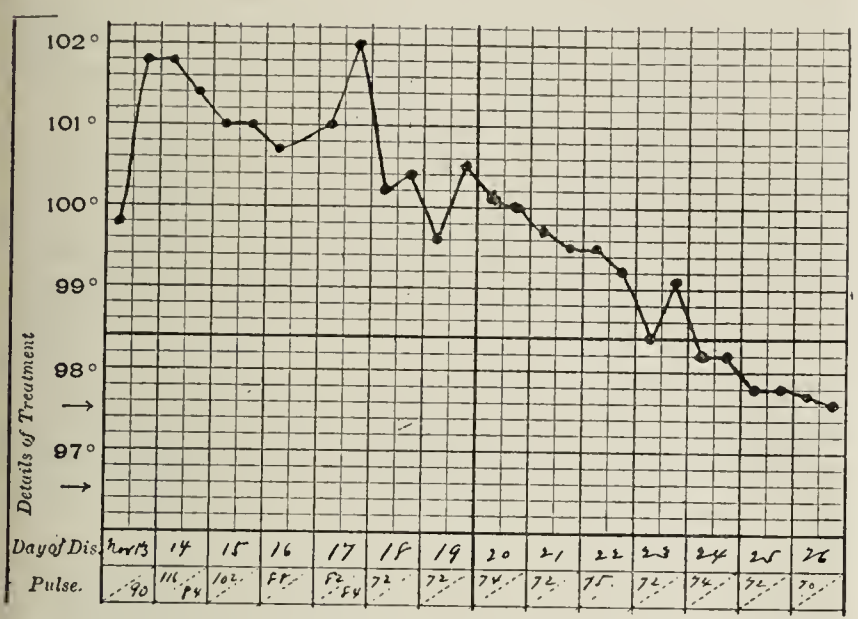


CHART 3.—Dr. Morgan's case of fever during convalescence from typhoid fever.

The following case is a typical example, the history of which was kindly furnished by Dr. F. P. Morgan:

Illness began September 23. The patient, male, aged 30 years passed through a typical case of typhoid at Garfield Hospital, under the care of Dr. Morgan. The temperature was normal on October 25, and remained normal until November 10, 15 days, when he returned to his home. On November 13 the temperature rose and a run of fever continued 11 days. (See chart No. 3.) This was not in any sense a relapse of typhoid.

A recent writer (Dr. J. Howe Adams, PHILADELPHIA MEDICAL JOURNAL, November 19, 1898) in an article on the subject calls this "post-typhoid bed-fever," and suggests two theories to explain the phenomena. "Both are based on the instability of temperature in convalescence. The first theory makes the process the manifestation of a pure neurosis dependent on disturbance of the nerve-centers presiding over heat-production and heat-dissipation. The other theory is that lowering of physical activity tends to allow the accumulation of waste-products in the body, so that the patient suffers from autointoxication."

I think all of us see cases of this kind and treat them patiently and successfully, that is, they get well, if placed under good hygiene and dietetic conditions, and very sparingly drugged. We cannot make a diagnosis, but if pressed for an opinion are apt to call it malaria or gastric fever, or *threatened* typhoid. Against the last term I wish vigorously to protest. How often do we hear the expression attributed to the physician, that "the patient *nearly* had typhoid." Just as well say he was nearly drowned because he did not fall overboard.

DIAGNOSIS.

Sudden high fever preceded by a chill may be due to many different causes, as scarlet fever, pneumonia, tonsillitis, congestive chill of malaria, pyemia, and septicemia, gastrointestinal catarrh of children.

Congestive chill in the vicinity of Washington, D. C., is seldom malarial, but almost always due to pyemic or septic poisoning. What was called "ephemeral fever" in the older classifications, is from an evanescent cause—most frequently of gastrointestinal origin, from acute gastrointestinal catarrh, or from eating certain articles of food which produce ptomain-poisoning, and is most common under the age of 7 years.

Types of fever, of which the following are the most prominent:—Intermittent: malaria (the type); suppurative (septic); tuberculosis, early stage (septic); catheterization (septic); nervous shock; syphilis; hepatic abscesses (suppurative). Remittent (a remittent form occurs in the above diseases) tuberculosis, later stages; infantile remittent is typhoid. Continued fevers: typhoid, exanthemata, croupous pneumonia, etc.

These latter are self-limited, that is, their natural history is to terminate about a certain time, if not interfered with. Typhoid from the twenty-first to twenty-eighth, scarlet fever and measles run a regular course and terminate spontaneously. Croupous pneumonia especially is likely to give credit to the doctor or his last remedy, on account of its sudden termination about the seventh day.

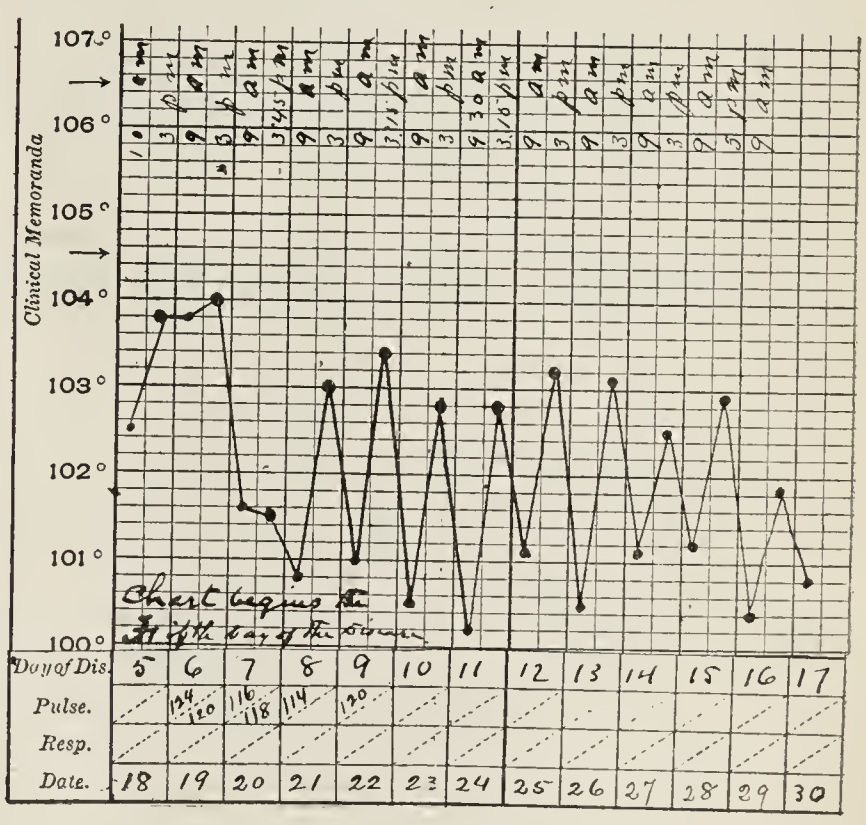


CHART 5.—Typhoid fever, Louise B., aged 4½ years.

From this natural termination of the disease spontaneously also has arisen, in past years, the immense number of "specifics" for its treatment. When the crisis occurs the remedies used, whatever they be, get the credit of the cure.

I append a chart showing the typical curve of infan-

tile remittent (typhoid) in a girl of 4½ years. There was entire absence of grave symptoms throughout the attack—only a slight headache the first few days Without the thermometer one would not have thought her sick, as she was bright, playful, and hungry throughout. She was kept in bed upon careful diet until convalescence was established. In such a case with thoughtless attention as to rest and diet the patient would probably be more ill, and ill for a longer time. All know the danger of physical exercise and exertion in typhoid fever. The case is only mentioned as illustrating what was formerly called infantile remittent fever.

A knowledge of the natural history of diseases is of great importance in relation to treatment as well as to diagnosis. The tendency in most of these diseases is to recovery, if they can be placed under favorable conditions, and the axiom in obstetrics that "meddlesome midwifery is bad" applies equally in fever. Meddlesome medication is bad. Rest in bed, a well-ventilated apartment, proper diet and good nursing are the most valued methods of treatment. Special symptoms are to be appropriately treated as they occur. An example of meddlesome medication is seen in the use of the so-called antipyretics in typhoid fever. I refer to such as antipyrin, phenacetin, and acetanelid. Many lives have been sacrificed on the antipyretic altar since they came into use.

It is a great temptation to bring the temperature down from 104.5° or 105° in a few hours to below 100° but danger and frequently death follow. To see, as I have seen, a lovely girl just blooming into womanhood die in the second week of a favorable case of typhoid from heart-failure is an experience never to be forgotten.

Possibly a certain degree of fever in germ-diseases may be conservative, as protecting the system against the germs or their effects. It has been found that the diplococcus lanceolatus of pneumonia loses vitality as the temperature increases and ceases to grow at 102.5°. In croupous pneumonia, for instance, temperatures up to 104° are to be considered as normal—as much so as dyspnea and rusty sputa. The view now generally accepted is that fevers up to this point are the normal reaction of the organism to the invading pneumococci; that these "normal fevers" are even of service is well shown in a paper published by Douglass Powell, in which he demonstrates that pneumococci grow to perfection at 35° to 37° C. (95° to 98.6° F.), and not at all from 40° to 42° C. (104° to 107.6° F.). (*Medical News*, January 7, 1899. Manges.)

On the other hand, we know the deleterious effects of continued *high* temperature upon the patient in producing exhaustion and emaciation. The integrity of the tissues may in this manner be so interfered with as to in itself cause death.

To combat unduly high temperature, the best and safest method is by hydrotherapy; bathing, sponging, and free drinking of water and the use of the icebag; but not by drug antipyretics.

In speaking of "meddlesome medication" I do not wish to be understood as underrating the judicious administration of drugs. But one should always know *why* a medicine is given. Regulation of the bowels is imperative. In a few diseases we have specific remedies, as in malaria and syphilis; but specific medicines are wofully few. The tendency of the ultra-scientific school in medicine, shall I say of the "new doctor," at the present day is to sneer at drugs as out of date in treatment. With this teaching I do not sympathize.

The old doctor, like old wine, improves with age. At least he should do so if he keeps up with the times. Who can read Ian Maclaren's delineation of a country doctor without feeling that Dr. Maclure was a blessing to his community? Even as to the much-abused administration of calomel by the doctor of the old school—who shall say that it may not have accomplished much good. He did not know he was giving the best of all intestinal antiseptics—but it was nevertheless true.

We are discussing here the *diagnosis* of fevers; but we must not lose sight of the fact that diagnosis is of no practical value to the patient unless it leads to appropriate treatment. The best physician is he who makes diagnosis lead to that end. It is small satisfaction to the friends of the patient to brilliantly confirm a difficult diagnosis at the autopsy, if methods of treatment have been neglected that might have saved the life.

Lastly as to the treatment of chronic cases of doubtful diagnosis. Three causes especially among others should not be lost sight of; namely, syphilis, chronic lead-poisoning, and chronic mercury poison. But above all *syphilis*.

Dr. Janeway, in a paper before the Association of American Physicians in May, 1898, reports several cases of chronic disease with fever, cured by antisyphilitic remedies after futile treatment by other eminent physicians. The case which furnishes the text for this paper is another example.

I have no doubt that many similar examples can be recalled by practitioners everywhere. There is a familiar axiom by a well-known author that says, "When in doubt, play trumps;"—that is, in chronic diseases of doubtful diagnosis—give antisyphilitic treatment, pushed to the extreme if necessary.

The epidemic of anthrax prevailing among the cattle on the island of Gothland, Sweden, is reported to be spreading in a most alarming manner. Forty parishes have become infected, and deaths of human beings who had contracted the disease are recorded. The military maneuvers, which were to have been held in West Gothland, have been countermanded. Soldiers have been stationed to guard the roads in the infected districts, with orders to prevent people from leaving their homes.

THE TREATMENT OF PUERPERAL SEPTICEMIA BY THE ANTISTREPTOCOCCIC SERUM.[1]

By EDWIN ROSENTHAL, M.D.,
of Philadelphia, Pa.
Chairman Section of Diseases, American Medical Association.

It is the accepted doctrine now that in surgical operations upon structures in their healthy physiologic state, asepsis secures greater immunity from contamination than antisepsis, and few operators follow the practice of 5 years ago of resorting to germicidal applications to fresh-cut surfaces. The advanced views of bacteriologists are now exactly in unison, that the application of such medicaments as carbolic acid or mercuric chlorid have injurious effects, and that their use is admissible only in septic conditions. That they may give rise to septic conditions is proved by the following case:

Mrs. V., a multipara, gave birth to twins on the evening of October 8, 1898. The first, a male, with a breech presentation and prolapsed cord, was stillborn. The second, a female, presented R. O. P., neccssitating the application of the small forceps for extraction. The patient had for a nurse an extremely ignorant, dangerously ignorant, woman, who carried with her besides numerous letters of recommendation from various doctors, a bottle of fluid extract of ergot, chloroform (which she designated as "clariform") and a box of corrosive sublimate tablets (which she termed "sepsis" and which she very industriously used). This patient had a normal pulse and temperature for 3 days. On the night of the third day she had a chill, with a temperature of 106° in the morning of the fourth day. This nurse had laid out the principle that antisepsis was asepsis, and to her meddlesome interference I placed the blame of my patient's condition. The nurse also complained of suffering from sore throat, and on examination, I found numerous white patches. I had at this time several other lying-in patients, and 2 operations, one for phimosis, and the other for the removal of several enlarged glands from the axilla of an infant. Hence I was very much annoyed at the appearance of sepsis in my practice, and I immediately procured some antistreptococcic serum to use at once on my patient. While I had received permission from the husband, on my return to my patient, this was refused, and even curettage or the douche was not permitted, or in fact any method of treatment. To save this woman I consented to meet one of our well-known surgeons, with the surprising result that I was relieved from further attendance on my patient, a physician connected with one of the maternities of this city, being my successor. Antistreptococcic serum, or any other modern method, appears to have been unknown to this gentleman, for nothing was done in an operative way, to my knowledge, except probably the use of a douche.

This patient lingered as an invalid for weeks, and may probably at this day show some evidence of the disease. From personal experience I feel certain all this could have been prevented had the nurse understood what was meant by cleanliness, and secondly, had the surgeon, or the obstetrician (?) been acquainted with the modern method of treating puerperal sepsis.

So much for septicemia in healthy women, the cause of which has generally been attributed to autoinfection, or some similar reason, especially if no other case appears in the practice of the doctor. We can speak of the duration of the disease as from one week to almost a lifetime.

[1] Read before the J. Aitken Meigs Medical Association in March, 1899.

How long a case of sepsis may last, under the methods heretofore in vogue, the following case will illustrate:

Mrs. C., a primipara, gave birth to a male child, after a very tedious labor necessitating version. She was 39 years old. I was called on the eleventh day of her illness, the fourteenth day after the birth of the child. I treated this case with constant irrigation and daily curettage, for 28 days before the temperature remained normal. My daily visits were for 47 days, this with the 14 previous days, made the duration of her illness 61 days. The result was perfect health, except the suppression of her menstrual flow, which has never appeared.

Some cases have not so fortunate a result as this, for even if there is recovery, in very many instances, sequels may necessitate an operation or leave the patient an invalid. Instances are too numerous, in which abscesses result, or in which some nervous malady, even mania, was the sequel. Hence if there is a remedy that gives promise of preventing the disease,

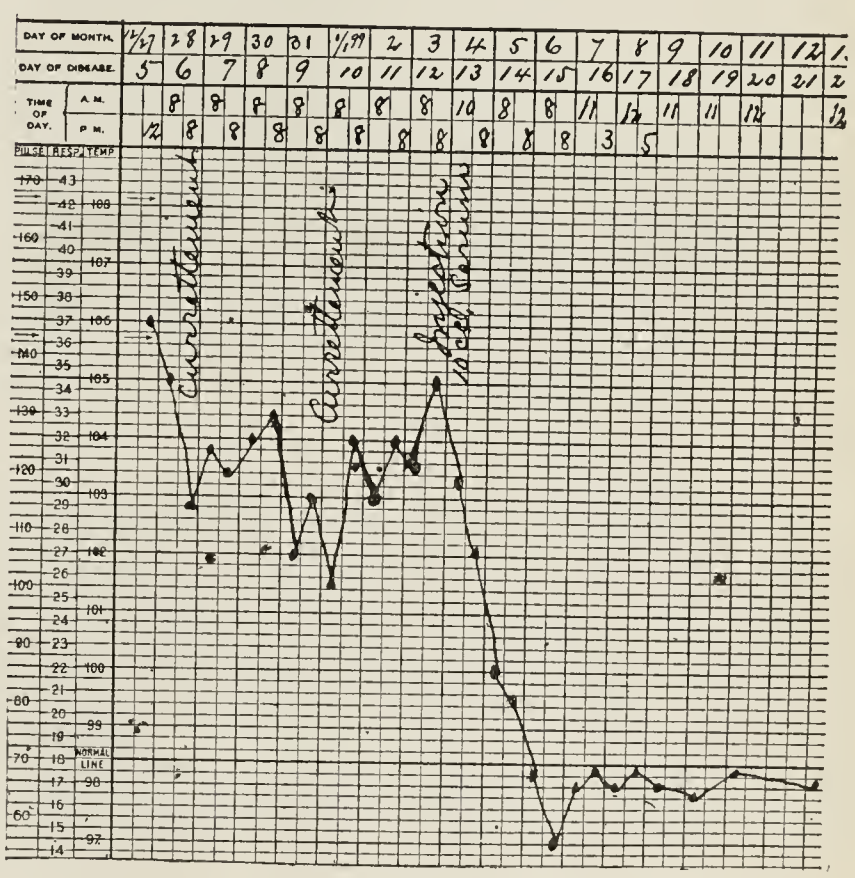


Chart No. 1.

or if it exists, of curing it, or preventing its sequels then surely it should be tested by every means possible. How quickly puerperal sepsis kills, has been noted so frequently that it would be superfluous to note any cases here. I have seen death follow childbirth from this cause so soon as 12 hours, three times on the second day, five times on the third day, three times on the fifth day, twice on the seventh day, and twice on the eleventh day. Even under the treatment outlined, death has occurred once, on the fortieth day. I have therefore every reason to dread the occurrence of infection, and have until now pursued my treatment with the same anxiety, that I, in former times, felt in cases of laryngeal diphtheria. The reason for my greater confidence is the result of using the antistreptococcic serum.

I have used the serum in erysipelas, diphtheria, scarlet fever, and sarcoma, yet its value is only to be

seen in the treatment of puerperal sepsis. To prove that my faith has not gone astray I present the history of several cases, with an outline of my method of treatment. While the diagnosis was a clinical one, a bacteriologic examination not being made, the results were so gratifying that I wish to place them on record:

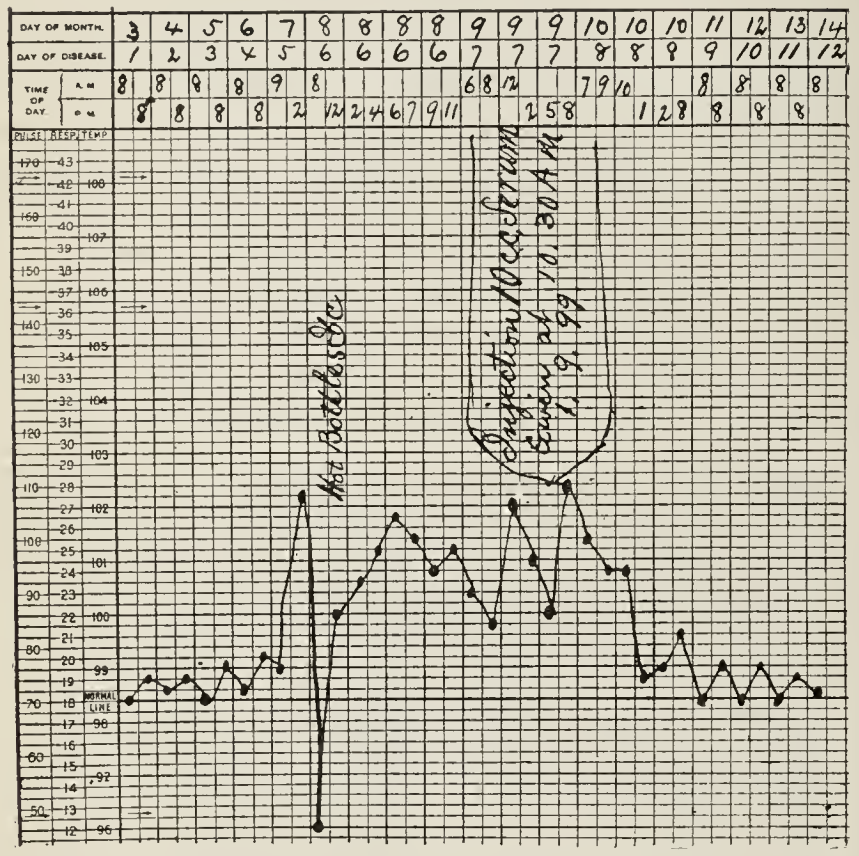


CHART NO. 2.

CASE I.—Mrs. T., aged 17 years, a primipara, under the care of a midwife (who had likewise attended one of the cases noted under the deaths quoted as occurring on the eleventh day). The cause of the infection was very plain to me. I saw the patient on the evening of December 27, 1898, when she had a temperature of 106°. On the following day I curetted and washed the uterus, applying drainage of iodoform gauze, and awaited the result of this. There was a slight decline in the fever (see Chart No. 1), but this very soon rose again. We had no attendance whatever, and the only douching was done by me during my visits. I was interested in this case, as she had been a servant in my home, and as I had her confidence, I procured antistreptococcic serum, and, after all other means failed me, on January 3, 1899, I injected 10 cc. of the serum into the left lumbar region. Immediately improvement was shown by a decline in the temperature and pulse-rate, and an absence of nausea and vomiting. On the second day there was an entire absence of fever which continued into convalescence.

I ascribed the cure to the serum, as no other remedies, excepting an occasional purgative, were used, and besides I ceased to use the douche, permitting the patent herself to use it. Quinin in tonic doses, with an occasional milk-punch, was given after convalescence.

The second case was more remarkable.

CASE II.—Mrs. M., a secundipara, suffered since her last childbirth with a rectovaginal fistula, the result of a complete laceration with an incomplete cure. During the last weeks of her pregnancy she was infected with the influenza, which, besides causing a catarrhal bronchitis, also caused diarrhea, with a proctitis, a swelling of the rectal side of the fistula and an accumulation of pus in the track of the fistula forming an abscess. There was some discharge of pus in the stools, as is witnessed in dysentery. During childbirth the patient had intense pain when the head began to pass the inferior strait, so intense as to necessitate the use of chloroform. The abscess was then seen and ruptured. On the second day an operation was done for the closure of the fistula. Two days after this, or the fourth day after childbirth, the patient had complained of nightsweats which she had had since two weeks preceding the puerperal state, and at this visit a temperature of 102° was noted. Quinin was administered in divided doses. On the next day the patient had an attack, accompanied by a bluish face, and all the evidence of sudden heart-failure. This sudden attack was unexplainable on the ground of drug-influence, as no medicine had been given. I therefore feared that it indicated the onset of septicemia, and that the toxin was so overwhelming as to cause the collapse, similar to that witnessed in cases of the so-called puerperal cellulitis of the older writers. This disease comes on in the first 24 hours after childbirth, with vomiting, and subnormal temperature, and which frequently had a fatal termination even before the temperature began to rise. For this attack a physician in the neighborhood was called, and strychnia, digitalis, atropia, hot packs, etc., were used with the result of tiding the patient over the depression. I was fortunate to get a nurse at this juncture, and the case was recorded (see Chart No. II) very accurately. On the morning of the day after, when the temperature had reached 102.4°, 10 cc. of the antistreptococcic serum was injected into the right lumbar region. After this no further trouble occurred.

A physician who was called during my absence examined the patient, and told me that he saw a diphtheric patch in the vagina. As I had made no examination before that time, and even until I removed my

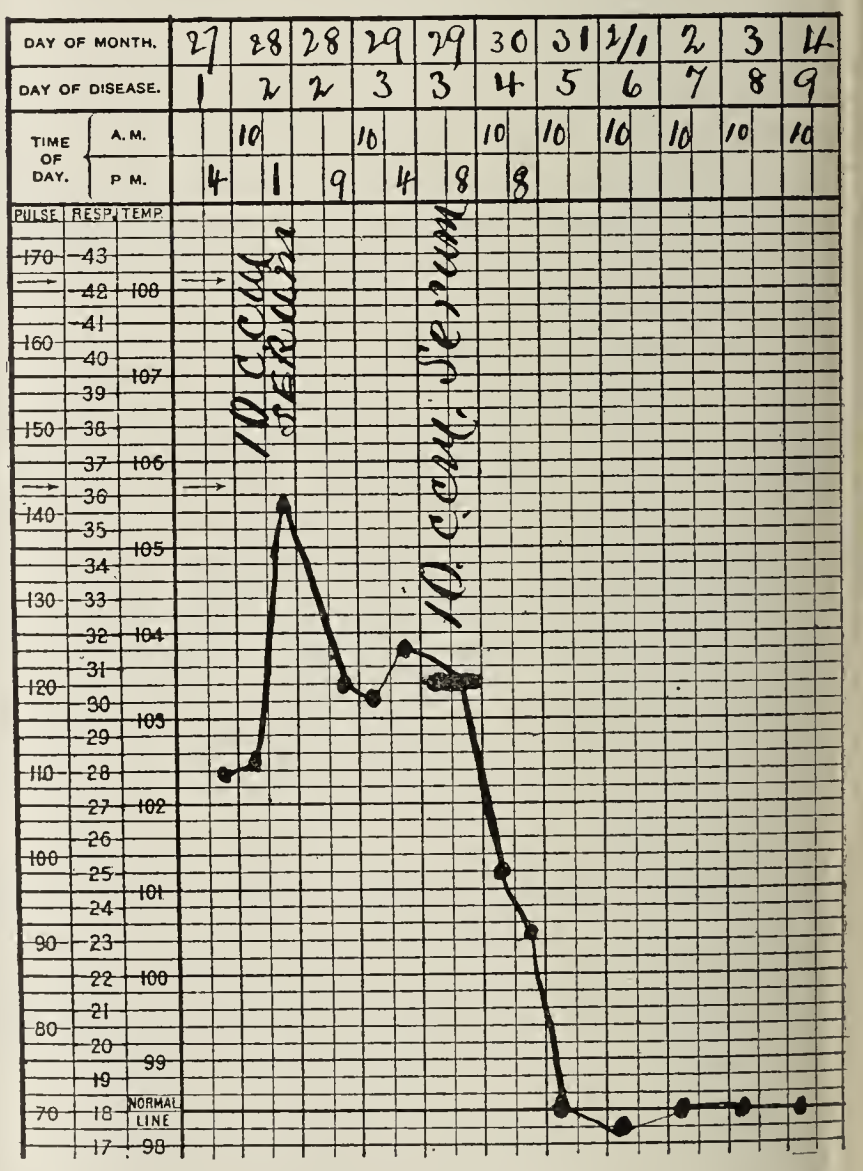


CHART NO. 3.

stitches, I had made no note of this fact; but it clinically proves the case as one of infection. In this case there was no curetment, and no particular care was taken of the patient. Even the discovery of the patch in the vagina would not have been made, as the ques-

tion of infection was never raised, nor there were any pathognomonic symptoms.

Case III.—Mrs. U., a secundipara, aged 26 years, gave birth to a male child, R. O. A. presentation, on the morning of January 25, a midwife attending. This midwife was a graduate of a Vienna school, and a very careful and intelligent woman. She noted nothing particular until 2 days later, when I was called at 4.30 P.M. The pulse at this moment was 164, temperature was 102.4°, and respiration was 48. There was suppressi n of the lochia as well as of the milk. Calomel and salol were given in divided doses. At 10 o'clock on the following morning the temperature was 102.5°. There was a free discharge from the bowels. Examination showed diphtheric patches on the cervix and vagina, even down to the perineum, and on the labia minora, and the internal parts of the labia majora. Curettage was made as thorough as possible, with irrigation to the uterus and vagina with sublimate solution 1 to 10,000, 40 quarts of solution being used for this purpose, and an iodoform-gauze drain was applied. A chill followed, lasting one hour, and at 1.30 P.M. the thermometer registered 105.5°, when a hypodermic injection of antistreptococcic serum, 10 cc. was given. The pulse at this moment was 160. At 9 P.M. the temperature was 103.4°, pulse 140, and respiration 40. On January 29, at 10.30 A.M., the temperature was 103.2°, pulse 120, respiration 40. I gave a vaginal douche of 2 quarts of sublimate solution 1 to 10,000 and another hypodermic injection of 10 cc. antistreptococcic serum. At 4.40 P.M. the temperature was 103.8°, pulse 112, and respiration 32. Another sublimate douche was given of the same quantity and strength. At 8.30 P.M., temperature 103.4°, pulse 110, and respiration 40. The following morning the temperature was 101°, the pulse was 108, and the respiration 40. A douche was given of 2 quarts of the corrosive sublimate solution, at 8 P.M. the temperature was 100.5°, pulse 108, and respiration 36. On the morning of the 31st, the temperature was 98.4°, pulse was 96, and respiration 24. From this time on there was no further fever, and two days after this I ceased my visits. (Note Chart No. 3)

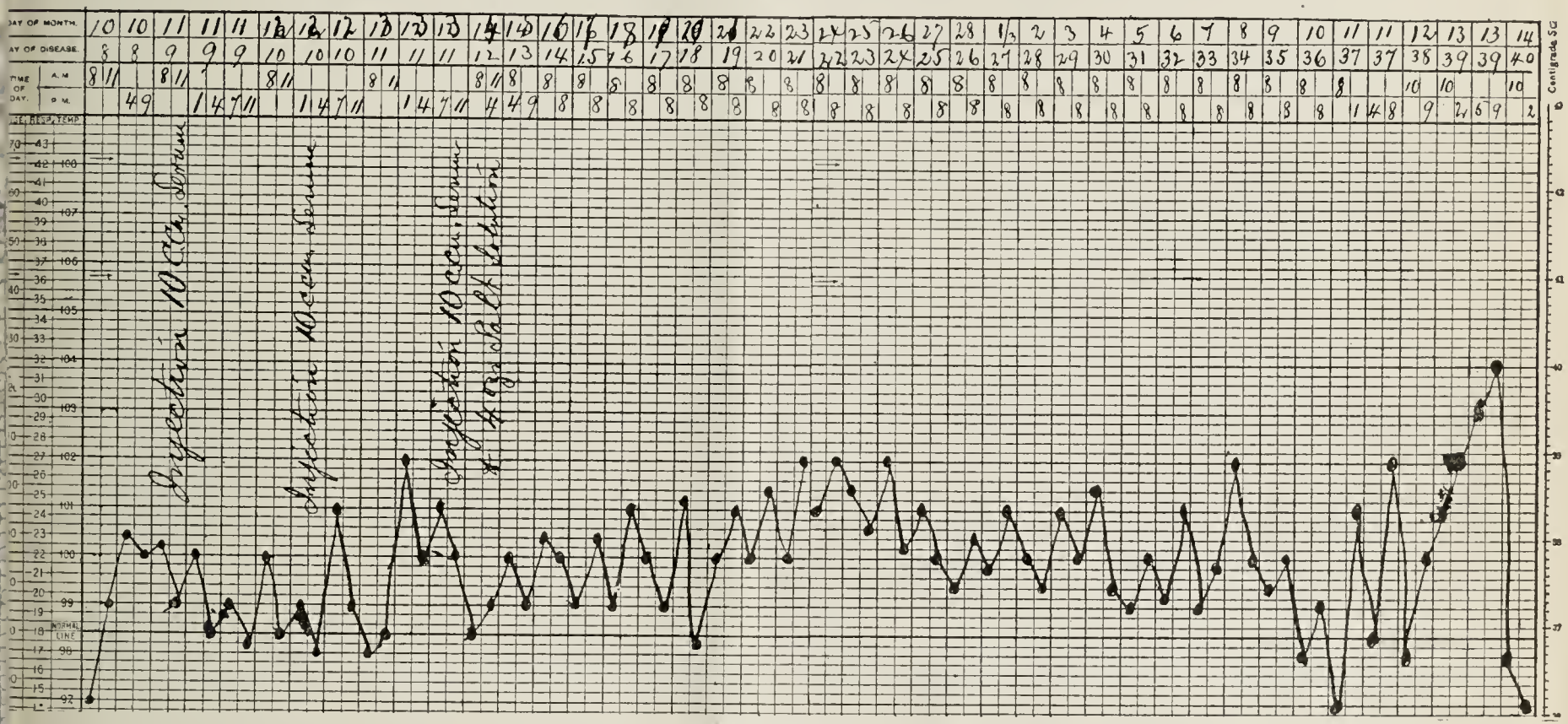


Chart No. 4.

Case IV.—Mrs. T., aged 38 years, quintipara, was under the care of the same midwife who attended Case 1. The child was taken with instruments on February 3, and I was called to see the patient February 10, 7 days after childbirth. The temperature was subnormal, and indications were very unfavorable, the woman being almost in extremis. Hypodermics of strychnia, digitalis and atropin were administered, and hot bottles were placed at the feet, thighs, and sides. Hypodermic injection of saline solution was made, and everything done to obtain reaction. This patient had peritonitis, and suffered from pneumonia. The case seemed hopeless, still, having the serum, I began its use. For 3 days I gave a daily injection of 10 cc. At this time the tongue became clean, the intellect clear, and indications were more favorable. A diagnosis of pus in the pelvis was made, but operation was not to be considered, as the injury to the lung-tissues was past repair, cavities being apparent in both lungs. While the condition of the patient was somewhat relieved, she died from exhaustion on March 14, 40 days after the birth of the child. (See Chart 4).

The cause of sepsis in each case so treated was not due to the use of strong antiseptic drugs. In Case 1, no douche was used until I cureted, and then I used a 1% lysol solution. In Case 2, lysol was used after labor and during the operation. Sepsis in this case was prepuerperal, and was constant with this patient, as she suffered from a chronic type of the disease, and the attack of influenza brought it to the surface, the confinement being only an incident in the case, and not the cause. Case 3 was in a measure caused by the nurse, as the midwife in charge had no other case of infection, though she had quite a number of women in bed at the time. Case 4 was brought to this patient by the midwife; I have positive proof that she so infected many others, some of whom died, while one other (the first case) recovered under the treatment I have described. I am familiar with all methods of treating puerperal septicemia, and have had probably the same results as others. As to the cause of puerperal sepsis, I have come to the following conclusions:

1. I do not believe that puerperal fever can be caused by normal vaginal secretions, but am firmly persuaded, where there is no injury to account for it, and where there has been no retained placental tissue, that the disease is communicated.

2. I fear that prophylactic vaginal disinfection with antiseptic drugs, as a routine measure, is unnecessary,

and even in the hands of those best versed in its use is most generally injurious.

3. In healthy women, delivered aseptically, postpartum douching is also contraindicated for the reason just quoted. Some of my cases were certainly caused in this way.

4. All childbed infection in women previously healthy is by contact, shown by Cases 1 and 4, the disease in these instances being certainly brought by the midwife.

5. A purulent vaginal secretion other than gonorrhea may cause puerperal infection. Hence it is essential in such instances to give a preliminary douche, repeating it at intervals. This should be antiseptic, for the reason that all such cases are, in a measure, septic.

6. I have reason to believe that the different substances used to lubricate the vaginal canal during labor may be irritating and harmful, therefore the best lubricants are the cleanest. First on the list is soap and boiled hot water. Lard or rancid oils are highly injurious, as are the common soaps that I have seen furnished. White castile soap and boiled water are as near perfection as can be obtained.

As regards septicemia, the earlier after labor the symptoms of infection appear, the worse is the prognosis. The period of incubation may be so long as 11 days. A disappearance of lochia is an early sign, and shows serious infection. When both the lochia and milk disappear, the prognosis is very unfavorable.

In treatment, besides the use of the serum, it is well to use simple irrigation of the uterus and vagina; continuous irrigation, if the discharges are fetid and infection be suspected. When retention of placental tissue is suspected, curettage with irrigation, either simple or constant, is indicated. For no other purpose should curettage be attempted. I have seen the temperature increased by 3° or more after a routine curettage.

For douching I use corrosive sublimate 1 to 8000, lysol, 2%, and creolin, 5%. If curettage is done, I use a tampon of iodoform-gauze, allowing it to remain 24 hours.

For medicinal treatment I use purgatives, quinin, whisky, strychnin, digitalis, nitroglycerin, as the case may indicate.

I inject the serum, when used, in the same way as the diphtheria-antitoxin. I prepare the skin, generally the sides of the lumbar region, by washing it with alcohol applied with antiseptic cotton or gauze. After the injection I close the aperture made with the needle with iodoform-collodion. Any quantity can be used. Williams begins with 20 cc., and repeats this if the temperature has not fallen; the largest amount injected by Williams at one dose was 35 cc. Kennedy injected 45 cc. Bulloch states that larger doses can be given with safety.

The time to give the serum is in the mornings when the temperature begins to rise. In each of my cases I have given 10 cc. as the initial dose, and when the fever continued, repeated the same dose on the following day. In other diseases, as erysipelas in an infant, I have given as much as 30 cc. with no unfavorable symptom. The method of continuing the use of the serum is different from that of diphtheria-antitoxin. With the latter, the rule in each case is to begin with a small dose and continue in larger quantities. In the former, experience teaches to begin with a maximum dose, and to continue with smaller doses. To what extent or quantity this serum can be given has not been settled. Bulloch injected 10 cc. of his serum into a rabbit without causing any bad symptoms.

Puerperal infection may be independent of streptococci. According to Bulloch, recent research shows that a puerperal fever may be set up by the gonococcus (König), the bacillus coli communis (Marmorek) the Talamon-Fraenkel coccus, and the staphylococcus.

In the majority of instances, however, puerperal fever means infection of the genital canal, and ultimately of the whole system, with the streptococcus pyogenes. There is produced a septicemia—using the term in the sense in which it was originally employed by Koch—a condition of microbic blood-infection in which the microbes multiply in the blood, and cause a rapid fatal disease. The bacillus usually is the streptococcus pyogenes, and the type of infection induced is called streptoinfection or streptosepticemia, or, in the language of the bacteriologist, streptomycosis. It is in this class of cases only that the antistreptococcic serum is of value. The serum is specific against the streptococcus only, and attempts to cure staphylosepticemia or infection caused by other germs will not be successful.

The combination of symptoms found in cases of severe puerperal septicemia point to a streptoinfection, but in the absence of a bacteriologic examination certainty is impossible. The streptoinfection is at first essentially a local disease; it is later that it becomes a blood-infection. Therefore local treatment, antiseptic douches, and curettage cannot be dispensed with, but must be carried out in conjunction with the serum, which, when the germs have passed into the general circulation, annuls their action and toxin, and obviates the organic degenerations which are beyond our control.

The cases are too few to prove by statistics the certain efficacy of the serum. My own experience shows a mortality of 25%. In a disease so fatal as puerperal fever, any remedy that gives slight hope should be tried. While the serum is not in any sense a specific for such a combination of causes as the fever presents, I believe that it has certain well-defined value, and if it were given the same clinical tests as was diphtheria-antitoxin conclusive results would prove its limitation.

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SOME POINTS IN THE DIAGNOSIS OF THE MORE COMMON FORMS OF NASAL OBSTRUCTION.[1]

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To the experienced rhinologist, the diagnosis of the various forms of nasal obstruction usually presents no great difficulty. But the general practitioner, who is not so accustomed to the use of reflected light nor so familiar with the appearances of pathologic changes within the nasal cavity—nor so familiar with the normal appearances, for that matter—frequently finds it no easy matter to determine the nature of a nasal obstruction.

That obstruction is present may be obvious from the fact that there is well-marked mouth-breathing, for instance, but the nature of the obstructing agent, or even its location, seems often difficult of determination.

This paper is written with the hope that, by a short review of the more essential points put in a simple, practical way, the differential diagnosis of common forms of nasal obstruction may be somewhat simplified. I have been led to choose this subject from the fact that I frequently see cases mistakenly diagnosed by the most capable general practitioners; hence, I take it that there are difficulties in the way of diagnosis, which might make it desirable to simplify. I make no claim to anything original, the intention being merely to consider the more essential points of diagnosis of obstruction, which can generally only be obtained by a perusal of a long array of diseases of the nose in general, as found in one of the standard textbooks devoted to that subject.

First, as to the general signs of nasal obstruction. In a well-marked case, the first symptom to attract attention will probably be more or less noisy and labored inspiration through the nose, and *mouth-breathing*.

It is well to remember, in this connection, that it is not wise to trust too implicitly in the statements of the patient himself as to nasal sufficiency. Unless obstruction be suddenly produced, the patient will gradually acquire a habit of breathing partially through the mouth without being aware of the fact.

While getting his history, observe the patient's respiration carefully, without his knowledge; and see if he breathes easily and constantly through the nose. Frequently, in spite of his statement that he has no difficulty in breathing through the nose, it will be observed that he is getting most of his air through the mouth.

[1] Read before the Medical Society of the State of New York, January 31, 1899.

Now press your thumb over one of his nostrils, so as to completely close it, having previously directed him to keep the mouth closed, and being careful not to cause any distortion by your pressure. Try first one nostril, then the other. Observe if there be any marked difference in the respiratory sounds of the two sides, and, if so, if there be so much difference as to justify one in the belief that the better side is sufficiently patent to carry on nasal respiration of itself. This is often possible. But if this is not the case, and one nostril or both offers any noticeable degree of impediment to easy nasal respiration, there is an obstruction somewhere between the anterior nares and the oropharynx. There may be sufficient obstruction within one or both nares to cause pressure and various reflexes, or to interfere with drainage, without any respiratory difficulty. This can only be determined by ocular inspection.

In the more marked degrees of nasal obstruction there are speech-defects which are apparent to any but an indifferent observer. They are those which relate to the improper or impossible production of the so-called nasal sounds, M and N. If the patient be requested to repeat the old copy-plate sentence of our elementary lessons in penmanship, "Many men of many minds," he will more or less, according to the degree of obstruction, approximate the pronunciation—"Bedy bed of bedy bides."

There is a distinction to be noted between the pronunciation of one who has obstruction in the nasopharynx, or posterior nares, and that of one who has obstruction in the anterior nares. I scarcely know how to describe the difference, but I have frequently observed it. The difference is probably accounted for by the fact that, in the former case, the nasal sound is immediately stopped as soon as the attempt is made to emit it; while in the latter case, though it is likewise stopped, it vibrates through the nasopharyngeal and nasal cavities. There is, then, in nasopharyngeal obstruction a deadness of tone added to the imperfect production of the nasal sounds of speech, which is not so manifest in more anterior obstruction.

Correlated to mouth-breathing is the *physiognomy* of the patient. If he has long breathed through the mouth, the face will assume a characteristic dull and listless expression, due to the gaping mouth. Sometimes, especially when his attention is directed to the open mouth, he will endeavor to conceal the defect by a somewhat ineffectual attempt to keep it closed. But instead of the naturally closed mouth in repose, there is a drawing out, so to speak, of the lips, so as to permit air to enter through the corners of the mouth.

Having determined the fact that nasal obstruction exists, it will be next in order to ascertain where the obstruction is located, and what is causing it. To accomplish this end, it is necessary to employ the senses of sight and touch.

In order to see within the nasal cavities, a good arti-

ficial light is needed, since ordinary daylight is insufficient. It is, however, unnecessary to have an elaborate armamentarium. The following articles will suffice:

A lamp for gas or kerosene.
A forehead-mirror.
A small throat-mirror.
A tongue-depressor.
A nasal speculum.
An ordinary probe.

This is a sufficient outfit with which to make a diagnosis of nasal obstruction. But it is utterly futile to attempt to make a diagnosis by simply turning the patient's face to the window and looking into the nose, as is frequently done.

For the purpose of diagnosis, it is convenient to divide nasal obstruction into four classes, the basis of classification being the principal causes of obstruction.

I. INFLAMMATION.

1. *Turgescence of the Turbinated Bodies.*—This condition, strictly speaking, is a neurosis rather than a result of inflammation, but, since there is so often inflammatory manifestation associated with it, convenience justifies its classification under this head. If the nostrils be dilated with the nasal speculum, and light be reflected into the nasal cavities by means of the head-mirror, the turbinals will appear larger than normal. This condition is most frequently mistaken for true hypertrophy. If the body be touched with the probe, quite a deep indentation can easily be made. It seems soft and baggy. Furthermore, if a spray of 4% solution of cocain be applied, the swelling entirely disappears.

2. *Acute Rhinitis or Coryza.*—This disease is so familiar to all, that it would hardly be possible to make a mistake in its diagnosis. The general systemic symptoms, and exclusion of the possibility of iodism; or, in the case of a young child, of a foreign body, should be conclusive.

3. *Hypertrophied Turbinated Bodies.*—These are among the most frequent causes of nasal obstruction. They present somewhat the same appearance as in mere turgescence. But on applying the probe, the enlargement is found to be firmer than in the latter condition; and a spray of cocain-solution reduces the swelling only to a moderate degree.

4. *Localized Thickening of the Septum.*—These outgrowths, frequently called crests or spurs are not usually of sufficient size to cause much obstruction; sometimes, however, in a narrow nostril they may. Upon inspection they will be seen to spring from the septum. To the touch with the probe, they are very hard and firm. Cocain reduces them little, if any. They are to be distinguished from deviations of the septum by the fact that there is no corresponding concavity on the opposite side of the septum.

II. INJURIES.

1. *Deviated Septum.*—Deviations of the septum are believed by some to be always due to injury. I think they very frequently are, either directly or indirectly. If directly, as the result of a blow or fall on the nose, a fracture occurs at some portion of the osseous or cartilaginous portion, thereby producing a deflection; or, the force of the blow may be such as to disarticulate the septum at some point. On the other hand, the injury may not be sufficient to cause immediate deformity, but following, and as a result of the injury, an overgrowth of the cartilaginous septum takes place. This, being set in a bony framework, cannot expand its borders; hence, deflection must take place. This process may go on for years before sufficient bulging of the septum is produced to cause obstruction.

The diagnosis should not be difficult; and yet I have seen deflection of the septum taken for polypus a number of times; and that by general practitioners of acknowledged ability. Upon inspection, with reflected light, the appearance will resemble that of a localized thickening of the septum. The probe will show that it is a part of the septum and does not spring from the outer wall of the nasal cavity. Looking at the other side of the septum, through the opposite nostril, a corresponding concavity will be seen; differentiating it from mere thickening. I do not believe that any one would take this deformity for polypus if he but examined with ordinary care. The usual pearly color, soft consistence and mobility of a polypus will be absent.

2. *Hematoma and Abscess of the Septum.*—Following injuries to the nose, blood is sometimes effused beneath the mucous membrane of the septum. If the blood does not undergo absorption or organization, it is quite likely to break down and form an abscess. In either case, the tumefaction is, usually, bilateral; that is, on both sides of the septum. It presents a dull, red appearance; or, if pus is present, possibly a yellowish color. It is tense but compressible, and yields, through the probe, a sense of fluctuation. If any doubt exist, puncture with an aspirating needle would settle the matter.

III. NEOPLASMS.

1. *Mucous Polypus.*—The most common form, in fact the only common form, of new growth occurring in the nose is mucous polypus. If a polypus has attained sufficient size to cause nasal obstruction it will usually be an easy matter to see the growth. In fact, very frequently, it it so large as to present at the nostril, or even to protrude beyond it. Its appearance is that of a smooth, pinkish-gray, semitransparent, gelatinous body. It does not bleed and causes no pain. Polypi usually spring from the middle meatus, under the middle turbinated body, never from the inferior turbinal, and seldom from the septum.

A collection of thick mucus sometimes simulates a polypus, particularly if it be far back, and not open to fair view. Causing the patient to blow his nose, or wiping or spraying the nasal passage, would of course remove such a collection; a polypus would remain. Besides, the probe would reveal the consistence of either.

All of the forms of nasal obstruction thus far considered, with the exception of hypertrophy and intumescence of the turbinated bodies, are located, for the most part, anteriorly, and can be seen by anterior rhinoscopy.

A polypus is sometimes situated so far back as to be visible by posterior rhinoscopy only. Unless one has had some practice with the latter, he will find it difficult to obtain a good view of the posterior nares, or choanae. If a polypus can be seen in the mirror it will present a smooth, rounded appearance of pinkish-gray color, situated in or protruding from the posterior naris. If the posterior end of the turbinal be hypertrophied or swollen, it resembles polypus somewhat, but instead of being smooth, it has a characteristic crenated or "puckered" appearance. If the polypus be situated more anteriorly, it can be distinguished from an enlarged turbinated body, not only by its color and consistence, but by the fact that it is quite freely movable. A hypertrophied or turgescent turbinated is reddish in color and immobile.

If doubt still exists, the following expedient might be resorted to: Prick the mass with a needle or the point of a bistoury. A turbinated body will yield a slight hemorrhage; a serous fluid or nothing will follow puncture of a polypus. Polypus is to be distinguished from a septal spur or deviation of the septum by the white or pinkish-white color, gelatinous consistence, lack of sensation and mobility of the former, and the reddish color, hard consistence, marked sensitiveness, and immobility of the latter.

Referring again to the allusion made in reference to the frequency with which deviation of the septum is mistaken for polypus, and confirming my observation, I have since learned that Christopher Heath has made the statement, that in his experience one of the commonest errors in diagnosis is that of taking the convex side of a deviated septum for a growth.—(*Diseases of the Upper Respiratory Tract*, by P. Watson Williams, M.D., London, 1895.)

2. *Fibropolypus or Fibroma.*—This growth rarely originates in the nasal passages. The most frequent site of its attachment is the base of the body of the sphenoid. If it has attained great size, however, it may force its way from the nasopharynx into the nose. The characteristic deformity called "frog face" is then produced by the resistless force of the growth, which displaces the nasal bones.

The striking suggestive symptoms are pain and frequent hemorrhage. The growth can be seen in the postrhinal mirror as an irregularly rounded mass of reddish color. The index-finger introduced behind the palate will reveal its hard, dense character, and the excessive ease with which it bleeds.

The only growths likely to be confused with fibroma are osteoma and sarcoma, but osteoma has little or no tendency to bleed, and sarcoma lacks the excessive hardness of fibroma.

3. *Malignant growths*, fortunately, occur very rarely in the nasal passages or nasopharynx.

IV. Foreign Bodies.

In adults, the diagnosis of a foreign body within the nasal cavities usually presents no great difficulty. There is the history, to begin with, of the introduction, accidentally or otherwise, of some substance. In fact, judging from my own experience, such cases are extremely rare in a sane adult.

Young children, however, as is well known, have a great propensity for putting shoebuttons, beads, etc., in the nose. Inability to make themselves understood, or fear, will often deter them from making the fact known. One must then be guided entirely by the objective symptoms and by inspection.

A unilateral mucopurulent discharge from the nose, in a child, is almost a pathognomonic sign of a foreign body. After careful cleansing of the nostril, inspection with reflected light will most likely reveal any extraneous substance that may be present, unless it has been there for some time, when it may be imbedded in granulations. But then the probe would discover the hidden body.

A very frequent cause of nasal obstruction, especially in children, is hypertrophy of the lymphoid tissue at the vault of the pharynx, or

V. Adenoids.

Although these do not cause obstruction within the nasal cavity proper, they give rise to all the symptoms of nasal obstruction, and are of such importance as to demand consideration in this connection.

They can be seen with the rhinoscopic mirror as an irregular, rounded mass of reddish-gray tinge, having either a smooth or a mammillated surface, hanging from the vault and posterior surface of the pharynx, and presenting more or less, according to their extent, a view of the choanae or posterior nares. In children they always present a mammillated surface. They become smoother in appearance with the advance of age and atrophy. Stringy mucus will usually be found covering the growths and adhering to the posterior wall, often as far down as the lower edge of the soft palate.

It is not always an easy matter, in young children, to obtain a satisfactory view with the mirror. In such cases, and in any event by those who have not had much experience with posterior rhinoscopy, a more re-

liable diagnosis can be made by means of palpation with the index-finger, which will give information not only of the presence of the growth, but also of its extent and character.

Pass the index-finger of the right hand up behind the soft palate and feel for the posterior border of the septum and the posterior nares, and then, using the septum as a guide, continue on upward to the vault of the pharynx. If no abnormity be present, the latter will be felt as a smooth, rounded dome, into which the edge of the septum gradually merges. If there be adenoids, a soft mass will be encountered, which has been most often likened to "a bunch of earth-worms." Upon removing the finger, it will be covered with bloody mucus; but bleeding does not continue. If such a mass be found in a child's nasopharynx, it can hardly be anything else but adenoids. Large adenoids are seldom found in adults, since more or less complete atrophy usually takes place in these growths after childhood or adolescence.

ANGIONEUROTIC EDEMA.[1]

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ANGIONEUROTIC edema is a disease characterized by circumscribed edematous swellings, occurring suddenly in various parts of the body, remaining but a short time, and disappearing as quickly as it appeared. After the swelling has subsided there is no trace of secondary change in the parts. It is prone to recur many times in the same place.

The term angioneurotic edema, so far as we are able to say at present, is purely empiric, as it takes for granted certain factors concerning the cause of the disease. It is known under various titles, such as Quincke's edema, acute circumscribed edema, periodic swelling, urticaria tuberosa, acute noninflammatory edema, wandering swelling, and Australian blight. It made its advent into medical literature in 1827. Malgame wrote on this subject in 1840; Sydenham spoke of it in his lectures in 1869; Hehn published a report of case in 1873; Henoch in 1874, and Jules in 1878. Quincke and his pupil Dinkelacker in 1882 published a careful description of this disease. Since, many cases have been reported, by Strubling, Osler, Star, Riehl, Unna, Jamieson, Collins, and others.

It occurs most frequently in adult life and in males. It has been seen, however, in children, and also in old age. Heredity is an important element in the cause of this disease, striking evidence of which is given in the story of the family related by Osler, showing the disease in 5 generations including 20 individuals. All excesses, exposure to cold, bodily fatigue, grief, fright, and slight wounds, are regarded as etiologic factors. An attack is sometimes excited by certain foods; for instance, in a case reported by Osler, eating of apples, and in my case eating of fish was followed by the appearance of the edema. Intense emotional strain due to domestic trouble and fright produced by the explosion of a powder-magazine were followed by extensive swellings.

According to Collins, "the area of distribution and the primary point of manifestation, in a total of 71 cases, the swelling showed itself for the first time in the face in 29 cases, on the extremities in 22, in the larynx in 5, on the genitals, penis, and scrotum in 3, on the body in 6, on the gums and palate 1, in the stomach 3, on the neck 1, and behind the ear 1."

Dr. W. Allen Jamieson, of Edinburgh, reports "a case of a governess, aged 60, who till 7 years ago enjoyed good health. She became affected with pains of a rheumatic nature in the nape of the neck and shoulder, and soon located them in the right wrist which had been hot and enlarged, the fingers of right hand swelled at the joint. Her condition resembled what is known as swelling blight in Australia."

Dr. E. W. G. Masterman, of Damascus, gives this report of a case "of wandering edema, probably of septic origin. J. T., a Jew, aged 8, was suddenly seized with pain in left leg. Shortly after edema of the leg was noticed, gradually ascending from foot to knee. The next day the left arm became painful, and began to swell rapidly, and in the evening swelling about the eyelids was noticed. There was also abdominal pain and tenderness of the back. The patient had an abrasion of the heel, but no red lines were visible on the limb. He was suddenly seized with an acute attack of dysentery. Blood and matter was very copious, and tenesmus severe." Recovery ensued.

Dr. J. R. Gibson, of England, reports a case as follows: "The patient, a man of 52, had a good family-history. Two years ago he met with an injury of the left temple from a falling plank of wood. He was rendered unconscious for a short time. The forehead was cut and bone injured. After the injury he became liable to periodic attacks of sickness and acid vomiting, accompanied with pain at the seat of the injury, and followed by circumscribed edema."

Dr. W. C. Brown, of Penang, states that 4 cases have come under his observation, and in all of them the symptoms were practically the same. "The onset of wandering edema is characterized by pain in one or both feet, which is generally referred to the plantar fascia and the ligamentous structure about the metacarpal phalangeal joints. The pain is described as being of a heavy, dull, burning character, and at first simulates very closely the onset of an attack of gout. In the case in which I was able to make a cover-glass preparation of the edematous fluid, a short round-ended bacillus was found. It has a tendency to bipolar staining, but refuses to grow on glycerin-agar,

[1] Read before the Montgomery County Medical Society, April 15, 1899.

blood-serum, or potato. It is apparently like the bacillus of malignant edema. Microscopic examination of the blood does not reveal the presence of a malarial or other parasite. Two conditions suggest themselves as being probably factors in the causation of wandering edema, gout, and urticaria. In 3 or 4 cases that came under my notice, there was a history of mushroom-poisoning. Discomfort was felt after eating trimmed French mushrooms, and the attack came on in 48 hours in one case, and in another in 72 hours."

Dr. W. H. Stephen reports a case in a married woman, 45 years of age. She had had acute rheumatism and herpes zoster. The attack came on suddenly every 2 or 3 days. He is inclined to the opinion that it is due to nervous influence in a rheumatic subject.

In Masta's case, there was malarial toxin as an exciting cause, the edema recurring daily from 11 to 12.

Dr. T. G. Ashton reports a case in a boy, who, after a fall, striking upon the tissue in the neighborhood of the right eye, developed angioneurotic edema. Also, two other cases, both in young ladies, in which edema followed exposure to draughts, or cold wind, and sudden chilling of the surface.

Dr. Norman C. Yarian's case was in a married woman, who suffered from periodic attacks of edema, following gastralgia and vomiting, all her life. The attacks showed a marked periodicity, occurring on an average of once in two weeks since her child-bearing period, but previously about every week.

Krieger's case was in a person who was found dead in bed one morning, and an autopsy showed that death was caused by sudden edema of the glottis.

One of the three cases reported by Dr. Lovett is of particular interest in its very long duration as compared with most of the reported cases.

The disease usually manifests itself, without premonition, though it may be preceded with a general feeling of depression, associated with ill-defined, gastrointestinal symptoms. The edema appears suddenly, reaches its full development in a few minutes or a few hours, and is of brief duration. The lips, eyelids, face, larynx, and hands are the most usual sites, but it may affect any part of the body, even the mucous membrane. The edematous spots are well-defined, and vary in size from 2 inches to 20 inches. In some cases the hue of the skin is altered, becoming light or dark red, while in others it is pale or waxy.

There is no pitting on pressure; a characteristic feeling of crackling is communicated to the finger, very like that produced by placing a silk handkerchief over a thin film of cotton. The subjective symptoms are a feeling of tension or weight in the affected part, and a burning and itching, which, in the case I report, was present only when the parts were red. Outside of these there are no symptoms, and even these are not constant. After the swelling has subsided, there are no traces of pathologic lesions. Abdominal colic and watery vomiting are prominent symptoms in some cases. The body-temperature is usually normal.

The pathology of angioneurotic edema is obscure. The nature of the lesion is unquestionably noninflammatory. The seat of the edema is probably in the subdermal and submucous connective tissue; there is no structural alteration after the edema subsides.

Quincke regards the condition as a vasomotor neurosis, producing dilatation and permeability of the vessels. According to Cohnheim, edema owes its origin to a change in the vessel-wall. This change is due to the character of the blood, or to some deleterious substance in it. He admits that we have a clinical fact without a pathologic solution. Landau regards it as the result of spinal irritation. Klernensiewicz is of the opinion that we must look to the lymph-vessels and changes in the lymph-circulation for the explanation. Collins is inclined to the opinion that its causation may be attributed to the retention of toxic products that are ordinarily disposed of within the system.

The history of my case is as follows:

Mrs. K., aged 33, American, married, mother of one child a year old, living and in good health. Her family-history revealed nothing of special interest. Her health had always been fairly good, except that she had had painful menstruation, slight mental depression, and inclination to worry. There was no cardiac or pulmonary defect; no pelvic trouble, and no sign of disease of any of the organs. Examination of the urine revealed normal kidneys. Digestion good, and body well nourished. No element of heredity, tuberculous, rheumatic, or gouty, in the case.

When seen for the first time, in the evening of November 16, after a hard day's work at housecleaning, she presented herself at my office with an extensive swelling of the right side of her face, that appeared suddenly. The affected part did not pit on pressure, and was neither hot nor painful; no itching or burning, a sense of weight and stiffness of the skin existed. The temperature was normal; the tongue clean, appetite good, bowels constipated. She stated that she was well in every other respect.

The following morning the swelling had entirely disappeared, leaving no trace of disease, no alteration in color, or sensibility of the skin. Two days subsequent to the advent of this condition, the same characteristic swelling appeared on the right hand; this also subsided in few hours.

The third point of attack was the right eye, fourth left eye, fifth thumb, sixth both knees, seventh one foot, with slight burning of the part, and headache. Next the left foot and great toe, then shifting from place to place for a period of 20 days.

December 12, there was swelling over the right eye, three inches in extent and closing the eye. The surface was faintly red, but not hot. The next day it existed on the left thigh, 4 by 6 inches in extent, also left shoulder to elbow, and hand, with pain; all of this disappeared in a day.

December 16, swelling of one foot began at 11 o'clock, with itching and smarting; December 18 there was swelling on the leg; December 22 the mouth and throat were affected; December 27, the knee swelled; December 29, the right arm; January 1, both arms; January 5, both eyes to the extent of closing them. She was unable to see for 6 hours.

On January 6, the right hand swelled; January 8, the left hand; January 9, the left arm; January 11, the left foot, with itching all night; January 14, the right foot was affected and was very tender next day. On January 16, the swelling was around the mouth, producing great deformity; January 18, the left arm was again swollen, and on January 20, right angle of mouth, extending upward to the eye and closing it; January 23, the left buttock was the site of edema; January 25, the left hip with intense pain in the stomach; the swelling on the 27th affected the right hip.

On February 1, the lips began to swell at 5 A.M., and the

pharynx was nearly closed at 6.30 A.M. The left side of the face was edematous and the eye was closed. At 9 A.M, the swelling extended from 2 inches above the eye to the clavicle. She complained of pain and distress in the chest, and extreme pain in epigastric region, with incessant vomiting of watery mucus and bile, indicating clearly that the gastric mucous membrane was implicated. Her pulse was weak and rapid, and at times her face would become cyanosed. She was at times in imminent danger of suffocation, and presented a picture of great agony.

I administered hypodermic injections of morphin and atropia, and sprayed the throat with an astringent, applied ice both inside and outside, all without avail. I then resorted to venesection, removing 10 ounces of blood from her arm, which relieved her distressing symptoms at once. She soon became calm, and in half an hour fell into a sleep, from which she awoke much improved,

February 2 her condition was better; there was slight general edema of the face, and swelling of the right foot, but on February 3 both feet and one kneecap swelled, and on the 10th there was edema on right thigh, pain in head, stomach, back and legs. On the 14th, right shoulder to the elbow, the right leg and the buttock were swollen; February 19, it appeared on the bottom of the left foot near the small toe; from this point it spread to back of right leg and thigh, and on the right arm 5½ inches by 8 inches this tumor was slightly red and itched. February 26, left hand, hard and painful, could not tolerate heat. Up to this time she had nursed her baby, we then weaned it, and the milk soon disappeared.

March 3, two points of edema on right leg, one above and the other below the knee; March, 4 left thigh; March 5, right hip and heel; March 6, shoulder and arm; March 7, left leg, right side of face, eye closed, headache; March 11, left angle of mouth inside and outside, cheek very red and stiff; March 12, side of face, eye closed all day; March 15, right foot; March 22, back of right ear, and left thigh; March 25, left hand, foot, knee and back of neck; March 28, menstruation reestablished, usual in amount and some pain.

April 1, edema of little finger of right hand, intense pain all night; April 2, right foot; April 9, right buttock; April 10, left ear; April 13, face, eyes nearly closed, mouth swollen, could not eat; knee and buttock also affected. Was excited from an explosion of a powder magazine; April 14, right hip; April 21, both feet; April 28, shoulder, hip and leg below knee, decided itching of the parts. The patient felt very badly owing to a severe storm; April 29, back of neck and left knee, pain in the throat; April 30, menstruation normal.

May 3, slight edema right arm; May 7, left eye closed at 6 A.M. Both eyes closed at noon. Both thighs and one arm also affected: May 12, slight swelling on both hands; May 13, right foot with itching; May 22, both hips; May 24, face and on the back; May 25, right angle of mouth; May 30, both hands.

June 2, left leg; June 3, left shoulder and both knees; June 4, right buttock; June 8, left leg, right hip, right arm and both hands; June 9, menstruation; June 17, both feet itched; June 28, edema of the larynx came on in the morning, with sick stomach, and nervousness. In a few hours she became very weak, and later unconscious, which continued for an hour. The pulse was irregular, hands and feet cold, and face blue. She was restless and with an anxious expression, vainly trying to get breath. Her condition now became critical and I had grave doubts as to her recovery. Remedies failed to make any impression. I hesitated between the operation of tracheotomy and vivisection; deciding in favor of the latter, I immediately opened a vein in her arm and removed 12 ounces of blood. The result was most happy, she expressed her relief in a few minutes. The next day no swelling could be detected anywhere on her body.

July 4, slight edema on right hand; July 13, right hand and elbow, with internal pain; July 17, left hand and back (frightened); July 19, left leg; July 21, right buttock, small; July 22, left buttock, extensive; July 23, left hand; July 24, left eye closed at 5 A.M., both eyes closed at 7 A.M.; July 25, right shoulder; July 26, left shoulder; July 27, little finger of left hand; July 29, left buttock; July 30, right foot.

August 8, inside of mouth; August 9, hip; August 18, both eyes closed; August 21, slight edema on both arms; August 30, she died suddenly from internal hemorrhage.

The autopsy revealed the rupture of a tubular pregnancy on the left side, with an ovarian cyst on the same side.

The treatment of this affection is very unsatisfactory; medication seems to have no effect upon its course, either in mitigating the length or the severity of the attacks, or in increasing the interval between their recurrence. The disease is benign and self-limited; in fact, except in cases of edema of the larynx, there is no real need of active measures. The salicylates, especially the salicylate of soda, have given best results in the hands of others, but in my case made no impression. Strychnia, belladonna, ergot, and colchicum rendered better service. I also used iron, arsenic, quinin, jaborandi, bromids, and iodids without material benefit. Saline laxative and diuretics had their turn. I had hoped to make a change in her condition by abandoning the nursing of her child and reestablishing menstruation, but without avail.

Resection of a Portion of the Sigmoid Flexure for the Cure of Recurrent Carcinoma.—Edward Martin (*University Medical Magazine*, July, 1899). The case reported by Martin presented the symptoms of obstruction to a slight extent, and had a tumor-mass on the left side just above the crest of the ileum. She had a history of hysterectomy for a cancer of the uterus one year previously. The operation disclosed a hard mass the size of a man's fist, surrounded by omentum and broadly adherent to the parietal peritoneum on the left side. Four segments of gut were involved in this mass. The omental apron covering the tumor was cut across and the parietal peritoneum, with the subperitoneal tissue, was dissected up and lifted forward with the mass. The sigmoid flexure was involved in its mid-portion through its entire circumference. The other two gut-segments were derived from the small intestine, and had been secondarily infiltrated. The gut was resected and united end to end by sutures, while Lembert sutures closed two openings made in the small intestine where the affected portion was excised. The wound was closed without damage. The patient made an uninterrupted recovery. There was no evidence of recurrence about the uterus or in the postperitoneal lymphatics. The gut was probably adherent to the uterus at the time of the former operation, and that adhesion was broken down without being noticed. [C L L.]

A Case of Melanosarcoma of the Conjunctiva; Death.—Geo. C. Pardee (*Pacific Record of Medicine and Surgery*, June 15, 1899). This remarkable and interesting case presented itself with a leash of vessels running from the outer canthus to a point near the outer edge of the cornea. It appeared to be due to some slight irritation, and local treatment was recommended. There was absolutely no tumor, and no sign of discoloration. Three weeks later the appearance was the same and silver nitrate applications were applied. She returned some weeks later with a brownish discoloration at the spot, but no tumor. She was advised to have it removed, and the brownish patch and a portion of the leash of vessels were removed with scissors. The pigmented patch was confined entirely to the conjunctiva, which was freely movable over the sclera. The tissues beneath were dissected clean from the sclera, and the upper layers of the sclera were dissected off. The wound healed kindly, The patient disappeared for two months when the pigment had returned. It was found to be confined to the conjunctiva and removed, but returned, and enucleation was advised. This was refused. Small patches were frequently removed, later, from different portion of the conjunctiva, but finally the cervical lymphatics became involved, the tumor increased in size in the eye, and the patient finally died of exhaustion about two years after she first came under the author's notice. [C.L.L.]

The Philadelphia Medical Journal

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The action of the Philadelphia Board of Health in placing in every police-station of the city a supply of diphtheria-antitoxin for the use, without charge, by physicians in their practice among the poor, is to be cordially endorsed and warmly commended, and that the Board is sure of its ground is shown by its recommendation that the agent should be employed at the earliest possible moment, both for prophylactic and for curative purposes.

In the Annual Address of the President of the British Medical Association, which is published in this issue synchronously with the *British Medical Journal*, through the courtesy of its editor, a graceful tribute is paid to the profession in America in the review of the benefits derived from the discovery of surgical anesthesia. The address is a carefully considered review of progress in all branches of the healing art, and is worthy of careful perusal. All physicians and surgeons will be in hearty accord with the author's fervent aspirations for the advance of preventive medicine and for the gaining of more light and safer agents, particularly in the fields of anesthesia and of serumtherapy.

The advantages of the Metric System have so long been conceded that there seems no longer basis for argument concerning the advisability of its general adoption, particularly by the medical profession. It is perhaps because of this ready conceding that adoption has not followed, for interest often flags when there is no opposition. Even the most conservative in many instances have admitted that the change would be desirable, while the interested friends for all this feel no nearer the realization of their hopes than a decade ago. Possibly heretofore the chief efforts have been made in the direction of the adoption of the system by men to whom habit has made other modes easy. Why not avoid perpetuation of old methods by insisting upon the exclusive use of the metric system in institutions of learning, and that all examinations must be conducted by it? The matter is too important an indication of progress to be allowed to fall thus into oblivion.

Personal Journalism.—Our highly respected contemporary, the *Cleveland Medical Journal*, calls attention to the fact that a trustee of the American Medical Association indulges himself in a public personal attack upon another member of the association. The words quoted are indeed remarkable to read—and for a trustee of the American Medical Association to write—the sorriest examples imaginable of cheap scurrility, but as we read only medical journals we had not come across them. The brave editors of the *Cleveland Journal* call for the resignation of the author of the attacks from positions that may be considered representative of professional feeling, character, or opinion, but we should suggest that the atavistic relapse into the very barbarism of journalism is not a sufficient reason; first, because such relapses are considered normal, and even noble, by the atavist; second, because no one, least of all the berailed at, has time or inclination to give attention to personal blackguardism. The day is all too short even for the little duty or task to which we are put in this world, and a smile of passing pity is quite enough for a sensible man to waste upon such things or such people. *Il faut cultiver notre jardin!*

A Christian Science, Spiritualistic, Antivaccination Message from Jenner.—We have before us, and accurately copy, the original letter of an English Christian Scientist, addressed to the Hygienic Institute in Berlin. Again is shown the old truth that the best fun in the world is that which is most solemnly meant. The idea of Jenner feeling so badly because of the introduction of vaccination is delightful. The letter is dated December 31, 1898, and written from a certain number in West Kensington, London, and is as follows:

> At the request of my guides I write to ask you to use natural and curative agency in your hospitals, such as natural and pure diet, curative colors, curative clothing, hot baths and bathing. All operations, poisonous drugs, impure food, and drink (flesh, fowl, fish and alcohol) are forbidden in the spirit world, therefor against God's law and a healthy soul and body. Black is the symbol of death and decay, it came into the world through evil agency, is against God's divine law, is to be abolished from our earth. Your guides earnestly pray that you will help us in these important matters, and at their earnest request we must tell you that all vaccinators will be punished in this or the spirit world. Most diseases are due to the dirt and poison of vaccine. It is also at Dr. Jenner's request I send this, and he prays from the spirit world you will not add to his great remorse he has to bear for bringing disease into the world.
>
> Yours faithfully ——— ——— ———

The Disposal of the Dead.—There are too many differing opinions for an absolute desision in favor of the claimed utility of cremation against the poetic sentiment in favor of burial, sustained as the latter is

by the fact that the soil is actively effective in reducing organic matter to its elements. Still, a decided sentiment is lately developing against the use of heavy and tightly constructed wooden and metal caskets, designed to retard this dissolution by not affording opportunity for the mechanical energy of the soil in its work of absorption and reduction. It has often been said that there is more danger to public health in the ofttimes necessary opening of graves wherein the earth has not been permitted to do its work, than when absorption and purification by Nature's methods have had full sway. We have recently seen several articles advocating the use of wicker-work coffins on the sentimental ground that there is more immediate contact with Mother Earth. As this contact hastens the final absolute diffusion by Nature's chemistry, the proposition is much to be commended. After all, sometimes the most practical measures are best gained by the most sentimental arguments.

Medical Legislation.—The *Post-graduate* has done excellent work in presenting to the New York medical profession a full summary of the bills introduced into the Assembly and Senate of that State, which directly or indirectly affect medicine and medical interests or the public health. The total number of bills introduced in the Assembly was 167, of which 23 became laws, and in the Senate 74, 18 of which received the Governor's signature. Of those which passed 5 were for appropriations for various hospitals and asylums, 9 were in regard to sanitation in some one of the aspects of protection of water-supplies, concerning adulterations of food-products, the disposal of garbage, the regulation of sewerage, etc., and 2 related to salaries of medical officials. In commenting upon the legislation the *Post-graduate* says that "it is hoped that none of these laws will be detrimental to the medical profession or to the public health, and many of them can be made to the distinct advantage of both if properly enforced by the legally constituted authorities." Still, often the best legislation is not in the making of good laws alone, but in the preventing iniquitous measures from becoming law, and the carefully compiled list of bills acted upon will afford food for thought as much in what were defeated as in what were approved by the Executive.

The registration of tuberculosis having been recommended by the New York State Board of Health, its action was recently approved and adopted by the Board of Health of Saranac Lake, and a number of physicians at once expressed their willingness to cooperate in enforcing measures for the protection of visiting invalids and of the resident population. It is pointed out that, while tuberculosis is an infectious disease its communication to others *can* be prevented if proper sanitary rules are *strictly* enforced. With the view of promoting the more general enforcement of such rules the State Board of Health has issued directions to all local health-officers to register the name, address, sex, and age of all persons suffering from tuberculosis in their respective jurisdictions, and, in all cases in which it comes to the knowledge of the health-officer that premises which have been occupied by tuberculous persons have been vacated by death or removal, the premises must be visited, directions given as to disinfection, removal of carpets, rugs, bedding, etc., and such further directions given as may be deemed necessary, which must be enforced for sanitary reasons; and that no person shall be allowed to occupy such apartments until the order of the health-officer is complied with. This is a step in the right direction. There can be no hope of exterminating any disease unless its various foci of activity are known and the proper measures are taken for their suppression. To make an attack in the dark is as likely to result in harm to friend as to foe.

The attitude of the true physician has been most admirably delineated by the master-hand of that fine exemplar of his profession, Dr. Osler, in an address delivered a short while ago to the students of Albany Medical College. "Be careful," he said, "when you get into practice to cultivate equally well your hearts and your heads. There is a strong feeling abroad . . . that we doctors are given nowadays to science, that we care much more for the disease and the scientific aspects of it than for the individual. I don't believe it, but at any rate, whether there is that tendency or not, I would urge upon you in your practice in the future . . . to care more particularly for the individual patient than for the special features of the disease. I am sure all of you must feel, even those of you who have only been a single term in the professional work, that you have entered upon a profession that appeals both to the heart and to the head. Dealing as we do with poor, suffering humanity, we see the man unmasked, exposed to all the frailties and weaknesses, and you have got to keep you heart pretty soft and pretty tender not to get too great a contempt for your fellow-creatures. The best way to do that is to keep a looking-glass in your own hearts, and the more carefully you scan your own frailties the more tender you are for the frailties of your fellow-creatures." The beauty and the fragrance of the sentiments thus enunciated reside not alone in their mode of expression, but in far greater degree in their sincerity and in their reality; for we suspect that they unconsciously reflect a looking-glass picture of the character of the man that gave them utterance.

Pauper Immigration.—The recent statements of the Commissioner of Immigration in New York anent the importation of pauper immigrants into this coun-

try are of the greatest interest. The fact, not heretofore unknown to the public, is again emphasized, that a systematic plan is followed, chiefly in Liverpool, of assisting the emigration of this class to the United States. Benevolent individuals or societies in the English seaport are busy in this work, and when the bars are kept up in the port of New York, these philanthropists ship their wards by way of Quebec. This Canadian route is called the "back door," and supplies not only a way of ingress to the paupers and chronic invalids, but also an object-lesson to the American people of some of the good offices which we owe to the Canadians. It was stated by the Commissioner that these objectionable immigrants are not only paupers, but that many of them have chronic or incurable or even infectious diseases. They, of course, become a charge upon the public and serve to spread abroad their diseases.

We feel assured that the United States Government is fully alive to the evils of this whole business and is bent upon stopping it; and we merely allude to it here as a matter of medical interest and in order to commend the Government in its policy of restriction. We know that there is an influential school of political economists who maintain that immigration, like trade, is best untrammeled, and within proper limits we agree with them; but our medical instincts cause us to revolt against the wholesale importation of disease and pauperism merely in deference to an economic principle. Expediency, after all, is the true rule of statecraft; and no rule of political economy can be impregnable that demands of one nation that it give free harbor to the pauper and diseased inhabitants of another.

An Explanation of Some Obscure Forms of Disease.—Although medicine is growing daily more and more scientific, a rational empiricism is not to be rejected in the practice of the art. Diagnosis by exclusion is, perhaps, the most dangerous mode of analysis, but it cannot always be avoided. To take two examples: syphilis and hysteria. It is not always easy to decide whether one of these is present or not. Distinctive symptoms, as well as the usual etiologic factors, are often wanting or not elicitable, and therapeutic tests are not infallible. The difficulties are particularly enhanced by the fact that both of the diseases under consideration, perhaps more so than others, may simulate many disorders. Headache, arthritis (simple or multiple), glandular enlargement, cutaneous exanthems, palsy, anesthesia, etc., that will not yield to usual or ordinary treatment, are often of syphilitic origin, and will respond to mercury or iodids or both. It must, however, be borne in mind that all manifestations that disappear or improve under such treatment are not necessarily syphilitic, just as a history of syphilis is not always obtainable in the presence of unquestioned syphilitic lesions. With regard to hysteria the difficulties are perhaps even greater, for there is scarcely a disorder, nutritional or structural or organic, that it may not mimic. Here it must be remembered that not every derangement of function not otherwise explicable, or susceptible of improvement by the rest-cure, is necessarily hysteric. It is probable that some, if not much, of that which at present is for convenience's sake designated hysteria will with the progress of knowledge prove to be of varied origin and nature. The science of bacteriology and its new toxicology have already thrown much light on a good deal that had previously been obscure in medicine, and it is fair to hope that they will do yet more to illumine many of the still dark nooks and corners in medical teleology and nosology.

The Publication of Vital Statistics.—Although disagreeable truths may be withheld for a time they are not to be entirely suppressed, and attempts at suppression are likely to defeat their object. The members of every intelligent community, and especially their medical representatives, should be permitted to know of the prevalence of disease among them in order that they may take steps, individually and collectively, to prevent its spread. So generally recognized is becoming the truth of this statement that not a few cities now publish periodically, in some instances monthly, and the United States Marine-Hospital Service weekly, statements, often elaborate and detailed, of the work in hygiene and vital statistics for the preceding period. This course is in marked contrast with that of the mayor of a large Eastern city, who proposed to withhold from the public certain information with regard to the prevalence of a number of infectious diseases, and especially smallpox, from fear that such knowledge might create undesirable fear and alarm, ignoring the fact that the best way to encourage disease (as well as vice) is to shut one's eyes to its existence. Parasitism does not flourish in the light of day, and information of the kind under consideration cannot be given too free or too wide publicity. These remarks are prompted by the admirable monthly reports issued by the Health-Department of the City of San Francisco, which give classified lists of death arranged with relation to age, sex, social condition, race, nativity, locality, wards, public institutions, and a comparative statement of vital statistics, with reports of interments and disinterments, of births and marriages, of meteorologic conditions, of the work of the city bacteriologist, of the public vaccinator, of the city physician, of city and county hospitals, ambulance stations and almshouse, of the quarantine-department, of the veterinary surgeon, of health-inspectors, of market-inspectors, of the bureau of food-inspection, of the bakery-inspector, of inspectors of garbage-transportation, of plumbing-inspectors, of the chemist, etc. The self-satisfied and cultured East may well emulate the progressiveness and enterprise of the wide-awake and large-spirited West.

The Yellow Fever at Hampton.—The first thought that occurred to us on reading the earlier reports of this epidemic, was that the disease had secured a remarkably firm foothold before the public was informed of it. When the epidemic was publicly announced, on the 31st ult., the number of cases was already comparatively large, and on August 1 there had occurred 37 cases with 7 deaths. The mode of ingress of such an infection is always a matter of great interest as well as importance, and we trust in this case the problem will be solved to every one's satisfaction. There are at this writing vague rumors of an old soldier having returned from Santiago early in July with "dengue fever," but nothing more plausible than this. Yellow-fever is known to be a highly contagious disease, but some of the stories told about its spread from a single individual are almost incredible; and hence in the Hampton instance we hope for a clear and intelligible explanation.

We trust also that the reports will be more explicit about the early symptoms and course of the epidemic. The disease does not seem to have been even suspected at first, and was only positively determined after a death had occurred. This implies that either the symptoms were obscure or the observers somewhat off their guard. Anyhow we ought to know the fact, if it be a fact, that yellow fever can creep into one of our seaports and run riot for a week or two before it is identified.

In one sense it is a subject for congratulation that the disease has broken out in a Government institution instead of in some community at large. The Government can handle the affair with thoroughness, coolness, and dispatch; whereas those in authority in any one of the towns around Hampton Roads would evidently ere this have lost their heads. Already we hear reports about "shot-gun" quarantines and cordons of tugboats with directions to use violence to repulse unwelcome visitors. To avoid panics, or the appearance of panics, is hardly possible in the face of such an invasion; but this only convinces us the more that panicky people and panicky methods are not much to be relied upon in such a crisis. Hence we are thankful that the United States Government has the business in hand. The Marine-Hospital Corps, with its experts and trained men, can be relied upon to do its duty and to avail itself of every scientific means. The professional public especially will watch with keen interest to note with what success this epidemic can be met and stamped out.

Forced Artificial Respiration in Morphin-Poisoning.—Dr. George E. Fell, of Buffalo, N. Y., has recently reported an extraordinary case of morphin-poisoning, in which life was saved by his method of forced artificial respiration. We think the subject is worthy of editorial notice in spite of the fact that if we are correctly informed the device is patented by Dr. Fell, and that in his rather voluminous report (*Medical Examiner*, June, 1899), he has given such meager and imperfect details of his apparatus, and the method of using it, that we are quite in the dark as to what it really is. If he had given a clearer, more concise descriptive account both of the case and of the remedy, he would probably have less cause to complain of his invention being ignored by the profession than he seems to think he has at present. A picture of the apparatus would be especially helpful.

The case occurred in a boy, aged 16 years, who swallowed by mistake a quantity of morphin which was conjecturally estimated to be 33 grains. The quantity was not accurately determined, as the method employed was simply to ascertain how much of the drug was missing from a recently opened bottle which had contained one-eighth of an ounce. The patient, however, had evidently taken a very large quantity of morphin, some 3 hours before he was discovered, and was *in extremis* when treatment with forced respiration was begun. He was cold, cyanosed, extremely pallid, with contracted pupils, and breathing "about once a minute." We suppose he was also unconscious and had some changes in his pulse, although the report does not state. The forced artificial respiration was begun with the use of a "face-mask," but this method was soon abandoned for the method by tracheotomy. This method of forced respiration by means of Dr. Fell's undescribed apparatus was continued from Tuesday morning, about 2.30 o'clock, until Friday morning at 8 o'clock—a period of about 78 hours. Attempts to suspend the artificial respiration before that time were attended or followed by a return of cyanosis and threatening respiratory symptoms.

In the absence of accurate and complete details we can only conjecture what really was the condition of Dr. Fell's patient during all these 3 days. It is to be noted that the boy partially regained consciousness at the end of 28 hours, and recognized and attempted to speak to his father (with a tracheotomy tube in his larynx). He then relapsed into unconsciousness for another period of 2 days. This, it seems to us, was an extraordinary event in morphin-poisoning. Dr. Fell has not given systematic reports of observations on the pulse, temperature, reflexes, and mental and nervous state—and in this and some other respects (already indicated) his report is defective and unsatisfactory. If, however, we are to accept the case as one in which forced artificial respiration, continued for 78 hours, saved life in morphin-poisoning, we certainly have the right to insist that Dr. Fell should repair some of the defects in his report, and should, moreover, give a description of his apparatus which all readers could understand. The case is one too important to be allowed to stand in medical literature in its present shape.

Correspondence.

A MORNING IN THE HUNTERIAN MUSEUM.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

DYING in 1793, John Hunter left his collections to his nephews, Matthew Baillie and Everard Home, with instructions that they were to be offered first to the British Government. In 1799 £15,000 was granted for the purchase, and the museum was entrusted to the Corporation of Surgeons, now the Royal College of Surgeons. In 1813 the collection was arranged in the present site, Lincoln's-Inn Fields. Many changes have taken place since that date, an enormous amount of new material has been added, and the munificent gift of Sir Erasmus Wilson, some years ago, enabled the college to display (in five large rooms with double galleries) a most magnificent museum of anatomy—using the term in its wide sense—a fitting monument to one of the greatest anatomists of modern times. The rising generation in the profession, I fear, scarcely appreciates the extraordinary merits of John Hunter. Palmer's "Life" is not easy to procure, but Buckle's estimate, in his "History of Civilization in England," is in all hands, and now Stephen Paget's "Life," in the "Masters of Medicine" series, gives an admirable picture of this great man, to whose truly wonderful career the profession offers no parallel.

It is one of my special pleasures to spend a morning or two in the museum. I know of nothing which refreshes more easily one's knowledge of the general features of the diseases of an organ than to take the catalog—ready at hand—and work systematically through the specimens. I began with the series illustrating ulceration of the bowels, to see which was the special reason of my visit. Naturally the remarkable lesions of typhoid fever did not escape the keen eyes of Hunter, who seems always to have been ready to do a dissection. Specimens 2508 to 2517, all Hunterian, illustrate the characteristic changes in Peyer's patches. Number 2514 is of special interest at the present time, when so much attention has been directed to the gallbladder in typhoid fever. The notes of the dissection are very full. The man was recovering from fever in Dr. Fordyce's Hospital, when he was seized with pain in the upper part of the abdomen and symptoms of peritonitis; death followed in 20 hours. The gallbladder had perforated in two places, there was peritonitis, and the glands of Peyer were swollen and ulcerated. I know of no earlier specimen of typhoid ulceration in existence. I do not remember that writers have given Hunter credit for his careful description of the lesions. Dr. Norman Moore, to whom I spoke on the question, reminded me that Matthew Baillie had figured in his atlas one of Hunter's specimens of swollen Peyer's glands, possibly this very one.

Two other series of ulcers of the intestines interested me greatly. Those of the colon in dysentery, which include a specimen of Dr. Baly's from the historic epidemic in the Milbank prison, and a group of specimens presented by Sir Joseph Fayrer, showing the lesions of the disease as met with in India. An important additional series, presented chiefly by Guy's Hospital, shows the forms of simple ulceration of the colon, which has been so well described by some of the physicians of that institution. Curling's original specimen, illustrating ulcer of the duodenum in extensive form, is here (No. 2425). A girl, aged 15, had an extensive burn on the chest, March 16th. On the 30th she vomited a large amount of tar-like fluid, and passed the same looking material per rectum, dying 12 hours later. No. 2431, taken from another case of Curling's, shows a similar lesion.

The collection of calculi of all kinds is the largest ever made, and includes several special cabinets, as that of Sir Henry Thompson, which numbers 1,000 specimens. There are some notable stones. A 110 is a very symmetrical one, water-worn, too, and with its own case, on which is inscribed, "This stone was extracted by Wm. Cheselden from Will Nightingale, on April 20, 1737; its weight 6½ ounces and circumference 9 inches. The operation was effected in half a minute." There are several enormous calculi. H 2 c weighs 44 ounces; was taken from the bladder (postmortem) of Sir Walter Ogilvie. H 2 a weighs 34½ ounces, and was removed from an Egyptian fellah, aged 60. It measures 6 inches in length, 4 inches from side to side. Anteriorly it could be felt as a solid mass reaching as high as the navel. The biliary calculi, studied in connection with the section on diseases of the bile-passages, present a complete history of cholelithiasis in all its phases. There are several very large stones passed by the bowel; A 4 and 5, from sisters. A 81, two big ones passed by the Bishop of Chichester many years before his death (at 90). No. 2436 is a gallstone, weighing 400 grains, tightly impacted in the ileum, and No. 2436 a, one removed from the bowel by operation. A 41 is a stone as large as a walnut discharged from a fistula between the navel and pubes. I was particularly interested in No. 2826, which showed a large stone projecting into the duodenum and blocking the orifice of the duct. The specimen which came from John Howship's museum was taken from a woman, aged 70, who for 6 months had pains, associated with "shivering like an ague-fit," evidently, from the description, the hepatic intermittent fever so often present when the stone lodges in the diverticulum of Vater. And, lastly, A 149 is a stone of historical interest, as it was removed in 1881, one of the early gallbladder operations of Mr. Lawson Tait.

There is a remarkable collection of hair-tumors and intestinal concretions from animals, among which are a number of the famous bezoar stones, formerly so highly prized as a medicine. With catalog in hand, to work over, even hurriedly, the specimens illustrating the diseases of the liver, is worth a course of lectures on the subject. Actinomycosis is represented by several typical examples. No. 2748 a is, so far as I know, a unique instance of calcification in irregular areas throughout the liver-substance. There was perihepatitis but no gummata. The specimen was taken from the body of a laboring man, aged 62, in whose epigastrium a swelling of stony hardness could be felt. No. 2749 c is a most extraordinary gumma of the right lobe, which had extended through the diaphragm and compressed and invaded the lung. No. 2758 c is a remarkable specimen of cystic liver, in association with a similar condition of the kidneys. No. 2789 (Hunterian) shows hydatids discharged by coughing. In four months the patient brought up 135 hytadids; recovery followed. It may be noted that the original specimens of Hunter are recognized at a glance, as they have the labels printed in black. In the pancreas section I noticed in passing No. 2831, which shows a condition of the organ not often referred to, I believe, viz., a very large pancreas almost wholly converted into fat. The man died of typhus fever, and Sir James Paget, who gives the description, states that the fat had the "ordinary characters of soft human fat." I noticed a few scattered granules, like areas of fat-necrosis, to which, however, the condition as a whole is entirely different—in naked appearance at least.

There was so much to interest me in the heart and stomach sections that I devoted another day to them. I must refer, however, to No. 2923, a greatly enlarged heart with adherent pericardium, prepared by David Dundas in 1808. In his description is one of the earliest and clearest references to the association of pericarditis with rheumatism. "The most remarkable circumstance of the disease is its being always connected with or subsequent to an attack of acute rheumatism."

Passing the shelves on which the various foreign bodies were arranged it suddenly occurred to me to look for a specimen presented by the late Dr. William Beaumont, of Toronto, a Fellow of the College, and an old fellow-student at St. Bartholomew's with Sir James Paget. I cannot tell what induced me to think of a circumstance which has not recurred to my mind for years, and to which I only heard Dr. Beaumont refer once, thirty years ago. It was the pride I felt at hearing him say that he had deposited the specimen in the museum of his college, that made such a deep impression on the mind of a student. The specimen was easily found—six inches of a rocket-shaft, which, in its descent, had penetrated the orbit of a man. In an adja cent bottle was a bit of flannel in which some 120 needles were stuck, a portion of those which had been removed from various parts of the body of an hysterical Jewess in the early part of the century. This is a rich corner of the gallery and worth a careful study.

My special object in sending these brief notes is to urge upon American students the great importance of the Hunterian museum as a place for study. It is, as all collections should be, easy of access, the specimens are well arranged and well catalogued. Moreover, like the mind of its great founder, it is comprehensive. The physiological series of the organs and parts of animals is, I believe, unique; the room devoted to human anatomy contains not only treasures in anthropology for the learned, but a series of the most beautiful dissections of every part of the body which are available for study by the beginner. I have given a faint idea of the wealth of material in morbid anatomy. In reality the Hunterian museum is a great school of medicine, in which the student with a "seeing eye" may not only glean lessons of incalculable advantage, but from which he may carry away (what will be of much greater value) an infection however slight with the spirit of the great master.

London, July 12. W. O.

Diagnosis of Bullet-wounds of the Intestines.—Hugh M. Taylor (*Virginia Medical Semi-Monthly*, June 9, 1899). The value of the correct and early diagnosis of perforation and of immediate operation is emphasized by this author. He believes that an early correct diagnosis can be made by the recognition of the following symptoms that are present before the classical symptoms present themselves, which is always too late for operative relief. They are the abolition of peristalsis; this ensues immediately after perforation and can be detected by the fact that no gas can be heard passing through the intestines on auscultation. The second symptom is rigidity of the abdominal walls; this is seen in other conditions of perforation, as in typhoid fever or during an attack of appendicitis. Then, too, there is shock. Not the immediate shock—this is due to the traumatism and injury—but a prolonged or recurring shock which results from the extravasation of intestinal contents. Although nothing short of an exploratory operation makes it certain that there has been no perforation, the author believes that when these three symptoms are present in a case in which perforation may have taken place operation is indicated immediately if we are to hope for the recovery of the patient. [C.L.L.]

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Philadelphia Dental College.—Dr. A. H. Thompson, of Topeka, Kansas, has been elected to the chair of dental pathology and therapeutics, rendered vacant by the resignation on account of ill health of Dr. Henry H. Burchard.

Lehigh Valley (Pa.) Medical Association.—The annual meeting was held at Glen Summit, July 27. The retiring president, Dr. Bauman, delivered an address upon tuberculosis, and Dr. W. L. Rodman, of Philadelphia, an address upon the importance of early diagnosis and operation in tumors of the mammary gland. The following officers were elected: Dr. Israel Cleaver, of Reading, president; Dr. J. H. Halber, of Pottsville; Dr. O. H. Sproul, of Flemington, and Dr. A. A. Seem, of Bangor, vice-presidents; Dr. Charles McIntire, of Easton, secretary; Dr. W. P. Walker, of South Bethlehem, assistant-secretary; and Dr. Abraham Stout, of Bethlehem, treasurer.

Vital Statistics of Philadelphia for the week ending July 29, 1899:—

Total mortality		481
Children under 5 years of age		112
Diseases.	Cases.	Deaths.
Chólera infantum 78, cholera morbus 5, gastroenteritis 26		109
Pulmonary tuberculosis		51
Marasmus 29, inanition 14, debility 7		50
Nephritis 27, uremia 12		39
Heart-disease 22, fatty degeneration of the heart 4,		26
Pneumonia		23
Inflammation of the brain 17, congestion of the brain 5		22
Convulsions		16
Carcinoma		13
Apoplexy 5, paralysis 4, softening of the brain 2		11
Diphtheria	43	10
Senility		10
Typhoid fever	41	8
Casualties 4, cirrhosis of the liver 4, dysentery 5, cystitis 4, peritonitis 4, drowned 4, cyanosis 3, bronchitis 3, teething 3, abscess 2, asthma 2, dropsy 2, poisoning 2, shock 2, pertussis 2.		

NEW YORK.

Nassau Hospital Endowment.—Recently the Nassau Hospital at Mineola in the newly constituted county of Nassau has received $6,000 toward its building fund. The contributors are Mrs. O. H. P. Belmont and Mrs. P. J. A. Harper, who gave $3,000 each.

The Junior Limit of Dentistry.—A Brooklyn dentist, Dr. J. C. Mapp, reports the extraction of two lower incisors from a baby two months old, the teeth having been born with the child. It became manifest that the precocious teeth would be an inconvenience to the child, and possibly to the mother in the matter of nutrition, and there was nothing to do but to extract them. This is considered to be the junior limit to dental industry.

Suicide of a Physician.—For several days there remained unidentified the body of a man who had been found dead near the reservoir in Central Park, and who had died by reason of carbolic-acid poisoning. He was eventually identified as Dr. Regolo di Moise, of 24 West End Avenue. The identification was made by his cousin, also a physician, Dr. Bettini di Moise, to whom the suicide had addressed a letter

nnouncing that he was tired of his poor life. The decedent vas an Austrian from the Maritima, a resident in this city or two years, son of Count Niccolo di Moise, who is the lord f the Island of Cherso in the Adriatic. He was too proud o call on his relatives for assistance to tide him over his traits and took this method to end his troubles.

Lightning's Work.—Since the long drought has been roken the question of precipitation has presented itself r the most part in its picturesque guises. Thunder nd lightning have been prevalent, and the lightning has ot avoided medicine. The hospitals have had quite a umber of cases of lightning shock for treatment, but fortuately there has been but one fatality about the city recently. he electricity of nature seized upon the J. Hood Wright ospital on June 21. Dr. Eugene Satterlee, the house surgeon, was talking with Dr. George Goeltz in the hospital ffice when the discharge came. The lightning struck the indow-sill of the room and jumped to the telephone wires ith a blinding flash and a sizzling noise. The two doctors ere stunned by the shock and knocked to the floor. Recovering almost instantly each inquired of the other's welre and it was then discovered that no harm had been done cept to the telephone. John Zorbel, an employe of the issena Ice Company at the outskirts of the city in Flushg, was shocked by a lightning discharge which hit some ildings in the vicinity. The shock was severe enough, hough somewhat remote, to cause a temporary unconousness. The man recovered from these first effects with-t any difficulty, but since that time, July 12, his sight has en failing. It is the opinion of the medical men who have amined the case that the optic nerve has been injured and at the blindness will become total. Several cases are reded in which similar injury has been the result of the arking of the electric trolley wires in which the blindness s been permanent or temporary in proportion to the ount of the electric disturbance.

The Brooklyn Naval Hospital.—The naval hospital nected with the New York Navy Yard has been divided m the more strictly defined Navy Yard through the alienan of property which was particularly needed by the city Brooklyn for purposes of street communication between ferent sections of the municipality, and especially for rket purposes along the Wallabout. At present there is onsiderable gap between the Navy Yard proper and the pital on Flushing Avenue. The main building of the pital is quite old. At the time when it was built it was ply sufficient for all the needs of the service, and was in ordance with the best ideas of the time in hospital adnistration. As originally planned it consisted of two par-l pavilions three stories high, connected by an administive block across the head of the two pavilions. As greater ds have arisen another block has been thrown across the of the pavilions, and a structure built in the court thus ted, being midway and parallel with the two original ilions. At a later period a distinct building has been ted for wards and the rear wing has been extended to t it, while in front it is quite distinct. The administrative ding contains the quarters for the hospital staff, the two ilions and the new building are devoted to sick wards for sailors, the officers finding well-appointed suites of rooms ne administration wing. Each of the officers' rooms con- of a sitting-room fitted with a wicker couch for convales- use, a bedroom and, opening off from the latter, an airy room and closet. In the open wards there are some 50 cots apiece. The rear wing, parallel with the administration building, has reading-rooms for convalescent sailors, and a sun-pavilion. The lower floor of the central building in the area forms with its elevator a convenient method of communication with the different wings and wards. On the upper floor is the operating-room. This is a large chamber, flooded with natural light, and with a superb electric installation for night-work when necessary. The operating table is capable of indefinite positions except those particularly indicated for gynecology, which is a branch of work that from the circumstances of the practice may be omitted without loss. The operating chamber itself is fitted throughout with the best appliances for asepsis and sterilization. One anteroom is given over to the storage of instruments, of which the supply is unequalled in any hospital, and across the hall is the preparatory room for the operators. The service of the hospital is under the charge of Dr. George W. Woods, Medical Director U. S. N., and the staff of junior medical officers of that corps are directly under Dr. Stokes, U. S. N., the executive officer, through whose kind attention it has been possible to make a trip through the hospital.

Medically Undersirable Immigrants.—A recent story by Israel Zangwill, the historiographer of the Ghetto, relates with much pathos the sad plight of a family of Polish Jews who seek entrance to this country through the port of New York. Divested of its romance the tale sets forth the sundering of the family, certain members being passed at the Barge-office, certain others being refused admission on the score of bad eyes and returned to Hamburg by the ship on which they came. The medical diagnosis of the immigrant inspectors in the Barge-office is reached by turning down the lower lid on the cheek and pronouncing the doom "bad eyes." Trachoma may be recognized herein. Having made this diagnosis of trachoma and having refused admission to the immigrants on this score, the story continues by showing the method of avoiding the ban. The patients return to Hamburg and are there instructed to take steamer to Montreal, where trachoma is not held a bar to landing, and then to come to New York by rail, secure in the knowledge that there is no physical inspection at the frontier. Some who read the tale will be struck by the deep pathos, a Semitic melancholy in which the author excels. Others will be more impressed by the indication of a method by which the law may be circumvented, also be it said a Semitic trait. In the fiction it is made to appear that the official inspection at the Barge-office is sure to detect trachoma, and to refuse admission altogether to immigrants thus proved undesirable. On the other hand, United States Commissioner of Immigration Thomas Fitchie has just testified to the contrary before the Committee of the United States Industrial Commission. Disregarding the Montreal leak which the fiction-writer has pointed out, in his testimony he astonished the Committee by saying that in his opinion many persons were admitted to this country who were suffering from contagious diseases, with particular reference to favus and trachoma. In illustration he noted a case of a woman deported for cause when arriving in the steerage of a steamer, and admitted on the next vessel of the same line when entering on the second cabin list. He made a plea for stricter medical examination, and said that in a single week 65 cases of trachoma were identified, and the records of favus were nearly as great. In a single shipload 9% of the immigrants were undesirable on the score of such diseases or for other reasons. He thought that in addition to being required to deport such persons the steamship companies should be subject to a fine for bringing

them to the port. His assistant, Commissioner McSweeney, testified to the deportation of a whole family for contagious disease. He said that the Immigration Registration Bureau was useless because the immigrants lied as to their destination and place of origin. He thought that the difficulty would be best met by a law that should double the head tax, and compel the steamship companies to be bonded that none of their passengers should become a charge on the community for 2 years instead of 1, as at present. In his judgment the establishment by the Italian Government of an office at the Barge-office tended rather to encourage undesirable immigration than to prevent it. By combining these official statements and those made in the late work of Mr. Zangwill in fiction, it will he clear that the system of excluding the medically undesirable has its faults as at present conducted.

WESTERN STATES.

Nevada State Board of Medical Examiners.—The following are the members of the board recently constituted by act of legislature: Dr. P. T. Philips, of Reno, Dr. James Guinan, of Carson City, and Dr. George Fee, of Reno, regulars; Dr. P. Wagner, of Carson City, homeopath; and Dr. S. L. Lee, eclectic.

The Occidental Medical Times has combined with the *Pacific Record of Medicine and Surgery*, under the title of the former. Dr. Louis A. Kengla, of the *Times*, will be associated with Dr. James H. Parkinson, of the *Record*, in the editorial conduct of the amalgamated journal, and the publication office has been removed from Sacramento to San Francisco, Cal. Success to the new journal.

The quarantine situation in San Francisco, Cal., remains still in an unsatisfactory condition, and, it is claimed by a number of merchants, is injuring the import trade of San Francisco. The Board of Health is having some difficulties with the supervisors in the matter of funds. The latter board claims that as the Board of Health should have no charge over quarantine matters, the need for maintaining the Board of Health's quarantine department does not exist, and bills therefore cannnot be allowed. The supervisors also do not seem inclined to allow any appropriation for the erection of a new city and county hospital; the present building is a very old one and in wretched state.

California Academy of Medicine.—At the July meeting, Dr. H. C. Moffitt brought up the question of thyroid treatment in myxedema and other conditions, presenting a patient who had had myxedema for several years, and who could be restored to a normal condition and so retained under the use of thyroid extract. He gave a resume of the conditions in which thyroid extract had been tried and the success or failure in each case. Dr. Montgomery was inclined to believe the beneficial action in certain skin-affections due to a general tonic action upon the skin and not to any specific action of the thyroid in the particular disease. Dr. D. W. Montgomery brought up the question of the period of incubation in syphilis, and reported a case in which observation had been carefully made, and the time elapsing between inoculation and the appearance of the chancre known; it was 16 full days.

MISCELLANEOUS.

The Interstate Medical Journal is the title of the journal formerly known as the *Tri-State Medical Journal and Practitioner*. We wish the journal under its new name, which has been adopted with the idea of "keeping up with the medical procession," increased success and prosperity.

Obituary.—DR. FREDERICK D. WOOD, Clinton, La., July 17, aged 46 years.—DR. HENRY TUBBS, Kirkwood, Ill., July 16.—DR. C. W. CRAM, Davenport, Ia., July 13, aged 65 years.—DR. O. B. BENBROOK, St. Joseph, Mo., July 14, aged 29 years.—DR. W. N. ALSOP, Shaw, Miss., was murdered, having as a pretext been called to Cleveland, Miss., to see a patient, July 12.—DR. BYRON S. COLEMAN, Rochester, N. Y., July 15, aged 38 years.—DR. DAVID ROSENTHAL, Chicago, Ill., aged 70 years.—DR. WILLIAM R. WOOD, formerly superintendent of the insane asylum at Raleigh, N. C., at Scotland Neck, N. C., July 12, aged 75 years.—DR. CHARLES J. MADDOX, Rockville, Md., July 28, aged 81 years.

Health-Reports.—The following cases of smallpox, yellow fever, cholera, and plague have been reported to the Surgeon-General of the U. S. Marine-Hospital Service, during the week ended July 29, 1899:

SMALLPOX—UNITED STATES.

			Cases.	Deaths.
FLORIDA:	Jacksonville	July 8-22	5	
KENTUCKY:	Louisville	July 13-20	10	
LOUISIANA:	New Orleans	July 15-22	1	
NEW YORK:	New York	July 15-22	3	
OHIO:	Cincinnati	July 22	5	1
"	Cleveland	July 15-22	2	
"	Dayton	July 15-22	2	
PHIL'DELPHIA:	Pittsburg	July 15-22	1	
VIRGINIA:	Portsmouth	July 15-22	1	
WASHINGTON:	Spokane	July 18-22	5	

SMALLPOX—FOREIGN.

BELGIUM:	Antwerp	July 1-8	3	1
BRAZIL:	Sao Paulo	June 27	Epidemic.	
CHINA:	Hong Kong	May 27-June 3	5	1
CUBA:	Santiago	July 1-6	1	
GREECE:	Athens	July 1-8	18	5
INDIA:	Bombay	June 20-27		14
MEXICO:	Mexico	July 9-16	10	5
RUSSIA:	Moscow	June 17-July 1	27	11
"	Warsaw	June 24-July 1		3
STRAITS SETTLEMENTS:	Singapore	June 10-17		1
URUGUAY:	Montevideo	May 27-June 3	1	

YELLOW FEVER—FOREIGN.

BRAZIL:	Rio de Janeiro	June 9-16		5
COLOMBIA:	Panama	June 8-15	10	4
CUBA:	Habana	July 6-13		2
"	Manzanillo	June 27	1	case in barracks
"	Santiago	June 27-July 1	68	13
MEXICO:	Cordoba	June 27-July 1	17	9
"	Tampico	July 1-7	1	1
"	Vera Cruz	July 13-20		17

CHOLERA.

INDIA:	Calcutta	June 10-17		6
JAPAN:	Asaka and Hiogo	June 10-17	1	1

PLAGUE.

CHINA:	Hong Kong	May 27-June 3	92	97
EGYPT:	Alexandria	July 6	One or two new cases daily	
INDIA:	Bombay	June 20-27		50
"	Calcutta	June 10-18		9
STRAITS SETTLEMENTS:	Penang	June 10-17	11	8
"	Singapore	June 10-17		1

Changes in the Medical Corps of the U. S. Army

CALDWELL, R. E., acting assistant surgeon, is relieved from tem porary duty at El Morro, P. R.

KNEEDLER, Major Wm. L., brigade-surgeon, is relieved from furthe duty in the division of Cuba.

KRAMER, Major S. P., surgeon, will proceed to Quemados, Cuba, fo station.

ESCOBAR, J. A., acting assistant surgeon, will proceed to Matanza Cuba, for assignment to station.

PARROT, JAMES M., and SPARRENBERGER, FREDERICK H., actin assistant surgeons, are assigned to U. S. Military Hospital No. Havana, Cuba, for duty.

AHRONS, PERCY, acting assistant surgeon, is assigned to U. S. Mil tary Hospital No. 1, Havana, Cuba, for duty.

POORTER, LIEVEN DE, JR., acting assistant surgeon, is assigned to tl department of the Province of Havana and Pinar del Rio, an will proceed to Quemados, Cuba, for duty.

IAUS, Major LOUIS M., surgeon, is detailed temporarily as a member of the Army Retiring Board at Governor's Island during the absence of Capt. Deane C. Howard, assistant surgeon.

URNBULL, Major WILFRID, surgeon, the leave granted on account of sickness is extended one month.

WING, Captain CHARLES B., assistant surgeon, is relieved from further duty at Fort Brady, and will proceed to San Francisco, Cal., for assignment to duty with the Third Cavalry upon its arrival.

OLTRA, JOHN N., acting assistant surgeon, is relieved from further duty at Fort Niagara and will proceed to Fort Brady for duty.

RADLEY, HENRY H., acting assistant surgeon, is relieved from further duty with the Nineteenth Infantry, and assigned to temporary duty at the camp hospital, Camp Meade, Pa.

INKELSTONE, HYMAN, acting assistant surgeon, will proceed from New York City to Fort Ethan Allen and report to the commanding officer Third Cavalry for duty, to accompany that regiment to Manila, P. I.

ARNEY, F. M., acting assistant surgeon, is granted leave for 20 days. July 24.

AIG, CHARLES F., acting assistant surgeon, is relieved from further duty at the Josiah Simpson U. S. General Hospital, Fort Monroe, and will proceed to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

IRK, WILLIAM REDIN, acting assistant surgeon, is granted leave for 20 days. July 24.

EED, Major WALTER, surgeon, is detailed as a member of the Examining Board at the Army Medical Museum Building, Washington, D. C., vice Captain Wm. C. Borden, assistant surgeon, relieved.

OODRUFF, Captain CHARLES E., assistant surgeon, is relieved from further duty at Benicia Barracks and will proceed to Manila, P. I., for assignment to duty.

URRAY, WILSON, acting assistant surgeon, will proceed from Platte City, Mo., to Fort Meyer, and report to the commanding officer Third Cavalry, for duty, to accompany that regiment to Manila, P. I.

IVER, GEORGE S., acting assistant surgeon, will proceed from New York City to Fort Meyer, and report to the commanding officer, Battalion Third Cavalry, for duty, to accompany that regiment to Manila, P. I.

JNKARD, THOMAS C., acting assistant surgeon, will proceed from Terre Haute, Ind., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to temporary duty.

PITT, Captain WILLIAM F., assistant surgeon, now on duty at Washington Barracks, D. C., is assigned to duty as commanding officer of the U. S. general hospital at that post during the leave of Captain William C. Borden, assistant surgeon.

STER, THEODORE J., acting assistant surgeon, will proceed from Ann Arbor, Mich., to Havana, Cuba, and report to the commanding general, division of Cuba, for assignment to duty.

RRON, J. G., acting assistant surgeon, will proceed from Brainard, Neb., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

OUR, JOSEPH W., hospital steward, appointed July 18, from recruit, Twenty-seventh U. S. V., Camp Meade, Pa., is assigned to duty with that regiment.

CK, WILLIAM H., acting assistant surgeon, will report at the camp near Socorro for duty.

ULLOCH, T. A., acting assistant surgeon, is relieved from duty at U. S. general hospital, Presidio, and will report at that post for duty at the camp of recruits.

EVERRIA, Major RAFAEL, brigade-surgeon, is granted leave for one month on surgeon's certificate, with permission to visit the United States.

THEWS, Major W. S. H., brigade-surgeon, is granted leave for 10 days. July 20.

ULLOCH, T. A., acting assistant surgeon, is relieved from duty at the camp of recruits, Presidio, and will report on the transport "Tacoma," for duty on that ship during the voyage to Manila, P. I., and return.

, GEORGE P., acting assistant surgeon, is relieved from further duty in the division of Cuba, and will proceed to Camp Meade, Pa., reporting to the commanding officer, Twenty-eighth Vol. Infantry, for duty.

SETH, HARRY L., hospital steward, now at Trinidad, Cuba, will be sent to Havana, Cuba, where he will report at the U. S. Military Hospital, No. 1, for medical treatment.

ER, WM. GREY, acting assistant surgeon, now at the U. S. General hospital, Presidio, is assigned to temporary duty at the Detention camp, Angel Island.

Changes in the Medical Corps of the U. S. Navy,

the week ending July 29, 1899:

E, L. W., surgeon, detached from the "Bennington" and ordered home via "Solace."

GANGER, G., passed assistant surgeon, detached from the "Marietta" and ordered home and to wait orders.

SON, M. K., passed assistant surgeon, detached from the Naval Hospital, New York, and ordered to the "Marietta."

LER, W. M., assistant surgeon, when discharged from further treatment at hospital, Yokohama, Japan, ordered home in the United States and to wait orders.

RT, T. M., assistant surgeon, detached from the "Solace" and ordered to the "Baltimore."

PLUMMER, R. W., assistant surgeon, ordered to the Naval Hospital, New York.

ROSS, J. W., surgeon, retired, granted leave for one year abroad.

DUNN, H. A., assistant surgeon, detached from the "Panther," and ordered to the Washington Navy Yard.

VON WEDEKIND, L. L., passed assistant surgeon, detached from the hospital, Cavite, P. I., and ordered to Mare Island, Cal.

Changes in the U. S. Marine-Hospital Service

for the seven days ended July 27, 1899:

MEAD, F. W., surgeon, to proceed to New York, N. Y., and assume temporary charge of the Purveying Depot. July 21.

GEDDINGS, H. D., passed assistant surgeon, relieved temporarily from duty on the commission for the scientific investigation of yellow fever, and assigned to temporary duty in the Hygienic Laboratory. July 22. To proceed to Boston, Mass., for special temporary duty. July 25.

PERRY, J. C., passed assistant surgeon, detailed for duty in the office of the U. S. Consul at Hong Kong, China. July 22.

GARDNER, C. H., passed assistant surgeon, to assume temporary charge of the Port Townsend Quarantine. July 24.

SPRAGUE, E. K., passed assistant surgeon, granted leave of absence for 27 days, from August 7. July 27.

WICKES, H. W., passed assistant surgeon, granted leave of absence for 30 days, from August 6. July 27.

TABB, S. R., assistant surgeon, upon being relieved from duty at Baltimore, Md., to proceed to Savannah, Ga., and assume command of the service. July 22.

FOSTER, M. H., assistant surgeon, upon being relieved from duty at Savannah, Ga., to proceed to the Port Townsend Quarantine Station, and report to the commanding officer for duty. July 22.

LUMSDEN, L. L., assistant surgeon, to proceed to Port Townsend, Wash., and assume temporary charge of the service. July 24.

BILLINGS, W. C., assistant surgeon, relieved from duty at the Immigration Depot and directed to report to the commanding officer at New York, N. Y., for duty and assignment to quarters. July 26.

FOX, CARROLL, assistant surgeon, to report to commanding officer, Baltimore, Md., for duty and assignment to quarters. July 26.

MCCLINTIC, T. B., assistant surgeon, to report to commanding officer, Cape Charles Quarantine, for duty and assignment to quarters. July 26.

CURRIE, D. H., assistant surgeon, to report to commanding officer at Louisville, Ky., for duty and assignment to quarters. July 26.

GOLDBERGER, JOSEPH, assistant surgeon, to report to Surgeon L. L. Williams, Immigration Depot, New York, N. Y., for duty. July 26.

KORN, WM. A. assistant surgeon, to report to commanding officer, Chicago, Ill., for duty and assignment to quarters. July 26.

HOLT, J. M., assistant surgeon, to report to commanding officer, St. Louis, Mo., for duty and assignment to quarters. July 26.

TROTTER, F. E., assistant surgeon, to report to Surgeon L. L. Williams, Immigration Depot, New York, N. Y., for duty. July 26.

VOGEL, C. W., assistant surgeon, to report to commanding officer, Boston, Mass., for temporary duty and assignment to quarters. July 26.

TUTTLE, JAY, acting assistant surgeon, granted leave of absence for 7 days. July 22.

PROMOTIONS.

GAHN, HENRY, hospital steward, to be hospital steward and chemist. July 17.

STEARNS, W. L., hospital steward, to be hospital steward and assistant chemist. July 17.

APPOINTMENTS.

FOX, CARROLL, of Pennsylvania, commissioned as assistant surgeon. July 25.

MCCLINTIC, THOMAS B., of New York, commissioned as assistant surgeon. July 25.

CURRIE, DONALD H., of Missouri, commissioned as assistant surgeon, July 25.

GOLDBERGER, JOSEPH, of Pennsylvania, commissioned as assistant surgeon. July 25.

KORN, WILLIAM A., of New Jersey, commissioned as assistant surgeon. July 25.

HOLT, JOHN M., of New York, commissioned as assistant surgeon. July 25.

TROTTER, FREDERICK E., of New York, commissioned as assistant surgeon. July 25.

VOGEL, CHARLES W., of Maryland, commissioned as assistant surgeon. July 25.

The Italian Society of Internal Medicine will meet in annual session at Rome, October 23 to 26, under the presidency of Professor Baccelli, Minister of Public Instruction. The subjects selected for discussion are: (1) Chlorosis; (2) the Pathology of the Pancreas. The former will be opened by Professors A. Riva and P. Castellino; the latter by Professors L. Devote and U. Gabbi. Reports on the progress during the year of therapeutics and diagnosis have been entrusted to Professors Boeri and Riva Rocci.

Foreign News and Notes.

GREAT BRITAIN.

The Alexandra Hospital for Children with Hip Disease.—The beautiful new premises of this excellent charity, situated in Queen Square, Bloomsbury, were opened recently by the Princess of Wales, after whom the institution is named.

The Stakes of a Horse-Race to a Hospital.—It is announced that the Duke of Westminster has presented the sum of $50,000, the amount won by his horse, Flying Fox, in the Eclipse Stakes at Sandown Park, recently, to the Royal Alexandra Hospital, Rhyl, of which his Grace is president. The *Lancet* commends this excellent example to other owners who race for love of the sport and not for "filthy lucre."

The London Hospital Medical College.—July 18, the new buildings of the medical college, in connection with the famous East-end hospital, were opened by Viscount Knutsford, son and heir, by the way, of the late Sir Henry Holland, who earlier in the century was a most distinguished English physician. The aggregate cost of the various theaters and laboratories now added to the London Hospital is about £10,000. The Hon. Sydney Holland, Lord Knutsford's eldest son, and an indefatigable worker in charitable interests, as chairman of the London Hospital, made an interesting statement as to its needs and growth.

Famous Hospital Dog.—Hospital dogs are somewhat of an institution, and many of them have collected, as trained beggars, large sums for their respective charities. The death is announced from Ireland of a famous dog named Leo, who belonged to the Women and Children's Hospital at Cork. Of reserved carriage and dignified demeanor he was always to be seen parading the streets with his barrel strung round his neck, in which way he collected over £1,000 for the hospital. His loss, therefore, to the charity is a serious one; but it is understood that his office has become hereditary, as he is to be succeeded in his eleemosynary exertion by his son, Leo II.

Burial and Funeral Reform.—The annual meeting of the society known as the Burial, Funeral and Mourning Reform Association, in whose working many medical men and public-health officers are interested, was held at the Church House, Westminster, July 20. Sir Dyce Duckworth, the treasurer of the Royal College of Physicians of London, presided and spoke hopefully of the efforts of the society, inasmuch as public opinion had of late much veered round towards the simplification of funerals. The system of burial advocated by the society is the earth-to-earth system, which will abolish the old-fashioned and barbarous lead coffin, and which has for its supporters writers and thinkers in the sanitary world as vigorous and acute as the champions of cremation.

The Exemption of Hospital Property from Rating.—At a recent meeting of the London County Council it was decided by a small majority that for the present it would be impossible to exempt hospitals from their municipal burdens; but the tone of the debate on the subject no less than the matter of some of the speeches encourage those in favor of this obviously excellent reform to hope that wiser counsels will soon prevail. All churches, chapels, and buildings used for religious purposes are exempt from rating, as are the buildings of all voluntary schools and all literary and scientific societies, because the services for which these buildings are used tend to the good of the citizen. Surely the services of the hospitals should be classed under the same category. "The amount of the taxes paid in the aggregate by the London hospitals is over £20,000 annually, and on every ground of justice and expediency they should be remitted." So writes a frequent correspondent.

The Annual Report of the Metropolitan Asylum and Board of London.—This board is the body which has under its jurisdiction the infectious hospitals of London, and so enormously has its expenditure of late become that its annual report was awaited by those interested in matters of municipal economy and public health with considerable interest. The board administers thirty hospitals, asylums, and ambulance stations, and if London continues to grow at its present rate the responsibilities of the board must increase *pari passu*, as must its expenses. It expenditures for 1898 were £720,000, and if all this money had been spent quite intelligently there would be no need to pay much attention to economic grumblers. But although the work done has been enormous, and although on all hands the medical officers are allowed to be an exceptionally capable body of men—we note by the by with pleasure that their salaries are to be raised all round—the finances of the board have not been above criticism, especially with regard to its building schemes. Cheap things are often not the best things, but public opinion holds that the board has been unnecessarily lavish in some directions.

The Case of Dr. Lamont.—An extraordinary story, illustrating the arbitrary power of local authorities in Scotland, was told in Parliament toward the close of the session by Sir Charles Cameron, M.D., the member of Parliament for Glasgow. Dr. Lamont, lately medical officer of the island of South Mist, seems to have incurred the resentment of his lay employers, who not only dismissed him arbitrarily but seized on a technical fault committed by him in the issuing of vaccination certificates as an excuse for having him arrested on a charge of falsification of documents amounting to perjury. The arrest was made in his mother's house, and he remained two days in custody before being found not guilty of the charge. The debate in the House o Commons elicited some curious evidence as to the powers possessed in Scotland by parish councils to dismiss at wil their medical officers, and should lead to some alteration in Scotch law whereby the government will be able to protect public-health officers, who are government officers, from the misused authority of local nonentities. Dr. Lamont ha been practically promised compensation by the Treasury.

The Case of Mary Ann Ansell.—A young woman named Mary Ann Ansell, was hanged in England, July 19, fo the murder of her sister. From a medico-psychologic point o view her crime had a certain interest, inasmuch as the phos phorus paste, which was the poisonous agent employed, wa sent to the victim by post at about the time that the Englis papers were replete with highly-sensational details concern ing certain poisoning cases in America, in which the mediun of the post had been similarly employed. After the death sentence had been pronounced, a very noisy attempt was mad by certain lay-papers to get her reprieved on the ground that she was a mental degenerate, her crime being describe as a piece of morbid imitativeness. Many people, and notabl one medical man, wrote (with considerable ignorance of th real facts, and no opportunity of arriving at them) that t hang her would be cold-blooded butchery of an irresponsib

erson. The feeling of horror—a most natural and credita-
le feeling—at the idea of the violent taking of the life of a
oung woman upon the scaffold spread and obscured the judg-
ient of persons who should have known better, and a most
ndesirable agitation intended to coerce Sir Matthew White
idley, the home secretary, resulted. But Sir Matthew White
idley, in whom, for practical purposes, the Queen's preroga-
ive of mercy is vested, had facts before him which were
nknown to the agitators. He had also the medical evi-
ence of two first-class psychologists, to whom every facility
as granted for studying Mary Ansell's demeanor and family
istory, and their evidence was to the effect that the convict
as sane. The law was therefore allowed to take its course,
id, though we are loath to heap abuse upon the wretched
rl, who has paid the extreme penalty of her crime, it is cer-
in that she committed a particularly callous and shocking
urder.

CONTINENTAL EUROPE.

University of Cracow.—Dr. Beloussov has been ap-
inted ordinary professor of anatomy.

University of Berlin.—Dr. Ludwig Warnekros has
en appointed extraordinary professor of odontology.

Obituary.—Dr. G. Mihalkowicz, professor of anatomy
d embryology and rector of the University of Budapest.

Human and Avine Tuberculosis.—It is reported that
. Nicolas, of Paris, has succeeded, as a result of a con-
erable number of investigations, in establishing the identity
human and avine tuberculosis.

A Milk-Cyst in a Boy.—Dr. Kirmisson, of Paris, re-
ntly reported a rather remarkable case. A boy, aged 14
rs, presented a tumor above the right nipple. This on
ng incised was found to contain pure milk.

A Universal Antitoxin.—It is reported from Paris that
. Emmerick and Ooew have succeeded in producing an
itoxin with cultures of the bacillus pyocyaneus, that will
tect equally well, animals inoculated with cholera, typhoid,
gue, or diphtheria bacteria.

Endarteritis Obliterans.—At a recent meeting of the
iété d'Anatomie de Paris, Professor Huchard reported a
arkable case of endarteritis obliterans. During life it was
ossible to appreciate any pulse save at the carotids, and
diagnosis of endarteritis obliterans was made. The
ent died of purulent pleuritis. At the necropsy a large
mbus was found in the aorta just below the renal arteries,
the aorta just below the clot was almost obliterated. The
subclavian arteries were also closed by endarteritis
terans.

nomalous Mammary Gland in a Man.—At a re-
meeting of the Société de Biologie de Paris, Braque-
e narrated the case of a man, aged 36 years, who pre-
ed a supernumerary mammary gland, situated in the
ian line of the abdomen, midway between the umbilicus
the pubes. The nipple was perforated and surrounded
distinct areola. Upon pressing the gland a drop of
milk exuded. The gland was ablated and submitted to
logic examination, and it was found to be a true mam-
y gland in active function.

he Rescue of the Imbecile Young in Italy.—
rence has already been made in these columns to the
anitarian work that is engaging the attention of a con-
able number of workers in Italy in their efforts to im-
prove the mentally deficient. Florence, Turin, and Milan, and other cities are now centers of great activity in this line of work. At the last-named city recently a meeting was held composed mainly of medical men and schoolmasters, at which a resolution was passed to supplement "every group of primary schools with a separate institution for the reception and training (medical, pedagogic and educational) of the more backward (*tardivi*) of the young scholars." A committee was thereafter drawn from the medical, the pediatric, and educational representatives of the rational movement, and includes such authoritative names as Professor Edoardo Porro, of the Milanese School of Obstetrics; Dr. Luigi Casannova, Director of the Deaf and Dumb Institute; Professor Ottone Brentari (the eminent educationist), and Signor Gonnelli-Gioni, the paladin of this humanitarian crusade.

Quackery in Paris.—According to the *Lancet*, Dr. Gibert, of Montreuil, has just been found guilty by the Correctional Tribunal of the Seine, of having lent his aid to a somnambulist who, for many years, has treated sick people and diagnosed their complaints by touching the hands, while she was in a real or fictitious somnambulistic trance. She had already been convicted twice for illegally practising medicine. She went into partnership with Dr. Gibert, who used to write prescriptions at her dictation, and sign them, for which dishonorable work the man received two francs an hour. On his prosecution he admitted the facts, but argued that he often revised the diagnosis of the somnambulist, and in fact did not by any means always agree with them; but in addition he maintained that her special gifts were of great use in the case of patients who did not attend themselves for consultation, but sent a lock of hair, or some article of dress, which they had been in the habit of wearing. The court found Dr. Gibert guilty, and fined him 16 francs, while the woman was fined 50 francs. During the same week, a quack, calling himself Dr. Saint-Paul, who had a number of "patients," among whom was the prosecuting magistrate himself, a fact constituting an absolute proof of the actions complained of having taken place, was acquitted, much to the general surprise, the magistrate saying that he saw no evidence upon which to carry the case further.

Extract of the Corpus Luteum.—According to the *Lancet*, at a meeting of the Society of Biology of Paris, held June 24, Dr. A. Lebreton laid before the society the results of his researches into treatment by means of extract of the corpus luteum. In an inaugural thesis he had already pointed out that, by its histologic structure, it was evident that the corpus luteum was really a ductless gland, and that the benefits of treatment by ovarian extract depended mainly upon the principles contained in the corpus luteum. As a means of experimental verification of his theory he had some capsules made, each containing 0.05 of a centigram of pure corpus luteum. These he administered to three patients suffering from the following symptoms: flushes of heat, buzzing in the ears, sweats, feelings of "sinking" sometimes going on very nearly to fainting, nightmares, breathlessness, palpitations, and digestive troubles—in a word, all the symptoms due to "ovarian insufficiency." Two capsules per diem were given before the principal meals of the day. The drug acted promptly with noteworthy success and there were no ill effects noticed. M. Lebreton is now pursuing his researches into the therapeutics of the corpus luteum as regards the various troubles of pregnancy—notably vomiting. He has already met with two cases in which the results were conclusive, but reserves publication until he has a larger number of cases upon which to report.

Society Reports.

[From our Special Correspondent.]

AMERICAN OTOLOGICAL SOCIETY.

Meeting held at New London, Ct., July 18, 1899.

FIRST DAY.

THE meeting was called to order by the secretary, DR. F. L. JACK, and in the absence of the president, DR. MATHEWSON, the Society elected DR. J. ORNE GREEN president pro tem.

Further Observations on Blood-Clot in Mastoid Operations.—DR. CLARENCE J. BLAKE, of Boston, said that in order to gain some idea as to the advisability of using the blood-clot method in all mastoid operations, he had tried it in 33 cases as they appeared consecutively at the hospital. These included both acute and chronic cases, and all sorts of infections: staphylococcus, streptococcus, pneumococcus, etc., etc. The mastoid wound was stitched and primary union sought in every case. The results were as follows: Healed by first intention, 8; blood-clot partly broken down, 12; blood-clot wholly broken down, 7. In the cases in which the blood-clot was partly broken down the suppuration occurred in the lower part of the wound, the larger part of the clot remaining intact, and thus free drainage being secured granulation occurred very readily. Even in those cases the period of healing was shortened. The shortest period of time required for complete union was five days.

Discussion.—DR. BACON said that he had seen some of Dr. Blake's cases and thought they were certainly very satisfactory. He had himself used the method with satisfaction in acute cases, and in view of Dr. Blake's success would certainly try it now for chronic cases. DR. J. ORNE GREEN asked the average time of healing in the acute cases, and wanted to know also what special advantages this method possessed over that of thoroughly cleaning out the mastoid and allowing it to heal by granulation. He thought Dr. Blake's results were most favorable, but feared that one might in some rare cases not succeed in getting the wound entirely aseptic and cause more trouble by closing it. DR. BLAKE replied that he knew this was somewhat against general surgical principles, but that in the use of blood-clot and closing the wound we still had a wound that could be opened any moment, if necessary, and without endangering the life of the patient. The average time of healing by first intention had been 9 days, whereas in the granulation method it requires two or three weeks. The result is the same in both methods, but the gain in time is the great advantage of the blood-clot. Of course, success will depend upon the cleaning out of all diseased tissue, but if some small focus should remain and the blood-clot breaks down in part or even entirely we are no worse off than if we had left it to granulate in the first place.

The Stacke Operation: Simple Exenteration of the Tympanic Cavities.—DR. B. A. RANDALL, of Philadelphia, reiterated his dissatisfaction with mere excision of the ossicles in the treatment of obstinate tympanic suppurations. He believed that tympanic exenteration must be thorough, throwing the attic atrium and antrum with the deeper part of the external canal into one cavity, and that this is generally best done after Stacke's original method, without opening the mastoid cortex. Laying the soft parts forward he chisels into the back wall of the canal, leaving a bridge of the bony annulus to protect the facial canal, and enlarges the aditus. Then removing this narrow bridge by an outward sweep of the curet, he freely removes all pathologic tissue. The back wall of the canal is then split into a cutaneous and periosteal layer, excising all the cartilage, and these give better flaps for covering the bone surfaces. The flaps are held in place by gauze strips through the canal, and the mastoid wound, if one is made, is sutured for primary union.

The Stacke Operation in Chronic Otorrhea.—DR. E. B. DENCH, of New York, states that the original Stacke operation has been practically abandoned, and that the name is now more frequently used to designate the Stacke-Schwartze procedure. His method of operating is to enter the antrum through the mastoid process first, and then pulling forward the cartilaginous lining of the external auditory canal to clean out the middle ear. The bony wall lying between the mastoid opening and the external auditory meatus is then removed, and when the cavity has been cleaned completely, cutaneous flaps are made by two incisions in the cartilaginous wall, one in its long axis and the second crossing at right angles to this. The mastoid wound is closed tightly and the flaps held in place by gauze dressings. Of 17 cases operated upon by this method 13 have been entirely cured and 4 improved.

Sigmoid Sinus Thrombosis. Seven Cases. The first Non-infective, Recovery. Six Infective, Five Recoveries, One Fatal. With Remarks Upon Symptomatology and Treatment.—DR. J. F. MCKERNON, of New York, reports in detail the history of these 7 cases with the results as stated in the title. Concerning the symptomatology we must consider first the presence or history of the discharge from the auditory canal of the affected side. Chills are present in a large proportion of cases and of the symptoms to be depended upon to aid in making a diagnosis of sinus thrombosis, the presence of a chill, followed by a sudden rise in the temperature, with a remission and profuse sweating, is one of our most positive signs. If only chilly sensations are present we should be on our guard, especially if the temperature is making a gradual rise. When there is a sudden elevation of temperature with the other symptoms usually present diagnosis is easy. The pain is usually much greater than that accompanying the ordinary mastoiditis. Nausea and vomiting are nearly always present to a greater or less degree. Constipation is usually present in the earlier stages. In all of these cases there is marked stiffness of the muscles of the neck. Among some of the general symptoms at the outset of the disease may be mentioned malaise, loss of appetite, a heavily furred tongue, foul breath, and an anxious, pallid look of the face. The treatment, of course, should be operative. The sinus should be exposed, the hypodermic needle introduced along the lumen of the vessel and if a negative result be obtained, and one is still in doubt, it is best to open the sinus for further investigation.

Septic Thrombosis of the Sigmoid Sinus.—DR. CHARLES W. RICHARDSON, of Washington, D. C., said the patient was a man of 60 years of age, who had been sick several weeks with "chills and fevers." The right ear had been suppurating for many years. There was almost constant headache localized over the parietal region. There was tenderness over the mastoid, vertigo, constipation, dry, foul tongue, sallow skin, and intermittent pulse. The temperature was rarely above 101°. At the operation the sinus was exposed throughout its whole length, the walls were found to be gangrenous and when opened the vessel was found to be filled with a nasty broken-down clot. The whole wound was thoroughly cleansed and dressed, but the patient died 26 hours later as a result of the intense sepsis.

Discussion.—DR. RANDALL advocated the reporting of such cases more frequently in the general medical papers rather than in the otological journals only, as it might assist in having these cases recognized earlier and thus improve the patient's chances by operation. DR. BACON said concerning the use of the hypodermic needle that he had seen several cases where one might withdraw fluid blood in this way and yet there was a soft thrombus present. He thought it best in all doubtful cases to open it, as it did not increase the dangers. It is possible also to pass through a small thrombus and draw blood from the other side. DR. RANDALL spoke of the method of stroking the sinus and jugular vein in order to determine the presence of the clot. DR. MCKERNON said that he had felt afraid of disseminating a septic clot by this method. He stated that as a result of a study of these cases he thought they did very much better under the care of the aural surgeon than in the hands of the general surgeon.

Pneumona Massage of the External Auditory Canal Compared with Inflation of the Tympanum.—DR. C. H. BURNETT, of Philadelphia, believes that pneumona massage applied to the external auditory canal and membrana tympana by means of the Siegal otoscope, in both acute and chronic processes in the middle ear, is more efficient, less of a shock to the auditory nerve, more agreeable to the patient than inflation, and entirely free from sepsis.

[To be continued.]

[From our Special Correspondent.]

AMERICAN OPHTHALMOLOGICAL SOCIETY.

Meeting held at New London, Ct., July 19, 1899.

THE meeting was called to order by the president, DR. O. F. VADSWORTH.

A Description of the Reflecting Phorometer and Discussion of the Possibilities of Torsion in the Eyes.—DR. F. H. VERHOEFF, of Baltimore, Md., present y invitation of the Society, said that the instrument differs om other phorometers in that mirrors are used in place of risms, thus permitting of the greatest simplicity in con- ruction, together with the most advantageous movements the apparent images. There are four mirrors, two for each ye. By turning a milled screw, the lower mirror may be ade to rotate towards or away from each other so as to roduce lateral separation of the images. It is to be noted at this arrangement produces equal though opposite move- ents in the two images. Vertical separation of the images produced by rotation of one of the upper mirrors. The arallax test of Duane has been adapted to this instrument, d a very important feature of this phorometer is a shutter hich slides back and forth between the eyes so that when use, the patient can see with but one eye at a time. The utter is moved back and forth very quickly, a pause being ade, however, before each eye so that time is given for the ter image to disappear, and the patient is asked to state hether the object moves or not. If he sees the object ap- rently moving obliquely, the upper mirror is adjusted until e movement is horizontal and then the lower mirrors are justed until practically all movement is overcome. Both e amount of hyperphoria and also the esophoria or ex- horia, if present, will be indicated upon the scales. It is us possible by means of the reflecting phorometer to deter- ine the amount of heterophoria either by the diplopia test by the shutter test, and, in addition, the amount of abduc- n, adduction, and right or left sursumduction may be dily obtained. By means of a special chart consisting of o rotary discs placed one above the other the instrument ay be used to determine and measure any possible torsional viations in the eyes. It was shown that by means of the trument an artificial torsion could be produced in the inal image of any object regarded. In this way it was termined that the eyes can bear, without discomfort, a ing of the retinal images in the two eyes equivalent to a sion of 8. Four experiments were described to prove that sional combining power or an ability to so rotate as to ercome artificially produced declinations and cyclophoria, not exist. Since the fusion of lines situated upon non- responding points of the retinae is not due to torsion of the es it was spoken of as being due to psychical compensation. . Verhoeff believes that the existence of a torsional com- ing power has been assumed by Stevens without sufficient dence and that Savage has fallen into error in assuming existence of cyclophoria.

Congenitally Inefficient External Rectus and Binocular Vision.—DR. J. O. TANSLEY, of New York, d the patient was a strong, healthy young man. Asking to look at and follow a pencil, it was seen that the left had perfect motility, but that the right eye, although it perfect movement upward, downward and nasally, could be moved quite to the median line outwardly. He had ocular single vision in any part of the left field, but a cil held directly in front of him appeared double, and the her it was moved to the right, the greater was the diplopia. diagnosis was congenital absence of atrophy of the right rnal rectus. A tenotomy was performed upon the right rnal rectus in the hope of overcoming the necessity of ing the head to the right, but the conditions were not h improved. A second case was reported in which the ent always turned his head to the left or eyes to the t, but the conditions were not much improved. A third was reported in which the patient always turned his l to the left or eyes to the right when doing close work. minations showed that he could not rotate the left eye vards quite to the median line. All the other move- ts were normal. The condition here also seemed to be enital atrophy or absence of the external rectus. A tomy was performed upon the right internal rectus in ope of overcoming the necessity of turning the head to the right, but the conditions were not improved. A second case was reported in which the patient always turned his head to the left or eyes to the right when doing close work. Examination showed that he could not rotate the left eye outwards quite to the median line. All other movements were normal. The condition here also seemed to be congenital atrophy or absence of the external rectus.

A Case of Primary Tumor of the Optic Nerve.—DR. F. BULLER, of Montreal, Canada, said the patient was a boy of 6 years of age, in good health, save for some slight nervous disturbances. The right eye presented a high degree of proptosis, and the exposure caused constant irritability of the eye. The ophthalmoscope showed the optic nerve entrance apparently much larger than normal, of a pale bluish-white tint with oval outline and irregular margins. Palpation revealed within the orbit a large, somewhat elastic mass without distinct outline. These symptoms, together with the complete blindness, pointed to the presence of a tumor involving, if not originating in, the optic nerve. Removal was attempted by severing and drawing aside the internal rectus, but it became necessary to enucleate the eye with the tumor-mass which surrounded the optic nerve. The patient made a good recovery and 1 month later was reported to be in good health and quite free from nervous attacks. A pathologic study of the tumor showed that it belonged to that class usually described as myxosarcomatous, but the changes in the optic nerve, at least, are to be looked upon as due to a chronic distention of the lymph-spaces, and it is suggested that possibly the whole condition was due to some localized disturbance of the lymphatic system.

Discussion.—DR. REEVE said that he had seen last summer an interesting specimen in the Birmingham Ophthalmic Hospital of a tumor of the optic nerve, from a patient who had excellent if not normal vision. DR. BULLER said that this was the third case he had seen, and he considered the loss of vision with complete optic atrophy one of the diagnostic features of optic-nerve tumors.

A Case of Primary Non-Pigmented Sarcoma of the Upper Lid.—By DR. C. A. VEASEY, of Philadelphia. This paper will be published in a future number of the JOURNAL.

An Instrument Intended to Facilitate the Operation of Capsulotomy.—DR. F. BULLER, of Montreal, said the instrument consists of two needles fastened parallel with each other in the ordinary handle, not more than 0.25 mm. in diameter and quite sharp. It is to be used in the following manner: First the pupil is dilated, if possible, with atropin, then a careful inspection is made by focal illumination to find the weakest and strongest parts of the capsule to be divided, bearing in mind that the aperture to be made must be as nearly as possible central. The double needle is passed through the cornea at any convenient point to the central edge of the denser portion of the capsule and the Knapp needle-knife passed through the sclerocorneal junction to the line of its incision through the thinnest part. This incision being completed the cutting needle is then turned, passed between the limbs of the double needle and made to cut the denser capsule by one sweep. The advantages claimed are a large clear central aperture, without traction on the zonule and with very slight reaction.

Discussion.—DR. STANDISH said that he had tried some years ago to use a double needle in this way, but had found considerable difficulty in trying to cut the capsule without pushing it before the instrument, and he had abandoned the method. He thought it difficult to make equal pressure with the two limbs of the double needle and consequently one frequently entered the capsule while the other did not. DR. BULLER stated that he did not attempt to cut the capsule with the points of the needle, but merely exerted enough pressure to steady the capsule.

(To be continued.)

The Royal College of Surgeons of England.—At the latest meeting of the Council the following appointments were made: Hunterian Professors, Mr. Mayo Robson, Professor Charles Stewart, and Mr. Arthur Keith. Aris and Gale Lecturer, Mr. B. G. A. Moynihan. Erasmus Wilson Lecturer: Mr. E. Treacher Collins. Mr. S. G. Shattock was reappointed pathological curator, and Mr. R. H. Burne was reappointed anatomical assistant in the museum.

The Latest Literature.

British Medical Journal.

July 15, 1899. [No. 2011]

1. A Case of Friedreich's Hereditary Ataxia with Necropsy. GEORGE E. RENNIE.
2. Contribution to the Study of the Posterior Columns of the Spinal Cord. HAMILTON WRIGHT.
3. Some Points Connected with Sleep, Sleeplessness, and Hypnotics. JOHN BUCKLEY BRADBURY.
4. A Case of Ophthalmoplegia Externa and Paralysis of Both Facial Nerves, and a Case of Paralysis of Both Facial Nerves with Some Affections of the Limbs from Peripheral Neuritis; Recovery. H. SINIGAR.
5. A Case of Syringomyelia. FRED. TRESILIAN.
6. The Treatment of Malarial Fevers by the Inunction of Creasote. A. O. FITZGERALD.
7. Five Cases of So-called Blackwater Fever. H. M. DOWLER.
8. Ulceration of Colon in Typhoid Fever. J. ORTON.
9. Urethral Stricture in a Boy Aged Eleven. J. H. HUGO.
10. Case of Rupture of the Heart. R. A. NEILSON.
11. Two Cases of Aneurysm of the Aorta. J. R. AMBLER.
12. Two Cases of Cysticercus. D. J. WILLIAMS.

1.—Necropsy in a case of Friedreich's ataxia showed degeneration of the cord corresponding closely to the generally recognized typical lesions of the disease. These lesions were well defined, though the duration was stated to be only 15 months. Three clinical features are also considered—sensory disturbances, sphincter trouble, and muscular hypotonia. [A.G.E.]

2.—Wright gives the results of **a study of the cord in a case of tabes dorsalis.** Those parts of the posterior columns composed of the centripetal continuations of the afferent roots were in a state of total fibrosis. The condition of the fibers derived from the gray matter and commonly held to be intracordal in origin, was then investigated. In three of these nerve-fibers persisted, viz., the cornucommissural zone of Marie, the median triangle of Flechsig, and the posterointernal zone. A fourth, Schultze's descending comma-tract, was in a state of almost absolute fibrosis. Wright suggests this explanation: fibers which in a normal cord pass from the gray matter mesial to Clarke's columns into the posteroexternal columns to about the position of the comma-tracts were not found in the cord examined. That these fibers, Clarke's cells, and the comma-tracts were all degenerated points to an anatomic association. Thus it is probable that these fibers function between upper and lower levels of the vesicular cylinders, and this would account for the persistence of fibers in the three tracts of intracordal origin and their abolition in others. [A.G.E.]

3.—Lecture IV begins with a consideration of **two compounds used as substitutes for morphin.** These are monoacetyl-morphin and benzyl-morphin. Clinical observation is yet insufficient to settle their true place in therapeutics. Cannabis indica is discussed mainly from the point of its active principle and the cause of the different physiologic activities of its preparations. Hyoscin is found greatly superior to hyoscyamin. **The treatment of insomnia** is first by removal of the cause. Causes are classed under 4 heads: Irritative, toxic, psychic, and change in mode of life. When diet, etc., fails to relieve, hypnotics must be used to break the habit. Bradbury tries the bromids first. In the insomnia of heart-disease paraldehyd and chloralamid are useful. [A.G.E.]

4.—Sinigar reports two cases of **ophthalmoplegia externa** accompanied by paralysis of the following cranial nerves: Complete of the third (except the pupil), fourth, sixth, and seventh, and partial of the eighth, eleventh, and twelfth. In the limbs the grasp was weak, there was slight dropping of both feet and the knee-jerks were absent. Sensation and the action of the sphincters were normal. The diagnosis of neuritis seemed most likely in the first and positive in the second. The cases were of especial interest because of the extent of the symptoms and the complete recovery. [G.B.W.]

5.—Tresilian reports **a case of syringomyelia in a man of 45.** An exceptional feature was an enormous swelling around the left shoulder-joint from which 6 ounces of fluid was taken at one time. The joint resembled that of advanced "Charcot's disease," as seen in tabes. [A.G.E.]

6.—A series of cases is given to illustrate **the result of using creasote in malaria.** Pure beechwood creasote, 15 to 20 minims for a child of 1 year, 30 to 60 minims for an adult, was mixed with an equal quantity of olive oil and rubbed for five to ten minutes over the chest, abdomen, axillae and sides. The drug seemed to have specific action. Fitzgerald thinks it an ideal treatment for malarial fevers in children. [A.G.E.]

7.—Dowler believes **blackwater fever to be a rare complaint among Bengal natives.** Points in which it differs from malaria are given. [A.G.E.]

8.—This case of **intestinal perforation** in typhoid is interesting because the perforations were multiple, and all except one were through colon. The patient lived for about 25 days after the probable time of the first perforation. [G.B.W.]

10.—The **tear in the heart** was ½ inch in length, situated midway between the base and the apex of the right ventricle. The tissues surrounding the tear were much thinned and fibrosed, pointing to precedent myocarditis. The valves of the heart were intact, and the great vessels fairly healthy. [G.B.W.]

12.—Case 1. The patient, a colored man, 54 years old, had been insane for 12 months past. He lived in the asylum a year and a half after this before he died. Postmortem showed about a dozen **cysticerci** encysted in the occipital portion of the brain. Case 2. An African negro, 50 years of age, died with a large dilated and hypertrophied heart. Postmortem revealed the heart studded with numerous cysticerci. [G.B.W.]

Lancet.

July 15, 1899. [No. 3959.]

1. Some Points Connected with Sleep, Sleeplessness, and Hypnotics. JOHN BUCKLEY BRADBURY.
2. Diabetes in a Child aged Three Years; Almost Complete Disappearance of the Sugar during an Attack of Jaundice. J. H. SEQUEIRA.
3. Observations on Tuberculosis and Syphilitic Diseases of the Eye. LACHLAN GRANT.
4. Muscular Hypotonia in Epileptics. GEORGE E. RENNIE.
5. On Anthropological Work in Asylums, with a Practical Scheme for Conducting the Same in Adults. EDWIN GOODALL.
6. A Case of Chronic Inversion of the Uterus Reduced by Aveling's Repositor. JOHN B. HELLIER.
7. The X-Rays in Prognosis of Pulmonary Tuberculosis. HUGH WALSHAM.
8. The Optical Effect of Removal of the Lens in Myopia. W. ADAMS FROST.
9. Hemorrhage during an Operation for Convergent Strabismus. MARY R. WILSON.
10. A Case of Cerebrospinal Meningitis Without Fever or Retraction of Neck. DAVID A. BELILIOS.
11. A Case of Severe Multiple Injuries; Laparotomy; Death in Three Months. W. L. HUBBARD.
12. A Case of Hydrocecle of the Sac of a Femoral Hernia. F. C. H. PIGGOTT.

1.—See abstract No. 3 under *British Medical Journal.*

2.—Notes are given of a case of **diabetes** in a child of 3 years, the disease being overlooked at two hospitals before the diagnosis was made. During an attack of jaundice the sugar almost entirely disappeared from the urine. Death finally occurred during an attack of diphtheria. [A.G.E.]

3.—Grant points out the marked contrast which exists in the **immunity of the eye in tuberculous and syphilitic disease.** The great resistance of the eye to tuberculous infection, he attributes to its resistant power to influences from without, which its peculiar anatomic formation and the epithelial layer that cover it would seem to explain. Syphilitic disease is, on the other hand, prone to injure the eye. This marked contrast would lend additional strength to the views that one is a systemic disease transmissible from parent to offspring, while tuberculous disease is local in origin, and not hereditary, only a predisposition to its acquirement being transmissible. [C.L.L.]

4.—Rennie reports 3 cases to illustrate **interparoxysmal muscular hypotonia in certain cases of epilepsy,** due, as he believes, to exhaustion of the cortical nerve-cells

excessive flaccidity of the muscles allowing great range of movement was noticeable, in each of the cases; an interesting point in the history of one, a boy of 11 years, is that he himself had noticed the possibility of these movements only since the fits began. The conclusion is reached that in neurasthenic conditions muscular hypotonia may depend both on impaired muscular nutrition and on exhaustion of cortical nerve-cells. [A.G.E.]

5.—Goodall admits the **difficulty of making examinations of asylum-patients upon admission,** but with time and sufficient help this can be done. **The acquirement of a normal standard** is another difficulty. Among a changing population this is almost impossible, hence the best results are to be looked for in the more rural districts. An elaborate scheme of measurements and descriptions, as used by the writer, is given. [A.G.E.]

6.—Hellier reports a case of **chronic inversion of the uterus** in which Aveling's repositor was used successfully. [W.K.]

7.—Notes of a case of pulmonary tuberculosis are accompanied by **skiagrams which showed beginning consolidation in portions of the lungs before this could be detected by auscultation.** The general health of the patient improved while in the hospital, but a skiagram showed steady progress of the disease. Walsham thinks the x-rays useful in prognosis in such cases. [A.G.E.]

8.—Frost calls attention to the two factors that are entirely distinct, which influence the optical effect in the **removal of the lens for high myopia.** One is the effect of the operation on the actual refraction of the eye, and the other its effect on the correcting lens required. The myopia is not affected by the removal of the lens, while its removal makes less powerful lenses necessary to correct the defect. [C.L.L.]

9.—Wilson reports a case of severe hemorrhage during an operation for convergent strabismus. There was an arterial spurt, and the eyeball was pushed forward, while there was considerable ecchymosis. Pressure controled the bleeding, the operation was completed at a later period, and the patient recovered the entire use of the eye, with the desired correction. [C.L.L.]

10.—Belilios describes **a case of cerebrospinal meningitis in which the temperature was normal, the head was not drawn back,** and no paralysis could be made out. Other signs made the diagnosis clear. The patient is now convalescent. The mental condition of stages of partial unconsciousness and delusions lasted 13 weeks. During that time the temperature was often subnormal. [A.G.E.]

11.—Hubbard reports the case of a woman, 34 years old, who was run over by a heavy team. The anterior fossa of the skull was fractured. One rib was fractured. There were numerous contusions but no other bones were fractured. Two weeks after admission the abdomen became slightly distended, and a month later a distinct globular tumor could be detected. Dyspnea was so marked that it was deemed advisable to draw off the fluid and 13 pints of a fluid containing bile were removed. The tapping gave relief, but the fluid again accumulated. The stools were never clay-colored. Operation was decided on and a large cavity distinct from the general peritoneal cavity was found with no direct communication with the gallbladder, or any other viscus. The patient was in very poor condition and did not sustain the shock of the operation. [C.L.L.]

New York Medical Journal.

July 29, 1899. [Vol. lxx, No. 5.]

1. Cerebral Abscess in a Child Three Months Old, Complicated by Erysipelas of the Head and Face. Operation. Recovery. Cursory Consideration of the Diagnostic Value of Symptoms. William J. Doyle.
2. Modern Therapy of the Tympanic Cavity. M. A. Goldstein.
3. Anesthesia: Nitrous Oxid; Ether; Chloroform. S. Ormond Goldan.
4. Odd Types of Disease. F. Savary Pearce.
5. A Report of Two Cases of Typhoid Infection without any Intestinal Lesions. August Jerome Lartigau.
6. The Early Recognition and Management of Malignant Disease of the Digestive System. Max Einhorn.

[Through some oversight of printer and proof-reader the word "not" was omitted from the first line of the abstract of Dr. Richardson's article on page 23, issue of July 1, Philadelphia Medical Journal, thus entirely reversing the author's intent. Dr. Richardson strongly advocates the use of rubber gloves in operating.]

1.—Doyle reports a rare case of **cerebral abscess in a child 3 months old.** The first symptoms developed were of intestinal irritation. There later developed a swelling in the region of the anterior fontanelle. The temperature was 104.5° The elevated tumor fluctuated slightly but distinctly on pressure and was of an erythematous cast. This fluctuation was the only sign that pointed to an abscess. There was no ear disease and the child was perfectly healthy with good antecedents. Operation was decided upon. The scalp was quite firm and thickened. Upon puncturing the dura it also was tough and resisting; cutting forward for about an inch all was well. The longitudinal sinus was, however, punctured, and packing had to be employed and further operation postponed. The packing was removed at the end of 48 hours. The hemorrhage had ceased. The packing was again replaced. The temperature remained at 101°. On removing the packing the next day it was found saturated with greenish, foul discharges which welled up from the bottom of the wound, about three fluidrams came out. The cavity was washed out with 1:5000 bichlorid of mercury solution and packed. The wound healed under this treatment and the patient recovered completely. [C.L.L.]

2.—Goldstein reviews didactically the treatment of the tympanic cavity, especially in chronic disease, and emphasizes the value of treatment he has previously described. [C.L.L.]

3.—Goldan lays special stress on the importance of realizing that anesthesia is not the simple process that it is frequently considered, and that each case needs as much care as the anesthetizer is capable of giving. The anesthesia is frequently more dangerous than the operation itself, and requires the greater skill. [C.L.L.]

4.—Pearce calls attention to the **aberrant symptomatology of some cases,** especially in nervous diseases, and the necessity of thoroughly studying individual cases. The ideal is to seek pathogenesis more than pathology. Various diseases of the cord and brain are discussed from the standpoint of cases presenting unusual symptoms. [A.G.E.]

5.—Lartigau reports two cases of **typhoid infection** in which there was **no intestinal lesions.** The genuineness of the first case is without doubt. There is some hesitancy about the second, because of the history of probable typhoid 4 months before. This possibility is laid aside, however, because of the wide dissemination of the bacilli in the liver, gallbladder, kidney, and uterus. The case is interesting as an example of polybacterial infection, the diplococcus lanceolatus was found in the heart's blood and spleen, there were multiple foci of infection with the typhoid organism, and the streptococcus pyogenes and bacillus typhosus were both found in the uterus. [A.G.E.]

6.—Einhorn reviews the symptomatology of the various malignant involvements of the digestive tract, but finds no new symptoms by which early involvement can be detected, other than the careful supervision of the patient and watchfulness in detecting the classical symptoms. When detected early, radical operation is indicated, later, palliative measures or palliative operations are necessary, according to the situation of the tumor. [C.L.L.]

Medical Record.

July 29, 1899. [Vol. 56, No. 5.]

1. A Report of Twelve Cases of Prostatic Hypertrophy Benefited by the Bottini Operation, with a few Comments and Suggestions. Raimon Guitéras.
2. Nephro-Ureterectomy for Traumatic Hemato-Hydro-Nephro-Ureterosis. John H. Summers.
3. A Fracture of the Inferior Maxilla. Henry L. O'Brien.
4. A Method of Maintaining Approximation after Colles' Fracture by Short Lateral Splints without Pressure on the Tendons or Interference with the Circulation. A. E. Rockey.
5. Comparative Chest Measurements. H. M. Lee.

6. A Case of Complete External Dislocation of the Patellae. J. E. COURTNEY.
7. A Case of Tetanus Treated with the Antitoxin. A. DE YOANNA.

1.—Guitéras reports a series of **Bottini operations** in detail and reemphasizes his opinions formerly published regarding the operation. [C.L.L.]

2.—The case which Summers reports is of unusual interest. The patient, a woman, 38 years old, sustained a comparatively slight injury, as it appeared, for she walked home, and passed a comfortable night. Bloody urine was passed in the morning, and she was kept confined to bed, but had no serious symptoms. She was next seen, after entering the hospital 19 days later. Her general condition was not favorable, and she had lost flesh, strength, and heart-tone. Locally, there was a remarkable change. A cystic growth occupied the lower median part of the abdomen, extending well over toward the left iliac spine and down into the pelvis; it also distended the right side of the abdomen, extending up into the kidney-region. The tumor might have been mistaken for an ovarian cyst. There was a slight, continual excretion of a blood-stained fluid, like urine, which had been continuous since the time of the accident. The operation disclosed an **enormous cyst,** which was formed from the distended and **hydronephrotic kidney.** The tumor and the ureter down into the pelvis were removed, as it was certain that the kidney was entirely functionless. The examination of the specimen showed that the kidney-substance had entirely disappeared, and that a wall of thick, fibrous tissue had replaced the capsule of the kidney. It was remarkable that such a change had taken place in 23 days. The patient recovered completely. [C.L.L.]

3.—O'Brien reports the successful treatment of a case of **multiple fracture of both upper and lower jaws** by means of an interdental splint. Fragments of necrosed bone were removed and sharp points resected and the fragments sutured with silkworm-gut. There was considerable difficulty encountered in getting the impression for the splint, as the jaw had become partially ankylosed. [C.L.L.]

4.—Rockey describes the following **splint** which he has devised and employed with entire satisfaction in about 25 cases of **Colles' fracture.** It consists of two lateral pasteboard splints sufficiently wide to prevent pressure upon the anterior and posterior tendons at the wrist. These splints are put on wet and are molded to the wrist after complete reduction under anesthesia; they are held in place by two strips of adhesive plaster, one at the carpal end of the splints and the other above. The width of the splints prevents pressure on the injured tendons and their sheaths and does not interfere with the circulation. A bandage completes the dressing. Motion is insisted on after the primary swelling subsides. [C.L.L.]

5.—Lee examined 800 men between the ages of 18 and 50 for **enlistment in the army;** the average chest measurements were found to differ from those given to examiners for the U. S. service and insurance. These men were from all walks of life, but were used to an out-of-door life and were well built and muscular. Average measurement, complete respiration, 29⅖ inches; at complete respiration, 33⅕ inches; average expansion, 3⅘ inches. This is over one-half inch greater than is generally taken as the average. All the older men had a greater expansion than 3 inches, the variation being found in men under 24. The smallest expansion was 2 inches, the largest 6, in the 800 examined. [C.L.L.]

6.—Courtney describes a **double external dislocation of the knee-cap** which occurred at an early age in a patient of his who died of senility at the age of 74 years. There had been no functional disturbance in the knee-joint during life, except slight difficulty in rising or sitting. The postmortem examination showed that new articular surfaces had been formed for the patellas in their altered positions, which impinged on the normal joint-surfaces. [C.L.L.]

7.—The case occurred in an Italian who had a crushed wound of the finger on February 9. The symptoms of **tetanus** began February 17. On the 18th, there was severe contractions. A small abscess of the finger was opened and cleaned out, and the same day 20 cc. of antitoxin was given near the wounded finger, 20 cc. in the shoulder, and 20 cc. along the spine. The patient improved the next day, and for 3 days subsequently 40 cc. of antitoxin was given, and in all 280 cc. was given within 15 days, and the man recovered, and by March 15 had no symptoms remaining, excepting slight stiffness of the muscles. [D.L.E.]

Medical News.

July 29, 1899. [Vol. lxxv, No. 5.]

1. Constipation Considered from the Standpoint of the Proctologist. A. B. COOKE.
2. Asthenopic Symptoms and Headache Caused by the More Common Forms of Intranasal Disease. CAROLUS M. COBB.
3. The Infrapubic Route in Surgery of the Uterus and its Adnexa. WILLIAM H. WATHEN.
4. The Serum-Treatment and its Results. HERMANN M. BIGGS.

1.—Constipation may be defined "as a diseased condition of the alimentary canal, characterized by a modification of function which results in the pathologic retention of fecal matter." Its causes are: (1) Causes springing from the violation of hygienic law; (2) defective innervation; (3) sluggishness of bowel function; (4) the habitual use of purgative medicines; (5) mechanical obstruction; and (6) painful affections of the anus. The author in conclusion states that it is his conviction that in a large proportion of cases constipation either originates in or is maintained by causes located in the distal 10 inches of the intestinal tract. [G.B.W.]

2.—Cobb emphasizes the following points as regards **headache being caused by nasal disease.** Headache may be and often is caused by intranasal disease and other than atrophic rhinitis, nasopharyngitis, sinus affections, and obstructive nasal conditions, and therefore an examination of a patient suffering from headache is not complete unless the condition of the nasal cavities has been investigated. [G.B.W.]

3.—Wathen discusses the value of the **infrapubic route in surgery of the uterus and its adnexa,** and advocates its use when practicable. The relatively delayed convalescence, the abdominal incision, and the danger of hernia must be accepted in a minor degree as objections to the suprapubic route in selecting that method instead of the infrapubic. [W.K.]

4.—Biggs continues his discussion of the **value of serum-treatment of infectious disease.** The results obtained in pneumonia are very doubtful. A number of cases have been treated with the serum obtained from immunized animals or convalescent human beings, and the results are apparently satisfactory, but of course the statistics are at present inadequate. Preventive inoculations for cholera, according to Haffkine, seem to prove that it is quite efficient. The same method has been employed also to produce immunism against typhoid fever with what seemed to be satisfactory, although as yet inconclusive results. Sanarelli is satisfied of the efficacy of the serum-treatment for yellow fever, and cases in which it has been used by others seem to have done well. The results with the antistreptococcic serum are so conflicting that it is impossible to reach any satisfactory conclusion. Finally, Biggs summarizes the results of his studies as follows: Leprosy and tuberculosis are apparently not affected by the serum-treatment; hydrophobia, tetanus, and diphtheria may all be prevented by immunizing inoculations, and the same is true of anthrax, and probably of the rinderpest. It is probable that immunity may be conferred against snake-venom, cholera, and bubonic plague. The work done so far in connection with typhoid fever, pneumonia, and streptococcus infection cannot be stated to be conclusive. [J.S.]

Boston Medical and Surgical Journal.

July 27, 1899. [Vol. cxli, No. 4.]

1. Not the Disease Only, but also the Man; the Shattuck Lecture. JAMES J. PUTNAM.
2. Peritonsillar Abscess. FREDERIC C. COBB.
3. A Case of Septicemia Treated with Normal Salt-Solution. CARROLL E. EDSON.

2.—Cobb summarizes the result of an examination of 44 cases of **peritonsillar abscess** as follows: (1) No causa-

tive relation could be proved to exist between rheumatism and quinsy; (2) an acute tonsilitis may sometimes infect the peritonsillar tissue; (3) a study of the pharyngo-maxillary space shows: (*a*) that its injection with wax on the cadaver produces an appearance similar to that of peritonsillar abscess; (*b*) that its distance from the surface of the palate may account for the depth of the puncture often needed in order to obtain pus; (*c*) that the cross action of the muscles covering the space seems a sufficient reason for the closure of punctures made into it; (*d*) that the supratonsillar fossa and the infratonsillar space offer the surface most free from anatomical obstruction; (*e*) that puncture anterior to a plane passing through the posterior pillars, cannot injure the great vessels if the knife be kept, at all times, anterior to such plane; (*f*) that the space is divided into two cavities by a septum formed by the styloglossus and stylopharyngeus muscles, which in most cases protects the great vessels from purulent infection. [G.B.W.]

3.—Edson reports a case of **septicemia** evidently cured by the use of normal salt injections. The septicemia seemed to have originated from a severe angina, though the secondary suppurating focus was in the lungs. The infection was probably a streptococcus invasion. Four injections of normal salt-solution were given, each injection being followed by profuse sweating and polyuria, with great improvement in all the symptoms until the patient was finally cured. Up to the time of the first injection the patient was rapidly failing and after it the recovery began. [G.B.W.]

Journal of the American Medical Association.

July 29, 1899. [Vol. xxxiii, No. 5.]

1. The Esophagus. W. J. Mayo.
2. Quinin in Malaria. Geo. Dock.
3. Quinin in Malaria. G. A. Fackler.
4. Exstrophy of the Bladder. C. A. Wheaton.
5. Exstrophy of the Bladder. Dudley P. Allen.
6. Exstrophy of the Bladder. R. Matas.
7. The Processus Vermiformis. G. G. Eitel.
8. The Uterus. H. D. Ingraham.
9. The Suspensio-Uteri Ligament. J. W. Bovée.
10. Cholecystectomy. C. Cushing.

All the above articles were abstracted in the Philadelphia Medical Journal, June 10, 1899, under Society Reports.

American Journal of the Medical Sciences.

June, 1899. [Vol. cxvii, No. 326.]

Study of Multiple Metastatic Angiosarcoma. H. V. Würdemann, S. H. Friend, and N. M. Black.

A Case of Glioma of the Lower Cervical Region of the Spinal Cord, Producing a Total Transverse Lesion, in which there was Spasticity of the Lower Limbs and Persistence of the Deep Reflexes. W. H. Hudson, Lewellys F. Barker, and Simon Flexner.

A Case of Lymphatic Leukemia Combined with Pulmonary Tuberculosis. E. R. Baldwin and J. A. Wilder.

Gastroptosis: Report of a Case in which a New Operation was Undertaken and the Patient Greatly Improved. A. Stengel and H. Beyea.

An Outline of Some of the Medical Uses of the Röntgen Light. F. H. Williams.

A Critical Summary of Recent Literature on Chronic Gastrosuccorrhea. D. L. Edsall.

.—The patient was a girl of 5 years and 7 months, under care of Würdemann. The growth had started in the per and inner angle of the left orbit and had caused exthalmus of the left eye. There was no history of trautism. The tumor was removed, the eye being allowed to main. Soon, however, it became apparent that the liver involved by metastatic growths. The child wasted away adfully, and died four months after the first operation. the autopsy an enormous tumor-growth was found in the ominal cavity; the right kidney was imbedded in a mass new tissue. The right suprarenal capsule was greatly arged and adherent to the growth. The mesenteric nds were all enlarged. The main neoplasm was covered peritoneum and continued into the liver, was lobulated, weighed 1,660 grams. It was in relation with the gallbladder, the lesser curvature of the stomach, the duodenum and the connective tissue about the aorta. A tumor was found over the left frontal eminence of the skull and on the right parietal bone. Both tumors were attached to the outer surface of the dura, having grown through the skull; the inner layer of the dura was not involved. At the anterior base the gyrus rectus, the olfactory lobe, and the inferior frontal lobe, were softened and destroyed on the left side as far as the fissure of Sylvius. A tumor was firmly attached to and involved the roof of the left orbit and the dura mater. Microscopic examination showed the tumor to be a round-cell **angiosarcoma.** Clinically, the interesting points in the case were the fairly good cerebration and absence of paralysis, despite the extensive involvement of the skull and brain-membranes. [We have recently seen a case in an adult resembling the one here reported. There was a primary tumor in the left orbit, with metastasis especially to the subcutaneous tissues and to the tissues of the left thigh. There was apparently no visceral involvement. The patient is receiving injections of erysipelas toxins. D.R.]

2.—The patient was a man of 50, who, 6 months before coming under Hudson's observation, had been thrown from a horse, striking his shoulders and neck. To that injury he attributed his symptoms, which were chiefly pain along the spine and burning in the legs and feet. The kneejerks were exaggerated and there was some swaying on standing with the eyes closed. The man grew worse under antisyphilitic treatment and disappeared from view. When seen again 6 years later, the legs were rigid and entirely paralyzed, and sensation was lost below the third rib in front and the spine of the scapula behind. Muscular atrophy had not occurred, except in the interossii of the hand, and there were no destructive trophic changes. The kneejerk was exaggerated and ankle-clonus was present. There were no rigidity or deformity of the spine. The existence of an intradural tumor was suspected, but the patient died before operation could be undertaken. At autopsy it was possible to remove only a portion of the spinal cord, from the fourth cervical to the third dorsal vertebra. The upper 5 centimeters of this consisted chiefly of a tumor reaching nearly throughout the whole lateral extent of the cord and ending above and below the 2 cone-like projections, one of these being continued downward in the form of a central stem of what appeared to be gliomatosis. This stem was surrounded by softened cord. Microscopic examination showed that the tumor formation involved nearly the whole cord, some ganglion-cells remaining chiefly in the interior horns. Most of them, however, were degenerated. The tumor consisted of a very large number of thickened bloodvessels and of fibers and cells which were round, oval, or pyriform, and appeared to radiate from the vessels. The stem of **gliomatosis** contained a large number of peculiar bodies that resembled ganglion-cells and which, according to Hudson, were for the most part bipolar cells, although some might have been degenerated blood-vessels or degenerated glia-fibers. As surgery offers the only means of relief in cases of spinal tumor, and although intermedullary tumors are incurable even by surgical means, Hudson still advises operation in case there is any doubt as to whether the tumor is within the substance of the cord or not; and in case of intramedullary tumor, operation by relieving pressure might be to a certain extent beneficial. From the appearance of the tumor and the softening cord below, there must have been a complete transverse division of the cord some time prior to the man's death. In spite of this, the reflexes were present, owing, Hudson thinks, to the fact that the lumbar cord was not affected. He refers to a case of cerebellar cyst in which the reflexes returned after evacuation of the cyst, and before the patient showed any indication of resumption of the cerebellar functions. He concludes that the cord, including the lumbar enlargement and the nerves and muscles, may be intact, and yet the reflexes may be lost; that the cerebellum may be entirely destroyed and wholly inactive functionally, and yet the reflexes may persist; that the spinal cord may be entirely severed in the upper dorsal region, and spasticity of the limbs and preservation of the reflexes may still be noted; that the rigidity of the paralyzed limbs is not due to the "unrestrained" (Bastian) or "unantagonized" (Hughlings Jackson) influence of the cerebellum passing downwards to the spinal cord; that the spinal cord is the center of the lumbar reflex and has also within itself the power of producing spasticity. Barker describes

peculiar particles seen in a tumor about the slit-like cavity in the center of the stem of gliomatosis. Some of these particles he considers blood-cells, others he looks upon as a peculiar form of degeneration first described by Rosenthal. These particles were found within the bodies of cells and consisted of collections of wax-like material. They were not affected by water and resisted the action of cold nitric acid for a long time. They stained reddish-brown with Lugol's solution and black with the Weigert-Pal method. They took the acid fuchsin with Van Gieson's stain. Barker suggests for the degeneration the term **degeneratio micans,** or **Rosenthal's degeneration.** Flexner deals with the cells composing the tumor, the bloodvessels, the relation between these and the cavities. The cells were not regularly arranged, but existed in masses, the smaller collections being about the bloodvessels. The cells were oval or nearly round, sometimes irregular or nearly pyriform, and presented one or more processes. They were separated by a delicate fibrillar intercellular substance. The cells had an interesting relation to the bloodvessels. Some of the vessels appeared enclosed by fibrils, others by cells. The fibrils were undoubtedly continuous with the cells. The bloodvessels were excessively numerous and the walls thickened and hyalin: The cavities were both preformed and the result of softening. The preformed cavities were enclosed by a layer of fibers like that around the central canal of the cord, and about this layer was a membrane lined with tall epithelium. The new formation was a tumor and evidently a glioma. The rosette-like arrangement of cells about the bloodvessels has been seen in gliomata, but not hitherto in syringomyelia. Flexner considers the tumor to be an endymal-celled glioma. He discusses briefly the theories of cavity-formation in syringomyelia. The article is illustrated with plates of remarkable beauty. [D.R.]

3.—Baldwin and Wilder report a case of **lymphatic leukemia combined with pulmonary tuberculosis.** The patient was a machinist, married, 47 years of age, with a tuberculous family-history. A companion in the engine-room who expectorated on the floor died of tuberculosis. On examination the cervical lymph-glands were found enlarged. Tubercle-bacilli were not found in the sputum. Later, the axillary and inguinal glands became swollen; the enlargement, however, subsided after a time. Two years after the first examination the apices of both lungs were dull and there was bronchocavernous breathing. The spleen was greatly enlarged and the liver projected 9 centimeters below the costal margin. The blood showed an enormous leukocytosis, the cells being chiefly lymphocytes. On one occasion the leukocytes numbered 1,113,000 to 2,924,500 reds (1 to $2\frac{3}{5}$) and three days later the relation was 1,104,000 white to 2,666,000 red, or 1 to $2\frac{2}{5}$. The urine contained neither albumin nor sugar. Oxalates were present in abundance and the uric acid was greatly increased. The patient died and the autopsy revealed enormous enlargement of the mesenteric and retroperitoneal lymph-nodes, which on section showed no sign of tuberculosis. The liver was greatly enlarged and weighed 2,720 grams. The spleen was also enlarged and weighed 900 grams. It was firm in consistence; the trabeculae were hypertrophied. The right lung contained small cavities; the left also contained a cavity and some tubercles in the upper lobe. The bronchial and mediastinal glands were enlarged, but not cheesy. On microscopic examination the liver and kidneys were found infiltrated with lymphoid cells. The splenic pulp consisted of dense masses of lymphoid cells. The Malpighian bodies were few in number, atrophied, and fibroid. The pancreas was also infiltrated with large numbers of lymphoid cells. The lymph-nodes consisted of dense masses of lymphoid cells and the trabeculae seemed almost to have disappeared. There was no fibroid change or necrosis. The lung, in addition to tuberculous lesions, showed also lymphoid infiltration. [D.R.]

4.—The patient was an unmarried woman, 25 years of age, who had been suffering from the consequences of **splanchnoptosis,** or **Glénard's disease.** The stomach, intestines, and right kidney were displaced downward. There was no other cause to explain the condition than compression of the thorax by tight clothing and relaxation of the ligaments. A nephrorrhaphy had been done in the hope of alleviating the gastric symptoms by correcting the renal displacement, but, although the operation itself was successful, the gastric symptoms persisted. The stomach was displaced far downward, the lesser curvature being ½ inch above the umbilicus, the greater reaching to a point two-thirds of the distance from the umbilicus to the pubes. Digestion was sluggish, but the gastric juice contained free hydrochloric acid. Two operations suggested themselves: one, the attachment of the stomach to the anterior wall of the abdomen, and the other that of gastroplication, or the infolding of a part of the stomach. Beyea then suggested a third operation, which seemed more practical than either of the others, and which was undertaken. It is unnecessary to give the details of the operation, which are clearly described. The procedure itself consisted in a **shortening of the stretched and attenuated gastrohepatic omentum** by means of properly placed sutures, including also the gastrophrenic ligament. The stomach was reefed into its normal position, the wound was closed, and the patient made a very good recovery from the operation. She began to gain in weight, was able to eat freely without discomfort, and was altogether much better. The authors cite the cases in the literature in which operative measures have been employed for the relief of gastroptosis. In none, however, was the operation identical with theirs, although one operator (Davis) employed a similar procedure for the relief of descent of the small intestine. [D.R.]

5.—Williams describes the advantages of the use of the **Röntgen-rays in the diagnosis of diseases of the thoracic viscera.** Thoracic aneurysm can be recognized with certainty. In emphysema, the excursion of the diaphragm is less than in health, and the latter is lower in the chest. The heart is more vertical in position than normal, and moves less between full inspiration and expiration. In marked cases the right side of the heart is larger than normal. In pleurisy with large effusions the displacement of the heart can be seen. Adhesions of the pleura without thickening would not obstruct the rays and, therefore, could not be seen in the fluoroscope, but might be suspected if the movements of the diaphragm were restricted. It may be impossible to differentiate by auscultation and percussion between pleural adhesion and pleuritic effusion. The fluoroscope usually enables the decision to be made unless the fluid is encysted. If fluid is present and is free, the diaphragm line on the affected side is obliterated. The appearances in pneumonia are very conspicuous and in addition the excursion of the diaphragm is less than normal. The **diagnosis of pulmonary tuberculosis** is not made by examination with the x-ray alone, but the fluoroscope may show the abnormal condition of the lung in two ways; the diseased portion appears darker than in health and the excursion of the diaphragm in quiet breathing is restricted on the lower side, that is, it is higher up in the chest. The dark areas seen in tuberculosis are not wholly due to consolidation and may be produced by congestion. A number of cases are then cited in which the fluoroscope was of use in diagnosis. In pneumohydrothorax, when the patient is sitting up, the fluid is seen in the fluoroscope to be level, as in a tumbler, but changes as the patient bends forward and backward. When he is gently shaken the splashing of the fluid is clearly seen, and when quiet the waves made by the heart-beat are very visible on the surface of the fluid. In pneumothorax the diaphragm on the affected side is much depressed, the movement slight, and the heart is pushed to the other side. When the body is examined from side to side during a deep inspiration, a light triangular area comes into view, the sides of which are formed respectively by a part of the heart-line, by the diaphragm-line, and by the spine, or rather what lies anterior to the spine. This triangle varies in size and shape in different individuals and also varies according to the side on which the observer stands. It is smaller when seen through the fluoroscope on the left than on the right side. The position of the heart is seen to be changed in diseases affecting the lungs, pleura, or bloodvessels, and by conditions in the abdomen pressing the diaphragm up. Warning may be given by a passive congestion or edema of the lungs of a serious condition of the heart or kidneys. The lower portions of the lungs are dark in such a case, the outlines of the diaphragm cannot be seen, and only a portion of those of the heart. In pericardial effusion the outlines of the heart may be obliterated. The size of the heart can readily be determined, even in stout and emphysematous persons for whom the ordinary methods of physical examination are unsatisfactory. [D.R.]

6.—The true nature of the condition described by Reichmann as **the continuous secretion of the gastric**

juice has long been a subject of dispute among gastrologists, and a considerable literature has accumulated, which is critically sifted by Edsall. The evidence is at present sufficient to justify the conclusion that there is, in some cases, a chronic continuous secretion of gastric juice (**gastrosuccorrhea**), and that it may be due to no organic change in the stomach discoverable clinically. Œstreich's case of hyperchlorhydria of 11 years' standing, without anatomic change in the stomach, suggests that the hypersecretion may at times be a pure neurosis. Generally, however, anatomic changes in the mucous membrane or atony, or obstruction with retention of food, ulcer, or other irritative lesion, is present. The gastrosuccorrhea is due to changes in the mucous membrane, which may be primary, and finally produce ulcer or gastrectasia; or the latter may have given rise to the excessive irritation of the glands, and this to the gastrosuccorrhea. It cannot be maintained that gastrosuccorrhea is a disease *sui generis;* it is no more so than polyuria. Bouveret and Devic have claimed that tetany, as a complication of gastric disease, occurs only in hypersecretion; but this view cannot be considered valid, as cases of tetany have been reported, with absence of hyperchloric acid. [D.R.]

Journal of Nervous and Mental Disease.

June, 1899. [Vol. xxvi, No. 6.]

1. On Certain Functional (chiefly hysteric) Conditions of the Eye, a Review with Some Personal Observations. B. Sachs.
2. Oculo-Motor Paralysis from Typhoid Fever, with a Case. G. E. de Schweinitz.
3. Transient Paralysis as an Epileptic Equivalent. J. W. McConnell.
4. A Case of Pure Physical Epilepsy. John Norman Henry.

1.—Sachs reports the case of a man, 51 years of age, who had been an alcoholic, and possibly had had luetic infection. When apparently in good health, he suddenly noticed a flash of light before his eyes, had diplopia, vertigo, and photophobia. There was no loss of consciousness, but he was considerably frightened, and when taken home was found to have double ptosis. His first wife had died with similar symptoms. Conjugate movement of the eyes to the left was imperfect; to the right, normal. There was slight convergent squint. The movements of the eyeballs were jerky, and the left external rectus paretic. The pupils reacted to accommodation, feebly to light, but the eye-grounds were normal. The only other nervous symptom was a complete left hemianesthesia with the exception of the left cornea. The sensations of touch, temperature, and muscle were not disturbed. Subsequently, the ptosis disappeared almost completely; the pupils reacted promptly to light, and double vision ceased. The improvement was attributed to a severe shock, following stumbling. Sachs regards this case as one of **functional disturbance, hysterical in nature, of the third nerves,** particularly, as in addition to the other stigmata there was slight contraction of the visual fields. He goes on to discuss other visual conditions of the eye, particularly those commonly regarded as hysterical stigmata. He believes that a **hysterical amaurosis** may exist, and even be bilateral. He reports 2 cases: the first a man who took a large dose of quinin and became suddenly amblyopic, and the other a woman, 52 years, who awoke one morning and found herself totally blind in the left eye. There was not a single stigma of hysteria. Subsequently, his blindness improved. [J.S.]

2.—De Schweinitz reports the case of a man, 22 years of age, who had had a severe attack of typhoid fever. During a relapse he suddenly developed complete right oculomotor paralysis including ptosis. Examination of the eye-grounds showed considerable congestion of the veins. In the course of some months there was slight spontaneous improvement in the levator palpebræ. Electrical treatment gradually caused the condition to improve. [J.S.]

3.—McConnell reports the case of a woman, 37 years of age, who had had **convulsions at nine months,** which were repeated for some years. They then ceased, but again occurred. These convulsive seizures were undoubtedly epileptic. In the past 2½ years she has had occasional attacks of paralysis involving the left arm and left leg, lasting for a few seconds or several minutes. Consciousness is preserved, and there is no aphasia, amnesia, or disturbance of general sensibility. A prodrome, in the form of paresthesia, causing the limbs to be paralyzed, usually occurs. When the attack is over, the patient resumes her occupation. McConnell calls attention to the similarity of these symptoms to those occurring in the family periodic paralyses. In both, the attacks are preceded by a prodromata. They usually occur in the nighttime, and consciousness is retained throughout the duration of the attacks. They are followed by headache or slight indisposition, and are considerably influenced by heredity. The electrical changes in the muscles characteristic of Goldflam's disease have not been observed. It is doubtful whether these attacks are to be considered as replacing true epilepsy or simply petit mal. [J.S.]

4.—Henry reports the case of a man, 43 years of age, who suffered from some **diseased condition of the heart and kidneys.** There was some dyspnea and slight edema. After his discharge from the hospital he had some curious attacks, which consisted essentially in a transient loss of consciousness, and during which he would wander all over the city. These attacks were preceded by a feeling of dulness and stupidity and some nausea. Consciousness was not entirely lost, because the patient would sometimes return to his home or fulfil engagements in a curiously imperfect and incoordinate manner. Usually there was complete amnesia during these seizures. On one occasion he was taken to an insane asylum for several days. During this particular attack there was complete aphasia, with the exception of two words. Treatment with potassium bromid and iodid caused prompt and apparently permanent improvement. The interesting feature of the case is the fact that various automatic actions were performed, and even conversations held during the period of unconsciousness, and it is not incredible that the patient might have committed a crime for which, of course, he would not have been responsible. [J.S.]

July, 1899. [Vol. xxvi, No. 7.]

1. Multiple Cavernous Angioma, Fibroendothelioma, Osteoma, and Hematomyelia of the Central Nervous System in a Case of Secondary Epilepsy. A. P. Ohlmacher.
2. Retardation of Pain-Sense in Locomotor Ataxia. L. J. J. Muskens.
3. Contribution to the Symptomatology of Intercranial Disease. Joseph Fraenkel.

1.—Ohlmacher's case may be looked upon rather as a pathologic museum than as an ordinary specimen. The patient, a man of 48 years, had been an epileptic for some 17 or 18 years. After admission to the hospital he developed a shuffling gait, numbness of the arms, and some loss of coordination and sensation. Later, the gait became still more imperfect, the feet and legs were dragged along the ground, and there finally developed well-marked paraplegia, followed by a monoplegia of the left arm, and a partial paralysis of the right arm. The kneejerks were exaggerated, tactile sense was almost completely abolished in the legs and arms, and in the trunk as far up as the second rib. The reflexes persisted, but a bed-sore developed, and the patient became apathetic and died. At the autopsy, the first lesion discovered was a tumor-like mass on the under surface of the dura pressing upon the right hemisphere, at the superior end of the Rolandic sulcus. This, when examined, was found to be a **fibroendothelioma.** Comparison of a portion of the cortex subjected to pressure, with the corresponding portion of the opposite side, showed no degeneration of the ganglion cells, but slight hyperplasia of the neuroglia nuclei beneath the tumor. Macroscopically, the tumor was about 2 cm. in diameter, and attached to the dura by a broad base. It was of the consistency of cartilage. Two more tumors were also discovered. One located in the anterior end of the lumbar lobe, brownish in color, and contained dark dots. The pia was densely adherent above it. A second tumor was found in the left optic thalamus, which was also dark in color, and contained minute dark dots. Microscopic examination of these tumors showed them to be **cavernous angiomas,** consisting of a network of irregular blood-

spaces communicating with one another. Around these tumors the neuroglia had undergone proliferation, forming a sort of surrounding capsule, composed of a dense network of fibers, containing "larger bodies looking like massive nuclei with an abundance of chromatin granules." In the brain-tissue, surrounding the tumor, large phagocytic cells containing more or less degenerated blood-corpuscles were also found. In the spinal cord were found several groups of changes—**a cavernous angioma,** very similar to that found in the brain, commencing between the fifth and sixth cervical posterior roots and extending downward a distance of about one centimeter. In addition, there was a large **false canal** filled with blood-clots, extending into the thoracic region. This canal occupied the dorsal portion of the cord lying slightly to the left of the median line. It was lined with endothelial cells, filled with blood clot, and in its neighborhood were found the irregular phagocytic cells already mentioned. There was a little neuroglia proliferation about this canal, but no trace whatever of gliosis. Above the tumor and the clot was degeneration in the posterior columns, and below, in the pyramidal columns. At the exit of one of the thoracic nerves there was a small worm-like white mass anchored to the dura by a stalk, that was found to consist of osseous tissue. In conclusion, Ohlmacher suggests that the case is probably one of **Jacksonian epilepsy,** the spasm beginning in the toes and feet of the right side. Nothing in the clinical history indicated the existence of the two angiomas, the clinical symptoms noted before death being referable to the tumor in the spinal cord. Neither were there any evidences, according to him, of **hematomyelia.** He calls attention to the rarity of the cavernous angiomata in the brain, and alludes to several suggestions that have been made in order to account for their occurrence. [J.S.]

2.—Muskens reports a case of **tabes dorsalis,** in which there was a zone of retardation of the pain-sense that surrounded a zone of analgesia, over the upper portion of the chest. This led him to examine the edges of the analgesic area in 31 cases. Most of the patients had difficulty in distinguishing the various sensations. Some had prompt touch-perception, and then sometime subsequently the sense of pain. This zone of retardation, which appeared to be fairly constant, varied from a millimeter to several decimeters in breadth. It was most pronounced in those regions in which the analgesia was developing, and Muskens regards it as probably an early manifestation of destructive changes in the nerve-fibers. [J.S.]

3.—Fraenkel reports **two curious cases,** the first, in a boy 7½ years of age, whose illness apparently began with sudden inability to use the right hand. Later, there was some incoordination of the right leg, then vomiting, headache, and marasmus. When examined it was found that the glands all over the body were slightly enlarged and hardened. There was some peculiarity of the teeth, paresis of the right side of the mouth, swaying with the eyes open, more pronounced when they were closed, and ataxic hemiplegic gait. There was some impairment of vision, but no hemianopsia. The right upper and lower extremities were both flaccid, and somewhat smaller than those of the opposite side. There was impairment of motor power in the right arm, and slight diminution of the electrical reactions. The tendon-jerks were much exaggerated. A curious symptom was the high-pitched percussion-note on the right side, and diminution in an expiration. The lungs were apparently normal. The patient was put on mercurial inunctions and increasing doses of potassium iodid, and improved very considerably, although 5 months later there were some paresis of the right facial, spasticity of the right side, and marked intellectual impairment. The second patient, a man of 29, in the course of pulmonary tuberculosis, suddenly developed pain and paresthesia in the left half of the face. Careful examination showed that the right facial nerve was entirely normal, the left overacted in a peculiar way, seeming to be ataxic. When the mouth was opened wide, the chin deviated toward the right side. The paresthesia was limited to the distribution of the first and second branches of the trigeminal nerve, and it was found that there was a zone of absolute anesthesia covering the forehead, left eye, and left half of the nose; an area of tactile anesthesia in the left cheek, and left half of the upper lip; the area of paresthesia involving the whole of the left side of the face. Later, the patient developed headache, vertigo, dizziness, there was typical cerebellar gait, and exaggerated knee-jerks. All these symptoms were considerably improved by vigorous specific treatment, but subsequently the man died of his pulmonary lesions. At the autopsy the brain and spinal cord were normal, with the exception of a slight thickening of the pia and arachnoid at the base, and the presence of a few miliary tubercles in this region. Fraenkel regards the first case as one of **tumor of the optic thalamus.** In the second case, the symptoms pointed to a **basilar tuberculous meningitis,** such as was found. The presence of mimic paralysis, however, is not, according to Fraenkel, necessarily pathognomonic of a thalamic lesion, for he has observed this symptom following a case of facial paralysis, due to luetic infection. However, the absence of hemianopsia and of sensory disturbances on the opposite side led him to locate the lesion in the anterior and lateral portion of the optic thalamus. [J.S.]

Deutsche medicinische Wochenschrift.

May 18, 1899. [25. Jahrg., No. 20.]

1. Experimental Treatment of Tumors. O. LANZ.
2. The Condition of Venous Congestion Caused by Insufficient Aortic Pulsations. E. GRAWITZ.
3. The Shadow of Foreign Bodies in Röntgen Skiagrams. A. WILDT.
4. Fractures of the Metatarsal Bones. SCHIPMANN.

1.—Lanz began his researches on **tumors** by impregnating the back of a man's hand with finely hashed wart particles. After an **incubation** of 1½ months small nodes began to make their appearance, and at the end of a year 12 true warts had formed over the line of inoculation. Also, repeated rubbings of a healthy finger against these warts resulted in the infection of the healthy finger. Experiments on rabbits as to the possibility of forming dermoid cysts, gave likewise positive results. In one case a piece of a colloid goiter from man was implanted into the thyroid gland of a dog, with success, in that the inserted piece of gland was not absorbed, but remained in the tissues, having the appearance of an infarct, and the animal died in about a month, from general failure of nutrition. Pieces of carcinoma from man, when implanted into dogs, at first grew, but soon began to get smaller, and finally they disappeared. Lipoma failed altogether. Fibroma was twice followed by the development of spontaneous keloid, but in one of these the keloid finally disappeared. Sarcoma gave the same results as did the carcinoma. In one case a melanosarcoma was transplanted with absolute success from man into a guineapig. Portions of the tumor from the skin, brain, liver, and spleen were ground up together and injected into the exposed spleen of the pig. The wound healed readily, but the animal died a month and a half later greatly emaciated. At the section pigmentation was found profusely over various portions of the guineapig's body. Such profuse pigmentation could not have resulted from the spreading of the original injection-mass to various portions of the body alone, but must have been due to a new formation of pigment. [G.B.W.]

2.—It is of course generally believed that the evidences of **venous stagnation** occur with diseases of the aortic valves only when the left ventricle has been so overstretched as to give rise to mitral regurgitation or the wall of the heart has failed. The case reported by Grawitz is of much interest. The woman, 44 years old, was very anemic and much emaciated. She had a loud diastolic murmur over the aortic region, and the general signs of aortic insufficiency. She complained of much oppression and pain in the abdomen, and this was soon found to be due to marked enlargement of the liver. There were no signs of venous stagnation elsewhere. The lungs were free from catarrhal signs, and there were none of the so-called heart-disease cells in the sputum. The second pulmonary sound was not accentuated. There was no swelling of the veins, and no edema of the subcutaneous tissues of the head or extremities. It was suspected that the enlargement of the liver and the lesser enlargement of the spleen might be due to a new growth, but the postmortem examination showed that it was purely passive congestion, and this was explained by the condition of the heart. There was marked insufficiency of the aortic valves, and the wall of the left ventricle was very much

thickened, especially in the horizontal diameter, as is customarily the case. This caused the interventricular septum to project into the right ventricle and pressed the right heart to the right. There was especial compression upon the inferior vena cava in such manner as to shut off a considerable portion of the return blood from the liver. It had caused no edema of the lower extremities because there had been a sufficient collateral circulation established through the azygos vein. The heart was considerably enlarged laterally upon clinical examination, and Grawitz thinks that it would be of much importance in all similar cases when the nature of the enlargement of the liver is in doubt to determine carefully the lateral extent of the cardiac dulness, and to aid the examination by the use of the x-rays. An enlargement to the right would of course speak for passive congestion as the cause of the hepatic enlargement. [D.L.E.]

4.—In this case the **fracture of the metatarsal** took place while the patient was walking quietly along an even street. He suddenly felt a sharp pain in the foot, and was unable to walk without the greatest pain. The diagnosis of fracture was not made until the callus formed, and it was then verified by the Röntgen-rays. Although the radiograph was not taken until 5 or 6 weeks after the accident, the fracture-line could be plainly seen, and also that the bones otherwise were perfectly normal. [G.B.W.]

May 25, 1899. [25. Jahrg., No. 21.]

1. Consumption of the Lungs and Tuberculosis. Baumler.
2. Concerning Tuberculosis in the Army. Schjerning.
3. Historical Comments upon Contagion; Susceptibility to Consumption. J. Hirschberg.
4. The Medicinal Treatment of Tuberculosis. H. Schulz.
5. Koch's Treatment of Tuberculosis. Krause.
6. The Question of Infection Through Milk of Tuberculous Cows. Also upon the Value of Vaccination. Lydia Rabinowitsch.
7. The Structural Formation of the Tonsils Frequently Favoring the Entrance for Tubercle-bacillus. v. Scheibner.

2.—Schjerning states that the **morbidity from tuberculosis in the German army** is extremely low. With a force of 514,830 men in the past year there were only 950 who showed tuberculosis. The number of deaths per thousand from this disease has been decreasing markedly, that is, from .42 per thousand in 1892, to .24 per thousand in 1897, and careful study developed the fact that the most of the cases occurred in certain army-corps, which was composed chiefly of those coming from large cities or densely populated areas, and this indicated that most of the cases had probably existed in mild degree before the men entered the army. Many of them are believed to have acquired tuberculosis after entering the army by visiting tuberculous relatives and through their occupation; as for instance musicians are frequently engaged to play in dance-halls, where the opportunities for infection are unusually good. It is notable that many other infectious diseases, particularly typhoid fever, when occurring in the German Army, have usually been traced to a source of infection outside of army control, such as drinking water while passing through towns when on the march, and the author believes that much of the tuberculosis of the army is contracted in the same way. [D.L.E.]

4.—Is an account of the various substances that have been used from time to time, in the treatment of tuberculosis, and have been reputed to have power in controling this disease. [D.L.E.]

5.—Krause has treated 41 cases with **tuberculin,** 30 of which were uncomplicated cases, while 11 showed mixed infection. The general voice of the profession speaks so emphatically against any expectation of brilliant results from this treatment that the success which Krause claims must awaken some skepticism. There were 12 patients which he considered practically cured, temporarily at least, all of them being in the early stages; but the author honestly states that in none of these cases were tubercle-bacilli found, attributing this to the fact that examination of the sputum was undertaken but once. He notes especially the euphoria that followed the injections. The earliest injections are likely to cause considerable pain and some distress, but if this does not disappear after a few repetitions he ceases the use of the tuberculin. Curiously enough, he considers TR more dangerous than the old tuberculin. [D.L.E.]

6.—Rabinowitsch has made investigations to determine the following points: Does the milk of cattle who have beginning tuberculosis, but no tuberculosis of the udder, contain tubercle-bacilli? and are these to be found in the milk of cattle who have a tuberculosis which is latent and shown only by reaction to tuberculin? Fifteen cows that reacted to tuberculin were examined. The centrifugated milk was examined and in 10 cases (66.6%) there was a positive result. Only one cow had clinical tuberculosis of the udder, while in one other this was evident histologically. Three cows had advanced general tuberculosis without disease of the udder; one had a very slight grade of the disease; another had such slight evidences that it required several examinations to disclose it, and 2 others except for the **tuberculin test** showed no signs of the disease. Rabinowitsch decides that milk does contain tubercle-bacilli in beginning tuberculosis even when disclosed only by the tuberculin-reaction. [D.L.E.]

7.—The question was investigated by making careful examinations of the tonsils removed by operation, and of others taken from the bodies of the dead. As a result the author states that of 32 tonsils histologically examined, or, when including those obtained by operation, of 60 instances, only 4 showed with any probability a primary tuberculosis. One of these was undoubtedly an infection from food, while the other 3 were certainly aspiration tuberculosis. In other words, 5% of the cases examined showed **aspiration tuberculosis of the tonsils.** The injection into guinea-pigs of extracts of the tonsils recently removed by operation from 42 individuals gave in every instance negative result, but many of the animals died soon after injection, probably as a result of some infection of their cages, which caused an epidemic, so that this series of experiments was not entirely satisfactory. The author expresses his intention of making similar examinations in some resort for tuberculous subjects where many such individuals are herded together, and the possibilities for infection are much greater. [D.L.E.]

Centralblatt für Gynäkologie.

May 20, 1899. [23. Jahrg., No. 20.]

1. Vesical Papilloma in Woman. Heinrich Futh.
2. Another Case of Vesical Papilloma. M. Graefe.
3. The Lever-clamp of Thumim. Alexander Orlow.
4. A Case of Malposition of the Left Kidney Combined with a Unicorn Uterus. M. Frank.

1.—Futh reports a case of **vesical papilloma** which ended fatally after long treatment. The patient was first seen May, 1892, a woman, aged 49 years, who had borne 11 children without any artificial aid. Two years previous she had passed her menopause. For 9 months she had frequently suffered pain on passing urine which was mixed with blood. The bleeding was slight at first, but the patient grew rapidly worse. Examination per vaginam suggested a concretion in the bladder, which diagnosis was verified by passing a sound. The vesicovaginal septum was edematous, with great susceptibility to pressure. Under anesthesia the urethra was dilated by Simon's method, but owing to the narrowness of the opening an incision was necessary. A tumor as large as an apple, on a long pedicle, was found and removed. The patient, during convalescence, had catarrh of the bladder which was controled by injecting solutions of nitrate of silver. She left the clinic, after 16 days, in good condition, but returned 2 years later, suffering pain on micturition, urine bloody and strongly alkaline, with a fetid odor. A second tumor was removed by colpocystotomy. The operation was followed by vesicovaginal fistula, which was sutured 2 months later. June, 1895, 13 months afterward, the old symptoms brought her once more to the clinic, when rows of small papilloma were found in different parts of the bladder. The colpocystotomy was again followed by a fistula, which was operated upon a month later. In November, 1895, severe bleeding indicated return of the trouble, and the rows of papilloma were removed by crushing after dilatation of the urethra. At intervals of a few months this operation was several times repeated, small masses of tissue being removed each time. In May, 1898, a papilloma as large as a cherry was taken from the mouth of the urethra. Finally, in February, 1899, the patient, having suffered in the interval from severe bleeding and vesical catarrh, was again operated upon

and 2 handfuls of papillary masses removed by crushing. Two days later, without rise of temperature, she lost strength rapidly, and toward evening died. The postmortem examination revealed a poor, weak heart, with great anemia of the interior organs as the immediate cause of death. In speaking of the treatment of new growths of the bladder, Futh cites the case of Professor Pawlik, in which total extirpation of the bladder was performed for carcinoma by first suturing the ureters to the vagina, and then completing the operation through the vaginal opening. The case had come under his observation, and he reports that after nearly 10 years there had been no recurrence. [W.K.]

2.—Graefe reports another case of **vesical papilloma** similar to that of Futh, upon which he operated twice. Two years after the first operation the patient was delivered of a large male child. She made good recoveries from both operations and has not returned since the second one. [W.K.]

3.—Orlow reports 4 cases operated upon with the new **lever-clamp of Thumim.** Two of the cases were entirely successful and made uninterrupted recoveries. In the other two there was severe bleeding of the uterine artery and it was necessary in both instances to use permanent clamps to staunch the flow. [W.K.]

4.—Frank describes the case of a woman, 36 years old, with the left **kidney misplaced** so that it was immediately under the middle line and behind the upper edge of a retroverted uterus which was found to have a unicorn deformity. The kidney was sutured in place with catgut sutures, the uterus was ventrofixed by the Czerny-Leopold method, and the patient made a good recovery. [W.K.]

May 27, 1899. [23. Jahrg., No. 21.]

1. Reports of the Transactions of the Eighth Convention of the German Gynecological Society in Berlin, from the 24th to the 27th of May, 1899. COURANT.
2. Streptococci Present in the Vaginal Secretions of Healthy Women during Pregnancy and Delivery. ALFRED GOENNER.
3. A Clamp with Safety-Lock. P. BRÖSE.
4. Remarks Against Thumim's Clamp. SCHWARZE.

1.—Courant gives a full report of the papers and discussions of the Berlin convention of German gynecologists, the chief subjects under consideration being: treatment of myomata, puerperal fever, late results after castration on account of myomata, on castration and growth of bone, lipomyoma of the uterus, mechanism and treatment of the third period of birth, Zestocausis, curetment, pelvic measurements, Wolff's and Müller's ducts, etc. This report is continued through Nos. 22 and 23 of the *Centralblatt.* [W.K.]

2.—Goenner, after mentioning a series of experiments made by himself in 1887, in which he found no signs of streptococci in the vaginal **secretions of healthy women during pregnancy** and delivery, reports a series of 100 cases made during the last few months. In 5 of these cases he found cocci arranged in chains which he seems to think were not identical with the true streptococci of puerperal fever. Staphylococci were found in numerous cases. [W.K.]

June 3 and 10, 1899. [23. Jahrg., Nos. 22 and 23.]

These numbers are devoted to the continuation and conclusion of the report of the Berlin Convention of the German Gynecological Society.

June 17, 1899. [23. Jahrg., No. 24.]

1. Echinococcus of the Pelvic Connective Tissue and of the Liver. R. CHORBAK.
2. On Operating with Fehling's Cranioclast. HUGO HÜBL.
3. An Answer to the Article, "Another Word on the Cranioclast Question," in No. 8 of this Journal, by T. H. Schroeder. R. VON BRAUN-FERNWALD.

1.—Chorbak reports a remarkable case of **echinococcus cysts** of the pelvic connective tissue and of the liver, the first of the kind that he had seen in 30 years. After tapping and the extirpation of the cysts, which were in intimate relation with the uterus, and a secondary breaking up of the adhesions around the pylorus, the woman recovered. [W.K.]

June 24, 1899. [23. Jahrg., No. 25.]

1. Symphysiotomy in the German Hospitals. G. LEOPOLD.
2. Pericystitis in Puerperio. GUSTAV KOLISCHER.
3. On Diagnosis and Treatment of Abnormal Position of the Extremities in Face Presentation. OTTO TH. LINDENTHAL.
4. Prolapse of the Uterus during Pregnancy and Labor. OSCAR BERNHARD.

1. An answer to criticisms of German methods by Surdi, in *Arch. di ost. e gin. 1899.*

2. Kolischer describes the etiology, symptoms, and treatment of a disease which is very little known. The causes of the disease are **prolonged labor** in which the child's head has pressed for a long time on the bones of the pelvis, delay in emptying the bladder after labor, the use of the forceps in difficult labor, the necessity of straining in urination, and frequent catheterization. Very often a chill ushers in the fever. The lochia have no offensive odor, and other signs show that it is not a puerperal septic process. Bimanual examination shows the anterior half of the pelvis filled with a flat tumor whose borders cannot be distinguished from those of the uterus. The tumor lies close to the anterior abdominal wall and is sensitive on its anterior surface. The parametria are found to be soft and normal. When it is possible to isolate the uterus, it is found to be easily movable. The examination of the bladder reveals its capacity greatly lessened, and the whole organ is drawn out as the sound shows. On filling the bladder with water the process is easy until suddenly a decided resistance is met with, caused by the thick infiltration of the bladder-wall. The tumor does not become smaller upon emptying the bladder; residual urine is always present after spontaneous micturition. Cystoscopic examination shows that the end of the cystoscope is with difficulty raised to an upright position, and that the bladder is narrowed in its anterio-posterior diameter. The triganum and the posterior wall are normal, the mucous membrane of the anterior wall is edematous and shows ecchymosis, a condition which Kolischer regards as characteristic of pericystitis. Elema is also present around the tuberculum urethrae, and toward the clitoris, as well as on the mons veneris. Kolischer thinks that the immediate cause of the disease is traumatic hemorrhages into the perivesicular tissue, which results in an inflammatory infarction. The disease is sometimes combined with puerperal parametric cellulitis. The treatment consists in ichthyol suppositories for the pain and hot cataplasms with hot injections into the bladder. [W.K.]

3. Lindenthal reports 3 cases of Milne Murray, Ehrendorfer, and Peters, and 4 cases of his own in which the **upper extremities were thrown backward on the back of the child.** As principal points of diagnosis he gives the abnormal presentation of the head, the presence of great resistance, the extremities and the heart-sounds on the same side, the lordotic position of the child, and the presence of the extremities on the side of the least resistance. As treatment, Lindenthal objects to the methods of Baudenloque or Schatz, or the combined method of Thorn, believing that they should be preceded by the bringing down of the arms onto the breast, and the manual correction of the face presentation. He recommends version as the simpler method when interference is necessary. [W.K.]

4. Bernhard reports a case of premature labor in the 8th month with prolapse of the uterus during pregnancy and labor. [W.K.]

Neurologisches Centralblatt.

June 15, 1899. [18. Jahrg., No. 12.]

1. Acute Cerebral Ataxia. M. DINKLER.
2. The Explanation Desired by Lenhossék. A. BETHE.

1.—Dinkler reports a case of **acute cerebral ataxia** in a man who, at the age of 28, suddenly was attacked by a severe chill, followed by loss of consciousness, severe delirium, and intense pain in the left shoulder, which felt as if the left arm were being amputated. At the end of three days, consciousness returned, without recollection of anything that had occurred during the delirious state, excepting the pain in the shoulder. During the period of unconsciousness, deglutition was disturbed, but the bladder and rectum functioned

normally. Immediately thereafter, severe disturbance of motility was observed. No coordinated movement could be performed. It was impossible for the patient to sit or stand alone; speech was much impaired, and the patient had difficulty in pronouncing familiar words, and prolonged effort caused rapidity of respiration and finally some dyspnea. No paralysis could be detected. Upon any attempt at movement, there was pronounced intention tremor of an irregular ataxic type. Nystagmus was not present. The gait was rather atypical; the limbs were kept far apart, and thrown somewhat to the side in taking a step. Tactile, localization, temperature, and pain sensations were normal, but muscular sense, that is, the knowledge of the position of the limbs, was considerably altered. There was a peculiar tremor of the head that did not appear as distinctly atactic as the other changes. Improvement gradually occurred, and at the present time the patient is able to walk supported by a stick. Speech can be best explained by assuming a disturbance of the coordination of the muscles of the uvula. It is difficult to understand the cause of the attack of pain in the left shoulder; possibly it was of central origin or perhaps was an actual infection of the shoulder joint. The primary attack was unquestionably infectious, but it is impossible to say of what nature. The lesions evidently affected the cerebral hemispheres; the only other possible situation, the medulla, not being likely to give rise to a prolonged delirium. A few cases of this nature have been described particularly by Westphal and Leyden. [J.S.]

2.—Bethe, in reply to Lenhossék's criticism of his previous article on the **neuro-fibrils,** replies that in the invertebrata, the primitive fibrilla pass out of the ganglion cells and into a network which he calls neuropil. From this neuropil new fibers can be seen originating, that probably enter from the ganglion cells, although this point has not apparently been demonstrated. In no case can a primitive fibril be seen to end in the neuropil. In conclusion, he practically admits that the neuro fibril theory is not yet based upon exact observation, by contending that good things require time for their proving. [J.S.]

July 1, 1899. [18. Jahrg., No. 13.]

1. The Weight of the Heaviest Brain Hitherto Described. G. C. van Walsem.
2. The Significance of the Toe-reflex. M. Cohn.
3. Observations upon the Toe-reflex. L. Schüler.

1.—The brain was obtained from an epileptic idiot, 21 years of age. The neuropathic heredity was strongly pronounced, and two brothers had been **macrocephalics** and had died in infancy. Intelligence was very slightly developed, he was unable to recognize any person excepting his immediate family, and could only speak a few words. Sight and hearing were apparently normal. The body was small (1.4 meters). The muscles were well developed. The gait was spastic and the tendon-reflexes exaggerated. Death occurred as a result of an epileptic convulsion. In the fresh state, the brain weighed 2,850 gm. (90 ounces). After being hardened in Müller's fluid the weights of the various parts were: Right hemisphere, 1,170 gm.; left hemisphere, 1,160 gm.; cerebellum, 326 gm.; basal portion, 310 gm. The greatest length was 23 cm.; breadth, 16½ cm. There was no distinct pathologic alteration either macroscopically or microscopically. The ganglion cells were rather further apart than normal and the pyramidal cells fewer. The tangential layer showed a distinct areolar structure. [J S.]

2.—The **toe-reflex** described by Babinsky consists essentially of plantar flexion of the toes when the sole of the foot is slightly stimulated. In disease of the pyramidal columns Babinsky observed that this was invariably replaced by distinct dorsal extension of the toes. It is necessary in testing this reflex to keep the leg immobilized. In normal persons Cohn's results were as follows: Flexion of the toes in 60%, extension of the toes in 20%, absence of the reflex in 10%; in children, contrary to the experience of Babinsky, the reflex did not occur. In 2 cases of amyotrophic lateral sclerosis, and in 2 of spastic paralysis, the reflex was distinct. In one case of spastic paralysis there was flexion of the second to the fifth toes and extension of the great toes. In the majority of cases of recent apoplexy extension occurred; in 2 cases of brain tumor it was also present; in locomotor ataxia and in polyneuritis the reflex does not occur; in cases of meningitis with hyperesthesia, there was prompt flexion. In 40% of neurasthenics examined the reflex was absent. According to Babinsky's theory the skin reflex takes place through the brain and not through the spinal cord. This fails, however, to explain why the reflex should be exaggerated in cases of disease of the lateral columns. [J.S.]

3.—Schüler has examined the material in Senator's clinic with reference to the **toe-reflex.** In normal men he found flexion in 80%, extension in 8%, no reflex in 10%, indistinct reflex in 2%. In women, flexion in 80%, extension in 4%, no reflex in 10%, indistinct reflex in 6%. In children, flexion in 30%, extension in 12%, no reflex in 40%, and indefinite reflex in 18%. Nearly all cases less than one year of age gave no reflex. In one case of hysteria and 4 of locomotor ataxia no reflex occurred. In 8 cases of disease of the pyramidal columns extension was prompt and distinct. The condition of the skin of the sole of the foot does not appear to be of influence, the reflex occurring as readily in cases of thickening as when the skin is tender. [J.S.]

Sundry French Journals.

1. Some Considerations Concerning Cantharidal Blisters, from the Point of View of Their Action Upon the Kidney of Tuberculous Patients. E. Micheleau. (*Arch. Clin. de Bordeaux,* December 18, 1898. 7me Année, No. 12.)
2. A Tumor at the Base of the Brain. E. Raymond. (*Sém. Méd.,* March 1, 1899. 19me Année, No. 9.)
3. Deformity of the Feet With Arrest of Development of Cicatricial Origin. Hallopeau. (*Sém. Méd.,* March 1, 1899. 19me Année, No. 9.)
4. Infantile Scurvy. Netter. (*Sém. Méd.,* February 22, 1899. 19me Année, No. 8.)
5. Arteriovenous Aneurysm of the Left Posterior Tibial Artery. Damas. (*Gaz. Heb. de Méd. et de Chirur.,* March 2, 1899. 46me Année, No. 18.)
6. A Case of Acute Osteomyelitis of the Temporal Bone Following Influenza. E J. Moure. (*Rev. Heb. de Laryngol. d'Otol. et de Rhinol,* March 18, 1899. 29me Année, No. 11.)

1.—Micheleau has studied the subject of **the use of cantharidal blisters from the point of view of their action on the kidney of tuberculous subjects.** As a result of his investigations, he concludes that when a case comes to a physician and he considers it necessary to apply a blister, he ought to decide to use cantharides only after an examination of the urine. If the result of the urinalysis is unfavorable, this substance should not be employed. [J M.S.]

2.—Raymond reports the case of a boy, aged 17 years, a carpenter by trade, whose father was addicted to the use of alcohol, and whose mother had convulsive attacks during his childhood. The patient was born at term; commenced to walk at the age of 11 months; at 18 months he began to talk; his childhood passed without disease; he has had neither mumps nor disease of the eyes or ears; and in school he has always been known as a good pupil. Toward the age of 5 the patient was subject to an attack of spontaneous somnambulism; at the age of 12 years he had an attack of bronchitis that was thought to be tuberculous. Following that, he had headache, sometimes indefinitely localized from the temples to the neck. These attacks of cephalalgia were not accompanied by vomiting. At the age of 14 he entered his apprenticeship, and contracted the habit of drinking two or three glasses of wine between meals, but he used no other form of alcohol. Early in his apprenticeship he had several attacks of syncope; and at the same time his mother noticed that his memory was less clear, and that he was less vivacious. Two years ago the boy was planing the edge of a board, when, on closing the left eye he noticed that he was not able to see with the right eye. He also remembered that he had several times run into people and lamp-posts on the street. His clumsiness increased, the headache became more intense and at the same time localized itself principally in the occipital region, and felt as though the patient was being struck in this region with a fist. At times the pain was localized in the right eye and again in the occipital region, and the suffering was so intense that he was obliged to stop work and go to bed. Attacks of spontaneous vomiting and true crises of syncope occurred. The patient presented very evident signs

of degeneration; such as facial asymmetry, shown when laughing, incomplete development of the genital organs, certain deformities of the cranium, and an infantile appearance of the body. Furthermore, the right eye was mydriatic, and the light reflex on the same side was abolished. There was slight external divergence of the right eye, absolute blindness in the right eye associated with left hemiopia, complete loss of the sense of smell on the right side, some interference with the gait that showed itself in a tendency for the patient to incline toward the left side, a slight degree of spinal tremor, and exaggeration of the tendon reflexes. A diagnosis of **tumor at the base of the brain** was made. It was supposed that the bulk of this tumor was situated in the right hemisphere, a little in front of the optic commissure, but that it invaded the left hemisphere in such a manner as to compress the internal segment of the left optic nerve, the entire trunk of the right optic nerve, the right olfactory tract, the base of the right cerebral crus, and the filaments of the oculomotor nerve that supplied the iris and the right internal rectus muscle. It was also supposed that the tumor was either tuberculous or syphilitic. The patient died from septicemia due to ulcerative stomatitis and abscess of the parotid gland. The autopsy showed a tumor at the base of the brain that occupied the right half of the interpeduncular space. It was situated immediately behind the optic commissure that was pushed aside but not destroyed. It had involved the right but had not injured the left optic tract; the right olfactory nerve was destroyed at the point at which it emerged from the gray cortex. The tumor was a variety of cystic endothelioma that had developed at the expense of the membranes of the middle fossa of the skull. [J.M.S.]

3.—At the meeting of the Académié de Médecine, held February 28, 1899, Hallopeau presented a woman, aged 46 years, who was under treatment for an ulcer of the inner surface of the right foot. Examination of the feet revealed a remarkable deformity that followed a burn that had been sustained when the patient was 8 months old. The patient began to walk at the age of 1½ years, and she remembers that her feet were always covered with scars. The feet are atrophied and at the same time deformed. The great toe of the left foot is forcibly flexed beneath the first metatarsal bone; the nail only of this toe is visible on the plantar surface of the tarsometatarsal articulation. The entire foot is covered by cicatricial tissue, so that only the extremities of the three middle metatarsal bones are visible. These cicatrices extend all the way up the leg to the popliteal fold. In the right foot the great toe has disappeared in the cicatricial tissue, the other four toes are visible but they are deflected and much atrophied; the nails are present and that of the great toe occupies a position similar to that of the great toe of the left foot. On this side the cicatrices also extend to the popliteal fold. A description of the radiographic appearance is given. These changes are evidently due to the **contraction of the cicatricial tissue** that has caused an arrest of the development of the bones of the foot. [J.M.S.]

4.—In the adult scurvy seems to be due to the absence of fresh vegetables from the diet. Normally, fresh vegetables play no part in the diet of infants. This contrast has drawn the attention of all authors who have studied **infantile scurvy.** The disease in question is observed usually in babies of from 7 to 11 months of age. Exceptionally, it begins before four months, and in certain cases it does not show itself until 18 months or later. It is more rare in hospital practice than in city practice; it habitually attacks children who have previously been well and who become very irritable, so that the least touch produces cries. The patients are pale, the stools become soft, and there is pain in the legs. Given a symptomatology such as has just been described and errors in diagnosis are the rule; the beginning of rachitis or of rheumatism are the conditions first thought of. As the disease progresses, however, the symptoms increase in severity, and then edema develops; the child becomes anemic and lesions of the mucous membranes of the mouth appear that are of great importance in diagnosis. The gums become purplish, livid, swollen, spongy, and bleed easily. As the disease advances still farther, ulcerations with fetid discharges appear. These lesions of the gums occur even when the teeth have not erupted. Very frequently periosteal and cutaneous hemorrhages are seen. Ecchymosis of the eyelid is very common; hemorrhages from the mucous membrane occur in the following order of frequency: mouth, nose, intestine, stomach. Fever is usually moderate. There are cases of infantile scorbutus that are characterized exclusively by hematuria. If the child is not properly treated the disease presents a progressive course; all the symptoms increase and death may occur from subdural or visceral hemorrhages, from wasting, from diarrhea, or from pneumonia. On the other hand, if the child is submitted to the proper antiscorbutic treatment, cure follows with remarkable rapidity. There is probably neither intimate association nor causal relation between scorbutus and rachitis. In the normal diet of young children a food endowed with antiscorbutic power, milk is found. If this article of food is not fresh infantile scorbutus is likely to develop; while, on the other hand, the child fed with fresh milk will not contract scorbutus. Among the poorer classes the child is often deprived of milk from a very early age; he eats at the table with his parents and receives nothing but bread and soup. This deficient diet brings on a number of gastrointestinal accidents and is a very important cause of rachitis. However, these children are not suffering from scorbutus because they receive antiscorbutic food, potato soup, for example. It is important to remember that infantile scorbutus may appear in children nourished with sterilized milk only, and it seems as though the boiling or prolonged cooking of milk deprived it of its antiscorbutic properties. Milk, therefore, to prevent the appearance of this disease, should be fresh. Netter quotes extensively from the report of the American Pediatric Society's collective investigation on infantile scurvy in North America. [J.M.S.]

5.—Damas reports the case of a man, aged 24 years, who requested operation for the relief or cure of large varicose veins. The man presented superficial varices on the left calf that were of large size. They were very uncomfortable and were painful during the time that the patient was on his feet. Five or 6 cm. of the long saphenous vein were resected, under cocain-anesthesia, a little below the point at which it emptied into the femoral vein. While the patient was being operated upon, he said that four years before he had been kicked on the left calf by an ox. The traumatism had produced a wound 4 or 5 cm. deep that bled freely. Since that accident he has had pain, deeply situated in the calf, and has noticed that he was easily fatigued, a fact that he attributed to the development of the varicose veins. A careful examination was then made of the calf, and under the cicatrix of the old wound, that was about as big as a 50-cent piece, a strong systolic bruit was felt. Deeper palpation revealed a soft tumor, compressible and reducible, about as big as a hen's egg. It seemed to have 2 lobes: the anterior and more superficial lobe was attached by a large pedicle to the posterior lobe. The tumor pulsated; the thrill was perceptible throughout the entire calf, which, when held in the hand, was found to be the seat of a marked expansion with each arterial pulsation. The diagnosis of **arteriovenous aneurysm of the posterior tibial artery** was made. The tumor was removed and the patient was discharged perfectly cured. [J.M.S.]

6.—Moure reports the case of a female patient, 32 years of age, who was admitted to the hospital presenting symptoms of grave meningitis that had begun 5 days before. On examination, the right mastoid process was found to be swollen, and pressure in the neighborhood of this portion of the temporal bone produced sharp pain; there was no change in the color of the skin nor edema of the tissues. Examination of the external auditory canal was negative. An incision was made over the mastoid process and several drops of pus were evacuated from the spongy tissue of the bone. When the antrum was opened it was found that the bone was necrosed, and that communication had been established between the middle ear and the meninges. The internal table of the mastoid portion of the temporal bone, in relation with the lateral sinus, was healthy. After careful curetment and the application of a 10% solution of zinc chlorid to the diseased bone, drainage was established and the wound dressed. Three days later the wound was redressed and found to be in a healthy condition. A month after the operation the patient was discharged from the hospital, cured. The condition was thought to be one of **acute osteomyelitis of the temporal bone following influenza.** The infection was thought to have reached the middle ear from the pharynx through the eustachian tube, and thence had passed to the mastoid cells. [J.M.S.]

Original Articles.

A SKETCH OF THE CENTURY'S PROGRESS IN MEDICINE AND SURGERY.[1]

Address of the President of the British Medical Association.

By J. WARD COUSINS, M.D., F.R.C.S.,
Senior Surgeon to the Royal Portsmouth Hospital.

We meet to inaugurate the 67th annual meeting of the British Medical Association. Kindly go back with me to the dawn of the present century, and take a hasty survey of the general condition of medical science at that period. It was a time when gradual development was proceeding, and experimental inquiry was entering upon a new epoch. The great characteristic of the period was the growing influence of new methods of research, and the declining power of theoretical speculation and abstract reasoning. The English school had been aroused by the brilliant researches of John Hunter, and the results of his extraordinary industry and patient study had made a marked impression. He died in 1793, but his labors had given a great impulse to the study of anatomy and pathology—an impulse which grew stronger and stronger in the early years of the century, and now at its close his name is held in admiration by surgeons throughout the civilized world, and his teachings are recognized as the foundation to-day of British surgery.

We must not forget that at this time Scotland had aided in the evolution of the healing art, and that the medical faculty of Edinburgh had been elevated into a condition of prosperity by the labors of many famous men. The northern university enjoyed a position of prosperity promoted by the influence of its distinguished professors of medicine, James Gregory and Cullen. The fame of Cullen extended far beyond the British Islands. His soundness of judgment and clearness of expression made him preeminently a leader in his day, and by the wisdom of his writings and the ingenuity of his system of therapeutics, as derived from his physiology, he captivated the medical mind of Europe. In 1828 John Abercrombie published his famous work on the diseases of the brain and spinal cord. Ireland, too, helped in the progress of our science by the work and genius of men of great distinction. Robert Graves was an eminent clinical teacher and expounder of the phenomena of disease. William Stokes will ever be renowned for his researches and writings on diseases of the heart and chest.

At this period British medicine was powerfully influenced by the French school. An intellectual awakening followed the Revolution in France, and medical science was roused by the researches of Bichat in anatomy and physiology. Soon after the medical world was startled by the new methods of physical diagnosis introduced by Laennec, and the result of his discoveries was a revolution in the knowledge of chest-diseases. About 1815 the Continent was again open to travellers, and many English doctors went to Paris to study the new method of auscultation, and the value of the stethoscope soon became widely appreciated in this country. Chemistry was early in the century recognized as an important branch of medical science, and the combination of medical research with the study of physiology led to many important discoveries. In 1840 Bright described the disease of the kidney, which is still known by his name; and not long after Bell and Marshall Hall made it possible by their labors to discriminate diseases of the spinal cord.

In the early years of the nineteenth century we can trace the birth of the modern school of medicine, and also the silent influence of many collateral sciences which helped forward its development. At this time the steam engine was rapidly making progress, telegraphy was advancing towards completion, and machinery began to take the place of labor. Science thus began to throw broadcast her precious gifts, and on every side social freedom and education were improving the condition of the people. Doctors, too, began to mend their ways, and to leave undone many things long associated with the strange reasonings of the age. They found that the blood, after all, was not so full of acrimony, that the veins were not so gorged, and the stomach not so foul; and so their drastic remedies were not so strong, and the lancet was not so trusted, and thus the unhappy invalids became slowly liberated from the dreadful tyranny of nauseous drugs.

Edward Jenner.

Let me remind you that the first years of the century were marked by the rapid and complete triumph of vaccination. Jenner made known to John Hunter his confidence in vaccination in 1770, but it was not until 30 years after this that he published anything about it; this was a long period for quiet labor and research. His first treatise appeared about 1799 or 1800, but it contains no reference to the obstructions and discouragements he had encountered. In 1802 the question of vaccination as a preventive remedy for smallpox was brought before Parliament and was referred to a committee. The report was presented to the House on June 2, and after a hot discussion the discoverer of vaccination was voted a grant of £4,000, and this sum was increased by another and larger sum a short time after.

The new method spread rapidly over England, then to Germany, France, Italy, America, and the whole civilized world. It is a well-known fact, however, that this remarkable acceptance of vaccination at this time was due to the efforts of public-spirited men rather than to the members of the medical profession. Many of the doctors of that day considered the practice as medical quackery, and even charged the vaccinators with flying in the face of heaven. Some opponents went so far as to denounce the innovation as the veritable Antichrist which was to come in the latter days. Even the Royal College of Physicians shook its venerable head; yet at this period smallpox was a frightful scourge. History tells us that almost throughout the eighteenth century nearly every human being suffered from the disease, and that the mortality from the foul disorder was often appalling.

Jenner died in 1823, still doing battle with the foes of progress, and in the hour of victory. We can now look back upon the experience of 100 years and accurately estimate the value of his great discovery. Since the introduction of vaccination there has been a steady diminution in the death-rate caused by smallpox. During recent years the disease has been almost exterminated by infant vaccination and revaccination in the later periods of life. Among all classes, and in every country where vaccination is practised, there is very little smallpox. Wherever an outbreak has occurred, the unvaccinated are attacked in much greater proportion than the vaccinated; and the mortality among the unprotected is much higher than among those who have submitted to this safe and protective remedy.

The recent modification of the vaccination-laws is regarded

[1] Delivered at the 67th annual meeting of the British Medical Association, held at Portsmouth, England, August 1, 2, 3, and 4, 1899, and published synchronously with the *British Medical Journal*, through the courtesy of the Editor.

almost universally as a very unsafe and retrograde change, and there is reason to fear that sooner or later there may be another outbreak of the disease. It is difficult to realize, with all the accumulated evidence of a century, gathered from all the great European countries and the centers of America, that we as a profession should have to do combat with such dangerous legislation. The steady progress of protective medicine, the remarkable disappearance of the disease from this country, and the freedom of marks and pits from the faces of the present generation, ought to suppress the clamor of the selfish and the ignorant, and render it impossible that the people should be exposed to the risk of another sacrifice on the foul altar of smallpox. I am, however, confident that the voice of the medical profession will never cease to sound the alarm, and that our great Association will never hesitate to put forth all its influence and strength until the adversaries of sanitary progress have been defeated, and the old enemy slain again at our gates.

PROGRESS OF SANITARY SCIENCE AND PREVENTIVE MEDICINE.

The labors of the past century have done much to hasten on the grand consummation of our art, not only in the direction of cure, but in the still higher way of prevention. During its early years the population of the provincial centers rapidly increased, and important changes occurred in the social condition of the working-classes. Few provincial towns contained more than 50,000 inhabitants, and not one had a population of 100,000; but the development of the various industries rapidly caused a migration from the country toward these centers, and for this increase of their inhabitants there was very little accommodation. I need not remind you of the wretched state of the houses of the working population in those days—the narrow courts, the stifling slums, the unwholesome factories, the neglect of cleanliness, and the total absence of any rudiment of sanitation. It is not surprising that, under these conditions, disease, deformity, moral and physical degeneration were the results. The bills of mortality of London at this period indicated a very high mortality, and sometimes reached 50 to 60 per 1,000 living, though these calculations cannot be considered altogether reliable, as they were made from the old system of parish registration.

It was not until 1834 that the Legislature began action in the sanitary interests of the people. Soon after a national system of registration was introduced, and the causes of death were certified by medical men. Acts of Parliament were also passed to give power to town authorities to provide water-supply and drainage. Many of these legislative efforts were the outcome of critical events which occurred in the course of the last 70 years. The early publication of the Registrar-General's reports and the splendid labors of the late Dr. Farr made a great impression upon the leaders of the medical profession of that day, and aroused public attention upon the grave questions connected with public health. Soon commissions were appointed, and pioneers in sanitary reform arose on every side; at the same time fresh revelations of neglect startled the intelligent people, and a loud demand arose for increased legislative control. But there was an outcry from the defenders of the rights of the people, from the grasping holders of vested interests, and from the prejudiced of every class of the community, against the growing power of sanitary reform and every earnest effort to cast out preventable disease.

In 1848 another crisis occurred. The report of the high mortality from the dreadful epidemic of cholera burst upon the land like a warning from heaven itself, and then followed more legislation. In 1855 the people were again aroused by the horrors and sufferings of the army in the Crimea. The country sustained dreadful losses, which were in a measure the result of departmental inefficiency. A Royal Commission exposed the terrible mortality, but the great sanitary reformer of the period was the late lamented Parkes, of Netley, and, although he has long since ceased to be a laborer in the field, his splendid efforts will be ever held in grateful remembrance.

FLORENCE NIGHTINGALE.

I cannot omit to mention here the self-sacrificing labors of many noble women at this period in the hospitals of the East, which gave a powerful impulse to improved hospital administration and sanitary progress. The name of Florence Nightingale will ever be associated with the evolution of hospital reformation in this country. In 1844 she visited the civil and military hospitals of Europe, and worked with the Sisters of Charity in Paris. In 1855, during the war with Russia, she went out and organized a nursing department at Scutari. On November 4 she arrived at Constantinople with her band of followers, just in time to receive her bleeding countrymen from the field of Inkerman. I believe that the reformations of the present day are greatly due to her noble life and labor. She roused not only the civilized world, but also the professors of the healing art, and the loud demand for hospital reform which has extended through the length and breadth of the land can be fairly traced to the mental power and splendid devotion of Florence Nightingale.

In the year 1860 important inquiries took place with reference to the adulteration of food, polluted water, overcrowding in unhealthy houses, milk contamination, and unwholesome trades. Then followed the great administration changes of 1871 and 1875, when England was divided into urban and sanitary districts, and medical officers of health and sanitary inspectors were appointed throughout the country. We can safely assert that from this period the power of sanitary science has been steadily advancing. The pathway of progress has been hampered with many obstructions which have arisen from the indifference of local authorities and the dislike of sanitary reform.

ERNEST HART.

I cannot close my reference to the progress of sanitary science without mentioning the lifework of our late editor, Mr. Ernest Hart. He was a devoted pioneer in preventive medicine and labored with enthusiasm in the great questions of epidemic cholera, waterborne disease, vaccination, and many other topics. He rendered invaluable help to the children of the land, and made plain the necessity for reform in the poor-law infirmaries of the United Kingdom. He threw all his energy into his editorial labors and speedily raised the *British Medical Journal* of the Association into the commanding position it now occupies. His name and work will for ever be intimately associated with the history and growth of our great and world-wide organization.

PATHOLOGY.

The early part of the century will ever be recognized as the birthtime of modern pathology—the period when the huge chasm between dead morbid anatomy and living pathology began to be bridged over. The teachings of John Hunter had long exploded the old humoral theories of disease. The leading minds in those days no longer considered that disease depended upon an excess of bile, or blood, or phlegm, and the other fluids of the body, and that it could be cured by getting rid of these faulty elements. The principles formu-

lated by Hunter were maintained by succeeding writers in the same field for many years. His pathology was a long way in advance of his predecessors, and he was the first to recognize that all the processes of the organism belonged to biological science. He saw that disease was only a deviation from health, and that both conditions were regulated by the same vital laws. He regarded the blood as possessed of life, like the solid parts of the body, and its plastic materials as the elements of all growth and structural repair, and taught that exudations composed of homogeneous and transparent fluids, containing within them no visible form, sweated through the walls of the bloodvessels, and then became changed into living tissue by a process of vital crystallization.

About the year 1830 great improvement took place in the manufacture of the achromatic compound microscope, and this gave a great impetus both to physiology and pathology, and the value of microscopic examination began to be generally appreciated. Moreover, the Council of the Royal College of Surgeons of that day was so impressed with the utility and importance of the facts revealed by the minute dissection and examination of elementary structures, that in 1841 they determined to establish a professorship of histology, and to form a collection of preparations, both of the healthy and morbid tissues of plants and animals, which should elucidate the value of microscopic investigation.

We can now look back upon the time when the progress of physiology was everywhere recognized as the true basis of all pathological science. In 1838 Schleiden made his brilliant discoveries in vegetable tissues, and soon after Schwann investigated the cellular structure of animal bodies. He followed Hunter in believing that vital centers of new growth were spontaneously developed in semisolid exudations, and that constructive elements could actually be formed within amorphous substances. But, although the progress of the century has been the outcome of the labors of many able workers, still I venture to think we can justly give the first place to Rudolph Virchow. We are indebted to him for exhibiting histology as the real instrument for unfolding the deep mysteries of disease. He practically gave the medical world a new pathology founded upon laborious observation and experiment. Every kind of organic structure and every new formation, he announced, could be traced to a vital source. There never has been and there never will be such an erratic phenomenon as spontaneous generation in either physiology or pathology. He recognized that every plastic exudation, which had been called amorphous material, had wrapped up within it living cells, and that these had come from living structures, and thus every new formation must be the offspring of some living tissue in which its living germs arose.

Today we are able to appreciate the fact that the evolution of our new pathology has progressed side by side with the evolution of biology, and that, in its broadest sense, pathology is an outgrowth of biology. The work of the last 50 years may be rightly defined as the great unravelling of the deep relations between the healthy phenomena of life and the variations which are outside the normal cycle of these vital phenomena. Through many years biology and pathology have been mutual helps in their onward and remarkable evolution, and we may rest assured that in the coming century their healthy reaction on each other will still go on. Pathology will still advance, and the new discoveries of biology will serve as starting points of new pathological truths; at the same time the ordeal of biologic criticism will be accepted as the test of every new pathologic development.

Pathology is growing more and more a very practical science. It is a matter of interest that during the last few years a great expansion in this direction has set in, so that by the help of an intermediate class of workers the results of pathologic investigation can be speedily applied to everyday practice. In this way the busy physician and surgeon are brought into contact with scientific research as an indispensable aid to the diagnosis and treatment of diseases.

Bacteriology.

An inquiry into the early history of many branches of science clearly indicates that old speculations concerning obscure phenomena have often in the long run proved to be real anticipations of future progress. Sometimes the explanations regarding the abstruse problems have appeared strange and fanciful; yet, in the course of time, by actual scientific demonstration, they have been changed into far-reaching truths. The history of the science of medicine, like that of all other branches of science, has been one of gradual evolution. The leaders in the past were not intellectually inferior to the leaders of the present day. Our forefathers in medicine had only small and confused accumulations of knowledge to build upon, but upon their foundation—laid amid so many shadows and perplexities—the modern temple has been erected by a great army of workers scattered in every part of the civilized world.

To-day we recognize some old theories as scientific facts. Long before the beginning of this century the phenomena of many diseases were explained by the assumption that minute particles endowed with life were developed in certain states of the atmosphere, and were carried hither and thither by the winds of heaven. In more recent times the latency of many diseases after infection, the spread of epidemics, and the reproduction of a specific material within the infected organisms, gave force to the conjecture that the essential part of the morbid poison might be a living thing—a contagium animatum—and that all fevers and the allied disorders might be the result of a parasitic development within the body. About 1840 Watson explained the wide diffusion of influenza and other infectious fevers to the presence of minute substances: "Myriads of animalcules may come in contact with the mucous membrane, and exercise a poisonous influence on the system. The gaseous fluid which surrounds this planet teems with living atoms, and these atmospheric infusoria probably congregate in masses sufficient to render noxious the very air." The theory of fermentation enunciated by Professor Liebig tended at this period strongly to confirm the parasitic theory, which was, that the morbid poison acted as a ferment, and excited a transformation in the blood similar to that produced by the action of yeast upon an infusion of malt. It possessed, too, the singular power of multiplying itself in the human body, and that this multiplying process was the real explanation of all infectious fevers.

These were the speculative opinions of the leaders of the medical profession up to 35 years ago, and now, by development of a new branch of biology, they are numbered among scientific realities. I cannot pretend to sketch the evolution of this young science, but only to mention that this fresh light has arisen from France, Germany, and England, and that it is mainly due to the brilliant labors of Lister, Pasteur, and Koch. Lord Lister has generously expressed his indebtedness to Pasteur for his original researches; Koch has by his splendid ingenuity made the most important improvements in bacteriologic technic. No doubt they are all indebted to each other, and the world of science will be for ever indebted to them all.

During recent years, then, we have grown certain that the world is full of tiny organisms, and, while in their individuality they are very simple and obscure, in the aggregate they are a mighty host, developing mighty forces, and directly exercising in Nature a power over all living forms. We know, too, that these living atoms are ever multiplying around us and within us by simple division or spore formation; and that these lives are very short, for in a few brief hours fifty or sixty generations can be produced. The various forms are now classified according to their functions and structure, and it is very probable that future investigations may prove the transformation of many species, so that the life-history of these tiny particles may confirm afresh the great doctrine of evolution. Moreover, their germs are universal; they are found in earth, air, and water, in the dust which floats in the sunbeam, on the clean walls of our dwellings, in our clothing, in our food, our milk, and in the very dainties which we swallow from the hands of our accomplished cooks. Surely it is a marvellous thing that any of us are left to tell the tale; still it is a fact that the world contains many healthy people, and that a fair proportion live to a good old age.

We must take courage from the advance of science. After all we have not so much to fear as those who have gone before us. It is a good thing for us to know that many living atoms are our deadly foes; but, on the other hand, many of them are our sacred friends. The wheels of nature would soon be stopped without their benign assistance, and the flora and fauna of the world with man himself would pass away.

RELATION BETWEEN THE DISORDERS OF MANKIND AND THOSE OF THE LOWER ANIMALS.

For many years the investigations of the modern school were limited to the disorders of mankind, but this narrowness had disappeared during the latter half of the present century, and the great value of the study of the diseases of plants and animals has been fully recognized. We are greatly indebted to our distinguished member, Sir James Paget, for his brilliant labors in this department, and for his efforts to promote research in comparative pathology. He demonstrated many important problems in cellular pathology, and explaind the vital processes common to organisms which possess and do not possess a nervous system and circulation.

Recent investigations in bacteriology have proved a great stimulus to the study of the relations between the diseases of mankind and those of the lower animals, and this relationship will form an important part of future researches. It is only a few years ago that the real nature of that dreadful scourge of the human race, tuberculosis, was discovered, and its intimate association with the same disorder in domestic animals clearly brought to light. Laennec was the first observer who described tuberculous nodules, and traced their development from miliary tubercles. In 1865 the inoculation of animals with caseous material was found to produce tiny masses in their bodies which were in all respects similar to the disease in man. Some physicians were bold enough to assert that the phenomena suggested the probability of contagion, but the notion only excited the ridicule of the profession at that period. Tuberculous disease was generally regarded as a hereditary disorder, transmissible in various degrees of intensity. At the same time external influences were looked upon as powerful factors, which could kindle the smouldering flame into activity. From the very dawn of modern pathology tuberculous disease received profound investigation, and the researches only corroborated the time-honored theory. The microscope failed to detect in the diseased parts any specific elements, and in vain cells and granules, and cells of giant form were searched for some characteristic quality. Tubercle was examined by the best observers in the civilized world; thousands of clever eyes had gazed at it with intense devotion, and with a remarkable unanimity they pronounced the opinion it was so indefinite in structure that it could be recognized as much by negative as positive qualities.

In 1882 the whole pathology underwent a great revolution by the demonstration of the life-history of the tubercle-bacillus. The disease, occurring in any tissue or organ, is now universally regarded as a specific disorder, the bacillus the absolute proof of its invasion, and the cause of the morbid changes. The long-accepted causes are now dislodged from their position, and are now rightly grouped as morbid tendencies. The inheritance of constitutional peculiarities, the liability to chronic inflammations, and the susceptibility to external influences, are now regarded as conditions which help the microbe to establish itself within the body. Still these factors are not less potent because the specific characters of tuberculosis have been revealed.

This pathologic transformation has around it still many unsettled problems. It is, however, a fact of history that Koch, by his own researches, brought to light from the microscopic elements of tubercle a living atom which no human eye had ever seen before. I believe one may anticipate that this great discovery will be of priceless benefit to mankind.

Bacteriologic investigation has already unfolded many of the problems connected with diphtheria. The researches began in Germany in 1882, the chief experimenters were Drs. Behring and Kitasato, and they were soon followed by Dr. Roux, of the Pasteur Institute in Paris. We now know that many animals are liable to its attacks. It is communicable to the horse, rabbit, guineapig, and fowl, and some species seem to suffer from a chronic form of the disease. Horses when attacked develop similar symptoms to those which follow inoculation of diphtherial toxin.

The deadly bubonic plague which was epidemic throughout Europe during the Middle Ages, has unfortunately proved a dreadful scourge in India and the East during the last three years. Many earnest workers have made the disease the subject of an elaborale inquiry. In 1894 a specific bacillus was discovered in the blood of a patient suffering from epidemic plague. There is much reason to believe that domestic animals and rats are responsible for spreading the infection, and squirrels and cats have been known to die of the disease. It has recently been stated by a French observer that fleas are dangerous disseminators of the disease. As the result of a series of experiments, he affirms that fleas taken from rats suffering from plague can communicate the disease to healthy rats, which in their turn beconie centers of infection.

Professor Ogston in 1881 detected microorganisms in acute abscesses, and this important discovery has been followed by many elaborate inquiries which have proved the direct connection between suppuration and pathogenic organisms. It is certain that the staphylococcus, the streptococcus, and the bacillus coli communis, and other species also, may be the exciting cause of septic conditions in man and the lower animals. Around septicemia to-day there are many unsolved problems. Are the microorganisms the direct cause of the disease, or is it produced by the chemical substances which they elaborate? All animals appear to be liable to

blood-poisoning. Dr. Hewlett says that poultry, pigeons, pheasants, and sparrows are susceptible of a disease, which Pasteur proved to be excited by a bacillus identical with the bacillus of rabbit septicemia. Even the mouse has its specific septic disturbance, and the organisms which are present in its blood appear to be identical with those discovered in the septic disorders of swine.

Malaria.

Investigators have recently been endeavoring to unravel the secrets of malaria-poisoning. The disease has been traced by Surgeon-Major Ross and Dr. Manson to a parasite which has the power of assuming a latent condition within the human body. It actually lives in the interior of the red corpuscles of the blood. Dr. Manson thinks that it is removed from the blood by some suctorial insect, and that this insect is a species of mosquito. The parasite is propagated outside the human body. The insects are capable of infecting their larvae, and man is in turn infected by drinking the water contaminated by the mosquito, or by inhaling the dust of the dry mud of the pools in which mosquitos have perished.

I refer to these facts only to show the great impulse bacteriology has given to the study of the intimate connection between the diseases of mankind and the diseases of animals. It is certain that the latter are far more often the agents, by which diseases are distributed than we are at present able to detect. The same disorder in different animals produces very different manifestations, and the symptoms may be so variable that the recognition of a common specific cause is almost impossible.

What may we expect from this young science in the future? We are only touching the fringe of its possible revelations. Much that has been done will have to be done over again, and much that has been written will have to be rewritten. How many questions have yet to be solved? Will the further evolution of bacteriology solve the great problem concerning immunity? The striking differences in the susceptibility to disease in individuals are still unfathomed. Some seem to possess a natural insusceptibility to infectious disorders, while others are susceptible on the smallest exposure. I do not believe that any individual can inherit or acquire a resisting power for all forms of disease; some races appear to acquire immunity, and native population in some parts of the world exhibit very little susceptibility to yellow fever and malaria. Race-immunity is generally explained by natural selection and protection by inheritance. During long periods susceptible persons were weeded out and those that remain are capable of transmitting their insusceptibility. But we learn from experience that the resisting power to infectious diseases is very variable, and that there is no such thing in the world as absolute immunity. On the other hand, bacteriology offers us the comforting doctrine of phagocytosis. The cells of the blood are ever ready to engulf and destroy living bacteria and to cast them out as unwelcome guests. The leukocytes may be compared to a great army of invisible warriors. They send out their scouts, and, as soon as an enemy is in sight, myriads appear at the very seat of infection and are drawn up to open the attack upon the intruding bacterial forces; all ends well when the battle of the cells terminates in the destruction of the enemy, but unfortunately sometimes the leukocytes are beaten back, and the bacteria are victorious; then they can multiply without hindrance, and general infection is the result of the defeat.

Pasteur explained acquired immunity by the assumption that the growth of an organism exhausted a specific pabulum which was essential for its development, so that nothing was left in the body to sustain its vitality. If this theory be correct there must be a nutrient material necessary for the growth of each species of contagion. After all, if we cannot explain immunity we can at least be certain that the blood and other fluids of the body exercise a germicidal and protective power against the action of bacteria.

There can be no doubt that pathogenic organisms are a huge factor throughout our world in the causation of disease, and that we must never cease to combat the conditions in which specific organisms can grow. Still we must not forget there is always another factor which we may call feeble resisting power or impaired vitality. Depend upon it, the susceptibility to disease bears a direct relation to the vigor of the body, that the health of every individual is the real measure of the power to resist infection, and that personal immunity almost can be acquired by the daily practice of temperance, cleanliness, and periodic repose.

(To be concluded August 12.)

OTITIS MEDIA AND EARACHE IN LOBAR PNEUMONIA OF CHILDREN.*

By J. S. MELTZER, M.D.,
of New York.

In the course of the last 15 years I have observed a number of cases of lobar pneumonia in children, at the beginning of which earache was the first and predominant symptom. The following two cases occurred a few months ago. In the last week of December, 1898, the 3 children of the family G. became sick with coryza, pain in the throat, moderate hoarseness, barking cough, and a temperature varying between 100° and 101°. These symptoms disappeared after a week's duration. The oldest boy, 7 years old, had had purulent otitis media twice and numerous short attacks of earache since his second year, but was free of them for the last 2 years since his tonsils and adenoids were removed. The second child, a boy of 5 years, had never had earache, nor has he adenoids or large tonsils. The third, a baby of 20 months, has since last fall had 2 attacks of earache with temperature of 101°, each attack lasting 5 to 6 days and terminating apparently in perfect recovery. In the first attack the pain was confined to the left ear alone, in the second attack both ears were involved, with apparently equal intensity.

January 30 the baby began to scream with pains in the left ear, and the temperature rose at once to 103°. In the course of the day the right ear also became sensitive to touch, while the pain in the left ear appeared to be somewhat lessened. Respirations were only 26 per minute, and there was no cough or any physical sign to cause one to suspect the respiratory organs as the seat of the main cause of the fever. On the second day the temperature rose to 104° in the morning and 105° in the afternoon; the respirations gradually increased in number and reached 40 per minute on the fourth day; on the third day the characteristic moaning appeared on

* Read at the Annual Meeting of the Association of American Physicians, Washington, D. C., May 3, 1899.

the scene, and on the fourth day the posterior surface of the lower right lobe presented all the physical signs of consolidation. The earache diminished from day to day and disappeared entirely with the onset of the crisis which took place at the end of the fifth day.

January 31, just 24 hours after the onset of the pneumonia in the baby, the oldest boy began to complain of a severe pain in the left ear, the same one which was affected in the previous years. He had a slight, short chill and the temperature rose to 103°. His hearing was apparently not impaired. About 16 hours later he began to complain of a pain in the chest, locating it in the axillary line about the fifth intercostal space, and on the following day there were dulness and bronchial breathing over the left lower lobe. Here, too, the pneumonia ran a course of 5 days, but the earache already disappeared entirely on the third day.

In December, 1884, I was called to see Leonard A., a boy of 4 years, who had already been sick for 3 days. It began, I was told, with a sudden onset of high fever and severe pains in the right ear, and the physician in charge diagnosed it as otitis media. Next day the earache became less pronounced, but the child began to have a pain in the region of the liver, and in addition to that, there was some vomiting which caused my predecessor to change his previous diagnosis to that of gastric fever. When I saw the child the ear was still moderately sensitive, but the rapid respirations suggested the lungs as the seat of the trouble, and the examination revealed indeed a well-marked lobar pneumonia located in the lower right lobe.

This experience recalled to my mind a case which I had seen in my office a few weeks before. The child had high fever and earache, but no other symptoms. I diagnosed it as otitis media. When, however, it was reported to me that after the child had taken my medicine for 2 days it became well all at once, I knew that something must have been wrong with my diagnosis. In the light of my new experience I was inclined to believe that it was a case of so-called central pneumonia, and that there might indeed be some causal connection between lobar pneumonia and earache.

The pneumonia in Leonard A. had a protracted course and terminated in a crisis on the 14th day of the disease; the earache, however, had already entirely disappeared on the sixth day. The coincidence of earache and pneumonia must have made a deep impression also upon the mother of this little patient, for, a year later, she sent for me to see Leonard, who had, as she stated, pneumonia again. And to my query, how she had made out her diagnosis, she answered that the boy started, as in the last attack, with high fever and earache. And indeed there were severe pains in the same ear as in the last time, and on the third day there was a well-marked pneumonia in the right lower lobe, which terminated this time on the seventh day of the disease.

Since this first observation I have met with a considerable number of similar cases. They all had in common the following points: At the onset of the disease earache was a predominant symptom, this predominence, however, never lasted longer than 1 day. Either the pain had disappeared entirely on the second or third day, or it lost its intensity and finally disappeared either shortly before the crisis set in or with it. In none of the cases did the pain outlast the disease; in none did the earache terminate in a discharge from the ear. I should already remark here that I never have observed a suppurating otitis during the course of a lobar pneumonia in children. With two exceptions the earache was on the same side with the pneumonia. So far as I could ascertain, all the cases of lobar pneumonia with an initial earache occurred in children who had had at some previous time an otitis media in the now aching ear. In children in whom the acuteness of hearing could be tested the hearing seemed to have been unaffected even during the acme of the pain. The age of the children upon whom these observations were made varied between 18 months and 8 years. The initial pain seemed to be the more intense the younger the child. Beside these cases with a pronounced initial pain, I could sometimes establish in cases of pneumonia in infants a greater sensitiveness of the ear of the afflicted side.

The literature contains some startling statements with regard to the frequency of otitis media in young children which is not yet sufficiently taken into account by the general practitioner. Already so far back as 1859 Tröltsch[1] reported that in 25 autopsies on babies he found otitis media present 15 times. In 1868 Wrede[2] reported from the Foundling Asylum at St. Petersburg that in 80 autopsies there were pathologic changes of the ear in 84%, and Kutscharianz[3] soon followed with reports from the Foundling Asylum in Moscow, stating that in 300 autopsies only 70 children showed normal conditions of the ear. For some time these statements were met with the peculiar interpretation that pus and mucus might be normal constituents in the ears of infants. Within the last decade, however, a number of careful observations have been published which leave no doubt of the pathologic character of the alterations in the middle ear. In 20 autopsies on infants Netter,[4] of Paris, found true pathologic changes in the ears of each and every case. Kossel[5] reported from Koch's Institute in Berlin that in 108 autopsies there was in the ears of 85 infants true otitis media containing bacteria mostly of the same kind which were found in the main disease of which the child died. Rasch[6] reported from the Hospital in Copenhagen that in 61 necropsies otitis media was found in 56 of the children out of which number 32 had true abscesses in both ears. And quite recently we read in a communication from Ponfick,[7] the well-known pathologist of Breslau, that in 100 consecutive autopsies upon children who died from various diseases, the ears were normal in only 9

cases; in the remaining 91 a well-marked otitis media of a purulent or mucopurulent character was present.

In the great majority of the cases reported by the different writers, the presence of otitis media, as a complication of the main disease, was not recognized during life, a fact which finds an easy explanation in the following circumstances: In diagnosing otitis media we have to rely upon the presence of an earache, on an otoscopic examination of the drum, and on the appearance of pus in the external meatus. Of the presence of an earache the baby tells us loud enough, indeed, by its screaming, but we all know that not only the mothers, but also the doctors, mostly attribute such screaming to intestinal colic, until the appearance of pus on the pillow clears up the diagnosis. It was just such an experience in the family of Professor Ponfick that caused him to examine systematically the ears of dead infants.

As to the otoscopic examination of the drum, it is admitted, even by the expert otologist, that in infants it is a difficult and unsatisfactory task, on account of the narrowness of the canal, the nearly horizontal position of the drum, etc. There remains, then, only the appearance of pus in the outer ear to rely upon for a sure diagnosis of the existence of an otitis, but here the reports tell us an interesting fact. In the 85 cases of Kossel there were only 3 perforations of the drum; of the 56 cases of Rasch there were only 4 perforations; in short, all the reports testify that there is very little tendency in these cases of purulent otitis to perforate the drum, either, as some say, because the pus lacks the corroding quality, or, as others say, because the Eustachian tube is so wide in infants as to offer to the pus an easy outlet into the pharynx.

Recently, however, a few reports were published from pediatric institutions in which the diagnosis was made *intra vitam*. These reports, too, show the great frequency of otitis in children. Hartmann,[8] a well-known otologist in Berlin, reports that he had made in Koch's Institute an otoscopic examination of 48 children, and recognized otitis media in 38 of them, and in nearly all the cases the diagnosis was verified by the postmortem. He makes the significant statement that in the beginning of the main disease the drum did not yet show any pathologic changes. A similar report is made by Goeppert[9] from Heubner's clinic. From 73 children who were examined otoscopically, in 59 the drums have shown the pathologic changes of otitis. All of them came to autopsies, which, with a few exceptions, confirmed the diagnosis of otitis.

All these reports have in common that they came from such institutions where the little inmates are mostly very poorly nourished, atrophic creatures, who invariably end their careers on the postmortem table. There is, however, one report of a series of observations which were made on a better class of children. This report has the advantage and the disadvantage that no postmortem verified the diagnoses which were made on the strength of otoscopic examinations. The report is made by Teichmann[10] from Neumann's Ambulatorium for diseases of the air-passages, in Berlin. In just one-half of 268 children who suffered from various diseases of the air-passages, the main disease became earlier or later complicated by otitis media.

An examination of the reports quoted with regard to the relation of pneumonia to otitis shows that in the cases of Wrede and of Kossel otitis was most complicated with bronchopneumonia; in the 20 cases of Netter, 14 had catarrhal pneumonia. We read in the report of Rasch that in 43 cases of bronchopneumonia 42 were complicated with otitis media; of 36 cases of otitis reported by Hartman 24 also had catarrhal pneumonia; of 11 cases of pneumonia in Ponfick's autopsies 10 had purulent otitis in both ears, and of 73 cases of pneumonia observed by Teichmann 34 had otitis. Thus we see that otitis media is a very frequent complication of catarrhal pneumonia in children. But how about lobar pneumonia? Except Ponfick and Teichmann, all the writers expressly speak of bronchopneumonia and no mention is made of lobar pneumonia. Ponfick and Teichmann speak of pneumonia without specification. Ponfick, however, speaks of his cases of pneumonia as having been of a lobular and confluating character, and apparently means also bronchopneumonia. In Teichmann's report alone we find no hint as to the nature of the pneumonias which he had under his observation, and we probably do not err in assuming that his 73 pneumonia cases include also cases of lobar pneumonia. We have, however, no means of establishing whether there was any lobar pneumonia among the cases which were complicated with otitis media.

In the literature on lobar pneumonia in children which I had a chance to examine I found no mention of otitis media as a complication of this disease. Should lobar pneumonia be exempt from this complication? I have already mentioned above that in all the cases of lobar pneumonia in children which came under my observation I never have seen a discharge from the ear setting in during the course of the disease. This alone, however, cannot be taken as a sure proof that a purulent otitis does not exist at the same time, since we know from the reports cited that the purulent otitis in children has very little tendency to perforate the drum and this is especially the case, at least as Rasch claims, in those cases of otitis which are caused by the pneumococcus. I have, however, made two observations which seem to show that there is indeed a certain antagonism, in children at least, between lobar pneumonia and purulent otitis.

Adelina L., 2 years, had, after recovering from laryngeal croup, an attack of otitis media which terminated within 2 days in a purulent discharge from the ear. The discharge continued to be profuse for 5 weeks, when the child was suddenly seized with a chill and a rise of temperature to 104.°

On the very same day the discharge stopped entirely. On the second day physical signs of lobar pneumonia appeared. The disease lasted 12 days, and during this period there was no sign of a discharge; but one day after the defervescence took place the purulent discharge reappeared again.

The second case was that of a boy of 5 years who had a "running" ear of long standing. When one day there was a sudden rise of fever with a simultaneous disappearance of the discharge and the appearance of a pain in the same ear, I was at first inclined to believe that the fever was due to the retention of pus within the ear. But the appearance of the signs of consolidation in the entire left lung cleared up the diagnosis. The earache disappeared on the third day. The pneumonia lasted 9 days, and a discharge did not reappear until 4 days after the crisis.

The following case occurred recently in the practice of Dr. Victor Meltzer. Emma R., 2 years, had purulent otitis for about 2 months. At the beginning of May she was taken sick with lobar pneumonia; the discharge from both ears stopped on the first day of the disease and did not reappear until 3 days after the crisis took place.

These two cases remind one of the observations of Bogdan[11] and of Hymanson,[12] who reported cases of gonorrhea, the discharge of which disappeared with the onset of a lobar pneumonia and reappeared during convalescence.

This disappearance of a purulent discharge during an attack of pneumonia is apparently not an accidental occurrence and might perhaps be explained by the appearance of hyperleukocytosis in the disease of pneumonia, by which the secreting mucous membranes are cut short of their supply of leukocytes.

The usual disappearance or diminution of a purulent bronchial discharge with the onset of a lobar pneumonia is possibly another instance of the antipurulent, drying effect of the lobar pneumonia, and might also be explained by the greater demand of the body upon the limited supply of the leukocytes. I may quote here the statement of Bernabei[13] that the presence of an abscess in one part of the body presents to a degree an obstacle to the formation of another abscess in another distant part of the body.*

What, then, does the earache mean which I have often observed to appear at the onset of a lobar pneumonia in children? At the time when I had first made my observations, in 1884, a period in which the bacteriology of pneumonia as well as of otitis media was yet unknown, I was inclined to consider these earaches as instances of so-called sympathetic pains. When a stimulus is applied to one spot of the body and a sensation or a pain is felt also in another spot, this sensation or pain is usually termed sympathetic. It is also termed irradiation. The peripheral impulse, after reaching the nerve-cell which is connected by sensory nerves with the first spot, spreads, irradiates from here to a neighboring nerve-cell and causes there a sensation which is believed to come from the second peripheral spot connected with this second nerve-cell. The irradiation of a toothache to the adjacent normal teeth is an instance of an irradiating or sympathetic pain. This sympathy might even occur between a tooth of the upper jaw and one of the lower jaw, which means that an irradiation is taking place between nerve-cells belonging to two different branches of the trigeminal nerve. Looking at the bright sun produces a tickling sensation within the nose and might even cause sneezing, which is an instance of sympathetic sensation irradiating from cell to cell within the nucleus of the trigeminal nerve. Another instance of sympathetic sensation, and one which interests us here, is the known fact that in many individuals stimulation of the external meatus of the ear causes a tickling sensation within the larynx which may even bring out a cough. This means that the stimulus which is carried along the auricular branch of the vagus causes in the corresponding nerve-cell a sensation which irradiates to the nerve-cells of the laryngeal superior, another branch of the vagus. As for the initial earache in pneumonia we might simply turn around the last instance: The stimulus which is caused by the inflammation of the lung is carried along the pulmonary branches of the vagus to the corresponding nerve-cell, causing there a sensation. This is transmitted by irradiation to the nerve-cells belonging to the auricular branch which provides the ear-drum with sensory nerves; thus causing there a sensation of pain which appears to the patient to be in the ear.

However, after a few years of experience a certain objection to this explanation of the initial earache appeared to grow out of the fact that it nearly always occurred in such ears as had already been at some time or another the seat of an inflammation, a fact which would suggest that the present pain had something to do with the previous inflammation of the ear. On the other hand the discovery of the pneumococcus as the originator of lobar pneumonia and the statements of Zaufal,[14] Netter,[15] and others that the pneumococcus is also frequently the cause of otitis media, and the further statement by Netter that the pneumococcus is often a common inhabitant of the mouths, noses, and throats of healthy children, have suggested the possibility that accidentally the pneumococcus might enter simultaneously the lungs as well as the middle ear, causing a simultaneous inflammation in both places, which would thus satisfactorily explain the appearance of an earache just at the onset of a pneumonia. The fact that the earaches never resulted in a serious otitis with a perforation of the drum, need not speak against this assumption, as it could be explained by the suggestion made above that the lobar pneumonia with its hyperleukocytosis acts as derivative upon the inflamed tympanum. This interpretation would reduce the initial earache in lobar pneumonia to a mere accidental coincidence. However, while it must be admitted that such coincidences are indeed liable to occur, the interpretation of all these cases of an initial earache in pneumonia would be open to the criticism: Why should the accident of an infection of the tympanum be confined

* See also article of A. Stengel: Delayed Resolution in Pneumonia, *Therapeutic Gazette*, February 15, 1898.

exclusively to the onset of the pneumonia and never occur after and rarely a few days before the onset? Furthermore, cases like the following seem to speak positively against the theory of an accidental coincidence.

Nettie H., 26 months, had, in the middle of November, 1892, as the mother stated, a eommon cold, whieh got better within a week. Deeember 2 I was ealled to see her on aeeount of an earaehe which she had sinee the day before. The right ear, whieh I found eovered with a flaxseed poultice, was moderately sensitive, but the mother assured me that it was mueh worse on the previous day, and that in her opinion the relief eame from the poultice which used to relieve the same ehild in previous attacks of earaehe. The temperature, however, was 105° and the respirations 40 per minute. I pronounced the disease pneumonia, and on the fourth day there were all the physieal signs of a consolidation in the right lower lobe. The earaehe subsided on the fifth day, and the pneumonia terminated in a crisis on the seventh day. For 2 days the child felt quite comfortable. On the tenth day of the disease it had again a severe earaehe, and again on the right side, and the temperature rose at once to 103°, and already on the seeond day there was a marked consolidation of the right upper lobe. This time pneumonia and earache disappeared simultaneously on the fifth day.

Surely, it would be going too far to maintain that the earache at the onset of the second attack in this case of migrating pneumonia was due to a second accidental simultaneous invasion of pneumococci in the middle-ear. I shall confess that my own belief in the existence of a causal connection between earache and pneumonia goes so far as to risk a diagnosis of pneumonia already on the first day, when outside of the high fever and frequent breathing there is nothing else but a severe earache—and so far, I was never yet put in a position to retract such a diagnosis.

My present attempt to offer a more satisfactory interpretation of the phenomenon of an initial earache in lobar pneumonia will be based upon a certain form of summation of stimuli which to my knowledge has never yet been brought forward, and which I will have to discuss here first. If two weak stimuli are applied to the same spot of any part of the body, one after the other, within a short interval, they are capable of producing an effect on the central organ, though each stimulus separately may be too weak to do it; the weak impulses of the two subminimum stimuli are added together within the central organ to the sum total of an effective stimulus. That is the usual meaning of summation. A summation, however, can take place also when the two stimuli have been applied to two different places of the body, either simultaneously or one after the other. Exner,[16] who has pointed out this form of summation, terms it "Bahnung," which means, preparing the way; and exemplifies it by the statement that when one subminimum stimulus is applied to one leg while the other subminimum electric stimulus is applied to the cortex the result is a reflex contraction of the leg which could not have been effected by each stimulus alone. The same summation takes place, of course, also when each stimulus alone is strong enough to be effective; the summation consists then in the greater degree of the effect.

I wish now to point out a form of summation of stimuli which has, as far as I know, not yet been dealt with. It is the summation of an abrupt and a continuous stimulus. We know that a stimulus must have a certain abrupt increase in intensity to be effective. If heat or pressure, applied to some part of the body for the purpose of producing a stimulus would increase very slowly, they would neither produce a sensation nor a reflex contraction. The same is the case with an originally effective stimulus if it continues for some time with unchanged intensity; only the abrupt onset of the stimulus is effective, but not its unchanged continuation. The impulses generated by such continuous stimuli are nevertheless not lost to the central organ, and by the addition of an abrupt but subminimum stimulus these impulses can be made to be very effective. I shall take my instances from pathology. Hyperesthesia means such a summation. The continuous stimulation of a certain spot in the body by an acute or chronic inflammation may not produce a special sensation; a slight touch, however, will cause quite a strong sensation; the touch of the head of a pin is felt in such a hyperesthetic area like the prick with the point. It means that the impulses generated by the subminimum continuous stimuli are added within the central organ to the new abrupt stimulus. This instance presents a summation of stimuli coming from one and the same spot.

However, as it is the case in the summation between abrupt stimuli, a summation between the continuous and the abrupt stimuli takes place also when both stimuli are coming from different localities. The meeting of the impulses of these stimuli within the central organ might take place either by special intracentral paths, or by the general way of irradiation described above. The following instance will illustrate these conditions. I am subject to alveolitis in all of my incisors and at all times they are in a state of hyperesthesia. Now when I use a spray of a concentrated solution say of antipyrin in the right side of my nose I experience a pain in the right incisor which is even stronger than the pain in the nose itself. The pain in the incisors is due to the summation of the continuous stimuli from the chronic alveolitis with the abrupt stimulus applied to the nose, the impulses of which after traveling along the nasal nerve-branches and reaching their nerve-cells irradiate to the cells connected with the dental nerves. If the solution is less concentrated it may happen that the incisors are the only place where a pain is distinctly felt. The pain may irradiate even to the other incisors, and if a more or less acute alveolitis is present in the lower left incisors it might happen that it is there where the pain is mostly pronounced after spraying the right nose. In this case the irradiation not only spreads from the second to the third branch of the trigeminus but it even traverses the middle line in order to form a union with the impulses of the continuous stimulation

coming from the inflamed area of the left side. I have often seen a moderate coryza causing considerable pain in the lower teeth when they are the seat of some chronic process. The stimulating effect of the coryza alone was too weak to cause a sensation of pain in the nerve-cells belonging to the nasal nerves, but it aided the continuous stimuli from the irritated lower teeth to be felt as a distinct pain.

Without entering here into a further discussion of the extensive applicability of this new point, we shall see now how the initial earache in lobar pneumonia can be explained by the summation of the abrupt and the continuous stimuli. We have seen that the initial earache occurred in such ears as at some previous time were the seat of an acute otitis media. We know that the drum is almost always involved in acute otitis. We may further presume that after the subsidence of an acute attack at least in many cases a chronic otitis and myringitis may persist for some time without showing a distinct pain or a discharge, which persistence explains the readiness of such ears to respond with an acute otitis to the slightest provocation. If now in individuals afflicted with such a chronic myringitis an acute inflammation of the lungs sets in, this inflammation stimulates the pulmonary branches of the vagus and sends up impulses to the cells of these nerves, from which impulses irradiate to the nerve-cells of the auricular branch of the vagus. Here they find the continuous impulses from the chronic myringitis with which they form a summation, with the result that the new pain is experienced in the ear. It is exactly similar to the pains in chronically afflicted teeth at the onset of coryza. So long as the inflammation of the lungs increases in intensity and involves new areas, the sympathetic pain is kept up by the new abrupt impulses which are constantly sent up along the pulmonary nerves. When the inflammation assumes a stationary character the abrupt stimuli cease and with them disappears the sympathetic earache. The inflammation sometimes also causes pains in the lungs themselves, but it seems that this occurs only when the inflammation reaches the pleural surface; the parenchymatous tissue of the lungs does not seem to be very sensitive to pain, which is in conformity with the behavior of other viscera, the abdominal for instance.

I have endeavored to bring out the following points:

1. Otitis media is an extremely frequent disease in children, especially in poorly-nourished ones.

2. Bronchopneumonia is very frequently complicated with otitis media.

3. In lobar pneumonia of children purulent otitis media is at least very rare, possibly because the pneumonia by its hyperleukocytosis acts as a derivative upon the otitis.

4. Many cases of lobar pneumonia begin with an earache which disappears gradually.

5. The hypothesis is offered that possibly this is only a sympathetic pain of the chronically inflamed drum.

6. In offering this hypothesis the idea is introduced of a summation within the central organ between the effects of an abrupt and of a continuous stimulus; a conception which might prove to be fruitful in pathology, in which all the chronic and many acute inflammations are the seat of such continuous nerve-stimulations.

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SUSCEPTIBILITY AND IMMUNITY.[1]

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WHEN we undertake to investigate the causative factors underlying the results of the exposure of an entire community to a source of infection, with the idea of ascertaining the reasons why a certain proportion of such a community escapes the infection, a number of questions of great practical importance present themselves. We are frequently satisfied in solving these questions by saying that those members of the community which escaped the disease did so from the fact that they were not susceptible, or, probably, that they were immune, and that those which contracted the disease were susceptible, or that they were not immune.

It will be necessary to consider briefly what is meant by the terms susceptibility and immunity, and then we shall better understand why such differences in effects manifest themselves.

Immunity may be described as that condition of the body in which the organism resists the invasion of disease-producing bacteria, or resists their growth and activity after they have gained an entrance; while susceptibility is the opposite condition, in which, instead of resistance, there is a passive inertia which allows the disease-producing bacteria to develop.

Immunity is either natural or acquired. Natural immunity is the inherent, vital, reactive state of a healthy organism against the invasion of foreign agents. This natural resistance to the invasion of disease-producing bacteria is to some extent a racial condition as seen in the greater susceptibility of some races to certain diseases than others. It is also to some extent a family

[1] Read before the Montgomery County Medical Society, March 22, 1899.

condition transmitted from generation to generation. Again, it may be simply an individual condition. All of these forms of immunity are frequently observed in the human family as well as in the lower animals commonly employed in investigations with disease-producing bacteria. This natural immunity, in man as well as in animals, is frequently destroyed through external agencies, such as changes in the nature and quantity of the food-supply, changes of modes of living, as from out-door occupations to in-door occupations, undue exposure, close confinement through lack of sunshine and fresh air, as well as many other changes in the environment which tend to lower the general vitality of the system. By modifications in the activity and environment of the lower animals it is often possible to render them susceptible to the action of certain bacteria which do not affect them normally.

Acquired immunity may be divided into three classes: (1) that induced by recovery from a previous attack of a disease, as is the case with some of the common diseases of children, as rubeola, scarlatina, and varicella. One attack of these diseases usually confers immunity for life; (2) that induced by an attack of an allied disease, as in the immunity conferred by vaccinia against variola; (3) that induced by the injection of antitoxic substances as in diphtheria. It has been demonstrated over and over again in epidemics of diphtheria that the injection of small doses of antitoxin into the children exposed to infection serves to break up the epidemic. This form of immunity is, however, of short duration, lasting only from one to two months.

With equal propriety we may speak of susceptibility as being either natural or acquired. Susceptibility may be said to have been acquired when disease is contracted because of the lowered tone of the organism through the influence of the many factors which tend to destroy natural immunity. We frequently see instances in which the degree of susceptibility has been increased through the many influences which may operate so as to lower the tone of the organism. This is especially the case in children when an attack of some acute infectious disease follows before convalescence from some other disease has been completed.

A number of theories have been proposed to explain the phenomena of acquired immunity, but some of the earlier ones have been found to be erroneous and are no longer tenable. A few of the more important of these may be briefly stated before taking up those which are held at the present day. The first is the "exhaustion" theory proposed by Pasteur in 1880, which assumed that through the growth of the bacteria in the organism they destroyed some substance essential to their life and so made subsequent growth of the same species of bacteria impossible in such an organism, the complete destruction of this substance in an organism conferring complete immunity. Another theory known as the "retention" theory was proposed by Chauveau about the same time, which assumed that some product of the vital activity of the bacteria was retained in the organism which was prejudicial to the subsequent development of the same species. Both of these theories have now been discarded as affording no satisfactory explanation of acquired immunity. Besides these, three other theories have been proposed, which, while presenting considerable evidence in explanation of the phenomenon, have failed of general adoption because they fail to meet all the conditions. The first of these theories is that of "phagocytosis" propounded by Metchnikof in 1884. He had demonstrated that certain cells of the body, the connective-tissue cells and the leukocytes, had the power of absorbing living bacteria from the fluids and tissues of the body. This fact can be very readily demonstrated experimentally by inoculating certain bacteria into animals. The presence in the blood of enormous numbers of leukocytes at certain stages of most bacterial diseases is likewise a strong indication that they have important functions to perform in these diseases. According to this theory the extent of the affinity of the leukocytes for the bacteria is directly dependent upon the degree of immunity. After taking up the bacteria the leukocytes are carried in the blood-current to the large glandular organs, the liver and spleen, where they are probably destroyed along with their contained bacteria, or, in the case of wounds, they are cast off as pus with the other debris resulting from the disease-process.

Another theory proposed to explain immunity is known as the "humoral" theory, and has been advanced by Buchner. It is well known that the serum of normal blood has the power, to a considerable extent, of destroying bacteria, and on this fact Buchner based his theory that the pathogenic bacteria are destroyed within the body by the bactericidal action of the blood-plasma, and not by the leukocytes. Many of the normal fluids of the body also possess this bactericidal action to a certain extent. Buchner has applied the term alexins to the bactericidal proteid substances of the blood.

The theory of immunity which remains to be considered has been offered in explanation of acquired immunity. This is the theory of the antitoxins. This theory is based on the fact that individuals can, by gradual dosage, acquire a certain tolerance to powerful drugs, as opium and tobacco, and that animals can be brought to tolerate, without apparent detrimental effect, enormous doses of the highly poisonous products of bacteria. It has been found that the blood of persons accustomed to the use of poisonous drugs, as well as the blood of animals tolerant to bacterial toxins, is capable of conferring a similar tolerance in animals when injected into their bodies. The albuminoid principles contained in such blood, and which are capable of conferring tolerance of this kind, have been called antitoxins. These antitoxins are neutralizing agents and act by neutralizing the poisonous substances against

which they act. They are formed within the body as the result of the vital activities of the fluids and cells of the body.

A very interesting theory as to the mode of formation of these antitoxins has recently been proposed by Ehrlich, who assumes that they are formed as the result of a chemical union between the toxins and some substance normally present in the body in a manner similar to the union taking place when an acid and a base are brought together, resulting in the formation of a salt. This is Ehrlich's "side-chain" theory. In a recent paper on testing the value of diphtheria-antitoxin Ehrlich assumes that in the poisoning of an animal with tetanus-toxin, for instance, it is necessary that certain cells (in tetanus the cells of the central nervous system) form a combination with the toxin. He calls the part of the cell which combines with the toxin the "toxophore" side-chain. He believes that the antitoxin is nothing else than these side-chains which have been cast off from the cells, the cells being again regenerated, in the process of immunization, the antitoxin in tetanus consisting of portions of the cells of the central nervous system that have united with the toxin and passed into solution. In other words, he believes that the cells of the central nervous system, having a selective affinity for the tetanus toxin, unite with it in such a manner that one of the groups of elements composing the complex albuminoid substance of these cells enters into intimate chemical union with the toxin to form a new body—the antitoxin—which flows in the blood-current.

Wassermann (*Berliner klinische Wochenschrift*, 1898, p. 4) assumed that if this theory of Ehrlich was correct it would be possible to demonstrate the presence of such antitoxic principles preformed in the cells of the central nervous system which would protect against tetanus. He took the spinal cord and brain of normal animals and ground them up with normal salt-solution, mixed the emulsion with tetanus-toxin and injected it into white mice, which are very susceptible to tetanus-toxin. He found that the spinal cord, and especially the brain, of all the animal species so far tested, as man, guineapigs, rabbits, pigeons, and horses, showed antitoxic action, while no other organ of the body possessed such an action. He found that the normal central nervous system has not only this neutralizing power against the tetanus-toxin, but that it afforded protection when injected 24 hours previously, and even when injected some hours after the tetanus-toxin had been administered.

Wassermann believes that the side-chain theory of immunity rests upon certain normal substances of the body which have a specific affinity for the toxin, and that the mode of protection against toxins after injection of the brain-emulsion is due to the fact that the affinity of these substances causes them to unite with the toxin circulating in the blood, and thus protect the body-cells from harm. He believes further that the antitoxic substances present in the normal central nervous system are identical with those found in the serum in artificial immunity.

With Takaki (*loc. cit.*, p. 5) he sought to ascertain whether the antiseptic power of the central nervous system could be traced to a substance which was soluble in water, or whether the power resided in the cells themselves; he reaches the conclusion that the latter is the case, as indicated in Ehrlich's theory. The clear filtrate of the centrifugalized brain-emulsion had practically no antitoxic action, while the cell-emulsion had this action. Neither did the fluid of the ventricles of the brain possess any action.

Roux and Borrel (*Annales de l'Institut Pasteur*, April, 1898, p. 225) point out the interesting fact that the rat is not affected by large doses of diphtheria-toxin when administered subcutaneously, but when injected into the brain the rat becomes paralyzed, indicating that the destruction of the diphtheria-toxin in the rat is brought about by the cells of the body other than those of the central nervous system.

Of like interest is the effect of morphia upon rabbits. They state that a rabbit of 2 kilos in weight can readily withstand a dose of 30 centigrams of morphia when injected hypodermically, but when injected into the brain a dose of a milligram produces paralysis and stupor, lasting for 24 to 30 hours, and the animal dies in 4 or 5 days. The cells of the central nervous system are quite sensible to the morphia, but when injected hypodermically it never reaches the cerebral cells, but is destroyed in the body by certain cells which perform the role of protective agents and probably manufacture the antitoxins.

It must be borne in mind that each of the different antitoxins known is specific for only one form of poison, and this must be quite evident if Ehrlich's theory as to the mode of formation of antitoxins holds true. We know that in chemistry we have only one particular compound formed when we mix silver and hydrochloric acid together, and for the same reason each particular toxin or poison can lead to the formation of only one kind of antitoxin, and this antitoxin can probably neutralize only that particular kind of poison.

Bardach (*Annales de l'Institut Pasteur*, 1889 and 1891) reports an interesting series of experiments which indicates that the spleen performs an important function in overcoming infection from anthrax-bacilli. He removed the spleens of numbers of dogs and found that 19 out of 25 died, while only 5 out of 25 control dogs died. Likewise, of 35 extirpated rabbits 26 died, and of the control animals not one died.

The experiments of Bardach are of especial interest when considered in connection with those of Blumreich and Jacoby (*Zeitschrift für Hygiene*, Bd. xxix, p. 419), who experimented upon extirpated animals with several other bacteria and their toxins, and found that, with the exception of anthrax-bacilli, the extirpated

animals injected with the bacteria or their toxins showed even greater resistance than normal animals. All of these experiments seem to strengthen the opinion that the antitoxic principles of different diseases are elaborated by different cells of the organs of the body.

The fact that so far no single theory seems to explain satisfactorily the phenomena of acquired immunity is not at all surprising. Each specific organism produces its own peculiar poison as the result of its metabolic activities, and its own particular lesions and symptoms, and undoubtedly protects in its own peculiar manner against subsequent attacks. In those diseases in which antitoxins are formed in the body the antitoxins are of a different nature in each disease and are most probably elaborated by different cells of the body.

The antitoxin which is best known to-day and which is most frequently employed as a therapeutic agent is that of diphtheria. Diphtheria is a distinctly toxic disease, the symptoms and lesions, except those at the seat of infection, are almost entirely due to the action of the toxin circulating in the blood. The fever, debility, and the paralysis occurring during convalescence, are probably entirely due to the action of the toxin. The bacilli are found in the membranous exudation forming upon the fauces, and occasionally in the later stages of the disease they are found in the lungs and the heart's blood.

Antitoxins are formed in a number of other diseases, and scientists have for several years been engaged in perfecting the methods of commercial production. In some diseases these attempts have proved successful, but in many others the results are as yet not very satisfactory. The experiments of Marmorek (*La Semaine Med.*, 1895, No. 17, and *Annales de l'Institut Pasteur*, 1895) indicate that his antistreptococcus-serum is efficacious in the treatment of erysipelas, though in actual practice it has not always given the results hoped for. It has, however, been found to be of exceptional value in the treatment of tuberculosis accompanied with streptococcus-infection (Stubbert, *Trans. Am. Climatological Assoc.*, 1898).

The experiments of Sanarelli (*Annales de l'Institut Pasteur*, 1898, p. 348) in the treatment of yellow fever with his specific antitoxin are of very great interest and importance. After having satisfied himself, through experiments upon animals, of the distinct curative value of his serum, he proceeded to employ it in the treatment of the disease. In 52 cases treated he had only 6 deaths. He also found it to be an efficacious prophylactic agent when administered to those who had been exposed to the yellow-fever infection.

A most interesting series of experiments by MM. Béclère, Chambon, and Ménard (*Annales de l'Institut Pasteur*, January 25, 1896, December 25, 1898, and February 25, 1899) upon vaccine immunity bring out some very important facts with regard to vaccinia which had long been assumed but never definitely determined. Their results are of immense practical interest in connection with the question of immunity in general. They found that the blood-serum of vaccinated heifers had a very speedy immunizing power when injected into other animals, even more so than the vaccine virus itself. They also studied the serums of the vaccinated man, dog, and monkey, the serum of a convalescent from variola, and finally the serum of an animal vaccinated with variola. They found all these to agree in their action, in vitrio, upon the vaccine virus, an action which they have termed "antivirulent," since the vaccine virus, after having been acted upon by a serum and inoculated into an animal, does not produce nearly so much local reaction. Vaccination causes the antivirulent power of the blood-serum to appear whichever way it is introduced, whether subepidermic, subcutaneous, or intravenous, and whether it is accompanied or not by cutaneous eruption. The serum of convalescents from variola exercises upon the vaccine virus an antivirulent action like the serum of vaccinated persons or animals. The same is true for the serum of animals inoculated with variola, whichever the way of introduction of the variola virus into the organism and accompanied or not by the cutaneous eruption.

The antivirulent substance of the serum of man and the other animals immunized against the vaccine or variola infection is of a very stable composition; it offers a strong resistance to light, heat, the moulds, and even to putrefactive agents; when dried it supports a temperature of 100° C. for 30 minutes without losing its activity, and it is not completely destroyed at 125° C.; it passes through a porcelain filter, but not through a dialyzer; it is precipitated by alcohol with the albuminoid materials of the serum and appears to be attached to the globulin, and presents strong analogies to the diastases.

The antivirulent properties conferred upon the blood-plasma by vaccine or variola infection appears after a period of incubation which varies in different species, but the duration is tolerably fixed for each, and does not oscillate in the least within narrow limits. The blood acquires the antivirulent properties after several days. In vaccinated heifers it is not fully developed until 9 to 13 days, usually 12 days, after the inoculation. The moment at which the antivirulent properties of the serum show themselves, fully developed, marks the period when the vaccine virus loses its activity and when immunity really begins.

They found the period of immunity following vaccine or variola infection to be of very variable duration in different species, and state that it is composed of two successive phases. The first phase consists of the period when the blood manifests its antivirulent properties, the second phase consists of the period when the blood does not manifest a trace of antivirulent power while the skin resists new inoculations. During

the first phase of the period of immunity the antivirulent substance passes through the placenta from the maternal to the fetal blood, and this passage is an essential condition of congenital immunity.

In the human species when immunity persists for a long time, though the duration is very variable in different individuals, one can detect the presence of the antivirulent substance more than 25 years, and even more than 50 years, after the vaccine or variola infection. In other subjects this substance shows itself only for a few months, weeks, or days after vaccination.

They believe that the production of the antivirulent substance in the course of vaccine or variola-infection and its appearance in the blood-plasma constitutes a definite reaction on the part of the organism intimately connected with the arrest of the morbid process and the development of immunity. They found that the blood-serum of vaccinated heifers has not only immunizing properties, but signally also preventive and curative properties.

Considerable work has been done in securing an antitoxin for the treatment of typhoid fever. This is a distinctly toxic disease and the blood of immune animals yields an antitoxin which has been found serviceable in the treatment of the disease. Recent reports made by Lewin (*Deutsche medicinische Wochenschrift*, January 19, 1899) and by Jez (*Wiener medicinische Wochenschrift*, February 18, 1899) indicate that the efforts being made to secure a typhoid antitoxin are promising successful results. The work of Beumer and Pfeiffer (*Zeitschrift für klinische Medicin*, Bd. xxviii) shows that the blood-serum of animals rendered immune against the typhoid bacillus possesses not only immunizing powers, but also curative powers, from the fact that it exerted a neutralizing effect upon the typhoid toxin.

The experiments of Yersin, Borel, and Calmette (*Annales de l'Institut Pasteur*, 1895) with the bacillus of bubonic plague show that the blood of immune animals contains an actively antitoxic principle which they expect will prove serviceable in the treatment of the disease.

Experiments with the specific bacteria of pneumonia and of tuberculosis also indicate that the treatment of these dread diseases will be simplified before many years by the perfection of efficient antitoxic serums. The experience at the Loomis Sanitarium (*St. Louis Medical Gazette*, December, 1898) with the antitubercle-serum, furnished by Dr. de Schweinitz, of the Biochemical Laboratory, at Washington, is very encouraging for the future. The percentage of improvements is greater than with any of the modern modes of treatment, and they have had no relapses in the cases declared cured by the serum-treatment.

In other diseases, such as pyocyaneus infection, cholera, cerebrospinal meningitis, rabies, hog-cholera, and swine-plague, curative serums have been found and employed in the treatment of the respective diseases, though in most of these the amount of positive information obtained is much smaller than in the diseases already considered.

From the vast amount of knowledge at hand to-day we are still not in a position to give a satisfactory explanation of the phenomena of immunity in general, but with regard to certain diseases we are in a position to state the conditions which underlie artificial and acquired immunity in some of the specific diseases. In others we know but little as to the causative factors in their production, as in rubeola, scarlatina, variola, vaccinia, and varicella. It is most probable that the form of immunity in the different diseases is as unlike as the diseases themselves are unlike in their nature and form of lesions. A wide field of research remains unexplored in this direction. On the other hand a form of infection which is more general than any other, that by the ordinary pus-cocci, and in which the immunity conferred is of extremely short duration, presents conditions which are not allied to those found in other diseases. The actively chemotactic properties of the staphylococci is a condition which is not encountered in the infections by most of the other bacteria, or, at least, only to a slight extent.

Of the three theories of immunity held at the present day, it is evident that each is substantiated by both clinical observation and experimental results. In some diseases one appears more active than another, but no doubt each is an important agent in the production of the phenomena of immunity. In speaking of the neutralizing effect of the antitoxins upon the bacterial toxins it must be borne in mind that this effect is only a relative one, and that probably the antitoxins act by stimulating the leukocytes or the tissue-cells, or both, to more energetic reaction against the bacteria and their poisons. The intimate action of the antitoxins is not definitely understood by any one.

A CONTRIBUTION TO THE STUDY OF MENSTRUATION AND PREGNANCY IN NURSING WOMEN.

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MENSTRUATION.

Amenorrhea is regarded as the rule among nursing women. Coupled with this view and dependent upon it, arises the almost universal belief of immunity from conception during the lactation-period. The professional opinion is not strongly fixed; different writers treat the subject as one of little importance or dismiss it in a few unsatisfactory sentences. The study included in this paper will try to show that menstruation and ovulation, as well as pregnancy, are not only possible to a nursing woman, but are commoner than is usually granted.

Anthropologically considered, we find the belief

universal among civilized as well as savage peoples that nursing women are usually free from menstrual signs, and that pregnancy is not likely to follow intercourse during the lactation-period. Despite this fact we find the women of many tribes nursing more than one child at the same time, and this is not difficult to understand when we consider that it is the duty of these women to continue the lactation for from 1½ to 15 years. Our own Indians and some of the Eskimo tribes nurse their children to their twelfth and fifteenth years respectively. The Bushmen of Africa and Australia nurse their offspring 3 years, but if another child is born in the interval, it is given to a wet-nurse, as the mother is allowed to nurse but one infant at a time. Undoubtedly the most important factor in the long continuance of the nursing in the majority of instances is the legendary security from conception while the breasts are functionally active. Subsidiary elements may be found, perhaps, in the fact that the child receives nourishment sufficient for its needs and thus saves a certain sum in the consumption of the family or tribal food-supply. Maternal love and the reputed sensations of pleasure on the part of a nursing mother may play inferior roles in determining the extraordinary length of time for which some of the savage tribes continue lactation.

To all appearances, the process of lactation is influential in keeping the menstrual flow in abeyance, and mothers who do not nurse their offspring menstruate earlier after labor than those who do. The appearance of the menses in a nursing woman, especially if she is a wet-nurse, is not complacently viewed by the laity. According to their degree of enlightenment, the menstrual return is regarded as a change of the milk into blood, into water, or, strange as it may seem, as a symptom of impending pregnancy. There are very few facts at hand which can help us in forming a judgment as to the loss in nutritive value of mother's milk during menstruation; but it is a fact that the first few menses of a nursing woman are inclined to be quite profuse. This, together with the woman's disturbed condition or actual pain, may well be responsible for a temporary change in the milk which, while not directly harmful, may not be as nourishing as usual. Wernich (*Archiv für Gynäkologie*, 1876, Bd. x, p. 568,) tells us that Japanese women are accustomed to nurse their children 3 years, and that in this long period of time the menses always recur, but that no change in the quantity or quality is recognizable.

The present study was made entirely on patients in the Mt. Sinai Hospital Dispensary. The women who apply there for relief differ from their more fortunate sisters in possessing a somewhat lower grade of intelligence, making their history-taking a little more difficult, and in the fact that most of them are slaves to severest domestic labor at all times except when they are actually in the puerperal bed. Their powers of observation are on a par with their mental capacities. In the gynecologic department more than 70% are natives of Russia. The statistics of this paper were drawn from an examination of 3,947 patients. I found among them 442 nursing women. Of these, 191 had menstruated, a percentage of 43.3. A close questioning of these patients elicited the fact that 37, or 20%, had menstruated at regular intervals after the first appearance of the flow, although the menstruation did not always follow the same type as had existed prior to the pregnancy just ended. In the majority of instances the first appearance was marked by a more profuse discharge than the woman was accustomed to see at her periods. The incentive for seeking advice was twofold, the possible danger to the mother in the continuance of nursing and the influence upon the child of nourishment given by a menstruating woman. No case has been included in which a lesion was found which might account for an irregular flow of blood.

The appearance of blood during lactation is not necessarily that of the menses. The catamenia may be simulated while a woman is nursing by the same pathologic processes as cause a uterine flow at other times. An endometritis of the fungoid variety or one resting on a septic basis, a cervical polyp, fibroid tumors of the uterus, an eroded cervix—itself a result of an endometritis—irritated by coitus, pelvic inflammatory processes, placental remains in the uterus, in short, any of the causes of a bloody discharge may be mistaken by the patient for her menses, especially as the menstrual flow during lactation is apt to be, for a time at least, irregular. Indeed, in one case in this series, the irregular hemorrhage resulting from an epithelioma of the cervix was thought by the patient to be an unusually severe menstruation. Aside from these abnormities or pathologic appearances of blood during lactation, the menstrual molimina may actually return, recurring at regular or irregular intervals.

It is most natural to seek an explanation for what must be considered a deviation from the normal or usual. In this instance, I believe we may regard the menstrual phenomena as due, in a great majority of cases, to an unusually strong "menstrual habit." Its appearance during lactation may be regarded in a biologic sense as a variation. In many other physiologic structures, variations result from the long continuance of useful or vicious habits; so the deviation from the usual amenorrhea of lactation may be placed to the credit of long-continued habit in an individual whose physiologic functions or necessities are less susceptible to rule than is usual to the majority of the species. The same tendency toward the continuance of a habit of great physiologic strength and importance may be seen in women upon whom operations have been performed, the nature of which would logically preclude an expectation of further menstruation; yet it is common to find patients after these mutilating

procedures who manifest all the subjective symptoms of menstruation if they do not have an actual flow. Habit then, we may conclude, plays an important role in the menstruation of nursing women. The use of the word "habit" in this sense is, of course, referable only to physiologic periodic recurrences and is not to be construed in the ordinary biologic sense of long continuance of muscular movements, attitude or methods of seeking and devouring food.

Heredity, too, seems to play some part in the access of menstruation during lactation, a fact which brings it into harmony with the hypothesis just advanced. Among the cases in the series now being considered, 4 are those of women whose mothers, and in one case a grandmother, had had a similar experience. I think it is more than likely that if it had been possible to secure more accurate histories, even a greater number of hereditary instances might have been found.

My figures, reached of course independently, agree with those given by Remfry, who found a complete amenorrhea in but 57% of nursing women. He examined 900 women during lactation and discovered that menstruation was regular in 20%. (*Trans. of the Obstetrical Society of London*, 1896, p. 22.) It is certainly striking that in the statistics drawn from just twice the number of patients from which I made mine, the conclusions should be precisely the same. It speaks for the reliability of both sets of figures.

PREGNANCY.

In the series of cases under consideration, 26 women were found to be pregnant. Most of them suspected their condition from the fact that menstruation, which had become an established fact with them, had suddenly ceased. Of the 26, 25 had menstruated with regularity. The discovery of the gravidity in the twenty-sixth was accidental. The number of pregnancies found being 26 out of 191 menstruating women gives a percentage of a little over 13.96 or, approximately, 14%. In this respect my figures differ materially from those of Remfry, who found that 60% of women who menstruated during lactation, conceived. I shall subsequently give my reasons for this apparent discrepancy.

The motive for seeking professional advice in the instances of the patients who considered themselves pregnant was for the purpose of having their suspicions confirmed or allayed, and to obtain counsel as to the advisability of continuing lactation. The greatest number of these patients conceived in the ninth month after the last preceding confinement, a time which corresponds to the highest average of the establishment of the menses during lactation. The next greatest number became pregnant in the sixth month. There were 1 each in the second and fifth months, 2 in the fourth, 3 in the seventh, eighth and tenth, and 2 in the eleventh. No inferences of value can be drawn from these figures, so far as I can see, except that the majority of conceptions take place at a time when the menses are well established.

It is as impossible to think of conception without ovulation as without the presence of spermatozoa. I shall not enter at length into the still mooted question as to the relation and interdependence of ovulation and menstruation. This much I can positively assert: that 25 of the 26 pregnant women had menstruated with some regularity before conception. The proof of this lies not only in their own statements, but in the fact that being notably poor observers, they would not have suspected their condition without some powerful external sign like the interruption of menstruation. Although I do not assert that ovulation and menstruation are synchronous or dependent the one upon the other, I believe that the truth of the matter is that the two functions are related to this extent, that both may proceed together and that ovulation is much more frequent than menstruation. Further, that when the two processes take place simultaneously or nearly synchronously, conception under favorable circumstances is fostered.

The discrepancy existing between my deductions and those of Remfry are merely apparent. Certainly the few pregnancies occurring among so large a number of nursing menstruating women as I found is striking. But there are some elements which can help to explain this small number. Coitus among the patients upon whom this study was made is not as frequent as during the nonnursing period, religious reasons, I am told, interfering. Methods of prevention are now in common use among the poor as well as the rich. Abortion purposely induced is very frequent among these people, for they are "midwife-ridden" in all that the term can imply. Natural abortions, which can easily befall a woman who is nursing during an early pregnancy, aid in keeping the rate of fullterm pregnancies down. An additional reason for an unusual number of abortions in this particular class of patients lies in the necessity of most of them being breadwinners, which, with them, means not ordinary work but toil of the hardest kind. There is still the theoretic reason based on a principle of physiologic economy which would dictate that a nursing woman requires her main strength as derived from her food for the offspring that is living rather than for one which is to be. All these factors, then, aid in keeping down the number of pregnant nursing women who come under observation in a dispensary service. Remfry's investigations were made under different auspices and among people of a class in whom more reliance could be placed.

I am inclined to think that my own statistics are more reliable for general interpretation; this belief does not arise from any sense of proprietorship, indeed, but rather because I think that they are representative of certain large communities. Though the patients from whom my figures, with their inferences, are drawn do

not represent the entire community in point of social status, mode of life, and general morality, it is fair for us to assume that at least 14% of nursing menstruating women conceive. Eliminating the causes just enumerated which lead to temporary sterility, it is evident that the actual number of pregnancies in any given number of nursing women must exceed the percentage I have found. Moreover, the practices which make for small families among the poor are more than common among the better classes of the community. So the mere fact that these deductions are made on the examination of dispensary patients, is not an argument against their being representative.

The practical bearing of this clinical investigation lies in a consideration of the influence of the milk of a menstruating woman upon her child, the effect of pregnancy upon the milk and the child at the breast, and the result of nursing upon gestation. So far as menstruation is concerned, if the flow is profuse and the woman is much disturbed by her catamenia, it is likely that the milk will be so altered in quality as to rob it of some of its nutritive value temporarily. From the few examinations made of milk secreted during a menstrual flow, it is almost impossible to draw any conclusions; but from Flint's statements it would seem that the proteids and inorganic salts are increased while the sugar is diminished ("Physiology," p. 68, and Becquerel and Vernois, *Comptes Rendus*, 1857, Vol. xxxvi, p. 188). This change in the milk could be met by exercise and diet at the menstrual time and does not alone constitute a reason for the withdrawal of the child from the breast. Bearing in mind that but 20% of nursing women menstruate regularly, in cases in which the infant is much disturbed during the continuance of the flow and in which the recovery is slow and unsatisfactory, it would better be withdrawn. Especially is this course to be recommended if the mother bleeds profusely and becomes anemic and worn from the combined effects of the nursing and menstruation. The greater proportion of women menstruate but a few times or but once while they continue to nurse, and it must not be forgotten that the first menstruation is likely to be profuse. Hence the conclusion must not at once be reached that the child must be taken from the best supply of food it can possibly obtain because the menses have appeared a single time. If the mother is little disturbed and the infant suffers no perceptible harm, there is no rational reason for stopping the supply of breast-milk. The milk of a menstruating woman is not poisonous. Incidentally, a thorough examination of the mother should never be omitted in these cases lest some pathologic process of importance escape detection.

The case is somewhat different when we come to consider the advice to be given to a pregnant woman who has a child at the breast. On general principles it may be said that few women have sufficient vital force to nurse one child and to give proper nourishment to another *in utero*. Provided the woman is strong and vigorous and is capable, to all appearances, of doing justice to both the child and the fetus, nursing may be permitted for a few weeks until the child at the breast is capable of taking and assimilating other food. This attitude is especially to be taken if the season is one in which it would be considered disadvantageous or dangerous to change the child's nourishment, or if the infant is a weakling and has begun to thrive upon its natural food. A wet-nurse at this period is usually difficult to secure. The danger of inducing an abortion by constant manipulation of the nipple through the intimate reflex relations which exist between the breast and the uterus, must be borne in mind in deciding this question; but if the third month of pregnancy has passed, there may be no harm in allowing the nursing to continue for a short time, since most abortions occur in or before this month. As in many other matters of importance, common sense and ordinary judgment must assist the physician in forming his advice. There is no rule; but in general, pregnancy is a strong contra-indication to nursing.

In conclusion, I must thank Dr. Joseph Brettauer, in whose clinic this study was made, for the use of the material. I shall continue the investigation and hope to make a subsequent report which shall confirm the conclusion already formed.

Table.

Number of patients examined, 3,947 (dispensary numbers, 5,936 to 9,881).

Among these were 442 nursing women, or 11.18%.

Of these, 191 menstruated, or 43.3%.

The menstruating women had the first appearance of the flow in the following months after delivery:

1	2	3	4	5	6	7	8	9	10	11	12	
...	11	17	25	17	18	20	25	23	11	9	15	= 191.

Percentage:	2d	month,	.057
	3d	"	.088
	4th	"	.13
	5th	"	.088
	6th	"	.093
	7th	"	.104
	8th	"	.13
	9th	"	.119
	10th	"	.057
	11th	"	.046
	12th	"	.078

Of the menstruating women, 26, or 13.6%, were found pregnant; of the nursing women, 6%.

These women conceived in the following months after confinement:

2	4	5	6	7	8	9	10	11	
1	2	1	5	3	3	6	3	2	= 26.

Percentage:	2d	month,	.038
	4th	"	.076
	5th	"	.038
	6th	"	.19
	7th	"	.114
	8th	"	.114
	9th	"	.228
	10th	"	.114
	11th	"	.076

REPORT OF A CASE OF TYPHOID FEVER; WITH PERFORATION, OPERATION, AND RECOVERY.[1]

BY NAJEEB M. SALEEBY, B.A., M.D.,

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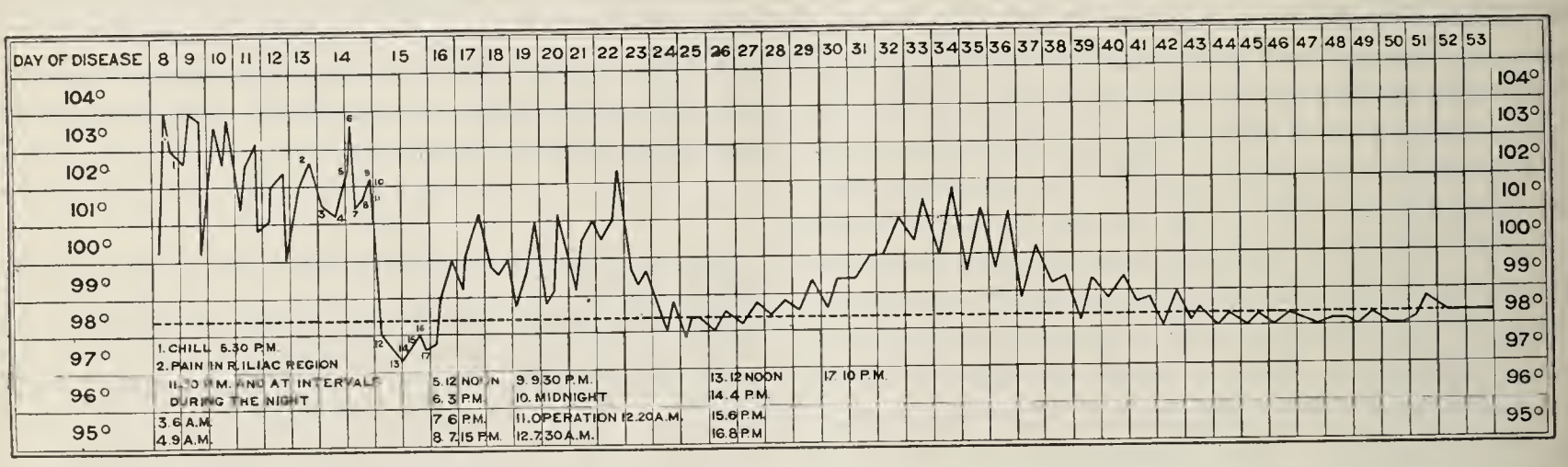
CORPORAL N. F., of Company A, 49th Iowa Volunteer Infantry, admitted to Surgical ward, Post Hospital, Camp Columbia, Havana, Cuba, April 7, 1899. Returned to typhoidal ward, May 16, 1899. *Family History:* Several aunts on father's side (about 6) died of typhoid fever. *Previous History:* Pneumonia when 6 years old; scarlet fever when 8 years old; typhoid fever during September and October, 1898, while in Camp Cuba Libre, Jacksonville, Fla. The attack was severe, marked by excessive diarrhea, and bloody stools for a few days. He resumed his duties December 1, 1893, and was well and strong until the present illness.

History of Present Illness.—The onset was insidious, marked only by headache and slight feverishness after 3 P.M., March 24, 1899. The development of the disease was gradual. He played baseball in the afternoon of the second day and remained in quarters, working part of the time, until March 28, 1899. That day he had high fever and was admitted to the regimental hospital. High fever on the 29th and 30th. Bowels kept rather constipated. On admission, April 1, 1899, the temperature was high; weak; abdomen slightly tender in the right iliac region; typhoidal eruption present; spleen slightly enlarged. The fastigium was not marked by any note until the night of April 6, the thirteenth day of the disease.

At 11.30 P M. of that day, the patient was awakened by an unusual, acute, griping pain, which he located at the pit of the stomach and which was alleviated by turning over on the stomach. The pain recurred at intervals in the night. The bowels moved twice during the day. Next morning the abdomen was unusually tender and painful. Calomel was administered in grain-doses every hour, for four doses, and was followed by half an ounce of magnesium sulfate at 3 P.M. The temperature was then 103.6° F., pulse 108, respiration 18; an ice and alcohol-sponge was given. The pain remitted but remained all day, and increased markedly after the administration of a soapsuds enema at 4 P.M., which produced a slight movement of the bowels. Dr. Alva S. Pinto, the attending physician of the patient, regarded that as a strong indication of perforative peritonitis and called Major Ira C. Brown and myself in consultation.

At the time of consultation, at 5 P.M. April 7, the expression was slightly anxious, the patient looked distressed and watchful against pain, and kept in the dorsal position with the knees raised and the lower extremities flexed on the pelvis. The typhoidal eruption was marked and profuse on the abdomen and chest. The abdomen was flat, very rigid, extremely tender, especially in the right iliac and hypogastric regions. The abdominal respiratory movements were controled and lessened; respirations 18. Percussion was slightly dull over the lower part of the hypogastrium, tympanitic above that and over the lower part of the spleen. Hepatic dulness was diminished and displaced upwards. The pulse was moderately full and strong, averaging about 96. The temperature was 101.4° F., perspiration slight. The tongue coated, slightly brown and dry. No gastric disturbance, food retained and well digested. Sensibility and intelligence unimpaired, calm and self-possessed. Bladder empty, no urinary disturbance. Major Brown and Dr. Pinto advised operation, but preference was expressed to wait for more confirmatory symptoms of a gastrointestinal nature. Pain continued, severer; vomited spontaneously greenish fluid at 5.45 P.M. At 7 P.M. the pulse began to get smaller, weaker, and more rapid; temperature 101.7° F. About one pint of urine was passed at 9.30 P.M. Bowels moved rather involuntarily at 10 P.M., and he vomited spontaneously again a little greenish fluid at 11 P.M. Operation was then decided upon, and his removal to the surgical ward ordered.

The Operation.—The skin incision was 3¾ inches long, parallel to and a little to the inner side of the external border of the rectus abdominis muscle, and extended ½ inch above a line joining the center of the umbilicus and the anterior superior spine of the ileum. The peritoneal cavity was entered through the sheath of the rectus muscle. A free straw-colored serous fluid flowed out of the wound. The small intestine was brought outside the wound and inspected. Three well-defined, thickened, and inflamed patches were seen in the ileum. The first measured ½ inch in diameter and was located within 1 inch from the ileocecal valve. The second measured 1¼ inches by ¾ inch, had a pinhead perforation near its center and was located about 18 inches above the same valve. The third measured 1 inch by ¾ inch and was 30 inches above the valve. The peritoneum here was rough and dull, and presented a condition of approaching necrosis and perforation. The second patch was seen first and was attended to immediately. The surface was cleansed, the hole was touched with nitric acid and was made to lie at the bottom of a longitudinal infold of the wall of the intestine. This was secured by a continuous silk suture No. 1, the line of the suture running within the margins of the patch, and was strengthened by another continuous suture of catgut No. 1, running outside the limits of the patch. The area of the third patch was next infolded in the same manner and secured by only one continuous catgut suture. The first patch was so near the valve, that the mesoappendix was grafted over its surface and held by a continuous catgut suture that joined the free edge of the mesoappendix to the further margin of the patch.



The peritoneal exudate was serofibrinous in variety, sweet in odor, and formed no adhesions. It looked clear at first, but got turbid with fibrinous flocculæ when the intestines were drawn out of the pelvis. About one pint of fluid was evacuated. The abdominal cavity was mopped with sponges, intestines wiped and returned.

Three large drains of twisted iodoform gauze were introduced, one into each iliac fossa, and one into the pouch of Douglas, and were brought out of the lower angle of the wound. The rest of the peritoneal wound was closed by a continuous catgut suture, the other layers by cross silkworm-gut sutures. Perfect coaptation of the edges of the skin was secured by intervening superficial interrupted silk sutures

The operation started 30 minutes after midnight and lasted about one hour. Anesthesia was started with chloroform and continued with ether. During the first 3 days after the operation strychnia was given hypodermically every 4 hours regularly. Nutritive and stimulant enemas twice daily. Morphia and atropia, together or separately, as indicated. Fluids begun early, but cautiously, in small regular doses.

[1] Published by authority of the Surgeon-General.

Ten grains of calomel were given at 11 P.M., April 8, and a soapsuds-enema at 6 A.M., April 9; bowels responded slightly, but moved freely twice in the night of April 9; not the slightest disturbance followed later. The catheter was used only once, on the first day, 18 ounces of urine being drawn. The urine was markedly acid, dark lemon in color, specific gravity 1028, no trace of albumin. Urine was normal in amount and quality on the second and third days.

During the first day the patient was perfectly conscious, bright, and very comfor able, all pain disappeared after the operation. He was nau-eated at times, and vomited for 3 times a little greenish fluid and mucus. The temperature kept between 97.6° and 98° all day and next night, the pulse was of satisfactory quality, and ranged between 88 and 110, rapidity was chiefly due to atropia and whisky. During the second day, April 9, the temperature rose to 100°, and the pulse increased to 114 at one time, but kept of good quality. During the third day the temperature increased again, but the pulse resumed its proper strength and rapidity, was full and regular. There was no pain or tenderness in either wound or abdomen; no discharge to mention; no gastrointestinal disturbances whatever.

The wound was dressed first on April 12. The dressing was dry; the coaptation in upper part of wound was perfect, healing primary. The drains were removed and a little slimy whitish discharge squeezed out. The right iliac and pelvic drains were replaced by small ones, and the lower part of wound stitched. Stitches and drains were removed at the third dressing on April 19, when only ½ inch of wound was left open at the lower angle. Healing was complete on May 7, 1899.

After April 10 all medication was cut down, only strychnin and champagne were continued by mouth.

No incident of any account occurred after that. The course of the fever ended on the 18th. The relapse started on April 22 and ended on May 7; the fever was moderate and caused no distress at any time.

Remarks.—The first course of the fever lasted 25 days, the relapse 16 days. The bowels tended to constipation all through the course of the disease. The perforation, in my opinion, started on the thirteenth day of the disease. Pain was the first, constant, and most distressing symptom. Shock, whether due to perforation or operation, is the cause of low temperature. The perforation was insidious, marked by no sudden reduction of temperature, or sudden change of pulse. Gastric symptoms were waited for for confirmation. The first vomiting occurred about 18 hours after the perforation. Similar tenderness and rigidity of the abdominal muscles were observed in another case of typhoid fever, due to hemorrhages into the abdominal muscles. The peritoneal infection was evidently not very virulent; no culture made of it. Perforative peritonitis has occurred oftener than was expected during the typhoid epidemic of Camp Cuba Libre and Camp Columbia. Being often insidious, it was not always known before death. It was the immediate cause of death in 11 out of 32 autopsies done by myself on typhoid fever.

HEAT VERSUS FEVER.

By FREDERICK W. D'EVELYN, M.D., Edin. Univ.,
of San Francisco, Cal.

The longer and more intimate association we have with disease, apart from textbooks and didactic lecturers, the more we recognize that there is an innate attribute which modifies its course, interfere with it as we may. Fortunately this molding is a conservative one, tending, in the average, toward preservation or recovery rather that toward dissolution or death. The recognition of this quality is not a matter of indifference, but a valuable aid, beneficial to the patient, and to the physician instructive in exact ratio as he observes and appreciates it.

The quality is not constant in its demonstration even in the same or allied diseases, but so varies that it tends more to harmonize with the individuality of the patient than to be a rigid ally of the disease itself. This apparent paradox is easily cleared by recognizing that the variation is due, not to the irregularity of the disease in its onset, trend, and prognosis, but to the especial influence exercised by the personal equation of the patient upon whom it is grafted. The clinical value of this observation is to impress the necessity of seeking to accommodate the disease to the patient, not the patient to the disease; and also to emphasize the fact that the patient is an individual, not simply the exponent of a malady. This will somewhat prohibit an unfortunate ambition very largely in evidence, which concludes its investigations with "naming the case," and with this baptismal effort completes the diagnosis; to which, of course, is linked inseparably a treatment complemental to the nomenclature, and in which (probably) the patient is simply an accidental factor, or, at the best, a foreign body.

Notwithstanding the great advances made in clinical medicine it must be admitted that a large percentage of diseases are accepted as the results of presumed, rather than of actually determined causes. This indefiniteness has had a reflex effect, so that physicians frequently find themselves no longer anxious about the cause, but perfectly satisfied if the presence of a number of symptoms—a concomitant group—is recognized, this from a clinical point of view constituting the disease—the result accepted in lieu of the cause. We may even go farther and consider the most prominent or most intensified symptom as the one object of attack which demands all of intervention, and which constitutes the guide for treatment. This symptom is all that is wanted; once found, investigation may cease; we have exalted the symptom, and in so doing have named the disease.

In the subjugation of this symptom many flatter themselves that they are dealing directly with a primary cause; and following these premises of error adopt that chronicity of routine-interference which "attacks the disease" and overlooks the patient. This ultimates in results at best accidentally harmonious, always clinically uncomplimentary, and oftentimes pernicious.

No class of maladies furnish better demonstration of this method of procedure than the acute, or recurrent, general diseases—especially when accompanied by a rise of temperature, or as it is technically said, "the

fever." The fever at once becomes a *bête noir;* mental anxiety and therapeutic attack all concentrate upon the symptom "heat." The patient is hot,—so the thermometer says; make him cold and of course the "disease is under control,"—a line of argument parallel with that of the Zulu medicine man, who, when he finds his patient shivering and chilly, cuts slits in his flesh and fills them with spice—"hot medicine"—so that he may thus warm up the sufferer.

If we might specify a disease in which the above fallacy is more rampant than in others, we would name "typhoid fever,"—that combination of concomitants, which, for want of a more specific title, we so denominate. The great object is to "make the fever come down;" a result we flatter ourselves we have obtained when the thermometer registers a lower degree of heat. Hence the agents employed in treating fever must be those that bear directly upon "heat." Thus we have proposed a most grotesque series of suggestions, from the antipyretic which arrests activity of circulation, down to the sculptured ice-block upon which the patient rests, while a perspiring interne, or a trained nurse, carefully calculates the isothermal point at which the patient ceases to melt the ice, and the ice ceases to chill the patient. And thus we treat "fever."

Fever is a symptom; the reduction of heat is not equivalent to a reduction of fever, and is not equivalent to a modification of the intensity of the disease. "Fever" is a relative term; relative to the individuality of the patient as clinically represented by his tissues and reactions. To say that the temperature is 102° is not imparting information *per se* of a clinical value, and most certainly to use it as a guide will but lead to false deductions. Fever in its relationship to that especial case may be conservative or it may be destructive, and will demand more intelligent interpretation than "cooling off" simply because the thermometer registers the elevation.

How frequently, however, do we see such a course pursued as is here outlined. Indeed it has almost become an axiom that a registration—the simple thermometric fact—must be treated so and so, and a routine-method presented which has nothing to recommend it, while it may have much to condem it. Lately we have the "tubbing-point," the "ice-pack," the "rectal-frost," as coequivalents to "fever intensity," and ere long these standards will take the place of numerals upon the clinical thermometer, so that an observant porter can as successfully and as intelligently interpret symptoms as the "trained physician."

The blind devotion with which many cases are treated, guided solely by the brainless registration of a clinical thermometer, is most deplorable. The fiat is on the order-sheet: "Temperature 102°." "Tub." The unfortunate patient is chilled; his teeth chatter,—his face blanches; the cutaneous vessels are contracted,—the internal organs, already burdened, are passively congested. If the patient complains bitterly of the cold "give him whisky."

Now the thermometer drops a degree and the "fever" is said to be "reduced," and yet not a single eliminative avenue has been opened, not a moment's surcease from the intensity of the primary cause.

Later the operation is repeated; the rest—so essential to reduce powers of resistance, so calming to nervous tension, is broken upon; and thus is perpetuated the "fever" treatment until the natural tendency of the disease toward a recovery asserts itself and overcomes—or else nerve-control over the reactionary centers is fully subverted; disintegration of tissue with complete liberation of heat ensues. The thermometer fails to rise, and so does the patient.

We do not overlook the possibility of rise of temperature being indicative of a heat-destruction incompatible with tissue-integrity and functional metabolism, in which "heat" is, for the time being, the causative factor of relative danger. As such it immediately suggests the proper and rational lines for interference; but this is not parallel to the type referred to above.

In disease "heat" is, in the active stage—(not the collapse-stage which is the quiescence of defeat) a metabolic intensity to get rid of effete products by elimination. Presuming for a moment that our disease is simply the symptom-fever, do we in any wise aid the suggestion of nature by relatively chilling the surface and driving to greater depths the blood which seeks to dilate the superficial vessels and stimulate into activity the cutaneous circulation?—an effort only partially successful owing to the dehydrated condition of the blood producing a viscidity which permits of but tardy progress through the vessels, and which is ineffectually driven by a heart whose contractile integrity is sadly deficient because of the muscle-poisoned fibers of the myocardium.

What is really necessary in such cases is warm water externally, free libation internally, or warm rectal injection, rest, and as little shock to the patient as is possible:—no useless disturbance to overstrain tissue whose powers of self-protection are already reduced to a dangerous level.

Above all, we need a more intelligent interpretation of a rise of temperature than is given by the elevation of a clinical thermometer.

Note the dry, leather-like tissues of a typhoid case postmortem, and you will get a suggestion that water is the most potent therapeutic agent. Treat the fever from within outwards, and note that surface algidity is not a synonym for remission of fever.

The Treatment of Epilepsy.—Suckling (*Birmingham Medical Review*, March, 1899) states that in his experience strontium bromid has not been so useful as the bromids of potassium and ammonium. He prescribes:

℞.—Potassium bromid.....10 grains.
Ammonium bromid.....10 grains.
Tincture of belladonna.....10 minims.
Peppermint-water..... 1 ounce.

The Philadelphia Medical Journal

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The providing of modified milk, in accordance with doctors' prescriptions, to the sick babies of the tenement-house districts during the summer months, is a noble charity that has been carried on in Boston for the past 8 years. It is supported by voluntary contributions, and has the practical endorsement of about 250 physicians of Boston and vicinity, who are also liberal contributors. It would be as hard to estimate the life-saving due to this measure as it would that due to the giving of ice. The wife of a physician in this city, who had only the sum of $3 a week to give in charity, made arrangements with an ice-company for a net rate and secured the daily delivery of a small quantity of ice to 12 families, in which there were either small infants or helpless old people. She has yet to see the first instance of waste or of abuse of the charity, while there is, apparently, more gratitude than for more ostentatious giving. Even the necessarily small amounts of ice given have proved invaluable in several cases of illness during the recent heated term.

The organization of the Army Nurse Corps has been ordered by Surgeon-General Sternberg. It will be under the immediate supervision of Dr. Anita Newcomb McGee. It will consist of chief nurses, nurses, and reserve nurses. The order provides that the Surgeon-General may assign female nurses to duty at all army hospitals where the cases treated require the care of trained nurses. Contracts for nurses will be for one year, except immune nurses, who will not be required to sign for any definite period. For service in the United States a nurse will receive $40 per month, and in any of the colonies $50. Chief nurses over five or more nurses receive $10 additional, and over ten or more nurses $25 additional. We judge that this order secures the essential features of the reform desired by the associated Alumnæ of Trained Nurses, and which was unanimously endorsed by the American Medical Association at its last meeting. We congratulate the nursing profession, as well as the army, upon this most progressive, wise and just order, whereby a noble and earnest body of trained workers will receive proper recognition, the sick soldier be at least as well cared for as the city pauper, and the Government spared the necessity of calling upon charitable organizations for the services it should itself supply. Three classes come thereby to their own: the nurses, the soldiers, and the doctors.

The British Medical Association, judging from the character of the addresses presented, must have enjoyed an exceptionally interesting meeting. We have before spoken of the address of the President, the conclusion of which will be found elsewhere. The address in surgery by Alexander Ogston, which constitutes our leading article this week, is particularly interesting to American readers, dealing as it does with the matter of efficiency in the medical service of the army and navy, and considering at length many of the problems encountered by this country in the late war. The address delivered to the Section on Tropical Medicine is a most valuable resume of the recent discoveries regarding malaria, and it would be difficult to find a more valuable review of recent work in physiology than is contained in the opening address of the president of that Section. These two addresses are also given practically in full elsewhere in our columns. Pardonable pride will be felt in the prominence accorded in the proceedings to representative American medical men, as shown in the reasonably full account of the meeting which we give. The JOURNAL and its readers are indebted for this excellent service to the courtesy of the Editor of the *British Medical Journal.*

Boycotting the Sick.—It has remained for the strikers in Cleveland to demonstrate to the world that even the claims of a dying child are not sacred in the eyes of labor-agitators and rioters. A physician of that city, according to report, was attending a little girl, the daughter of one of the non-union workmen on the trolley cars. The child was in a dying condition. One day last week, as the doctor was approaching the house, he was intercepted by two men, who warned him against giving medical services in the family of this peaceable workman, under penalty of the dire displeasure of the strikers. Loss of patronage, we suppose, was to be the result. The physician, to whom all honor is due, replied in language not to be surpassed in emphasis and point, and told the thugs not to boycott him, but to boycott heaven in favor of another place. This incident is unique, we believe, in the history of strikes and boycotts; and will do more to disgust the public with these labor-demonstrations than could all the dispassionate critics in the world. When strikers, to redress their grievances, direct their warfare against dying children, and the physicians who attend them,

they condemn their own cases in actions that speak louder than words, and in a language which all men can read and understand.

The Yellow Fever.—There is good reason to believe that the outbreak of yellow fever at the Soldiers' Home at Hampton has been gotten under control, and much credit is due the authorities for their prompt and successful application of modern methods of hygienic procedure. To have called the first cases by any other name, to have hesitated, or to have been restrained by doubt or intimidated by other influences, would have meant a wider dissemination of the disease and greater difficulty in its control. Though, perhaps, all danger is not yet over, fear may largely be allayed by a knowledge of the facts. An open enemy is less formidable than a concealed one. Epidemic prevalence of yellow fever is to be prevented by the prompt recognition and the proper treatment of the first cases. With the laudable purpose of furthering these ends, the Supervising Surgeon-General of the Marine-Hospital Service has had prepared by officers of his service a series of articles dealing with all the various aspects of yellow fever, and which have been forwarded collectively not only to the officers of the Marine-Hospital Service but also to State and local quarantine-officers and to others to whom it was thought they would prove useful. These papers have been reproduced in the Annual Report of the Supervising Surgeon-General of the Marine-Hospital Service for the fiscal year 1898, and we have little doubt but that they can be secured on application by those interested.

Shotgun Quarantines.—The newspapers report a state of things in Norfolk and Newport News that would be grotesque if it were not so serious. Under the influence of fear, caused by a few cases of yellow fever in the Soldiers' Home at Hampton, miles away, those two cities at once instituted what is called a "shotgun" quarantine. The beach and country were patrolled for miles around by citizens armed with Winchester rifles, and tug boats were stationed in the harbor to repel with violence any unwelcome visitors.

It is easy to calculate that the number of citizens required for these *sanitary* precautions must have been very great; and that these citizens, armed with irresponsible power and influenced by unreasoning fear, were in a mood to break the law rather than to enforce it. Such a display is a spectacle for gods and men.

If one half of these citizens had been put to work to clean out their cities, they would have accomplished more to control the spread of yellow fever than they would by patrolling their frontiers for a hundred years. In this age of sanitary science such a spectacle is ludicrous. It proves that the populace cannot be relied upon in such emergencies, and that a central authority, thoroughly equipped with knowledge and appliances, is needed both to control epidemics and to allay popular hysteria. From our own personal knowledge of Norfolk and Newport News we should say that these cities need, not shotguns, but brooms, mops and shovels to make and keep them clean. The whole country has an interest in their disinfection at present.

The problem of civic cleanliness is by no means settled by the use of asphalt in paving. When asphalted streets are sprinkled to lay the dust, the result is the formation of a sticky, viscid coating of mud or filth, impossible to avoid, disgusting to the eye, and furnishing an object-lesson of value as to the source of disease. It cannot be denied that the use of asphalt is a great step ahead in sanitation, but there is still room for improvement. American cities can learn much from the city of Breslau in the work of keeping the streets clean. There each man has charge of four squares of the city streets. His tools for keeping the streets clean are an iron hopper wheelbarrow, a shovel, a broom, and a rubber scraper about $3\frac{1}{2}$ feet long. The rubber is fastened in a vice-like wooden clamp and is about 4 inches wide, $\frac{1}{4}$ inch thick, and very stiff. This man during the day is continually going over his four squares, taking up the litter and keeping the streets thoroughly clean. Early in the morning, after having cleaned the street, he takes his wheelbarrow, loaded with very fine, sharp sand which he scatters with his hands or a small shovel lightly over the streets, to prevent slipping. Should it be a rainy day, he repeats this process several times during the day. Once a week, two sprinkling cars are sent out alongside of each other, so that they cover the whole street at one time with water, washing the same thoroughly. Immediately following the sprinkling cars come 4 one-horse roller-brush sweepers, about 2 feet in diameter, sweeping the water, slime, etc., into the gutter, when it is piled up and carted away. Then the man comes along with his wheelbarrow and sprinkles sand all over the street. In spring or autumn, when the streets are often sloppy or wet, the washing is done several times during the week. The washing is done for the purpose of removing the slime, which the asphalt seems to leave, and to keep the street from being slippery; also for the preservation and hardening of the asphalt.

The care of destitute children is one of the problems in social government that has always engaged the serious attention of thinking men and women. It may be said that good citizens are made, not born, and whatever a child's heredity, it may be helped to a life of usefulness or otherwise in accordance with its environment and education. Many plans have been proposed for the care and training of the offspring of the poor, the unfortunate, and the vicious, and of those orphaned by death, but, of all, that has proved the most successful that aims at placing these wards of the State in families amid

such surroundings as will conduce best to their physical, mental and moral development. The time has come when it can be said with assurance that the institutional care of children is not the most satisfactory, or the most successful solution, of the problem. It is true that by this means much good has been done, and probably will continue to be done, but in order to attain the best results the dependent child must be placed amid the proper domestic and educational surroundings. The placing of children in homes has been systematically practised for many years in both New York and Pennsylvania, and other States have adopted a similar mode of procedure. It is also in use in England and Scotland. The Australian colonies have devoted particular attention to the subject and have devised most comprehensive plans. In some instances the children are adopted; in other instances a small sum is paid for their board and care; but in all instances they are kept under constant and careful observation, through visit and report. They are thus afforded opportunities for education, with the prospect of becoming self-supporting and useful citizens of the State. The underlying principle is that of individual care, and the results have amply justified the method and realized its anticipations. In New York and Philadelphia the plan has been amplified by securing homes and employment for mothers with babies, thus accomplishing a manifold good.

The Bacillus of Yellow Fever.—The search for this bacillus, it is to be hoped, will be favored by the mild epidemic at Hampton. The medical officers of the United States Army and of the Marine-Hospital Corps are especially interested in this question, and some of them are well-known experts, competent to pursue advanced bacteriologic studies. Surgeon-General Sternberg himself is, we understand, making studies in cultures from yellow-fever cases, and has isolated a bacillus which he regards as identical with that of Sanarelli, but hesitates to claim that it is the true germ of the disease. Some of the assistants in the army medical museum, under Dr. Sternberg, have issued a preliminary note, in which the statement is made that this bacillus, in its form, and its effects on the lower animals, is closely allied with the bacillus of hog-cholera. Doubt has been thrown on the bacillus of Sanarelli, by the fact that it has withstood a temperature far below zero, and has afterwards been active. Several of the officers of the Marine-Hospital Corps have been studying the subject in Cuba, and one of these officers, we understand, is now on duty at Hampton. We thus have a right to hope that with such abundance of material and unhampered opportunity, our army medical experts may be able to throw some light upon this disputed question.

In the meantime it is most satisfactory to note that the epidemic in the Soldiers' Home seems at this writing to be well under control. As it is still only the second week since the disease was recognized, and therefore efficiently combated, we think this is noteworthy. Of course, the infection may not yet have run its course, and congratulations are hardly yet in order; but it does not seem premature to call attention to the energetic and thoroughly business-like and science-like way in which the Government has conducted this affair. The whole thing is an object-lesson to other communities, which should learn that energy, cleanliness, and sanitary methods are the means of salvation in such a crisis. In fact, not a few communities in this country might take this opportunity to apply the ounce of prevention that is better than a pound of cure.

The Role of Mosquitos in the Dissemination of Malaria.—There is perhaps no more interesting subject in the history of medicine than the evolution of our present knowledge of the etiology of malaria. It is less than two decades since Laveran first described the parasites of this disease, but during this time there has been ceaseless activity in the study of the causative agents, and of the modes and media by which they are disseminated. It was long ago hinted by American physicians that malaria is transmitted by insects, and especially by mosquitos, but it is only within the last few years that proof of the correctness of this proposition has been forthcoming, and it is largely due to the labors of Ross, an English surgeon in India, that this result has been brought about. The work of Ross has been ably supplemented by that of Italian investigators, until now almost the entire life-history of the hematazoon of malaria is known. Admirable summaries of our knowledge upon this important subject have from time to time been published in the *Centralblatt für Bakteriologie, Parasitenkunde und Infektionskrankheiten* (1899, I, pp. 161, 877, 903) by Nuttall, formerly associate in hygiene in the Johns Hopkins University, and now assistant in the Hygienic Institute at Berlin. In the last of these communications it is pointed out that the discovery claimed by a scientific commission (consisting of Koch, Pfeiffer, and Kossel) appointed by the German Government to investigate malaria in Italy, to the effect that the proteosoma could, after impregnation, be found in the stomach of the mosquito transformed into a worm-like body, as had previously been observed of an allied organism, the halteridium, had already been made by MacCallum and been confirmed by Ross. It is further shown that the supposed discovery by the commission that the crescentic bodies with their flagella are not degenerative forms, but that their chromatin bodies can be stained by proper methods, had previously been made by others, including Laveran, Mannaberg, Manson, Dock, Metschnikoff, and Simond. These facts are pointed out, not for the purpose of raising any questions of priority, but merely in the interests of accuracy, which should be zealously cultivated in the discussion of all scientific matters.

The Separate System of Imprisonment.—The Pennsylvania Prison Society, in its annual report, has published a paper on this subject, by Dr. Julius Morel, of Brussels, which makes most interesting reading. It is noteworthy that not a new prison is now being built in Europe which is not on this separate plan—a fact which we commend to the consideration of our American penologists, who, with some exceptions, are still wedded to the congregate system, which, as it appears, finds no favor in Europe. Mr. Tallach, Secretary of the Howard Association of London, quoted by Morel, sums up the following advantages of the separate system: It is more deterrent than the congregate system. It is infinitely more reformatory and more free from corrupting influences. It is less demoralizing to the prisoner's family. It gives better opportunity for religious and secular instruction. It promotes fewer cases for prison discipline. It furnishes greater facilities for the prompt detection of insanity; and, finally, it protects the prisoner on his discharge from future recognition by other prisoners.

On the subject of insanity, Dr. August Voisin, of Paris, is quoted as saying, after careful observation, that the separate system does not cause insanity and suicide more than any other plan of detention. The proportion of morbidity in the separate system is only 1.41%, while it is 3.35% in the other system. Morel even attempts to show that a large proportion of cures, in cases of insanity, are effected in the separate system. He claims that this regime does not predispose to mental disease.

The prisoners themselves, as a rule—certainly all the more intelligent ones—prefer the separate system. Of 29 prisoners, sentenced for life, who were examined by Guelton, all but 2 preferred separation, although they knew that they had no hope of liberty. The two exceptions were morally depraved. Many of the 27 had served previous sentences on the congregate plan, and had found it "disgusting." Life in his own cell was to each of them more quiet and peaceful.

It must be understood, in this connection, that the "separate" is distinct from either the "silent" or the "solitary" system. The first simply means separation from other prisoners; it is not *solitary*, because a certain number of visitors are allowed. The *silent* system may be imposed with the congregate system, and means that the prisoners are not allowed conversation. It is a potent cause of breach of discipline. Morel condemns both the solitary and the silent systems.

Antivaccinationists have been making capital out of the alleged prevalence of smallpox among American troops in the Philippines, stating that the occurrence of 151 cases of variola (77 of which were fatal) and 85 cases of varioloid (none fatal) in this command of 30,000 men, whom they state to have been "all well vaccinated," is decisive proof of the uselessness of vaccination. In response to inquiry into the matter by the Jenner Society, the War Department attributes the occurrence of these cases to a slight laxity in enforcing the army regulations in regard to vaccination and revaccination, due to the rapid increase of the army from 25,000 men to 280,000, the necessity for such enforcement being left to the discretion of the medical officer. In the Philippines, at the first outbreak of the disease, the vaccine received from San Francisco appeared to be inert, owing to the length of time occupied by the voyage and the heat, and some was obtained from Japan; but, ultimately, the Board of Health of the city of Manila prepared a quantity that proved efficient. But this, of course, meant delay and the possible infecting of some of the men who were not immunized, hence leading to the occurrence of the cases reported.

The War Department claims that under its regulations, when faithfully carried out, the soldiers have received efficient protection from smallpox. Although this disease has prevailed in many parts of the country since 1883, and frequently with epidemic violence among the civil population in the immediate vicinity of military posts, there have occurred only 20 cases, of which 4 were fatal, in a mean strength of 25,000 men. The Department further states that the medical officers who were present at the mustering of regiments raised in the Eastern States, and who expected to be camped in the South and to see active service in Cuba and Porto Rico, were probably more careful in carrying out the army regulations than the medical officers of Western regiments who did not have in anticipation immediate exposure to infection. At all events, scarcely a case occurred among the troops in Cuba or Porto Rico. The regiment which occupied the Holguin district during the stamping out of the disease, which at the time was decimating the native population, did not have a single case, although its members were constantly exposed to infection during the aggregation of the sick in extemporized pesthouses and the disinfection or destruction by fire of vacated houses.

These statements seem to confirm in a striking way previous experience as to the value of vaccination.

The Colony-Plan for the Treatment of Chronic Diseases.—Among the large number of those who come under the care and observation of medical men there are many who while not entirely incapacitated for work are prevented by various circumstances from engaging in remunerative occupations. There is no natural stimulus so potent for good as healthful, well-regulated and productive physical activity, and there is no depressant more profound than enforced idleness. As has been intimated, there are many chronic morbid conditions that would permit their victims to perform a satisfying and useful amount of work, and thus provide for their needs and comforts, and it would be a splendid benefaction if these could be afforded oppor-

tunities for the proper exercise of their respective abilities. This principle has already found practical application in several directions, *e.g.*, the colony-farms and like institutions for the epileptic and the insane; and there is no reason why the application should not be further extended. A class that would seem most suited for this mode of treatment is constituted by the chronic tuberculous. A desideratum would be gained in their isolation, whereby they would be less a source of danger to others than under ordinary circumstances. In the second place, they could in this way be given all the advantages of climatic, atmospheric, and general hygienic treatment amid the most favorable conditions and under the constant supervision of trained and expert medical men. Finally, and not the least important, they could be given opportunity for profitable employment, and thus be able to contribute to their support, instead of being a burden on friends or the community. A plan of operation embodying the features considered, has been worked out by Dr. A Mansfield Holmes, of Denver, Colo., and has received the endorsement of the Governor of the State, the Mayor of the City, and numerous other intelligent and influential citizens of Denver. The objects to be attained, as announced in a preliminary prospectus, include the establishment and maintenance of an institution in Colorado, where those of limited means, afflicted with or predisposed to tuberculosis may obtain the advantages of a congenial climate and avail themselves of the most approved methods of treatment, with opportunities for light work in various occupations and professions, and healthful employment, by means of which they may, in part or wholly, defray the cost of living, and to afford opportunities for patients desiring to continue former studies or to take up new ones while under treatment, and also for teachers under analogous conditions. To accomplish these purposes, even on a small scale, would require a considerable sum of money, which it is hoped can be derived from individuals, organizations, clubs, societies, churches, labor-unions, and life-insurance companies. The plan contemplates a main building, surrounded by a system of cottage-homes, and provision is made for a library, a gymnasium, dormitories, laboratories, etc. The proposed organization is to be incorporated, the first board of trustees to be made up of those who subscribe the first $250,000. It is believed that the institution would in a short time become self-supporting. Any profit that may accrue from the operation of the sanatorium is to be devoted to improvements and betterments. The undertaking thus briefly outlined, it will be seen, is a most praiseworthy not less than a most formidable one. It is worthy of the most cordial encouragement and the fullest measure of success.

Life-Insurance and Suicide.—According to the *Ledger* the subject of suicide and life-insurance is again raised by the recent decision of a Missouri Court to the effect that it is no defense against payment that the insured person committed suicide, unless it be proved that he contemplated suicide at the time he took out the policy. This is an old question and one that has vexed the insurance companies for generations. Their agents and officers usually discuss it from the selfish standpoint of their own commercial interests, and make but little attempt to look at it from a purely scientific standpoint. This is conspicuously shown in the interview, published in the *Ledger*, with two insurance officials. The whole drift of their remarks is to the effect that frauds of this kind are constantly perpetrated on the insurance companies, but that these companies pay the claims rather than resort to the unpopular method of defending their rights in the law-courts. In other words, it is cheaper for the companies to be swindled by dead men than to be criticised by the living. This is a frank statement of a selfish policy, which may be good business, but is, we believe, very bad science.

For instance, it is stated in the *Ledger* that the proportion of deaths from suicide is much greater among insured persons than among persons uninsured; and this alleged fact is taken as a proof that this "gruesome kind of fraud" is common. We think it proves nothing of the sort; in fact, taken by itself and not subjected to proper control-tables, this one bald fact proves little if anything. It is a well-accepted principle among statisticians that an apparent death-rate must be controled or proved by more than one factor. Age, sex, heredity, occupation, race, country, epoch, and habits are a few of the most important of these. Suicide, for aught we know to the contrary, may be shown by some of these factors to be more common among the class of insured persons for perfectly natural reasons, and without conveying any suggestion whatever of an element of fraud. For instance, the insured class, we suppose, is largely made up of male adults engaged actively in business. Hence the first problem would be to limit the inquiry strictly to the whole of this class, in the community, both insured and uninsured. We suggest in this connection that the only immediate, uncontroled statistics that could prove anything would be a table showing the time elapsing between the taking out of the policy and the act of suicide. If such a table, based upon the whole number of cases in a given time, were to show clearly that among suicides a comparatively short period elapsed, the inference might have some plausibility.

We think that the unsupported statement that insurance fraud is a common motive with suicides, is unscientific and unjust. The commonest cause of suicide is doubtless melancholia—that sense of abasement of the personality which is often the expression of an hereditary taint, and which is by no means confined to the asylums. Even when fostered or precipitated by adversity (either in health, in business, or in

ambition), this is none the less a psychosis, and does not furnish a favorable soil for deep-laid schemes for defrauding others. Such schemes, indeed, are inconsistent with the mental state of abandonment which characterizes the average suicide. In saying this much we do not deny that isolated cases of fraud among suicides may have occurred; we are merely contending for a principle, and for one which we think is needed to meet alleged counter-principles which the insurance companies are fond of exploiting. In spite of their protests to the contrary we think that some of them would not be unwilling to have all the courts decide that suicide invalidates a policy—a decision which would be in the highest degree unjust.

Suggestions to Writers, No. 30. Duplicates of Articles Sent to Two Journals.—Recently one journal charged another with the downright stealing of an article from its columns without any recognition of the supposed first appearance in the columns of the injured journal. Some months ago a journal abstracted an article and credited a certain journal No. 2, in which the original appeared after its publication in more widely known journal No. 1. The editor of journal No. 1 expostulated in vain. In both these cases it was subsequently learned that the authors of the articles had supplied the two different journals with the same article,—a proceeding wretchedly impolitic for author and publisher alike. The deceived journal justifiably feels like using a harsher adjective than *impolitic*. We trust no author will ever treat us that way. It may be wise to publish an article synchronously in two journals, but it is not honorable to keep either editor in ignorance of the fact.

Medical Sermonets, No. 4.—The first duty of American physicians is to join the American Medical Association and attend its meetings. It is hardly necessary to repeat what we have so often urged, that the Association is the gravitational center about which must gather the unitizing tendencies and powers of the profession. It is plain to every one that our professional disunity is at present our greatest curse, and that it is the fundamental cause of our powerlessness in the face of the evils besetting us. Quackery, medical humbug, sectarianism, the nostrum shame, a hundred pseudomedical journals up for sale, and innumerable spawnings of medical delusions and fanaticisms—all these exist by our leave, and almost solely because of our disorganization. Far more than this, our awful death rate is almost the direct product of this same lack of unity. We have the knowledge whereby the American death-rate could be reduced one half, but we have not the power to reduce it. We have not the power because we have no professional voice, no corporate unity by which we can turn our knowledge into active prophylaxis, through the law-makers and administrative officers of the national, State, and civic governments. If our population numbers now 70,000,000 and there are 10 unnecessary deaths each year per thousand, it follows that there are 70,000 deaths each year due to that professional negligence which is in reality a crime. We cannot understand the logic of those who have no interest in medical sociology and public hygiene (preventive medicine) and who labor year after year in the hope of discovering the pathology of some rare disease, or the treatment of special diseases. We have, of course, no intention of underrating the value of abstract scientific study, for we know that ultimately all professional progress and power come from such science. But it is certain that at present scientific knowledge has outrun practical application, and we question only the logic of the sad neglect of actually saving lives in our extreme interest in the knowledge of how to save them. To effect this actual saving, it need hardly be added, is, however, the serious and earnest desire of the great bulk of the profession; what, then, hinders, if we do really know how to do it? There are many subordinate hindrances, but outweighing all combined is the fact we have emphasized, our professional disorganization. We cannot turn our knowledge into facts, because we have no representative organization through which the whole body can speak, and by which influence may be brought to bear upon the social and governmental forces so negligent and even scornful of general life-saving. And now we come to the real crux of the whole matter: Why is the Association membership only 5% or 10% of the total number of physicians of the United States, and why is the average attendance at the meetings about one-fifth of this small number? It is—and we speak with as sincere regret as with uncompromising frankness—it is because the Association has too often and too constantly not sought to conciliate, but to alienate actual and possible members. The Congress of American Physicians and Surgeons, the New York State Society, together with other organizations not only noncontributory, but positively rival, have in one way or in another been due to our lack of cordiality or magnanimity. We know well enough the feelings and arguments of those who think all the fault lies in the sects rather than the mother church. Mother churches always think so, but a dispassionate historian judges otherwise, and probably a majority of the active members of the Association would be glad to see unity and harmony at most any cost. It is so easy to think one's self better than one's neighbor that it is barely possible that even in these cases the most ethical have acted dogmatically, or at least in forgetfulness of the greater good to be gained by a united profession. Can we not at last and at once get together, swallow our prides and our egotisms, emphasize our agreements instead of our differences, and end this silly, belittling, and paralyzing disunity? We can do so upon one condition, which brings us to the key, as we believe, of the intolerable difficulty: There will be no adequate harmony, no proper growth of the Association so long as it does not purge itself of a few noisy, self-seeking, ignorant, and characterless politicians, whose office-seeking, drunkenness schemings, and impertinent prominence have kept away thousands of good men. The activity of these few professional traders, and occupational disgusters, is the dominant reason why the Association has not one-tenth the power or numbers that it should have, and that it will have when the absentees, realizing their duty, swallow their pride and their dilletanteism, resolve to join the Association, and, attending the meetings in thousands, vote into merited silence and contempt the pitiable busybodies who make one hundred thousand men the victims of disorganization and ineptitude.

Dr. A. Ravogli, for many years Italian Consul at Cincinnati, has, according to the *Cincinnati Lancet-Clinic*, been created a cavaliere by King Humbert of Italy.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Dr. Anna S. Fullerton, well known as the physician-in-chief of the Woman's Hospital for several years, has decided to leave Philadelphia and devote herself to medical missionary work in India.

Pennsylvania State Board of Medical Examiners.—The following table indicates the number of successful and unsuccessful applicants from the different medical colleges at the recent examination:

Colleges.	Number Examined.	Number Failed.
University of Pennsylvania	143	1
Women's Philadelphia	28	0
Medico-Chirurgical	93	15
Western Pennsylvania	46	7
Jefferson	34	3
Miscellaneous	74	22
Baltimore Medical	7	4
Total	425	52

The general averages of the students of the different colleges were:

Pennsylvania	86.00
Women's	81.22
Medico-Chirurgical	79.94
Western Pennsylvania	79.01
Jefferson	78.24
Miscellaneous	76.31
Baltimore Medical	72.84

Vital Statistics of Philadelphia for the week ending August 5, 1899:—

Total mortality 428

Diseases.	Cases.	Deaths.
Cholera infantum 52, gastroenteritis 14, cholera morbus 3, diarrhea 2		71
Pulmonary tuberculosis 45, intestinal tuberculosis 2		47
Heart-disease 24, inflammation of the heart 4		28
Nephritis 19, uremia 4		23
Marasmus 22, inanition 15, debility 1		38
Apoplexy 20, paralysis 8, softening of the brain 3		31
Pneumonia 19, congestion of the lungs 1		20
Convulsions		18
Senility		17
Diphtheria	73	15
Carcinoma 18, tumor 2		20
Inflammation of the brain 12, congestion of the brain 4		16
Typhoid fever	79	10
Scarlet fever	38	5
Casualties 8, drowned 7, dysentery 7, septicemia 4, abscess 3, cirrhosis of the liver 3, cyanosis 3, cystitis 3, peritonitis 3, anemia 2, bronchitis 2, pleuritis 2, jaundice 2, poisoning 2, pertussis 2, burns and scalds 1, diabetes 1, dropsy 1, erysipelas 1, appendicitis 1, sunstroke 1.		

An important decision with reference to the powers of the Board of Health, was given by Judge McCarthy in the Court of Quarter Sessions, August 7. The case came before the Judge upon an application made by a colored pastor of a Baptist Church, on behalf of certain persons (also colored) for a writ of habeas corpus, looking to their release from the confines of the Municipal Hospital, whither they had been taken because of their having been exposed to the contagion of smallpox. The application for the writ was based on the ground that the suspects were not affected with smallpox, and they were being illegally detained at the hospital, and subjected to the danger and risk of contracting the disease since July 31, on which day a girl ill with the disease had been removed from the house wherein they were then living. After hearing witnesses on both sides of the contention, the Judge among other remarks said: "It is unfortunate for these persons that they should be detained from their homes a short time longer. There seems, however, to be ample authority for their detention. From the testimony adduced, the public health and welfare seem to require it. The petition is therefore dismissed." The suspects will be detained at the hospital until in the opinion of Dr. Welsh, the physician-in-chief to the hospital, the period of incubation has passed.

NEW YORK.

An error occurred in our news-items last week, for which we beg the pardon of our Gentile readers fully as contritely as we do of our Jewish readers. It is hardly necessary to say that any such a barbarity as race-prejudice is altogether a thing of the past with good physicians and sensible men. That it should have cropped up in our columns shows how little it was expected, but proves that even during vacation season not even a news-item may be safely left unscanned.—[Editor Philadelphia Medical Journal.]

Proposed Legislation Against Faith-healers and that Ilk.—Theodore Sutro, President of the Medical and Legal Relief Society, has completed the naming of the committee to frame a bill against faith-healers and others, according to the action of the meeting held on July 13 at the Waldorf-Astoria. He appointed on the committee Edward Lauterbach, John Sabine Smith, Howard P. Okie, Walter S. Logan, President New York State Bar Association; S. B. Livingston, President Society of Medical Jurisprudence; Reynold W. Wilcox, M.D., President St. Mark's Hospital; A. Ernest Gallent, Dr. George F. Shrady, editor of the *Medical Record;* Thaddeus D. Kenneson, and Theodore Sutro.

Poliomyelitis at Poughkeepsie.—As many as half a hundred children sick at once with a malady was a circumstance during the past week sufficient to direct attention to Poughkeepsie. The initial symptoms were those of a fever of the malarial type, to which rapidly succeeded about the third day a paralysis of the lower limbs. The spread of the disease was so rapid that there was considerable alarm among parents of children under 5 years. The difficulties of diagnosis were referred with slides of blood-samples to one of the large medical schools in New York City, and the determination of poliomyelitis was made. It is remembered that the disease was very prevalent in New York in 1872, when more than 1,000 cases were reported. The heat and humidity of the present season afford the proper conditions for the spread of the disease in and about Poughkeepsie. Although the number of cases is considerable, but one fatality is so far charged to the disease.

Notes from the Health Department.—Health Commissioner W. T. Jenkins will inspect several systems of garbage cremation now in operation in England, having already sailed for a two months' trip. This action is taken in view of threatened legislation against the city plant established on Barren Island, by Col. Waring. When certain winds prevail the island establishment is highly objectionable to the residents along the shore, yet it is considered that the present plant is preferable to the former system of dumping the city waste at sea. The most encouraging reports received are those from Brighton, and Commissioner Jenkins will give that a careful inspection to see how much may be available for the local conditions which obtain at the mouth of New York harbor.

No little anxiety is felt over the **removal of the official records of the Health Department** to the new quarters

up-town. While the old offices in the Central Criminal Court Building were poorly adapted to the needs of the Department they were at least secure against fire. The new offices are in no sense fireproof, and much hardship would arise in case the records should be destroyed. How intimately such an accident would be felt in every family is shown in the fact that the only records of births, marriages, and deaths are those kept by the Health Department, and which are now to be exposed to the risk of fire.

For a time **heart-failure was disallowed by the Health Department in death-certificates.** For some time the bars have been lifted, and an unusually large number of certificates with this cause are being accepted, so many as 25 appearing in the last weekly report.

While the contagious-disease bureau has been moved to 56th Street and Sixth Avenue a new **vaccination office** has been opened down-town, as near as possible to the old place. It is in the old Elm Street school, the heart of a district of congested population.

Sanitary inspection has always afforded an opportunity for imposition by that portion of the population which lives by its wits. There have been bogus inspectors and sanitation which was designed to be bought off. For the most part these tricks have been confined to men with tin badges suddenly appearing and accepting a fee to pass upon a dirty and disreputable tenement. Of late a wholesale scheme has been unearthed for **tricking the people in the form of sanitary inspection.** The preliminary step is a printed circular sent through the mail announcing that an inspector of the Department will call. Shortly after appears a man who claims the right to go through the house. His future movements depend on whom he meets. If it should be the owner of the premises the bogus inspector lists a large number of items of repairs which must be made, and proposes a compromise in return for a lump sum. If he see only the tenants the particular industry is restricted to the larceny of such articles of value as may be discovered in the inspection. Clumsy as this deceit may seem, it has been so extensively practised as to call for an announcement on the part of the Department warning householders against the impostors.

New York and the Yellow Fever at Hampton.—Shortly after the outbreak of the fever at the Soldiers' Home at Hampton, Virginia, it was reported that the local focus of the disease had been traced to an inmate who had lately returned from Santiago by way of New York. Although not expressly so stated this amounted to a charge of inefficiency on the part of the New York quarantine. The implied charge was all the more serious by reason of recent publicity of the activity of that quarantine in the investigation of the cause of yellow fever, its discovery of Sanarelli's germ and protective serum as already fully detailed in these columns. There has been reason to question the originality of these researches, but there has been no doubt as to the earnestness with which the health-officer of the port has inspected incoming vessels. A few small leaks have been pointed out, but in all its main features it is acknowledged that the quarantine of the port of New York avails to keep out contagious disease coming over sea. The knowledge of this fact and the implication that his quarantine has allowed a source of yellow-fever contagion to enter the country have called from Health Officer Doty an official statement refusing to accept the blame for such a state of affairs. After citing the pertinent part of the charge Dr. Doty continues in reply:

"A statement of this character, unsupported by facts, is hardly entitled to serious consideration. Since May 1 every passenger arriving at this station on vessels from Cuban ports has been held at Quarantine for a period of five days from time of embarkation, unless he or she presents an immune certificate issued by a representative of the Marine-Hospital Service at the point of departure. Not one exception has been made. If the passengers arrive on a United States transport, the vessel is detained at Quarantine with the passengers aboard, under the constant supervision of a member of the medical corps of the United States Army. At the expiration of five days from the time of embarkation and after a report from the surgeon in charge that all are well, the passengers are brought to the deck and personally examined before the vessel is released. In the case of merchant vessels all passengers who do not hold immune certificates are removed to Hoffman Island and detained there under the observation of the officers of this department until the completion of the above period, and are then only released after a careful inspection. It is believed that five days is the maximum period of the incubation of yellow fever. This statement has the indorsement of General George M. Sternberg, Surgeon-General, U. S. A., as well as others who have had long experience with yellow fever and are competent to decide this question. The disease usually appears on the second or third day. The statement occasionally made that the period of incubation of yellow fever extends beyond five days is not accepted by those who are familiar with the disease. Therefore, if a careful inspection at the end of five days after leaving an infected area discloses no evidence of yellow fever it may be accepted that the person examined is not a menace to the public health. A rule embodying this principle is rigidly enforced by this department. The clothing and effects of those leaving Santiago are disinfected before embarkation, and this is the only safe and practical way; otherwise presumably infected material may be taken on board the vessel. The disinfection is performed at Santiago by a representative of the Marine-Hospital Service. I have accepted his certificates of disinfection, as I have every reason to believe that this work has been carefully and properly performed. Under the existing regulations above described it cannot be accepted that Charles Friedenger had yellow fever when he reached Hampton, or whether he was ill or not when he arrived. Inasmuch as it is alleged that the patient is dead, and presumably buried, it is a little late now to make a positive diagnosis of his case."

MISCELLANY.

Obituary.—DR. W. W. PARKER, captain, surgeon, and chaplain of the Parker Battery during the civil war, and of whom it is reported to have been said by General Stephen D. Lee, that "he could out-cut, out-pray, and out-fight any man in the Confederate Army," died at Richmond, Va., August 3, aged 75 years.—DR. C. W. ADAMS, one of the founders of the University Medical College of Kansas City, and for several years dean of the faculty, August 3.—DR. ROBERT HUNTER, Cesarea, Ontario, July 29.—DR. J. N. CHARBONNET, New Orleans, La., July 23, aged 33 years.—DR. J. N. HALL, New Philadelphia, Ill., July 28, aged 85 years.—DR. L. A. CLARK, Rockford, Ill., July 23, aged 50 years.—DR. JOHN V. HAMILTON, assistant surgeon, U. S. Army, Matanzas, Cuba, July 26.—DR. GEORGE W. WAYSON, Baltimore, Md., aged 80 years.—DR. JAMES FREDERICK JUDD, Philadelphia, August 5, aged 38 years.—DR. DANIEL G. BRINTON, the distinguished ethnologist, professor of ethnology and archeology in the Academy of Natural Sciences of Philadelphia, professor of American archeology and linguistics in the University of Pennsylvania, president of the Numismatic and Antiquarian Society of Philadelphia, and at one time vice-president of the American Association for the Advancement of Science, at Atlantic City, July 31, aged 62 years.

Changes in the Medical Corps of the U. S. Navy, for the week ending August 5, 1899:

CRAWFORD, C. A., assistant surgeon, detached from the "Wabash" and ordered to the "Massachusetts."

GROW, E. L., assistant surgeon, detached from the "Massachusetts" and ordered to the "New Orleans" immediately.

ELLIOTT, M. S., assistant surgeon, detached from the Marine Examining Board, August 2, and ordered to temporary duty at the Marine Recruiting Rendezvous, New York, during leave of E. S. BOGERT, passed assistant surgeon; upon completion of this duty, directed to wait orders.

HERNDON, C. G., surgeon, ordered to the museum of hygiene for temporary duty.

ROSENBLEUTH, J. C., passed assistant surgeon, detached from the "Vermont" and ordered to the "Nashville."

PLEADWELL, F. L., assistant surgeon, detached from the "Nashville" and ordered to the bureau of medicine and surgery.

Changes in the Medical Corps of the U. S. Army.

YOUNG, CHARLES C., hospital steward, now on furlough at Baltimore, Md., will, on or before expiration of furlough, report to the commanding officer, Fort McHenry, who will furnish him transportation to the Presidio, where he will report for duty on U. S. transport to leave for Manila, P. I. Upon his arrival at Manila he will report to the commanding general, department of the Pacific, for assignment to duty.

HOWARD, Captain DEANE C., assistant surgeon, now at West Point, N. Y., on temporary duty, will return to his station at Fort Columbus.

LANDOR, T. H., acting assistant surgeon, will proceed from Canton, Ohio, to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

MITCHELL, JAMES, acting assistant surgeon, will proceed from Lancaster, Pa., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

KIRK, WILLIAM REDIN, acting assistant surgeon, having relinquished the unexpired portion of his leave of absence, will proceed to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

SIMS, GEORGE W., acting assistant surgeon, will proceed from Corpus Christi, Tex., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

WASHBURN, WALTER R., acting assistant surgeon, will proceed from Denison, Tex., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

KELLOGG, P. S., acting assistant surgeon, will proceed from Battle Creek, Mich., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

TAYLOR, DWIGHT B., acting assistant surgeon, extension of leave on certificate of disability granted is still further extended 15 days on account of disability. Aug. 2.

JOHNSON, D. J., acting assistant surgeon, is relieved from further duty at Fort Terry, and will proceed to San Francisco, Cal., and report to the commarding general, department of California, for assignment to duty.

COLLINS, First Lieutenant C. C., assistant surgeon, is granted leave on surgeon's certificate for one month, with permission to return to the United States.

WADHAMS, S. H., acting assistant surgeon, the order which directs him to proceed to the United States and report to the Surgeon-General of the Army is revoked, and he will report at San Juan, P. R., for duty.

CHMELICEK, JOSEPH F., acting assistant surgeon, is assigned to duty at the U. S. General Hospital, Presidio.

WEAVER, FREDERICK C., acting assistant surgeon, is assigned to duty at the Camp of Recruits, Presidio.

LEOPOLD, SAMUEL H., hospital steward, will report at the U. S. General Hospital, Presidio, for duty.

SHILLOCK, Captain PAUL, assistant surgeon, is assigned to duty with troops on board the transport "Newport."

DEAN, First Lieutenant ELMER A., assistant surgeon, is assigned to duty at the U. S. General Hospital, Presidio.

HICKS, G. L., acting assistant surgeon, is assigned to duty with troops on board the transport "Ohio," to sail July 25.

MATTHEWS, Major W. S. H., brigade-surgeon, leave for 10 days granted to him is extended 10 days. July 27.

CARDWELL, Major HERBERT W., surgeon, is granted leave for 10 days. July 27.

Health-Reports.—The following cases of smallpox, yellow fever, cholera, and plague have been reported to the Surgeon-General of the U. S. Marine-Hospital Service, during the week ended August 5, 1899:

SMALLPOX—UNITED STATES.

			Cases.	Deaths.
FLORIDA:	Jacksonville	July 23–30	4	
KENTUCKY:	Louisville	July 20–27	1	
LOUISIANA:	New Orleans	July 15–22	1	
OHIO:	Cleveland	July 22–29	7	
"	Dayton	July 22–29	3	
PENNSYLV'NIA:	Philadelphia	July 22–29	1	1
"	Pittsburg	July 22–29	1	
VIRGINIA:	Portsmouth	July 22–29	4	
WASHINGTON:	Seattle	July 15–22	1	
"	Tacoma	July 15–22	1	
"	"	July 22–29	1	

SMALLPOX—FOREIGN.

BRAZIL:	Bahia	July 1–15	1	
CHINA:	Hong Kong	June 7–24	3	
GREECE:	Athens	July 7–15	16	5
INDIA:	Bombay	June 27–July 4		8
"	Madras	June 24–30		1
MEXICO:	Chihuahua	July 15–29		3
RUSSIA:	Moscow	July 1–8	5	3
"	Odessa	July 1–8	6	
"	St. Petersburg	July 1–8	7	2
TURKEY:	Beirut	June 27–July 1	1	
"	Smyrna	June 28–July 16		5

YELLOW FEVER—UNITED STATES.

			Cases.	Deaths.
VIRGINIA	Soldiers' Home, Hampton,	July 21–Aug. 1	40	8

YELLOW FEVER—FOREIGN.

BRAZIL:	Bahia	July 1–15	28	14
COLOMBIA:	Panama	July 16–23	14	8
CUBA:	Manzanillo	July 1–8		1
"	Matanzas	July 27	1	
"	Santiago	July 1–8		7
MEXICO:	Progreso	July 26	2	
"	Vera Cruz	July 20–27		20

CHOLERA.

INDIA:	Calcutta	June 17–24		3

PLAGUE.

CHINA:	Hong Kong	June 10–24	257	255
INDIA:	Bombay	June 28–July 4		43
"	Calcutta	June 17–24		7
JAHAN:	Tamsui	May 24–31	90	66

Foreign News and Notes.

GREAT BRITAIN.

Surgeon-Lieutenant Bertram, a Canadian volunteer, has won the grand aggregate prize at Bisley against all-comers, for rifle-shooting. This is the highest test for skill at rifle-shooting that is recognized by the British army, so that it is a little singular and gratifying that it should have been won by a medical man.

The First Lady Doctor.—A correspondence has taken place in one of the London papers concerning the name of the first lady doctor. The first lady doctor was (and is) Elizabeth Blackwell, an Englishwoman, born at Bristol. She studied at St. Bartholomew's Hospital just 50 years ago, and appears on the medical register for Great Britain 40 years ago. Her earliest work, however, was done in America, where she made many friends at the time of the civil war.

Bad Food in London.—Dr. Sedgwick Saunders, the medical officer of health for the city of London, has reported to the corporation that during the month of July 80 tons of diseased and putrid meat has been seized in the slaughter-houses and stalls of the city and destroyed. Raspberries, apricots, salmon (tinned), and Dutch cheeses, have also been seized in enormous quantities. Dr. Saunders' vigilance has had enough to occupy it during the recent tropical heat of London.

The Late Surgeon-General W. C. Maclean.—A handsome memorial tablet has been affixed to the walls of the chapel at the Royal Victoria Hospital, Netley, in commemoration of Surgeon-General Maclean, C.B., who occupied the chair of Military Medicine in the Army Medical School at Fort Pitt, at Chatham, and lastly at Netley for a quarter of a century, *i.e.*, from the foundation of the school in 1860 until his retirement from the position in 1885. The tablet testifies to the high esteem in which the deceased officer's intellectual gifts, professional attainments, and sterling personal qualities were held by his brother officers.

The Peculiar People.—At the Central Criminal Court on Friday, July 27, two members of this sect, who hold it wrong to avail themselves of the services of medical men, were put on their trial on a charge of "unlawfully and wilfully neglecting their child (the defendants were man and wife) in a manner likely to cause unnecessary suffering or injury to health." The child in question, a girl 5 years

old, was taken ill and was believed by her parents to have a bilious attack. An elder of the Peculiar People was called in to pray over her. He anointed her with oil in the name of the Lord, and a postmortem examination, held by direction of the coroner, showed the child's death to have been due to pneumonia. The defendants were first tried for manslaughter, but were acquitted, as no medical man could swear that proper medical measures would have preserved life. The medical witnesses could only say that pain might have been relieved and temperature reduced, but further than this they could not conscientiously go. The parents were then indicted on the less serious charge quoted above, and found guilty, but were recommended to mercy because they were not habitually neglectful of their children in any way. They were considered by the jury to be good but silly fanatics, who had sacrificed their child's chances of life to their theories of Christian morality and their interpretation of the doctrines of St. James. The husband was sentenced to six weeks' imprisonment and the mother to the shorter term of a month, punishments which cannot be considered excessive when we note that it was given in evidence that of the six children born to the defendants three had died without medical attention. What on earth or in St. James's epistles constitutes habitual neglect?

An Opportunity for Quacks.—The surgeons to the collieries in the district of Bolton, Lancashire, one hundred in number, have refused to accept the methods at present prevalent for paying them. It is not the amount of money received in the aggregate which they so much complain of—though this not excessively large—but the arrangement by which the payment of all of them is the same whatever the amount of work they may be called to do. They request a sliding-scale, so that the surgeon who attends the greatest number of cases shall have the biggest pay. For the present the colliers, through their representatives, have declined to accede to any reform in the methods of paying their medical officers, and as a result an extensive manufacturing district is deprived of all its surgical aid. But it has received something instead. A number of quacks have made their appearance in the neighborhood of the collieries (imported, it is said in some cases, by persons interested in maintaining the men's side of the dispute against the surgeons), and with "botanic systems," "infallible ointments," "Indian remedies," and "Oriental balsams," are prepared to combat the ills that the collier is heir to. It will be a sad thing for the Bolton collieries if an explosion should occur, with its attendant train of fractures, dislocations, and burns, while the district is under the regime of the quacks. Sad, that is to say for the injured, but the object-lesson of helplessness that the quacks would be compelled to display might have its advantages in opening the eyes of the misguided believers in their power.

Great Britain, Bullet Wounds, and the Peace Conference.—Professor Alexander Ogston, Regius Professor of Surgery in the University of Aberdeen, and the distinguished man chosen this year to deliver the address in surgery before the British Medical Association (published elsewhere in this issue), has contributed to the journal of the Association a remarkable paper entitled the "Peace Conference and the Dum-dum Bullet" (see *British Medical Journal*, July 29, 1899). Great Britain, says Professor Ogston, was virtually censured by the Powers assembled at the recent Peace Conference at The Hague, for her use of rifle-bullets open in front, the United States being the only first-class nation not joining in her condemnation. It would seem, after perusal of Professor Ogston's vigorously written paper, that upon very loose ground and with noteworthy want of fair and impartial dealing, an attempt was made at the conference to exhibit Great Britain as using a bullet too cruel for any other nation to employ. The imputation is absurd, whether made innocently or for political purposes. All modern bullets can produce severe wounds, and the difference between the effects of any military bullets is *simply one of degree*. Professor Ogston's experiments show that the ruling of the conference attributing special terrors to the sequels of the wounds caused by the Dum-dum bullet was founded upon evidence that for some reason or other was not sifted but swallowed whole, the United States being apparently the only first-class power—if not the only power—that doubted the cocksure statements of Professor von Bruns of Tübingen. Professor Ogston does not justify the use of the Dum-dum bullet on humanitarian grounds in his practical experiments, but simply shows that other bullets not used by Great Britain give every whit as atrocious results as those singled out by the conference for special condemnation. He demonstrates that it is not only the number of fragments into which a bullet may break that makes it destructive, the velocity and weight of the ball are its main destroying forces; upon these depend the effect, and in proportion as it possesses these, "even a mantled bullet when striking, especially if it strike a bone, whether it itself breaks up or not, communicates its force to a number of the fragments it produces and hurls them forward in a devastating shower, nearly as destructive of all that stands in their path as are fragments of the bullet itself." Professor Ogston's remarks should demonstrate to all, as they do to the medical world, that the Dum-dum bullet is no more cruel than any other successful bullet can be if the circumstances of the wound conduce to splintering.

CONTINENTAL EUROPE.

A New Method of Suturing the Peritoneum.—There is a short note in the *Lancet* stating that in the May number of the *Australasian Medical Gazette* Mr. H. O'Hara describes a new method of suturing the peritoneum. He makes a small incision, say three inches in length, in the peritoneum and then stretches it to the required extent. Having completed the intraabdominal operation he brings the peritoneum together by a purse-string suture applied from one-eighth to one-quarter of an inch from the cut surface. This is then puckered up externally to the abdominal cavity. The muscles and aponeuroses are then approximated by interrupted sutures. He claims that the method gives a stronger abdominal scar, a complete barrier to leakage of blood or pus from the superficial structures, freedom from adhesions to the intestine, etc.

Zoologic Distribution of Tuberculosis.—According to the *British Medical Journal*, at the last meeting of the Zoological Society of London, Professor Woods Hutchinson, of the University of Buffalo, read a paper on this subject, founded mainly on observations made in the society's gardens. Of 215 necropsies made in the prosector's room during the past six months, 49, or 25.3%, of the mammals and birds presented the lesions of tuberculosis. This mortality fell most heavily upon the ruminants and gallinæ, and least so upon the carnivores and raptores. Race or family appeared to exert little influence upon susceptibility, mode of housing only a small amount, and food and food-habits much more. A close correspondence appeared to exist between immunity and the relative size of the heart in both birds and mammals.

University of Vienna.—On July 17 began the moving of the Histologic and Anatomic Institute from the old Gewehrfabrik in the Schwarzpanierstrasse to the new building in Wahringerstrasse. The old building, in which anatomy and histology have been taught since 1848, is now to be demolished and a new edifice erected. It was in this old building that Hyrtl lived and lectured, and in the courtyard of the building he delivered his farewell address in 1874. His lecture-room hardly accommodated comfortably a dozen persons, and such was the crowd that flocked to hear his last official lecture that the courtyard was called upon to furnish the requisite space.

The Therapeutics of Milk-Serum.—At a recent meeting of the Académie de Médicine de Paris, Laraboullet described the results of some researches made by himself and Gimbert regarding a new serum. According to the *Lancet* this serum is not a "vaccine" nor has it any immunizing properties. Its chief virtue lies in the contained salts, but very few sera give such remarkable results as this, the serum of milk. It is obtained as follows: A cow is milked and the milk is coagulated. The whey is filtered off and the curd is dried in the stove, powdered, mixed with some chalk, and allowed to soak for two or three hours in the whey. The mixture is filtered and sterilized in the autoclave, while a small quantity of carbolic acid is added for preservative purposes. M. Laraboullet laid stress on the fact that neither the slight rises of temperature nor the urticarial rashes which sometimes followed the injections exercised any deleterious effects on the cellular renovation brought about by the injections. He then pointed out the complaints amenable to the new serum and showed that patients suffering from neurasthenia and grave forms of anemia with wasting, derived rapid and lasting benefit from injections of this serum together with arsenicated oil. M. Gimbert had obtained most encouraging results in cases of pulmonary tuberculosis.

New Regulations for Expert Evidence in France.—According to the *Lancet* the French Chamber of Deputies has just passed a new regulation dealing with the manner in which experts shall be selected and as to how they shall give their evidence before the courts. The Bill was introduced by M. Cruppi and was the outcome of certain recent criminal trials where the report of the expert witnesses was rightly or wrongly submitted to severe criticism and was held to be the cause of a miscarriage of justice in several instances. The new Bill does not by any means favor medical witnesses, who are by far the most usual class of experts to give evidence; in fact, originally medical evidence was the only form of expert evidence recognized as such by the Bill, but on its passage through the Chamber it was greatly modified and the evidence of chemists was first included and finally all forms of expert evidence, even that given before courts-martial. It is a hurriedly drawn Bill, but the Senate which has not yet adopted it will probably not materially modify its provisions. The principal points of the Bill are as follows:—

A list of witnesses competent to give expert evidence in all criminal trials is to be drawn up every year for the following year by the Court of Appeal and the Procureur-General on the motion of the Court of First Instance.

The various experts are duly classified in this list, which includes no persons as of right except such as are dealt with in the clause to come.

The list of medical men and chemists authorized to deal with medico-legal and chemico-legal questions is drawn up each year for the following year by the Court of Appeal and the Procureur-General on the motion of the Civil Tribunals and the Faculties and Schools of Medicine, Science, and Pharmacy.

The professors and lecturers of the said Faculties, medical men, surgeons, accoucheurs, and pharmaceutical chemists attached to the hospitals in the towns where there are Faculties and Schools of Medicine in full work, and the physicians of infirmaries and public lunatic asylums, shall have the right to be upon this list and shall be classified as far as possible under their respective specialties.

The judge or some competent legal authority shall nominate from this official list an expert to deal with the scientific matters at issue, or more than one if there be more than one distinct subject of scientific inquiry.

The nomination of the aforesaid expert or experts shall be forthwith notified to the accused who shall have the right to choose from the official list a number of experts equivalent to those who are to act against him.

His choice must be made known to the authorities within three clear days from his being notified, but in case the accused does not make his choice within the three days the judge shall nominate his witnesses for him. If the criminal is unknown or being known has fled from justice the expert evidence shall be given by not less than two witnesses chosen from the list.

The evidence of a single expert shall not be accepted except in cases in which the accused formally renounces his right to select witnesses to give rebutting evidence and accepts the expert witness chosen for him by the judge.

All expert witnesses chosen in conformity with the above regulations shall have equal rights and privileges. They shall make their researches together and shall embody their results in a common report which shall be drawn up after argument and discussion. If the experts cannot agree upon their results they shall call in a third as arbitrator, and if they cannot agree as to whom to call in he shall be nominated by the President of the court trying the case.

Notwithstanding anything aforesaid the Procureur de la République and the Juge d'Instruction shall be able in case of extreme urgency, when, for instance, the criminal has been taken in the very act and when the witnesses would have to visit the scene of the crime at once because certain evidence is on the point of disappearing, to nominate one single expert or competent person whose name is not in the official list as a provisional witness. Such provisional expert shall take steps to preserve everything necessary for the giving of expert evidence and shall draw up a statement which shall be signed by the judge or the Procureur de la République. This statement, with all other documents bearing on the case, shall be sent to the experts nominated from the official list unless the statement of the provisional expert is considered satisfactory by both the magistrate and the prisoner.

MISCELLANY.

Obituary.—DR. FRANCESCO VIZIOLI, professor of neurology and electro-therapeutics in the University of Naples.—DR. WOLDEMAR STOLZ, sometime president of the St. Petersburg Medical Society, and recently editor of the *Jeshenedelnik*.—DR. HERPIN, professor of surgical pathology in the Medical School of Tours.—DR. MAX SANDRECZKY, director of the "Marienstift" Children's Hospital in Jerusalem, aged 60 years.—DR. CAMPOS DA PAZ, professor of organic and biologic chemistry in the Medical School of Rio de Janeiro.—DR. JOSÉ CASAN Y ALEGRE, director of the State Vaccination Institute of Madrid.—DR. THOMAS C. NESHAM, lecturer on midwifery in the University of Durham Medical College, Newcastle, England, July 16, aged 58 years.

The Study of Diseases of the Eye in Antiquity.—It is stated in the *British Medical Journal* that the second edition of Graefe-Saemisch's treatise on ophthalmology contains a very interesting essay on the study of eye-diseases in antiquity by Professor Hirschberg. The oldest document bearing on the subject is a papyrus discovered at Thebes in 1872 by Ebers, who assigned it to a date about 1500 B. C., 1,000 years before Hippocrates. From it we learn that there were at that time three kinds of medical practitioners in Egypt—namely, physicians, surgeons, and "thaumaturgists," whose memory we shall probably not calumniate by regarding them as the prototypes of our own faith-healers and miscellaneous quacks. The papyrus describes the three most important symptoms of eye-diseases as excessive secretion, redness, and swelling. Among the remedies advised are myrrh, frankincense, acetate of lead, onion, verdigris, the dung of crocodiles and gazelles, brain of tortoise mixed with honey, woman's milk, but especially antimony. All Egyptians, as is shown by the boxes found with mummies, used ointments to blacken their eyebrows and eyelashes. Virchow, who analyzed the contents of one of these boxes, found that the collyrium consisted not of antimony, but of sulfate of lead. This circumstance appears to show either that the relatives of the deceased thought a cheap article good enough for the "corpse," that the undertaker swindled them, or that someone else got a secret commission on the little job.

Society Reports.

THE BRITISH MEDICAL ASSOCIATION.*

Sixty-seventh Annual Meeting, held at Portsmouth, Eng., August 1, 2, 3, and 4, 1899.

PRESIDENT, Sir Thomas Grainger Stewart, Professor of Practice of Medicine and Clinical Medicine in the University of Edinburgh, Physician in Ordinary to Her Majesty the Queen for Scotland, Edinburgh; President-elect, John Ward Cousins, Senior Surgeon Royal Portsmouth Hospital; President of the Council, Robert Saundby, Physician to the General Hospital, Birmingham; Treasurer, Charles Parsons, Dover.

The scientific business of the meeting was conducted in twelve sections, as follows:

A.—MEDICINE.

President, John Mitchell Bruce; vice-presidents, Edward James Wallace, Robert William Burnett.

In his opening remarks, J. Mitchell Bruce, president of the Section, said: In addition to many very valuable papers, we have two important discussions—the one on the Tests for Admission to the Public Services, the other on Tuberculosis—both thoroughly practical, both inspired by the *genius loci*. With a program of this importance before us, success is not likely to be achieved by spending precious time on a review of the progress of medicine during the last 12 months, nor on speculations on the future of preventive and remedial medicine. The proper occupation of the Section is *work*.

No subject concerns our colleagues of the army and navy more intimately than the first, and at the same time all of us as members of the profession and as loyal citizens, than the selection of the *personnel* to which the interests and honor of our country in relation to other States, and our position as one of the great civilizing powers, are entrusted. The physical qualifications of all candidates and recruits are determined by them, and they are themselves primarily responsible for the admission of the boys and men whose health and efficiency they have afterwards to preserve. Your Executive have great reason to be gratified with the way in which their plan to discuss the tests for admission into the public services has been received by the Association. Such a discussion, opened by Sir James Dick, formerly Director-General of the Navy, and spoken to by other distinguished officers, cannot fail to be a practical success. But, in addition to these attractions, we can promise you that the high level of the discussion will be sustained by many eminent civil authorities at home, such as Sir Dyce Duckworth and Dr. Burnet; by Professor Osler, a worthy representative of our cousins across the Atlantic who have lately been anxiously concerned with the fitness of their own combatant services, consequent on an acute recrudescence of that Anglo-Saxon disposition to rove and conquer which has always been an endemic trouble in the Old Country; by Dr. Manson, who will give us the benefit of his intimate and well-considered experience of the health of officers in the Far East; by Major W. Turner, of Gibralter; and by Dr. Wallace and Dr. Sykes, of Southsea, both of whom are in a position to submit to us the conclusion at which they have arrived after the deliberate considerations of this subject during a professional life spent in a community the majority of whom are either beginning, or following, or have retired from, naval and military life. Let us hope, also, that the universal importance of the subject may induce some of our Continental colleagues, all of whom have had personal experience of military service, to offer us their views on the proper standards of health and fitness.

The Isle of the Wight and the coast-region of the south of Hampshire and Dorset, with Netley, Southampton, the New Forest, Milford-on-Sea, Southbourne, Bournemouth, Swanage, and Weymouth, are the type of English winter-quarters for the phthisical, vying in this respect with the health-resorts of Devon and Cornwall on the west, and of Sussex and Kent on the east. In this extensive region, there have settled many distinguished members of our Association, who devote themselves mainly, or entirely, to the study and treatme t of tuberculosis, and to whom we, who live and work elsewhere, commit a considerable portion of chest patients every winter. Naturally, the second direction in which the officers of this Section turned for a subject of useful discussion, was tuberculosis; and, indeed, the extraordinary interest being manifested at present in the treatment of this disease of itself justifies the choice. And inasmuch as we have now departed from earlier empirical methods of dealing with a matter of this kind, now that we have a firm basis of etiologic and pathologic facts on which to work, we resolved not to confine ourselves, in this discussion, to the bare question of treatment, but to include prevention also; and we thought it wise to ask that distinguished master of medicine, Professor Allbutt, to introduce the subject with an essay, which we felt would be characterized by his accustomed breadth, and, at the same time, penetration of view, as well as by the felicity of thought and expression which have made so many of his addresses and writings instructive, suggestive, and fruitful even beyond their immediate exposition of the facts on which they were based. I repeat that we expect great things from this discussion. It may be somewhat premature to inquire what the results are of the open-air treatment of tuberculosis, at any rate, in this country; but I am confident that we shall undertake the discussion with the enthusiasm which is begotten of the consciousness of rapidly increasing knowledge and of growing hope, and that, in the hands of men like Sir William Broadbent, Sir Richard Douglas-Powell, Sir William Gairdner, Sir Thomas Grainger-Stewart, Dr. Ransome, Dr. Theodore Williams, and other distinguished members, the discussion will be continued on a high level, and prove a genuine, practical success.

If the result of our work in this Section be, on the one hand, to improve in any degree the quality and efficiency of the public services, on which the glory, prosperity, and, indeed, the continued existence and beneficent influence of our country among the nations so much depend; and, on the other hand, to reduce the misery and waste wrought by tuberculosis in our entire population, civil as well as official, I think we shall be able to congratulate ourselves on time profitably as well as pleasantly spent.

The following papers were offered:—

Stimulation of Excretion in Gout, by William Armstrong; (1) The action of certain British and Foreign Mineral Waters on the Quadriurate of Sodium. (2) An Experimental Contribution to the Study of Gout, by W. Bain; The Practice of Bloodletting, by J. F. Briscoe; Gastric Adhesions as a Cause of Dyspepsia, by W. Calwell; The Enlargement of the Chest in Emphysema and its Treatment, by Harry Campbell; (1) On the Prebalnear Treatment of Heart Disease by Inhalations of Carbonic Acid Gas; and on the Uses of the Inhalation in Cardiac Dyspnea and in Anginoid Pain. (2) On the Recognition of Enlargements of the Left Auricle by Percussion; and on other Clinical Uses of Dorsal Percussion, including Percussion of the Pelvis, by William Ewart; Notes on the Open-Air Treatment of Phthisis with Photographs of a new form of Kiosk, by W. T. Gardner; The Inhalation of Formalin as a Preparation for, and Aid to, the Open-Air Treatment of Phthisis, by J. Lardner Green; Uric Acid and the Circulation; some New Methods of Estimating its Effects, by Alexander Haig; On the Results of Treatment by the New Tuberculin, by G. A. Heron; Prevention of Tuberculosis in Everyday Life, by A. P. Hillier; On the Form of the Chest in Tuberculosis and its Significance, by Woods Hutchinson; On the Open-Air Treatment of Tuberculosis in England (with demonstration of cured cases), by W. Denton Johns; The Gelatinous Form of Sodium Biurate and its bearing on the Pathology of Gout, by A. P. Luff; The Causes and Treatment of Sciatica and Neuralgia, by Herbert G. Macleod; Some Special Points Connected with the Nature and Cure of Influenza, by Sarat K. Mullick; On Hypertrophic Cirrhosis with Bronzing of the Skin—Hemochromatosis, by Professor W. Osler; The Accurate Diagnosis and Successful Treatment of Perforated Gastric Ulcer, by A. P. Parsons; Observations on Clinical Thermometry, by W. Fleming Phillips; The Occurrence of Arthritis in Connection with Inflammation of the Appendix Vermiformis, by F. J. Poynton; Diet and Nutrition in the Treatment of Tuberculosis, by S. T. Pruen; The Defence of the Cardiac Orifices other than Valvular, by D. W. Samways; On Migraine, by C. W. Suckling; A Suggestion for the Treatment of Phthisis Pulmonalis on the Lines of one of its Normal Terminations, by William Sykes; The Relation of Pulmonary Tuberculosis to Pure Mitral Stenosis, by H. Walsham; Forms of Albuminuric Retinitis and their Significance, by S. West.

B.—SURGERY.

President: Henry Trentham Butlin; vice-presidents: Deputy-Inspector-General Richard Samuel Purnell Griffiths, R.N., Alfred Lloyd Owen, Deputy-Inspector-General Edward Elphinstone Mahon.

In opening the work of the Section the president said: The object of such a meeting as ours is to afford opportunity for the exhibition and discussion of new material; the interchange of ideas; the consideration of subjects with respect to which there is diversity of opinion, and the like But, in addition, the mere meeting of men who are not often brought in contact is in itself a great advantage, and reference has been made to the benefit which is derived from it on more than one occasion.

At Portsmouth we are peculiarly fortunate in this respect. For over and above medical men and medical women from all parts of the United Kingdom and the Colonies we have here a large number of naval and military medical officers, many of

* Abstract of addresses, etc., before the different Sections, published from advance sheets by courtesy of the Editor of the *British Medical Journal*.

whom are distinguished in their respective services. To ensure their active cooperation we have arranged that the introduction of each of the two discussions shall be delivered by our naval and military colleagues, and we have taken care that the subjects shall be of peculiar interest to the shipmen and the soldiers. At the same time, we have been careful to select subjects which are of sufficiently wide interest to attract civil as well as fighting medical men. For instance, gunshot wounds of the abdomen have been studied by surgeons who are not attached either to the navy or army. Of late years the use of firearms in civil life has increased alarmingly. If a young man has a grudge against his fellow-workman he buys a pistol and shoots him; if a youth quarrels with a maiden he shoots her, sometimes fatally: then turns the weapon against himself, but rarely with such success that he blows out the little brains he has. The statistical tables of my hospital (St. Bartholomew's) illustrate in a remarkable manner the increase in the number of wounds due to firearms. In the '70s and early '80s we used to have an average of about 3 cases in a year. For some years past we have had an average of 11 or 12 cases every year. And during last year I had under my own care 4 patients with bullet-wounds of the chest, whose cases have been put together by my former house-surgeons for our Surgical Section. At this rate we may hope by-and-by to become as cunning in the diagnosis and treatment of gunshot wounds as our naval and military brethren. I do not know whether there is any essential difference in the character of gunshot wounds in civil and in military practice, provided the weapon is the same in both instances. But I suppose it rarely is the same. Some of the pistols used are very good, but some of them are little better than toys. The moral effect on the patient is, however, much the same whether the weapon be good or bad. If he is shot point-blank and from a short distance, he is horribly frightened, and fully expects to die. He cannot believe escape is possible, so that we have to deal with a mental distress much greater than that from which the soldier suffers from a wound which may or may not be dangerous in itself. I was called down to the hospital one evening to see two young men who had been shot, each in the chest, and at very close quarters. One of them appeared seriously injured, and was very ill for several days. He breathed with difficulty, and made no outcry, but the other bewailed his fate in loud groans, and as the bullet had struck him full in the chest, and the assassin was only about 4 feet distant from him, he fully believed his time was come. My class was disposed to take a similar view, but when I came to examine him, I discovered that he presented no sign of serious injury, and was not in the least likely to die. The prognosis of rapid recovery was fully borne out, and at this day he is as sound as he ever was. The civil mind can scarcely believe in such good fortune.

The other subject for discussion, "The Treatment of Syphilis in the Army and Navy," seems at the first sight to belong almost wholly to the navy and the army. Indeed, it is worded as if it were intended to be of exclusive interest. But this is only apparent, and those who look closely into the matter will see that it is of almost greater interest to nonmilitary than to military persons.

The number of men suffering from venereal diseases in certain sections of the army is enormous. To give an example, the ratio per 1,000 of soldiers in India "constantly sick" of venereal disease during the year 1897 was 39.41; in the West Indies during the same year it was 35.56; and in the United Kingdom it was nearly 12 per 1,000. Fevers, agues, and even local injuries are trivial disabling agencies compared with syphilis and gonorrhea. No wonder the Legislature is concerned at such a frightful record of daily sickness and disability. No wonder the subject for the next Parkes Memorial Prize is "Venereal Diseases in the British and Indian Armies—their Prevalence and Prevention."

Unhappily the mischief does not end in the mere sickness of the soldier during his period of service. The treatment of syphilis, particularly, is very inefficient, and there is no machinery for prolonged continuous treatment which might effect a permanent cure of the disease. The consequence is that every year a vast number of soldiers and sailors suffering from syphilis are let loose upon the community, and convey the disease to women and through them, to children; so that, what with the probability of future outbreaks of syphilis in the men themselves, and the infection of women and children, there can be no question that the health of a considerable portion of the community is seriously impaired, both at present and for the future. The prevention and treatment of syphilis in the navy and army is, then, a subject in which our profession as a body is very deeply interested.

A perusal of the list of separate papers shows how wide a ground they cover, and their titles bear the promise of rich fruit. Eight of them deal with malignant disease, either in general or of some special part of the body; and they are the work of medical men in various parts of the country, which shows the interest which is taken at the present moment in the dread subject of cancer.

The following papers were offered:—

The Surgical Treatment of Hemorrhage from Gastric Ulcer, by G. E. Armstrong; A Bullet in the Brain for Six Months; Abscess, Removal and Recovery, by A. H. Bampton; Analysis of 102 Operations for Appendicitis, by Gilbert Barling; Seventy Consecutive Cases of Goiter Treated by Operation (Extirpation or Enucleation), by James Berry; A Method of Attaching the Mucous Membrane to the Skin of the Perineal Excision of the Rectum, by L. A. Bidwell; Some Operations on the Jaws for Extensive Malignant Disease, by J. Paul Bush; On the Excision of the Rectum for Cancer by a New Method and its Results, by Thomas Carwardine; An Analysis of 100 Cases of Spinal Curvature and Disease, by J. Jackson Clarke; A New Form of Truss, by Major J. D. Day; A Case of Gunshot Wound of the Leg Severing the Anterior Tibial Nerve; Secondary Suturing Two Months Later; Restoration of Function of Nerve, by P. De Santi; Four Cases of Bullet Wound of the Chest, with remarks by A. R. J. Douglas; Description of 2 Cases of Sarcoma of the Tongue, by Walker Downie; A short Account of a Case of Periostitis Albuminosa, by G. H. Erdington; Recent Notes on the Surgery of Stone in the Bladder, by P. J. Freyer; Some Cases of Cerebral Surgery, by Damer Harrison; The Vermiform Appendix in Relation to Hernia and Intestinal Obstruction, by J. Hutchinson, Jr.; The Operative Treatment of Spasmodic Flat Foot, by Robert Jones; (1) On the Drainage of Appendicular Suppuration through the Rectum or Vagina. (2) A Case of Ureteral Stricture treated by Ureteroplasty, by Jordan Lloyd; (1) Removal of a Bullet and of a Detached Fragment from the Interior of the Skull after Localization by the X-rays. (2) Removal of a Bullet from the Front of the second Cervical Vertebra after Localization by the X-rays, by R. Clement Lucas; The Treatment of Stone in the Bladder, with Notes of some Cases operated upon, by Herbert Macleod; (1) A Successful Case of Resection of Three-quarters of the Stomach for Carcinoma. (2) A Case of Excision of the Cecum for Carcinoma, by Charles A. Morton; A Series of Cases of Malignant Disease of the Stomach treated Surgically, by B. G. A. Moynihan; (1) Enterorrhaphy without Mechanical Aids (with illustrative cases); (2) The Treatment of Urethral Stricture, by James H. Nicoll; The Treatment of Surface Wounds, by G. Archdall Reid; Two Cases of Removal of Tumors of the Suprarenal Capsule, by A. W. Mayo Robson; Notes on 375 Cases of Varicocele treated by Operation, by H. Rundle; Notes of a Case of Extensive Trans-Sacral Excision of the Rectum followed by Perfect Sphinteric Control, by Charles Ryall; (1) A Case of Secondary Thyroid Growth. (2) A Case of Malignant Disease in the Sac of an Umbilical Hernia, by W. Sheen; The Result of Cancer Operations and of Continuous After-Treatment, by Herbert Snow; Two Fatal Cases of Venereal Phagedena, by W. G. Spencer; (1) Two Recent Operations upon the Gasserian Ganglion for Neuralgia by the Hartley-Krause Route. (2) A Reliable Washing Tap for Operating Rooms, with a Demonstration of a Simple Method for Irrigating the Abdomen, by J. L. Thomas; On the Rational Treatment of Syphilis, by A. H. Ward; The Prevention and Treatment of Syphilis in the Navy and Army, by Colonel F. H. Welch; A Case of Intercostal Neuralgia and Operation, by Chisholm Williams; The Surgical Treatment of Uterine Cancer, by W. Roger Williams.

Professor Ernest Laplace, Philadelphia, exhibited a new Forceps for Intestinal Anastomosis.

C.—Obstetrics and Gynecology.

President, George Granville Bantock; vice-presidents, John Robert Kealy, John William Taylor.

The subjects for discussion were: The Treatment of Fever following Delivery, with Special Reference to Serumtherapy; the Natural Menopause compared with (*a*) the Menopause produced by Removal of the Uterine Appendages; and (*b*) the Menopause produced by Removal of the Uterus without Removal of the Appendages.

In his opening address G. Granville Bantock made a plea for conservative gynecology:

For several years past I have viewed with much concern a strong, and, I fear, a growing tendency to resort to the knife too frequently instead of a reliance on measures of a more simple and conservative character, and this is associated with a tendency to "run amok" whenever a new idea is suggested. This is capable of illustration by many examples. Who does not know, for instance, how Emmet's operation for the repair of a lacerated cervix has been "done to death," until its inventor had to protest against too much zeal?

Again, it seems to be sufficient in the eyes of some men that a woman should have a fibroid, however small, in her uterus to justify them in not only proposing the total removal of the generative organs, but even in urging submission by picturing a prospect of pains and penalties.

It was an idea of the late M. Péan's that a fibroid was essentially a malignant growth that must be removed some day, and some of the younger generation seem to have adopted that view. When the life-history of the uterine fibroid comes to be

written, it will be seen how erroneous that idea is. A fibroid tumor does not necessarily interfere with impregnation, the full development of the fetus and its safe delivery, nor with the repetition of the process again and again. Fallacious arguments have been drawn from the supposed analogy between the ovarian tumor and the fibroid, and because of the improved results which have followed upon early interference in the case of the ovarian tumor, it is maintained that a like result would follow in the case of the fibroid. But it is impossible to establish any analogy between these two diseases.

Again, if a woman complain of pain in the pelvis—especially in either ovarian region—as the result of an abortion, chronic uterine congestion, or follicular disease of the cervix; or if she present symptoms attributable to the minor forms of derangement of the generative apparatus, she is deemed to require the removal of the appendages; and if she should be the subject of an uncomplicated retroversion which an ill-devised and ill-adapted pessary has failed to relieve, then she must undergo an operation, either by the vaginal or the abdominal route, for fixing it in position. I have never seen the necessity for any operation in uncomplicated retroversion, either that senseless method of fixing the organ by the vaginal route, or the more rational method—of course, on the assumption of its necessity—by the abdominal route. It would be taking a charitable view of the matter to say that errors of diagnosis are answerable for many mistakes in practice.

It was the maxim of the late Mr. Lawson Tait, "When in doubt, open the abdomen." But it was very much misunderstood. Mr. Tait did not mean that the abdomen should be opened to solve a doubt as to whether there was disease or not, but to ascertain the exact nature of the diseased condition of the existence of which there could be no doubt, which is a very different thing. I know that he shrank with horror from opening the peritoneal cavity and cutting a piece out of an ovary for microscopic examination and the purpose of diagnosis.

An idea of recent origin is that the ovary secretes a something which is of service in the economy, and that whenever it is possible, in an operation involving of necessity the removal of only a part of the generative apparatus, one or both ovaries should be left. There is not an atom of evidence to support that idea. Yet there are those who do not hesitate to found and urge the adoption of a practice upon a pure and ridiculous assumption. It appears to have been assumed that because disease or loss of the thyroid gland—of whose function we know absolutely nothing definite—is sometimes followed by a certain train of symptoms, therefore the loss of the ovaries—of whose function we have definite knowledge—must be avoided because their loss will deprive the economy of something which the ovary secretes. Now the ovary was evidently devised for the purpose of perpetuating the species by providing ova—of which each ovary contains a definite and limited supply—and for nothing else except it be to provide fees for their removal, not for their retention, and in the normal state, having discharged that function it atrophies, and like its neighbor the uterus, becomes not only a useless but a dangerous organ; for, as we only too well know, it is very liable to disease. In a very large proportion of cases, disease attacks this organ long after it has served its purpose, and it seems to me rather one's duty to secure the removal of such an unsatisfactory appendage when opportunity offers than to take steps for its retention. In my own practice I have had to remove both ovaries in a large number of cases. I have never willingly left an ovary when the uterus or its fallopian tube has been removed; and over and over again patients thus deprived of both these organs, have testified by word of mouth, confirmed by appearances, to a condition of good health, mental and physical, that had not been experienced for years previously, although these organs played no part in bringing about the disease which involved their removal. On the other hand, it has occurred to me to have to remove the second ovary after an interval of as many as 11 and even 18 years. Surely the possibility of such an occurrence is a strong argument against the practice in question. Tait was much nearer the mark when he urged that the removal of the second ovary—as in the case of the appendages—should become a rule of practice, because of the frequency with which it was subsequently attacked.

A habit has grown up lately of promulgating opinions and stating results of practice on insufficient evidence. Thus an operator makes up his mind that he will sew up his abdominal wounds in a particular manner, and forthwith he announces to the world that he has banished ventral hernia after abdominal section. He does not wait 10 years, he does not even wait 5 years, to see the results and ascertain the permanence or otherwise of his handiwork. I mention this subject for the purpose of inculcating more moderation—may I say modesty?—in assuming results, remembering that it is not safe to prophesy until one knows.

The following papers were offered:—

The Relationship of Certain Cases of Amenorrhea to Raynaud's Disease and Subsequent Tuberculosis, by Professor J. W. Byers; A Case of Rupture of Uterus, Missed Labor, Delivery three months later, by Professor Murdoch Cameron; Treatment of Acute Peritonitis, by John Campbell; On Subinvolution of the Vagina, by William J. Gow; Notes on 50 Consecutive Cases of Celiotomy for Diseases of the Uterus and Appendages, with 48 Recoveries, Performed within the last 20 Months, with Observations, by Macpherson Lawrie; Two Cases of Puerperal Septicemia due to Streptococcic Infection, by Arnold W. W. Lea; On Some of the Methods employed in the Modern Treatment of Uterine Cancer, by More Madden; A New and More Complete Method of Colporrhaphy, by J. Stuart Nairne; A Case of very unusual Suppuration in the Pelvis after Parturition, by W. H. C. Newnham; A New Treatment for Prolapse of the Uterus, by J. Inglis Parsons; The Causes which Render Difficult the Labors of Civilized Women, by G. Archdall Reid; The Syphilitic Factor in the Diseases of Women, by J. A. Shaw-Mackenzie; Tuberculous Lesions found in the Generative Organs in 27 Consecutive Postmortem Examinations on Phthisical Patients, by P. D. Turner; The Treatment of Puerperal Infection in the Maternity Hospitals of Paris, by C. Warden.

D.—State Medicine.

President, George Wilson; vice-presidents, Surgeon-General Charles MacDonagh Cuffe, Joseph Groves.

Subjects for discussion were: (1) Recent Vaccination Legislation and the Prevention of Smallpox; (2) the Personal Communication of Tuberculosis and the Measures available for its Prevention; (3) the Efficiency of Existing Measures directed against the Spread of Infection in Elementary Schools.

The following papers were offered:—

The Technic of Vaccination, by Colin Campbell; The Early Decay of Teeth in Great Britain, by James Cantlie; An Investigation into the Bacteriology of the Air as found in Schools, by R. Atkinson Dove; Diphtheria-Bacilli in Milk, by J. W. H. Eyre, (1) A Minister of Public Health; (2) Death Certification, by J. Brindley James; The Distribution of Erysipelas in London and its Significance, by Henry Kenwood and A. Griffith; Meat Inspection and the Abolition of Private Slaughterhouses, by E. Petronell Manby; Overcrowding in Secondary Schools, by R. Sydney Marsden; Sick-Room Infection in Typhoid Fever, by Herbert Peck; The Disinfection of Books and other Articles Injured by Steam Disinfection, by W. H. Symons; The Mode of Spread of Diphtheria, with Special Reference to School Attendance, based on the experience of a local outbreak, by J. D. Windle.

E.—Psychology.

President, David Nicholson; vice-presidents, Samuel Rutherford Macphail, Peter William Macdonald.

The subjects for discussion were: (1) Lunacy Legislation as it Affects the Temporary Care of Incipient Cases; (2) General Paralysis; (3) The Treatment of Epileptics and Imbeciles.

The following papers were offered:—

The Bearings of Pathologic Discoveries on the Treatment of Mental Diseases, by W. L. Andriezen; The Mental Conditions Involved in the Post-Hypnotic Appreciation of Time, by J. Milne Bramwell; The Asphyxial Problem in Convulsive Seizures, by J. F. Briscoe; Morbid Self-Assurance, by Harry Campbell; Notes on Asylums in India, by Surgeon-General Harvey; Evolution of a Christopath from a Psychiatric Standpoint, by Professor Hughes (St. Louis); Double Consciousness, by T. B. Hyslop; Note on Post-Operative Insanity, by S. R. Macphail; Alcoholism in its Relation to Heredity, by G. Archdall Reid; On Legislation Affecting the Property and Person of the Well-to-do Inebriate, by J. F. Sutherland; How Can We Instill Rational Ideas Regarding Insanity into the Public Mind? by L. A. Weatherly.

F.—Anatomy and Physiology.

President, John James Charles; vice-presidents, Aurelius Victor Maybury, Andrew Francis Dixon.

The subjects for discussion were: (1) The Interaction between the Ovaries and the Mammary Glands; (2) Causes of the Entrance of Oxygen into the Blood in the Lungs.

[For opening address, see page 305.]

The following papers were offered:—

Some Points Concerning Asymmetry, by R. J. Anderson; The Anatomical Structure of the 9th, 10th, 11th and 12th Cranial Nerves, J. O. Wakelin Barratt; The Lobes of the Liver, by James Cantlie; (1) The Reaction of the Intestinal Contents. (2) The Function of the Rectum, by J. J. Charles; The Progress of Anatomic Teaching in Northern India, by Havelock R. Charles; Demonstration of some Points in the Sectional Anatomy of the Brain of the Orang and Chimpanzee, by D. J. Cunningham; (1) The Course of the Taste Fibers. (2) On the Grooves and Markings often found in the Human Calvaria, corresponding in position to certain Vessels or Sensory Nerves of the Scalp. (3) The Form of the Bladder and Prostate (demonstration). (4) The Mode of Ossification of the Up-

per End of the Femur in different Animal Groups (demonstration), by Francis Dixon; The Value of the Large Intestine in General Metabolism, by Vaughan Harley; Metabolism in Acute Yellow Atrophy of the Liver, by William Hunter; Anesthetic Areas in 2 Patients in whom the 2d and 3d Divisions of the 5th Nerve were divided within the Cranium (demonstration), by J. Lynn Thomas; Cheyne-Stokes Respiration, by M. S. Pembrey; The evidence for and against the Transmission of Acquired Characteristics, by G. Archdall Reid; On Blood Corpuscles, by F. W. Forbes Ross; Experimental Observations bearing on Epilepsy; by J. S. Risien Russell.

G.—Pathology.

President, Joseph Frank Payne; vice-presidents, Frederick John Driver, Otto Jackson Kauffmann.

Subjects for discussion: The Pathology of Infective Endocarditis; The Pathology of Renal Tumors.

The following papers were offered:—

Hypertrophy of the Brain, by Bertram Abrahams; Remarks on a specimen of Hydatid Disease of the Vertebral Column and Extradural Space, by A. G. Barrs and E. F. Trevelyan; The Physiologic Action of Diphtheria-Toxin, by T. G. Brodie; The Bacillus of Influenza, by A. C. Coles; (1) The Pathology of Milk; (2) A Few Unusual Bacteriologic Specimens, by G. Leslie Eastes; The Pathology of the Penile Raphe, G. H. Edington; A Case of Streptothrix Infection, by A. G. R. Foulerton; The Distribution of Tuberculous Lesions in Man and Animals, by Professor Woods Hutchinson; (1) Dissecting Aneurysm of the Heart; (2) Syphiloma of the Heart; (3) Anemic Infarct of Liver, by W. S. Lazarus-Barlow; Some Points in the Pathology of Plague, by Frederick Pearse; Generalized Infectious Psorospermosis, by Dr. Posadas; Observations on the Pathology of the Myocardium, by F. J. Poynton; Influence of Heredity in Disease, by G. Archdall Reid; Notes upon Morbid Conditions met with among the Natives of British New Guinea, by C. G. Seligmann; Infective Sarcomas in Dogs, G. Bellingham Smith and J. W. Washbourn; The Pathology of Acute Chorea, by Campbell Thomson; Notes on a Carcinomatous Cyst of Liver with Secondary Deposits in Sternum, Clavicles and Lungs, by C. Powell White; Some Sources of Infection in Cutaneous Tuberculosis, by Robert Wild; On Tumors of Gigantic Size, etc., by W. Roger Williams; The Pathology of Syphilitic Affections of the Spinal Cord, by R. T. Williamsom; On the Bacillus of Rheumatoid Arthritis, by A. S. Wohlmann.

H.—Ophthalmology.

President, Simeon Snell; vice-presidents, Lysander Maybury, Edward Treacher Collins.

The subjects for discussion were: (1) The Pathologic Significance of Sympathetic Irritation and its Connection, if any, with Sympathetic Ophthalmitis; (2) The Visual Tests employed in the Navy, Army, and Mercantile Marine, and their Efficiency.

In his address on the Prevention of Eye-Accidents Occurring in Trades, Simeon Snell, president of the Section, said: No one can have seen much of ophthalmic practice in such a large industrial center, without being painfully aware of the enormous destruction to sight occasioned annually by accident. It is difficult, of course, to obtain anything like accurate statistics. It is necessary to exclude entirely all reference to accidents, caused in everyday civil life, much as could be said about their prevention. My observations have reference only to accidents met with in connection with labor, and, as already stated, they have a more particular bearing upon accidents occasioned by such trades as are carried on in the Sheffield and the surrounding districts. Iron and steel works are no longer confined to one district, but are located in many different parts, and there are many other industries, to which the general principles here set forth will equally apply.

The important part occupation bears to the number of eye-accidents is well illustrated by statistics. The men not only exceeded the women very largely in actual numbers, but still more so by percentage, this latter being six times as great as for the women.

In the course of a day a grinder may get several foreign bodies fixed in his cornea, or days may elapse without such a mishap. If the cornea of a grinder be carefully examined with a magnifying glass, it will not infrequently be found to be studded over with minute nebulæ; though, therefore, the damage done by each "mote" may often not be serious, yet the frequent repetition, by dulling the cornea, will, in many cases, diminish the acuteness of vision. These particles may either be small fragments of stone, or much more frequently small portions of steel, or emery, which is largely used as a wheel for glazing cutlery, and for other purposes.

There can be no question that the grinder derives considerable immunity from these "motes" by the employment of protective glasses. Several grinders, whose ocular condition necessitated the wearing of spectacles, have admitted the protection they afforded. The nearer a man is to his work the greater is the chance of his eye being hit by one or more of these small particles. This suggests the proper correction of errors of refraction by the appropriate spectacles.

By far the most serious eye-accidents happen to men engaged in working iron or steel. The following figures exhibit this in a very lurid light.

STEEL AND IRON.	
Steel and iron splinters, rivet, chips, pieces of drill, file, wire, etc.	173
Nail	5
BURNS.	
Metal sparks, flashes, etc.	43
Lime	8
Gas-explosion	1
Ammonia	1
Gunpowder	4
Cinder	1
Poker	1
MISCELLANEOUS.	
Dynamite, and dynamite explosion, and cartridge	6
Wood, sticks, and peggy	13
Hook	1
Knife	8
Glass, soda-water bottles, etc.	15
Pick	5
Stone	24
Fork	7
Pin	1
Fist	3
Branch of tree	1
Crane handle	1
Cork	2
Cinder	4
Coal	11
Straw	1
Cats-claw	1
Sand	1
Ball	1
Pen	2
Firework	1
Boiling oil	1
Tin	2
Band strap	2
Band buckle	2
Chain	1
Kick	1
Brick	1
Thorn	2
Elastic, piece of	1
Total	359

Out of this total of 359 eye-accidents to males, taken from the records for this purpose consecutively, which were so serious as to require admission to my wards at the Sheffield Royal Infirmary, no fewer than 173 were caused by iron or steel, including splinters of iron or steel, pieces of rivet, of drill, wire, and many other means associated with the iron and steel trades. There were also 43 due to burns from molten metal, sparks, flashes, etc. I am not sure also whether to the former number should not be added 5 put down as caused by nails, as most, if not all, of them would have occurred to iron or steel workers.

In chipping the rough edges in "finishing" or "dressing" iron or steel work, many men are frequently working close to each other, so that the danger is not only to the worker himself, but to those around. Passers-by are by no means infrequently the victims, and many blinded in this way have come under my notice. The chipper himself is often hit by the rebound of the splinter after it has struck perhaps the narrow angle of steel or iron upon which he may have been working, or some other object. It must be recollected, also, that the danger is not merely from the iron or steel which is being operated upon, but there are three other places from which splinters may be, and actually are, given off and cause injury—the hammer head, the chisel head, and the chisel point.

It is obvious that men engaged in work which causes the splinters to fly about so freely should be so arranged as not to be chipping against their fellow workmen, or in a direction in which passers may approach. This is managed in some works by getting the men to chip against a wall, though not too close to it, or again by interposing a canvas screen between sets of workmen.

Besides the manner of arranging the men at their work and the means to be recommended for adoption by the workmen, it is fortunate that the dangers of chipping may be avoided by adopting a pneumatic chipper. It has the advantage of accomplishing in 1 hour what, by hand, would take 6 or 7 hours. It certainly prevents the flying about of splinters in a remarkable manner. It is more like using a cheese-scoop in a fairly soft cheese than running any tool over hard steel.

Another class of severe injuries which are of common occurrence are burns from molten metal. Sparks and flashes fly about freely in almost every instance that molten metal is run into the moulds; but in some, of course, more so than in others, and the portions given off vary much in size. Injuries caused in this manner were no fewer than 43 out of the 359 consecutive accidents in males already mentioned as admitted into the Royal Infirmary under my care. In the forgings, also, great or small, when the iron or steel is being hammered either by hand, or, in the case of larger castings, by a steam or hydraulic hammer, portions are given off the glowing metal, and those working, and the bystanders, are exposed to danger of burns. Injuries inflicted by molten metal are very serious owing to the immediate destruction of tissues or the later results.

PREVENTIVE MEASURES.

The knowledge which I have acquired from contact with workingmen who have been injured, and visits from time to time to many of the principal works, has long since satisfied me that much of the destructive injury to sight, which is constantly coming under one's observation, is preventable, and that means can and should be adopted to endeavor to lessen the risks to sight which are at present associated with such important industries. My experience has shown me that there is less difficulty in enlisting the support of the employers than the assent of the men to adopt precautionary measures. With the Compensation Act in force I have no doubt the assistance of the masters will even be stimulated. It only recently came to my knowledge that one firm had made it compulsory on men engaged in "chipping," "fettling," "turning," and other work in which iron and steel splinters were liable to fly off and endanger sight, to wear protectors, which were provided at the expense of the firm. This decision was taken in consequence of a workman being blinded by a "chipping;" and it is easy to see, while creditable to their humanity, how such a course, if it tends to preventing loss of sight, is likely to be a considerable pecuniary saving.

In considering what kind of protectors men should use, certain points must be borne in mind. The cost must be very moderate, and any covering over the eyes should interfere with the sight as little as possible, if at all. Among ironworkers, glass is practically out of the question. Even thick rock crystal, which has been suggested for some kinds of work in consequence of its thickness and peculiar manner of fracture, would hardly do. There are a variety of protectors in the market, but they have been little used. Gauze wire, fitting close to the eye like a cup and attached to the head by a string, is employed by stonebreakers and in some ironworks. I have photographs of men working with these protectors over their eyes. They are taken from men actually engaged at their daily work at the works, to which reference has already been made, where the men are practically compelled to adopt protectors. They complain of them as being hot and interfering with sight, but there is no question that such protectors afford considerable immunity from accident. Another practical point about protectors is that they should not be liable to rust. For this reason galvanized iron wire, or better, aluminium wire is of service. The mesh should be strong and fine, and sufficiently close to prevent, as far as possible, even small chippings passing through it, and yet to interfere with sight as little as need be. I have had experiments made by allowing men engaged in fettling to "chip" against wire gauze which has been suspended for the purpose, to ascertaid how far a mesh answered before deciding to adopt a given size. Then, acting on a suggestion derived from Snellen's shield for operation cases, I have had this netting made into protectors, which cover the eyes and the adjacent parts. The portion over each eye is bulged forward so as to allow very free play to the eye underneath, and the convex surface will be a greater protection than one merely, flat would be. I have supplied workmen with these protectors who have used them for chipping, steel melting, and other dangerous iron and steel work. I learn that they are regarded as satisfactory, that they answer their purpose well as protectors, and that the interference with sight is very little.

CONCLUSIONS.

I would sum up my suggestions as to the means for protection as follows:

1. The grinder will find that large glasses made of plain glass or indeed his own spectacles, should his refraction require their use, will afford great protection. Or he may use other protectors made with glass in front and gauze surrounding it.

2. The use of protectors should be compulsory for those workers in iron and steel, whose employment renders them liable to be injured by iron or steel splinters, or are exposed to danger from molten metal.

The gauze eye-shield described will, I believe, answer the purpose well. The cost is low, and it is worth the employers' while to supply their men with them. Other means to be adopted are: (*a*) The use of a pneumatic chipper whenever practicable, and (*b*) the proper arranging of the men at their work; and the use of screens so as to avoid injury to their fellow-workmen and to passers by;

The following papers were offered:—

The Extraction of Unripe and Complicated Cataracts, with Remarks on their After-Treatment, by George Berry; Eyes or no Eyes: H.M.S. *Vanguard*. A Retrospect, by Thomas H. Bickerton; On the Uses of Homatropin in Cases of Muscular Asthenopia, by Adolph Bronner; Inefficiency of the Ocular Muscles, G. T. Bull; Enophthalmos, by E. Treacher Collins; Cases Illustrating the Value of the Correction of Hyperphoria, by W. Watson Griffin; Congenital Lacrimal Obstruction, by A. Hill Griffith; A Case of Primary Sarcoma of the Fornix Conjunctivae, by John Griffith; The Eye-Symptoms in Hay-Fever, by John Hern; The Use of Euphthalmin; a new Mydriatic, by James Hinshelwood; The Determination of Visual Acuity: (*a*) The Principle of its Determination; (*b*) The Tests for Visual Acuity; (*c*) Practical Demonstration, by Professor Edm. Landolt; The Correction of Refractive Errors in the Treatment of Trachoma, by Arnold Lawson; A Series of Cases of Removal of Lens for High Myopia, by Samuel Lodge, Jr.; Destructive Ulceration of the Eyelid: Cure, by Kenneth Scott; The Prevention of Eye-Accidents in various Trades and Occupations, by Simeon Snell.

Invitations to attend the meetings of the Section were accepted by Dr. Hermann Knapp (New York); Dr. Samuel Risley (Philadelphia), Dr. de Schweinitz (Philadelphia), Dr. Theobald (Baltimore), Dr. Ayres (Cincinnati).

I.—DISEASES OF CHILDREN.

President, Edmund Owen; vice-presidents, James Green, Dawson Williams.

The subjects for discussion were: (1) On the Treatment of Ununited Fracture in Children, With Remarks on Ununited Fracture of the Tibia and Fibula; why does its Operative Treatment so often end in Amputation? (2) The Treatment of Pleuritic Effusions in Childhood; (3) The Causation and Treatment of Convulsions in Infancy; (4) The Treatment of Inguinal Hernia in Infancy and Childhood.

Edmund Owen, President of the Section, in his opening remarks, said: The two great differences between ununited fracture in the child and the adult are that in the child the false joint is generally in the leg, and that operative treatment is almost invariably futile. Comparatively little attention has hitherto been directed to this subject, chiefly for the reason, I suspect, that the surgeons who had to deal with such cases could not publish a satisfactory result to their operative interference. So far as I know, the first essay directing special attention to the subject of ununited fracture in children was by Sir James Paget, in *Studies from old Case-Books*, published in 1891. In it he gives brief records of 3 cases: The first was that of an infant who broke her tibia and fibula from very slight violence; when she was 15 years old she was glad to have the leg amputated. The second case was that of a baby who fell and broke its leg below the middle. "The fracture was at once well set, and every care was taken of it; the union gave way, and consolidation never took place, though scraping, excision, wiring, everything" were tried. The limb was eventually amputated. In the third case a "bonesetter" broke the bent leg of a child, and the fracture did not repair in spite of a resort to resection and wiring, and in due course Dr. Snowcroft amputated the leg. In the cases on which I have operated there was apparently no local impediment to the consolidation; the broken ends of the tibia forming a salient anterior angle at the junction of the middle and lower third of the leg were in close apposition. No tendon or sequestrum interfered with them, and they were surrounded and connected by a considerable amount of fibrous tissue, which, unfortunately, failed to attain the higher development into bone.

In the adult the chief cause of nonunion after fracture is want of rest, and possibly this is one of the causes of the frequent occurrence of pseudarthrosis in the child's broken tibia; the fracture is not detected and not treated, and the child is carried about, the leg hanging over the mother's arm. Thus the weight of the foot constantly draws the lower end of the tibia backwards, and the salient angle at the fracture is directed forward.

In the adult the humerus and femur are the bones whose shafts are most often the seat of ununited fracture, and with them resection of the pseudarthrosis and wiring the freshened

ends of the bone always results in consolidation. But in children nonunion most often occurs in the tibia and fibula, and, so far as my experience goes, fibrous union is the best result that follows operative treatment. But as fibrous union of a fracture of the tibia and fibula is of no practical value, the operative treatment very often ends in amputation.

Dr. Packard, of Denver, attributes the nonunion to imperfect treatment. He refers to a case reported in the *Lancet* of June, 1862, in which after the broken tibia of a boy had been treated by the introduction of ivory pegs, amputation was subsequently done when "the lower fragment was found to be atrophied." This reference to the atrophy of the lower fragment is of great importance; in the cases in which I have had occasion to operate I have noticed the same condition.

Mr. D'Arcy Power gives as his opinion that "want of rest is the main cause of nonunion of fractures, though there may be subordinate factors." In the discussion of Mr. Power's paper, Mr. Holmes attributed the nonunion to the want of early diagnosis and neglect of proper treatment. But if there were nothing more in the pathology of the condition than that, how is the almost inevitable failure of the operation for consolidation to be explained? If neglect of ordinary precautions be the actual explanation, how is it that pseudarthrosis almost invariably follows the operation which, for ununited fracture in the adult, is always successful, for there is no "neglect of treatment" after operation has been performed?

It is worthy of note that in some of the cases the tibia was bending before it broke, or that there was a doubt at first as to whether the bone was bent or actually broken. Sometimes the fracture follows an attempt to straighten the bent bone—that there was, in other words, some ill-defined condition leading up to fracture. And if this be so, it should make the surgeon not only cautious, but apprehensive, when he proposes to straighten an anteroposterior bending in a child's leg.

I have nothing definite to offer as to the cause of the almost invariable failure of operative measures. It has been suggested that previous to its being fractured the bone may have been the seat of an obscure affection somewhat allied to mollities ossium. All I can say is that, cutting down upon the seat of fracture there was no remarkable softness of the bone. In the instances, however, in which I have operated long after the original injury there was an atrophic condition of the lower fragment of the tibia. The child's foot had been well enough developed, but the fragment between the ankle and the fracture has been poor and spindle-like, as in a case of infantile paralysis.

What is wanted is a theory which shall at the same time explain the easy fracture of the bone from some slight injury; the absence of bony union whether the fracture be well treated or not; and the complete failure of those operative measures which can be depended upon for success in the treatment of pseudarthrosis in the adult.

The only theory which, so far as I can see, is able to answer all these requirements is that which invokes the influence of the trophic nerves. I am, therefore, going to suggest that leading up to the fracture there is some subtle disturbance in the anterior cornu of the gray crescent of the cord, inhibiting the due nutrition of the bone, and rendering it weak and friable, subsequently interfering with repair, and eventually frustrating the best endeavors of the operating surgeon. I would thus ally the condition to the molecular disturbance of the crescent which entails infantile paralysis, but one which expends its influence upon bone rather than muscle. I do not see how this theory could be confirmed or exploded except by a careful examination of transverse sections of the cord made in the case of an ununited fracture, and the opportunity of making such an investigation is not likly to present itself.

The following papers were offered:

Abnormal Ossification of the Parietal Bone in an Infant, by Edmund Cautley; The Necessity of Requiring a Full Course of Lectures on Children's Diseases and Attendance at a Children's Hospital as Part of the Medical Curriculum, by John Ewens; A Successful Case of Splenectomy for Rupture of the Spleen, with a Note on the Consequent Blood-Changes, by Geo. Heaton; Night-Terrors in Children, by E. Graham Little; Remarks on Tuberculous Adenitis, by G. Morgan; The Varieties and Causes of Cough in Children, with especial reference to Practical Treatment, by J. Porter Parkinson; A Contribution to the Study of Cardiac Overstrain in the Young, by F. J. Poynton; Infantile Hemiplegia, by J. Priestly; Observations on the Morbid Anatomy of Tuberculosis in Childhood, by G. F. Still; On Birth-Palsy with Disseminated Tremors, by George A. Sutherland; The Treatment of Rickets in an Out-Patient Department, by E. Mansel Sympson; An Operation for the Relief of Contracted Arm and Hand after Infantile Hemiplegia, by A. H. Tubby.

J.—Pharmacology and Therapeutics.

President, John Buckley Bradbury; vice-presidents, C. H. Watts Parkinson, Samuel Goss.

Subjects for discussion: (1) Intestinal Antiseptics and their Value; (2) Headaches and their Treatment; (3) The Constitutional Treatment of Skin Diseases.

Opening the section, Dr. J. B. Bradbury said: So far as I can make out there is a growing tendency for medical corporations (if we except the universities) to require less and less knowledge of the natural history, properties, composition, and action of drugs, from candidates for their diplomas; a condition of things which I think is much to be regretted. Personally, I have no wish to revert to the state of affairs when candidates were expected to have a minute knowledge of the distinctions between the different species of senna, and of cinchona bark, etc.; but the danger now is that they may not be able to recognize senna at all, or to know the ingredients and doses of the most important pharmacopeial preparations. The consequence is, when settled in practice, that they are tempted to prescribe ready-made tabloids, elixirs, etc., the purity and the precise dose of the ingredients of which have no official sanction. Far be it from me to speak too disparagingly of these products of the chemist's ingenuity; in many cases they are most useful and valuable on account of their easy portability; but in other cases, I feel sure, the therapeutic results would be more satisfactory if *B. P.* preparations were issued instead.

The contents of the pharcmacopeia, so far as they bear directly or indirectly on prescribing, should be thoroughly mastered by all medical students, and I would make such knowledge a compulsory part of the curriculum. After anatomy and physiology, I would make the first part of the final examination pathology and pharmacology—the sciences dealing respectively with disease and its treatment—and then the student should at the next stage be ready to apply the principles thus acquired to actual practice in connection with his clinical medicine, surgery, and midwifery.

The more intimately a student knows the action of the drugs he prescribes, the greater will be his success in treatment, and it is much to be regretted that some of the Examining Boards require a student to acquire this knowledge only in a haphazard way, or at a premature stage of his course. He cannot appreciate physiologic action until he is possessed of the elements at least of physiology. On the other hand, he cannot appreciate the importance of judicious prescribing, unless he has learned the nature and properties of the agents prescribed. These two considerations seem to me decisive as to the exact place in the curriculum at which pharmacology should be introduced.

The following papers were offered:—

Headaches and their Treatment, by Lauder Brunton; The Pharmacology of Cannabis Indica, by Dr. Watson Dixon; The Therapeutic Effects of X-rays on Lupus, by J. Hall Edwards; Further Experiments with Pane's Antipneumococcic Serum, by J. W. H. Eyre and J. W. Washbourn; Intestinal Antiseptics and their Value, by Vaughan Harley; An Experimental Investigation into the Treatment of Acute Digitalis Poisoning, by C. C. Marshall and J. T. Taylor; Some Suggestions for the next Pharmacopeia, by J. C. McWalter; X-rays in the Treatment of Skin Diseases, by Dr. E. Scheff (Vienna); The Therapeutics of Light and Heat, by W. K. Sibley; Cases Treated by Erythrol Tetranitrate, by Hugh Walsham.

K.—Laryngology and Otology.

President, E. Creswell Baber; vice-presidents, Josiah George Blackman, Patrick Watson Williams.

Subject for discussion: The Diagnosis and Treatment of Chronic Empyema of the Frontal Sinus.

In the opening address, E. Creswell Baber said: It is just 30 years ago that Wilhelm Meyer, of Copenhagen, brought his eventful discovery of adenoid vegetations to this country. His paper, which forms a landmark in modern rhinology, appears to have attracted little immediate attention in this country, and it was not till some years after its publication that we find any original articles on the subject in England. He had been preceded in his discovery by the publication of scattered cases of adenoid vegetations by several observers, notably by Voltolini and by Loewenberg, but, for an exhaustive study of the disease, both as regards diagnosis, prognosis, and treatment, and for a recognition of its great importance and far-reaching effects, we are undoubtedly indebted to Wilhelm Meyer, who may be justly considered as the discoverer of these growths. Meyer recognized his first case by palpation, and laid great stress on this mode of examination. His description of this disease was so full and complete that, except in pathology and treatment, no material advance has since been made. Numerous fresh instruments have, as you are aware, been devised for the operative treatment of adenoids, and removal under general anesthesia is now an everyday occurrence. The use of general anesthesia was, I believe, first practised in this country, one of the pioneers

being Dr. Woakes, who had been using anesthetics for the purpose to a considerable extent before 1882.

The way for Meyer's discovery had been paved by the invention by Czermak some ten years previously of the art of posterior rhinoscopy. Voltolini, who published his first work on rhinoscopy in 1861, began to work at this subject soon after Czermak, and was an ardent advocate for many years and in many writings in this method of examination. To him we are indebted for insisting on the importance of the palate-hook, although one had been previously used by Czermak. Voltolini emphasized the fact that firm pressure with the hook was better borne than slight irritation, and therefore advocated the use of a large, strong hook drawn rapidly and firmly forwards. It was, not, however, till more than twenty years afterwards when White, of Richmond (Virginia), and others introduced the self-retaining palate-hook, employed after cocainization, that the full benefit of this method of examination was apparent, and I think that even now the value of this instrument is insufficiently taught in our schools, as it can be so easily used on almost any patient, and gives an insight into the nasopharyngeal cavity obtained by no other means. This instrument alone enables us to fully examine with the eye the posterior wall of the cavity ; otherwise the view of the latter obtained in the mirror is usually too foreshortened to be of much value.

Anterior rhinoscopy, which is, of course, of much older date. cannot, singularly enough, be said to have been much cultivated in modern times until 1859, when Markusovsky invented the speculum bearing his name. Thudichum, of London, and Duplay, of Paris, in 1868, both published accounts of their speculums, instruments which for their purpose cannot be improved on at the present day. Fränkel's speculum dates from 1872. But real advance in anterior rhinoscopy was, I think, more due to the use of light reflected from a mirror with a central perforation than to any special form of speculum.

In 1882, the study of anterior rhinosocopy, and of nasal diseases generally, received great impetus from the well-known researches of Zuckerkandl on the normal and pathologic anatomy of the nose and its accessory sinuses. The next most noticeable event in rhinology was the ardent championship of reflex nasal neuroses by Hack, of Freiburg. In an able brochure published in 1881, and in numerous other papers, Hack contributed abundant material on the subject, and albeit his theories were not all sound, still a valuable substratum of truth, sifted by later observers, remains, for which we are indebted to this brilliant worker. Among other things, Hack's theories led to an extended use of the galvanic battery, invented by Middledorpf some years before, and much employed by Voltolini. Moderation in regard to its use has now happily set in, and it is not used so promiscuously as I am afraid it was at one time. It may be mentioned that before Hack both Voltolini and B. Fränkel had drawn attention to the relation existing between asthma and certain forms of nasal disease. Very shortly after this date, rhinology was destined to undergo what amounted practically to a revolution by the introduction of cocain. In 1884 Jellinek published an article on its use in the throat and nose. In spite of the originally high price, the employment of cocain rapidly spread in this department, not only on account of its anesthetic properties enabling numberless operations to be painlessly performed, but also on account of its contracting power on the nasal mucous membrane. Its value in the latter respect in enabling a successful examination to be made may be fairly compared to atropin in examination of the eye.

While all these rapid developments were taking place with regard to the careful examination and treatment of the nasal cavities, the study of the various reflex neuroses connected with the nose and the use and action of cocain, a new phase of rhinology was springing up—the study of sinus diseases. Diseases of the accessory sinuses when producing gross extranasal lesions had been known from time immemorial, and many fearful and wonderful operations had been devised for their removal. But the study of diseases of the sinuses, especially chronic empyema with only nasal symptoms, was practically a new departure and materially enlarged the scope of rhinology. The nasal cavities, as we can inspect them, were beginning to be regarded as only a small portion of the nasal tract, the gateway as it were, to large and important cavities whose diseases merit careful study. Ziem, in his publications dating from 1880 onwards, did pioneer work in latent empyema of the antrum, and was followed by a host of observers, who added largely to our knowledge. One of the most stimulating is Grünwald, and while his conclusions are doubtless some of them extreme, his work is highly suggestive, and has greatly increased the interest taken in the subject. All the different sinuses have been carefully investigated, including the frontal sinus, on some of the diseases of which we are about to hold a discussion.

Among other developments of modern rhinology may be mentioned the general recognition of the importance of nasal respiration and the improvement of the means of treating various forms of nasal obstruction. The pathology of the nose has continued to advance *pari passu* with that of other parts, and bacteriology has been laid under contribution in investigating the diseases of this organ. The physiology of the nose has also been reinvestigated.

Subject for discussion: The Diagnosis and Treatment of Chronic Empyema of the Frontal Sinus.

The following papers were offered :—

Intralaryngeal Tumor and Nasal Exostosis (probably Tertiary Syphilitic), by Louis Bar, of Nice; Title not announced, by T. Bobone, of San Remo; The Use of Formalin in Atrophic Rhinitis, by A. Bronner; The Diagnosis and Treatment of Epidural Abscess, by E. B. Dench, of New York; On Syphilitic Ulceration of the Trachea, by J. Walker Downie, of Glasgow; Les Ventriloques et les Inspirés parlants dans l'Antiquité et en particulier chez les Sémites et chez les proto-Sémites, by Dr. Garnault, of Paris; On some Forms of Laryngitis Consequent on Purulent Affections of the Nose, by Dundas Grant; Pachyderma Laryngis: Some Points in its Pathogenesis and Clinical Features, with a Lantern Demonstration of Cases, Specimens and Sections, by Jobson Horne; A New Apparatus for Inhalations; its Application in the Treatment of Tuberculous Laryngitis, by P. Lacroix, of Paris; (1) Case of Exophthalmic Goiter Cured by Removal of One Lobe of Thyroid. (2) Ossiculectomy for the Cure of Middle-ear Suppuration, by R. Lake and J. Pollard Observation on a Fatal Case of Frontal Sinus Empyema, by Professor Luc, of Paris; Treatment of Chronic Suppuration of the Attic by Scooping out (*Evidement*) of the Petro-Mastoid, by A. Malherbe, of Paris; Röntgen-ray Photograph of Needle in Subglottic Region of Child 6 years old, by Urbano Melzi, of Milan; Case of Accessory Thyroid Gland at the Base of the Tongue, by Posthumus Meyjes, of Amsterdam; (1) The Operative Treatment of Post-influenzal Suppurative Mastoiditis. (2) Two Cases of Malignant Degeneration of Originally Benign Nasal Polypi, by W. Milligan; A Case of Acute Empyema of the Maxillary Antrum, by E. J. Moure, of Bordeaux; (1) Malignant Disease of the Pharynx and Esophagus, with Cases. (2) Adenoid Disease of the Vault of the Pharynx in its relation to Tuberculosis in Children, by David Newman; Anomalies of Development of the Auricle, with Illustrative Photographs, Drawings, etc., by Fritz Rohrer, of Zurich; Author's Method of Operation on Frontal Sinus, by Dr. Röpke, of Solingen; Consequences of Singers' Nodules, by A. Rosenberg, of Berlin; Parathyroid Tumor Causing Symptoms of Malignant Disease of Larynx and Esophagus: Removal: Recovery, by P. de Santi; Two Cases of Chronic Maxillary Empyema: (1) Large Alveolar Opening, Curetment, Irrigation, etc. (2) Trephining from the Nose, Curetment and Irrigation after Partial Inferior Turbinectomy, by Scanes Spicer; A New Operation for the Correction of a Deviated Septum, by J. Tansley, of New York; Laryngeal Vertigo with an Account of Three New Cases, by Atwood Thorne; History of a Fatal Case of Chronic Frontal Sinus Empyema, by Herbert Tilley; Cerebellar Abscess Secondary to Chronic Middle-Ear Suppuration; Evacuation; Cure, by E. Waggett; Suprarenal Capsule in Rhinology, by McLeod Yearsley.

L.—Tropical Diseases.

President, George Thin; vice-presidents, Colonel Kenneth McLeod, James Watson.

The subjects for discussion were: (1) Psilosis or Sprue: its Relations (Etiological and Pathological) to other Forms of Tropical Diarrhea, and its Treatment; (2) On Thermic Fever (so-called Siriasis), with Special Reference to its alleged Microbic Causation; (3) The Agency of Insects in Spreading Infections.

(For President's address see page 310.)

The following papers were offered :—

Antivenene, by Staff-Surgeon O. W. Andrews; Suprahepatic Abscess, by James Cantlie; A Case of Bilharzia Hematobia with Specimens, by C. P. Childe; The Treatment of Malarial Fever in India by different drugs, by Lieutenant-Colonel Andrew Duncan; Malarial and Climatic Neuralgia and its Treatment, by Alex. S. Faulkner; The Geographical Distribution of Undulant (Malta) Fever, by Captain Hughes; Filaria Periodicity, by Patrick Manson; The Common Form of Tropical Diseases met with in General Practice in England, by Sarat K. Mullick; Blackwater Fever, by Dr. Stalkartt; A Further Contribution to the Study of Malarial Eye-Affections, by Major M. T. Yarr.

[From our Special Correspondent.]

AMERICAN OTOLOGICAL SOCIETY.

Meeting held at New London, Ct., July 18, 1899.

(Continued from page 240.)

Report of a Case of Otic Neuritis.—Dr. W. B. Johnson, of Paterson, N. J., said that during an attack of la grippe the patient became entirely deaf in both ears; was dizzy, troubled by noises in the ears, and in the early stages unconscious. She had nausea and vomiting. The subjective

symptoms improved rapidly under the administration of suprarenal capsule, but now, 3 months after the attack, she is still unable to hear any sound whatever.

The officers elected for next year were as follows: President, Dr. H. G. Miller; vice-president, Dr. B. A. Randall; secretary and treasurer, Dr. F. L. Jack.

A Case of Adenocarcinoma Involving the Cartilaginous Meatus and the Squamous and Mastoid Portions of the Temporal Bone.—DR F. B. SPRAGUE, of Providence, said the patient, aged 62 years, complained first of a feeling of fulness in the ear attended by periodical attacks of pain, with neuralgic headaches starting from the ear and spreading over the head and face. Just inside the meatus a smooth hard mass was seen projecting from above downward and about the color of the normal tissues about it. From the lower wall of the meatus a similar mass projected upward, both being hard and unyielding. An operation was advised but declined, the patient deferring it for more than a year, when her condition was very much worse and the growth involved the temporal bone and the parotid gland. She then consented to an operation, from which she recovered rapidly. At the present time, however, one year since the operation, her condition is becoming bad, there is facial paralysis, ptosis, diplopia, and mental failure.

Personal Experience in Tympano-Mastoid Exenteration.—DR. J. ORNE GREEN, of Boston, said that he believed this to be a most valuable operation for the cure of deeply seated chronic suppurations, but at the same time one of the most complicated operations, for its success depends upon attention to the minutest details. He had performed the operation in some 25 cases with success both in curing the otorrhea and getting the complete epidermization of the cavity in all but one. The one great danger has been injury to the facial nerve, but while this occurred in 5 or 6 cases it was temporary in all but one, and in this he had found a curious opening into the fallopian canal. Dr. Green then considered at some length the details of the treatment with special reference to the securing of a good skin lining for the cavity.

Shall We Use Cold in Acute Middle Ear or Mastoid Affections? if so, How Long?—DR. J. O. TANSLEY, of New York, refers to the old practice of 25 years ago of treating acute processes of the middle ear with dry or moist heat accordingly as there was not or was a secretion present, and all mastoiditis was treated by hot poultices. He referred to the fact that in acute inflammations of the eye very few considered the use of cold as of any benefit in diseases more deeply seated than those of the iris or ciliary body. "Cold we know does restrain microbes if used beyond a certain point, but the question is are we able to obtain that amount of restraining cold in an ear or mastoid." He thought not. After 25 years' experience with the use of cold he had concluded that in those cases which get well while the cold was used, the same result would have been obtained without it, while in those cases that subsequently required operation he had not noticed any benefit from the use of cold. He gave the history of some cases to show that it seemingly had an opposite effect, and that while it restrains the pain and keeps down the external swelling it is a hindrance in determining when to operate, and may aid in the destruction of a greater amount of tissue.

Discussion.—DR. JOHNSON said that he was an advocate of hot applications, either dry or moist, in the mastoid disease, and thought they were more beneficial than cold ones. He thought if infection was present and had extended to the cells, it was very probable that neither heat nor cold would do much to check the process. DR. RANDALL also advocated the use of heat as safer, more comfortable to the patient, and a more rational treatment than is afforded by cold. DR. BLAKE presented a resolution asking for the cooperation of the American Otological Society, through a special committee, with a committee of the National Association of Teachers of the Deaf and Dumb, to secure systematic examinations of the pupils in deaf-mute schools. He explained the necessity of a thorough examination in order to select those pupils who could be most benefited by special teaching, and who perhaps by some treatment could be made better able to accept teaching. The resolution was adopted and Dr. Blake was appointed chairman of the committee, with power to select his own colleagues.

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.

Opium in Diarrhea of Young Children.—It is contraindicated: (1) in the first stage of acute diarrhea before the intestinal canal has been freed from decomposing matter; (2) when the passages are infrequent and of bad odor; (3) when there is a high temperature or cerebral symptoms are present; (4) when its use is followed by elevation of temperature or the passages become more offensive. It is indicated: (1) when the passages are frequent, with pain; (2) when the passages are large and watery; (3) in dysenteric diarrhea, together with castor-oil or a saline; (4) in later stages with small, frequent, and nagging passages; (5) when the passages consist largely of undigested food and the bowels act as soon as food is taken into them.—CRANDALL in *Pediatrics*.

Acute Coryza.—Often, especially when the attack is accompanied by aching pains, or other evidences of a general cold, a free sweat is useful:

℞.—Antipyrin .....15 grains.
Pilocarpin hydrochlorate..... ½ gram.
Tincture of aconite..... 8 drops.
Water.....1½ ounces.

Take a tablespoonful, immediately followed by a general or foot-bath (10 minutes); then, the patient being covered in bed, one dessertspoonful in a tumbler of hot toddy, repeated, if no sweating occur, in 20 minutes. When there is pain, if morphin does not disagree with the patient, ⅕ of a grain may be added to the mixture.—H. C. WOOD, in Wood and Fitz's *Practice of Medicine*.

The Operative Treatment of Exophthalmic Goiter.—T. Chalmers Da Costa (*Progressive Medicine*, 1899) gives the following advice concerning operative interference in exophthalmic goiter: In coming to a conclusion as to the proper course of procedure in the treatment of exophthalmic goiter, certain facts are to be borne in mind: A goiter may disappear spontaneously after an indifferent operation or after a nervous shock, hence it is difficult to estimate accurately the value of any method. The patient will often recover under medical treatment and rest. Surgical treatment is not certainly curative, and is dangerous. Disease of the thyroid gland is not the cause of Graves' disease, because the disease can exist without goiter, and may exist when the gland has been removed. Further, unilateral symptoms may occur, and we cannot believe that a pure intoxication can produce unilateral symptoms. In many cases of goiter the symptoms of thyroid intoxication appear (tachycardia, dyspnea, tremors, edema, and enlarged thyroid). The following conclusions seem justified by a study of the facts:

1. Treat most cases medically and by rest; if medical treatment fails consider the advisability of surgical treatment.
2. Do not operate if there is great hysteria; if the gland is very large, thyroidectomy will fail; if the gland is very small it will do no good to remove it.
3. If the symptoms are urgent, if the goiter is distinct, but not excessively large, if it has relapsed under medical treatment, or if the patient refuses to submit to the necessary restrictions of medical treatment, perform thyroidectomy. Take Kocher's advice, and do not promise cure, but realize that the patient may die or there may be a partial cure.
4. Do not remove entire gland. Remove one lobe only, or one lobe and half or two-thirds of the remaining lobe. Even so-called complete thyroidectomies are not often really complete, as a remnant of the processus pyramidalis is usually left behind. In addition to removing a part of the gland take Kocher's advice, and tie three or four thyroid arteries.
5. Do not give a general anesthesia, but produce local anesthesia (Kocher). A general anesthesia is very dangerous in goiter operations.
6. In advanced cases, with threatened suffocation, it may be necessary to do only tracheotomy. If the goiter is small, if the symptoms are marked and do not yield to rest and medical treatment, and the patient refuses thyroidectomy, we can perform bilateral resection of the cervical sympathetic ganglia.

The Latest Literature.

British Medical Journal.

July 22, 1899. [No. 2012.]

1. Remarks on Rest and Exercise in the Open-air Treatment of Phthisis. ARTHUR RANSOME.
2. The Organization of the Profession. THOMAS BRYANT.
3. On the Duty of the Profession with Regard to Alcohol. CHARLES MACFIE.
4. The British Medical Association and Its Work for the Profession. E. LIVEING FENN.
5. Acute Abdominal Lesions. THOMAS EASTES.
6. The Lessons of the Crimean War. ED. M. WRENCH.
7. An Outbreak of Fever Attributed to Mosquitos. RONALD ROSS.
8. Spontaneous Evolution. WALTER S. BARNES.
9. An Unusually Large Liver Abscess: Operation: Recovery. P. T. CARPENTER.

1.—Ransome parodies the words of Lord Bacon, when speaking of diet, and says that **in the treatment of phthisis, exercise and rest are desirable, but rather rest.** This is imperative for at least an hour after meals. In a large proportion of cases it will be found that most of their time will have to be spent in the semi-recumbent position. The presence or absence of fever determines greatly the degree of rest. The amount of exercise depends much upon the extent of movement allowed by the disease to the ribs in forced inspiration. The ribs over the affected lung should be moved as little as possible, to avoid breaking up forming adhesions. The rise of blood-pressure by too much exercise must also be guarded against. Ransome concludes that the consumptive must indulge in exercise only of the gentlest kind, and his amusements must be, for the most part, such as he can carry out while in a state of partial repose. [A.G.E.]

2.—A plea is made for the better **organization of the medical profession.** The objects of societies should be social as well as professional. [A.G.E.]

3.—Macfie reviews the attempts made to prohibit the use of alcohol and discusses the duty of physicians regarding its employment as members of the State, as individuals, and as practitioners. In conclusion he considers the **therapeutic substitutes for alcohol** and the treatment of inebriety. He believes in having death-certificates treated as confidential documents and alcohol given as the cause when it should be. It should be used in medicine only when other drugs have been tried or when they are known to be useless. He always enforces a strict diet in inebriates, with exercise and mental occupation. Tobacco in moderation is believed to be an ally of temperance. [A.G.E.]

4.—The history of **the work of the British Medical Association is reviewed.** The danger of too much study and of overexercise in young growing girls is touched upon. Lastly, the incubus of gratuitous hospital work as carried on at present is strongly presented. [A.G.E.]

5.—In **acute abdominal lesions** the three great dangers to be guarded against are hemorrhage, peritonitis, and distention, and each of these requires its own peculiar treatment. Pain, when present, is of the greatest aid to diagnosis, *e g.*, McBurney's point in appendicitis, pain between the shoulders often caused by lesions of the liver, and the character, whether colicky, or elicited by pressure, etc. Abdominal distention is generally a very serious symptom, though not necessarily a fatal one, especially when only slight. In a few rare cases of appendicitis the presence of slight distention may make possible a favorable diagnosis when all other symptoms are most serious. Continual vomiting after the withholding of all food generally indicates operation. In cases other than extrauterine pregnancy, perforated gastric ulcer, and the worst cases of appendicitis, operation may be put off until the period of repose, which is most apt to follow the acute attack. [G.B.W.]

7.—Ross reports **an instructive instance of mosquito-bred malaria.** The facts were related by a merchant and his wife of Calcutta, but they were so sure of the circumstances that Ross reports the case. A company of a Boys' Brigade was in camp near Calcutta. Of the 13 boys all had malaria shortly after camping, as did also 3 servants and a sister of one boy, who visited the camp. Three officers and a friend slept under nets and were not attacked. Out of 21 persons concerned, 17 who did not use mosquito-nets had malaria and the 4 who used them were not attacked. [A.G.E.]

9.—The patient, a Jamaican, 40 years of age, when examined showed a large fluctuating tumor in the epigastric fossa. The hypodermic needle revealed pus. An incision was made over the swelling, without an anesthetic, and over 2 pints of blood-tinged pus evacuated. Firm adhesions which had formed shut off the general peritoneal cavity. The abscess was drained by a rubber tube and dressed with iodoform and the patient made a complete recovery. [G.B.W.]

Lancet.

July 22, 1899. [No. 3960.]

1. The Treatment of Chronic Diarrhea. I. BURNEY YEO.
2. The Prevention of Tuberculosis. J. EDWARD SQUIRE.
3. On the Experimental Production of Hydrosalpinx and Hydrometra in Animals and its Relation to Hydrosalpinx in the Human Subject. C. J. BOND.
4. On the Loss of Kneejerk and on Peripheral Neuritis in Diabetes Mellitus. KARL GRUBE.
5. Two Recent Cases of Successful Operation for Impacted Stone in the Ureter. P. J. FREYER.
6. A Case of Traumatic Epilepsy Following a Compound Fracture of the Skull Sustained Eleven Years Previously; Removal of Adherent Cicatrix and Closure of the Opening in the Skull by a Silver Plate; Recovery. PHILIP JAMES.
7. Traumatic Aneurysm of the Axilla Treated by Free Incision and by Ligature of the Axillary Vein and Subscapular Artery; Recovery. NATHAN RAW.
8. Guaiacol Vapor Baths in the Treatment of Bronchiectasis. G. HEARN PARRY.
9. Edema of the Groin in Acute Peritonitis. E. WHARMBY BATTLE.
10. The Possibility of the Successful Outdoor Treatment of Tuberculosis in London; an Illustrative Case. DAVID SOMERVILLE.
11. The Death-Rate. H. CAMERON GILLIES.
12. A Case of Partial Enterocele; Operation; Recovery. W. H. BATTLE.
13. A Case of Retroperitoneal Cyst and a Case of Hydronephrosis. MR. WRIGHT and JUDSON BURY.

1.—Yeo records a case of **chronic diarrhea** recurring at intervals during 3 years. The usual remedies entirely failed to control the last attack and the patient was in a perilous condition, any attempt to take food causing renewed diarrhea. The motions were white and this suggested the use of pancreatic emulsion. This was given, the man was put upon a milk diet, kept at rest in bed, and steadily improved. The diet was increased and diarrhea only returned when the use of the pancreatic emulsion was stopped for a few days. [A.G.E.]

2.—**The chief use of disinfectants in the control of tuberculosis** is in the destruction of the bacilli outside of the body. For this reason attention is called to the disinfection of sputa, clothing, houses, etc. Bacilli may gain entrance after the mucous membrane of the throat is damaged after removal of the tonsils, etc. Children of tuberculous parents should be carefully watched as to their proximity, such as sleeping with them, and they should be kept under the most favorable hygienic conditions. **Notification** is desirable on theoretic grounds, but its application is very difficult. [A.G.E.]

3.—Bond has by experimentation on guineapigs shown that the fluid in a hydrosalpinx is the physiologic product of its mucous membrane and that it can be artificially produced by an aseptic laparotomy and the ligation of the proximal and distal ends of the tube. It, however, requires the closure of both tubal ostia to produce the hydrosalpinx. If, on the other hand, the uterine cornua be ligatured at any point down to the junction of the cornua then the cavity above the ligature distends and hydrometra results. This seems to demonstrate that the **mucous membrane lining the canal of the oviduct has a certain secretion** of a peculiar and definite character. This secretion is absent during pregnancy. The human hydrosalpinx must not be

regarded as the final or end condition in any case of infective inflammation of the fallopian tube, it being really a mechanical distention by normal secretion in a tube in which the two openings have been closed by inflammation. Pyosalpinx, on the other hand, probably occurs when the infective process has affected the whole surface of the tubal mucosa, destroying its secreting powers and converting it into an abscess cavity. [C L.L.]

4.—Grube reports **332 cases of diabetes mellitus in which the kneejerk was tested.** He divides the cases into the slight and the severe forms of diabetes, basing this division more upon the conditions under which sugar is excreted than upon the amount of the sugar. The kneejerk was lost in 49% of the cases of slight diabetes and but 24% of the severe cases. **The existence of peripheral neuritis in these cases** is then considered. In 11 cases there was neuritis on both sides, no cause but diabetes being present, except possibly alcohol in 2 cases. Most of them became free from sugar without this having any influence on the neuritis. Grube's observations are, that a great amount of sugar is generally present in the beginning of diabetic neuritis, but when the inflammation is once started it runs its own course independently and without being influenced by dietetic treatment. Three manifestations of nervous disturbance are caused by increase of sugar in the blood: (1) cramps or an acute irritation of nerves; (2) neuritis or acute inflammation of the nerves; (3) a slow degeneration or nutritive change in the nerves, seeming to have a preference for the crural nerve, and thus causing loss of kneejerk. [A.G.E.]

5.—Freyer, during an operation for **suspected renal calculus,** found a small calculus impacted in the ureter 4 inches below the pelvis of the kidney. The lumbar incision was extended to a point opposite the anterior superior spinous process, the ureter was incised and the calculus removed. A bougie was then passed through the ureter into the bladder, the wound closed with a drainage-tube down to the wound in the ureter, and drainage into the pelvis of the kidney. The ureter was not sutured because the author considers the procedure debatable as yet. It would constrict the ureter, and furthermore it was so deep-seated in the bottom of a narrow wound as to make it impossible or nearly so. The healing was rapid and recovery complete. In the second case the calculus was located in the ureteral orifice by means of the cystoscope. It was caught by the lithotrite, drawn into the bladder, crushed, and washed out. The patient has improved rapidly in health since the operation. [C L.L.]

6.—James reports an interesting case of **epilepsy** resulting from an adherent cicatrix, which formed as the outcome of an accident 12 years previously. The epileptic crises were completely relieved by the removal of the tear and the closure of the bone-defect by a silver plate. The epileptic symptoms had always been referred to the eyes, and were produced by pressure upon the spot on the scalp where the bone-defect and adherent scar were. This spot corresponded to the right angular convolution, and would seem to indicate that this is an area connected with the eyes. [C.L.L.]

7.—Raw reports a case of **traumatic aneurysm** of the axilla that was very extensive and produced by its pressure loss of function in the arm. It was probably the result of the application of the foot in the axilla in breaking up adhesions in the shoulder. The pressure-symptoms became so marked that surgical interference was imperative even to amputation if it was necessary. A very long incision was required and a large amount of clotted blood was removed; the axillary vein and subscapular artery were ligated. The patient recovered, though the process of repair was not rapid. [C.L.L.]

8.—A case of **bronchiectasis improved rapidly after treatment by vapor baths of guaiacol.** Previous to its use, baths of commercial creasote had to be abandoned because of their unfavorable results. [A.G E.]

9.—E. W. Battle reports two cases in which **edema of the groin in acute peritonitis** was a prominent sign and seemed to be directly connected with the severity of the cases. In each case the edema seemed to foreshadow a condition of peritonitis of a septic and peculiarly malignant type, and in which operative interference would have had a very limited chance of success. [C.L.L.]

10.—Somerville cites a **case of undoubted tuberculosis** in a young German living in London. For certain reasons he could not leave the city, and an out-door life, with a companion to suggest journeys, etc., was begun. This, with easily digested food, increased to the limits of digestion, soon had a beneficial effect. For medicine the patient took a quinin-mixture containing compound tincture of camphor, and used an inhalation of carbolic acid and iodin. An important item in his treatment is believed to have been in keeping him away from others in a similar condition as would be found in a sanatorium. [A.G.E.]

11.—Gillies believes **the so-called "death-rate" to be an intolerable fallacy.** He maintains that the death-rate is the same at all times, beginning at any one day and taking a certain 1,000 people. The standard "death-rate" is diminished by an increase of births. The ratio as expressed between the living and the dead is wrong. [A.G.E.]

12.—W. H. Battle reports an unusual case of **partial enterocele or Richter's hernia** in the inguinal region of a female patient. The symptoms of intestinal obstruction were more marked than is usually the case, but the long duration of the symptoms, 11 days, without any gangrene of the bowel, is attributable in part to the fact that the hernia was at the inguinal opening and in part to the fact that the whole of the circumference of the bowel was not involved. It illustrates the irregular character of the symptoms and also the way which hernia may remain concealed in a stout subject until the exudation from the wall of the bowel is of sufficient amount to cause a swelling. In the early stages there may be no local swelling, pain, or tenderness; indeed, the only pain may be epigastric imposition. The protrusion of gut in this case was in the canal of Nuck; the opening was very small but everything indicated the congenital nature of the sac. [C.L.L.]

13.—Wright and Bury report 2 interesting cases that were very similar in their symptomatology and yet were entirely different in their nature. In the first case a diagnosis of **hydronephrosis** was made in what was shown to be a **subperitoneal cyst,** that was apparently the result of a duodenal ulcer which allowed the escape of gas and fluid beneath the peritoneum. There was, however, a discharge of always pure blood per rectum that might have directed attention in another direction. In the second case a **hydronephrosis** of the right kidney was complicated by a gastric ulcer, the two producing symptoms that made the diagnosis of a **pyloric tumor** very reasonable. An important lesson to learn from these cases is that when symptoms are manifold and are not readily explained by a tumor or other obvious lesion it is necessary to consider how far some of the symptoms may be dependent on another lesion, even in the absence of any direct physical evidence. [C.L.L.]

New York Medical Journal.

August 5, 1899. [Vol. lxx, No. 6.]

1. The American Soldier and Venereal Diseases. A Refutation of Some of the Statements of Mr. Edward Atkinson. William A. Hammond.
2. Anesthesia: Nitrous Oxid; Ether; Chloroform. S. Ormond Goldan.
3. The New Industrial Position of Woman in its Relation to Health and Vigor. Mary Jordan Finley.
4. My Observations on the Typhoid-fever Epidemic in Southern Camps, and its Treatment. Joseph F. Chmelicek.
5. A Nasal Polypus Weighing an Ounce, and Three Inches and a Quarter Long, springing from the Septum Nasi of a Child of Twelve. H. R. Coston.
6. A Case of Puerperal Septicemia. Stephen J. Maher.

1.—Hammond **refutes some of the statements regarding venereal diseases** found in Edward Atkinson's pamphlet "The Hell of War." He believes that these statements will do harm because of the great reputation of the author, who did not first thoroughly acquaint himself with the subject. The transmission of constitutional syphilis is discussed, as is also the treatment by intramuscular injections of mercury. [A.G.E.]

2.—Goldan, in continuing his discussion of **anesthesia,** says of **nitrous oxid** that "its advantages are safety, rapidity, and absence of after-effects; its disadvantages are the skill required, and the fact that it does not relax the muscles as ether and chloroform do." He advises its employment to replace chloroform as a preliminary in the administration of ether; to replace other anesthetics in examinations; where ether and chloroform cannot be employed; for the removal

of sutures; for opening and cureting abscesses; for excision of ingrowing toenails; for circumcision, internal urethrotomy, and meatotomy; for removal of tonsils and adenoids; for reducing dislocations and setting fractures; for posterior colpotomy; for uterine curetage, etc. He gives the method of administering nitrous-oxid gas, both alone and in conjunction with oxygen. In the latter combination he believes it to be the best general anesthetic for short operations and that it is the best possible method of starting general anesthesia, ether being substituted as the nitrous-oxid effect wears off. [C.L.L.]

3.—Finley believes that the present tendency of women to compete with men in the professions and industrial pursuits **gives us reason to hope for a more vigorous womanhood.** Their progeny will be less numerous, perhaps, but better bred. There will be less of the double standard of morals. When the economic independence of the sex is assured they can demand of men whom they marry the same purity that men demand of women. The peculiar susceptibility of women to pelvic disease is the result of an artificial condition of society. The present tendency is toward the natural. [A.G.E.]

4.—The condition of the hospitals in the camp at Tampa is described. **Points learned in treating typhoid cases were:** Those addicted to alcohol suffered mostly from delirium and cerebral symptoms, while those who used cigarets suffered more from toxemia, muscular prostration, and tympanites and had more relapses. Diarrhea was best controled by the use of bismuth 30 grains, and salol 8 grains, 3 doses in 24 hours. Open-air treatment proved very effective. Cases of tympanites *without* pain do well on 15 drops of turpentine and a turpentine stupe, but in no case of tympanites *with* pain should turpentine be used internally. [A G.E.]

6.—Maher reports a case of puerperal sepsis evidently produced by the use of an unclean catheter in the hands of an ignorant nurse. [W.K.]

Medical Record.

August 5, 1899. [Vol. lvi, No. 6.]

1. The Question of Gruels in the Feeding of Infants. HENRY DWIGHT CHAPIN.
2. Angioneurotic Edema and Allied Conditions; Report of Seven Cases. B. ONUF (ONUFROWICZ).
3. Reflex Cough. GEORGE L. RICHARDS.
4. Case of Traumatic Neurosis with Hemorrhages from the Pharynx. EDWARD VON ADELUNG.
5. Rat-Tail Absorbable Sutures. E. L. JONES.
6. A Mucor Dermatosis Resembling Scabies. EMIL LUCK.
7. A Case of Tumor of the Brain with Unusual Symptoms. ARTHUR CONKLIN BRUSH.
8. An Enormous Ovarian Cystoma. D. TOD GILLIAM.
9. A Safe and Simple Method of Removing the Placenta. HERMAN GASSER.

1.—Chapin emphasizes the **importance of the use of decoctions of cereals in preparing modified milk.** He believes that this method of preparing infant food has fallen too much into disuse, and has been unjustly condemned by some writers. He has experimented upon the question by adding rennet to cows' milk to equal parts of cows' milk and water, and to equal parts of cows' milk and barley-water, keeping the tubes containing the mixture at 40° C. afterward. It was found that the clot formed in the mixture of milk and barley-water was very much more flocculent and smaller than in either of the other substances. A similar comparison was made of the effects of gastric juice upon milk and water, and milk and barley-water, and a less striking but analagous result was obtained. The same was true of experiments carried out by making gastric fistulas in dogs, and giving them the same mixtures by the mouth, then removing them and examining the stomach-contents. Barley-water caused the clot to be more flocculent and smaller in each instance. The amount of carbohydrates in such decoctions is too small to cause any difficulty in digestion, and digestion of carbohydrate preparations can be aided very much by adding a diastase. This the author prefers to prepare by taking a tablespoonful of crushed malted barley-grains, adding enough water to cover, and keeping it in the refrigerator over night. The thin fluid may then be used in dextrinizing a pint of gruel. The gruel is made by beating a tablespoonful of wheat or barley-flour into a paste with a little cold water, and then stirring in a pint of water and boiling for 15 minutes. The malt preparation is then added. In this way practically all the starch is dextrinized in 15 minutes, and such a preparation is very digestible. Chapin also reports Graham-Lusk's experiments upon guineapigs, in which he gave to one lot skimmed cows' milk, to another lot, cows' milk to which 2% of sugar had been added, and to a third lot, milk containing 2% of dextrose. The third lot did much better than either of the others, while the second lot did better than the first. [D.L.E.]

2.—The 7 cases reported are used as the basis of some remarks, directed especially toward proving the author's belief that **angioneurotic edema, transitory nervous erythema, and urticaria are but modifications of the same condition.** He divides the cases of angioneurotic edema and conditions allied into predisposing and exciting, the former being the causes of neurotic conditions in general. The exciting causes are usually of the same kind, but act more severely over a short period. In 2 cases alcohol seemed to bring on the outbreak, and in another, severe bodily exertion. In the symptomatology, he speaks of the cutaneous and visceral manifestation. The general character of the angioneurotic swelling is known, and description does not need to be repeated. Onuf draws especial attention to the fact that the character of this depends upon the character of the tissue in which it occurs, and that if the latter is dense, as it is over the forehead, the swelling will be hard, while when the subcutaneous tissue is very loose, the swelling is likely to resemble hydropic edema. In 3 of the cases reported in this paper, erythematous conditions were combined with urticaria or angioneurotic edema. These facts, and other similar observations, together with the great similarity between giant urticaria and angioneurotic edema, are clinical evidences of the close relation between the conditions. In diagnosing these conditions, one should remember particularly the possibility of mechanical local edema, which can usually be excluded by finding its cause; hydropic edema, which in difficult cases will be excluded by noting the distribution of the swelling, which is not likely to be similar to that due to cardiac or renal disease; the white edema of hysteria, which is distinguished by the fact that it is not circumscribed as a rule, but widely distributed, as for instance over a whole thigh, and pronounced hysterical symptoms are likely to be found with it. Blue edema is separated by noting that it is preceded by a paralyzed weakness or contracture of the limb, and it always occurs on a limb and involves only one extremity, it is not circumscribed, there is a bluish discoloration, the temperature is likely to be lower, and there are usually stigmata of hysteria with it. The changeless character of the swelling in myxedema separates this condition. Insect-bites are sometimes similar, but they are distinguished by the presence of a point of entrance for the poison, and erythema nodosum sometimes resembles angioneurotic edema, but is distinguished by the discoloration of the nodes, which follow the peculiar course of color-changes common in bruises. [D.L.E.]

3.—A number of curious cases which seem to be purely **reflex cough** are reported. In one, a peculiar bleating sound occurred in a young girl who had hysteric manifestations. This gradually disappeared. In another case there were such violent paroxysms of coughing that chloroform was finally used to overcome them, and this method of treatment was afterward adopted in the prodromal stage of the appearance of the cough, since the latter commonly came on paroxysmally. Ten consecutive treatments of this kind practically overcame the whole tendency to the cough. Other cases are reported in which cauterization of the turbinates cured cough, and finally others in which pressure of neoplasms was the active factor in producing the cough. [D.L.E.]

4.—Adelung reports a case in which a lady 36 years old was forcibly dragged from the steps of a railway coach by a brakeman as the train was starting. She fell heavily on her knee and elbow, but apparently sustained no physical injury. The interesting features of the case were that from this slight physical shock, combined with the psychical, she developed serious symptoms, although the family was not neuropathic. The symptoms were those of **hysteria,** with the immediate development of a uterine hemorrhage and some of the other

symptoms and the delayed development of others as a frequent periodic pharyngeal hemorrhage, which developed later and was profuse in amount. There was also marked unilateral contraction of the field of vision. The hemorrhages were from a bunch of dilated vessels at the base of the tongue and were always preceded by distinct sensations in the epigastrium that extended over the entire body. [C.L.L.]

5.—Jones calls attention to the ease with which **fine absorbable sutures may be obtained from the tail of the rat.** He has found that these tendons form very strong fine sutures that are readily absorbed and are proper for light use, as in eye-work, or about the face. A number of sutures may be obtained from each rat-tail varying in length from 6 to 7 inches. [C.L.L.]

6.—The case had the clinical appearance of **scabies,** except that the search for the sarcoptes scabiei was uneffectual, but simple elevations were noted from which liquid exuded upon squeezing, and some of these were covered with white scabs, and a magnifying glass showed filaments projecting from the pustules which often formed at these spots. These filaments were extracted and stained with silver nitrate, and proved to have the characteristics of **mucor corymbifer.** [D.L.E.]

7.—Brush reports an unusual case of **tumor of the brain** in which the symptoms were atypical. The patient was 8 years of age and presented symptoms that suggested hysteria. She had had a fall down some stone steps a year previously, when she struck upon the back of her head. There was loss of motion in the limbs of the right side, and voluntary motion had never returned, but during sleep there were vigorous movements. She could not speak and only uttered harsh sounds. At times she became very much excited, laughing and crying without obvious cause. She was unable to walk, stand, or speak; although she understood fully what was said to her. There was a flaccid hemiplegia of the right side. The other symptoms were of a like character. She developed later a number of convulsions, and finally died in a state of constant spasms. The autopsy disclosed a large cyst on one side and a tumor of equal size on the other side of the brain. [C.L.L.]

8.—Gilliam reports the **successful removal of an enormous ovarian cyst.** The patient was a woman, aged 45 years, and had noticed the growth about 13 years. The cyst was found to contain over 75 quarts of fluid weighing a little more than 176 pounds. The cyst-wall with its residue weighed a few ounces less than 7 pounds. The patient did well from the first, although the pulse-rate continued at or about 100 for 2 weeks. [W.K.]

9.—Gasser in removing the placenta catches hold of the cord with the right hand, and gently grasping the fundus with the left, directs the patient to press it out, which she usually does at once. When by gentle traction on the cord and slight compression on the fundus he finds placenta is coming, he orders her to relax her efforts. [W.K.]

Medical News.

August 5, 1899. [Vol. lxxv, No. 6.]

1. The Ocular and Orbital Symptoms of Lesions of the Frontal Sinus. Robert Sattler.
2. Some Salient Points in the Treatment of Hip-Disease. B. E. McKenzie.
3. Vaginal Colpotomy in the Treatment of Pelvic Disease. James H. Glass.
4. The Treatment of Incipient Laryngeal Cancer. W. Scheppegrell.
5. Report of Ten Cases of Epidemic Cerebrospinal Meningitis. E. B. Doolittle.

1.—Acute lesions of the **frontal sinus** are generally easily diagnosed, but chronic affections offer the greatest difficulties, and any help to their diagnosis is of the greatest value. The first tangible **orbital symptoms** are diffused and localized tenderness over the affected area and which is generally unilateral. This gives way to transitory painful swelling of the overlying soft parts. The headache may become general and the characteristic indications can now be observed. This indication is a change of contour of the inner, upper and in some cases of the inferior margin of the orbit. The earliest **ocular manifestations** are observed in the eyelids. There may be drooping of the upper lid accompanied by slight restriction to the upper movement of the ball. Proptosis may also be present at this early stage. This is followed by passive edema of the inner third of upper lid with dusky discoloration. There may be engorgement of the conjunctiva, and chemosis is occasionally present. Exophthalmos is very variable and only a conspicuous symptom in cases when perforation has taken place under the periorbits. [G.B.W.]

2.—McKenzie, in his article on **treatment of hip-disease,** says that early operation is seldom justified, but when softening can be determined, the surgeon should operate and obey the indications. Mechanical apparatus for securing rest should be employed from the earliest moment. A proper splint should secure rest for the joint and prevent deformity, and should not be used as a crutch. The free use of iodoform is a valuable adjunct. Perfect use of the joint never follows excision, because the mechanical integrity of the joint is destroyed. Mechanical and constitutional treatment is often followed by a complete restoration of function, even occasionally after incision has been demanded by the breaking down of tissue. McKenzie believes that hipjoint disease is a local manifestation of a constitutional disease. [G.B.W.]

3.—Glass, in discussing **vaginal colpotomy for pelvic disease,** claims that the advantages for the vaginal as against the abdominal section may be summarized as follows: (1) A preliminary or exploratory vaginal section is always warranted; (2) drainage, when necessary, is more free and natural; (3) there is less danger of extending infection; (4) the limited peritoneal field exposed and handled reduces to a minimum pain, shock and intestinal paralysis, frequent sequels of suprapubic abdominal section; (5) postoperative nausea is lessened and movements of the patient are less constrained, contributing much to her comfort and general welfare; (6) vaginal section may frequently be performed when the condition of the patient, especially in abscess cases, would interdict any other procedure; (7) the danger of hernia through the scar is practically nil; (8) recovery is quicker; (9) the mortality is materially lessened. [W.K.]

4.—In the treatment of **incipient laryngeal cancer,** total eradication of all of the diseased area offers the only hope of success. Operation is indicated as soon as a diagnosis of cancer has been made. In the circumscribed or polypoid form the endolaryngeal operation should be given a trial, such instruments as forceps, double curets, or cold-wire snare being used. Thyrotomy is considered the rational treatment in the diffuse forms or when the endolaryngeal operation has failed, and probably in the majority of cases. It may even be justified as an exploratory procedure. Total extirpation of the larynx should not be undertaken in incipient laryngeal cancer. [G.B.W.]

5.—Doolittle gives statistics of **cerebrospinal meningitis** at Jeanesville, Pa., a village of about 800 inhabitants. The number of cases was 10, 6 males and 4 females; 7 were between 4 and 11 years of age, and 3 between 18 and 28. Previous ill-health or unhygienic surroundings did not appear to have had any influence upon the development of the disease. Five cases were fatal. All the cases were of a moderately severe type. The average duration in the five cases in which there was recovery was 4 weeks, the maximum being 7 weeks; in the fatal cases the average duration was 7 days, the maximum 12 days. In 9 cases the onset was sudden. Vomiting was an early symptom. The temperature was high, sometimes reaching 106°. Delirium, coma, and photophobia, etc., were present in nearly all the cases. General hyperesthesia was present in 5 cases. There was no paralysis. In the children, flexion at the thigh and knee-joint was common. All the patients had herpes labialis, but none of them developed any other form of eruption. Among the complications, pneumonia, occurring in 4 cases, was the most important, and albumin was found in the urine of every case. During the month in which this epidemic occurred there were also 10 cases of acute lobar pneumonia in the district. [J.S.]

Boston Medical and Surgical Journal.

August 3, 1899. [Vol. cxli, No. 5.]

1. The Treatment of the Acute Diarrheas of Infancy. John Lovett Morse.
2. Hygienics of the Skin. L. D. Judd.
3. Hernia Following Operations for Appendicitis. Francis B. Harrington.

1.—The **acute diarrheas of infancy** may be divided, on the basis of etiology, into two main classes: those of nervous origin and those due to the action of microorganisms. The first—the simple diarrheas—are caused by various conditions acting on the central nervous system or by the mechanic action of undigested food. Among the most important of the conditions acting through the central nervous system are sudden changes in temperature, prolonged exposure to heat or cold, fright, and fatigue. The first essential in the treatment is the removal of the cause. This is usually easy when the cause is simply fright or fatigue. When the cause is atmospheric, a change of climate may be necessary. When the difficulty is due to undigested food, this must be removed, calomel or castor-oil being best for this purpose. In rare instances it may be wise to wash out the stomach and colon. If the diarrhea does not then cease, opium, in the form of paregoric, may be given, the dose not exceeding a few drops. The author has also found tannigen in doses of 3 or 5 grains valuable. As the excessive peristalsis is in many instances merely the expression of general weakness, brandy will often be more efficacious. It is best to withhold food for a few hours and then to begin with a rather dilute, highly alkaline, pasteurized milk. Infective diarrhea is due to bacterial infection, but up to the present no definite relationship has been shown to exist between any special form of bacterium and variety of diarrhea. The intestine may show all grades of inflammation; the severity of the symptoms, however, is no reliable index of the degree of pathologic change. Prophylaxis is important at all times, but especially in the summer. Too much care cannot be taken in obtaining, transporting, and preparing milk during the summer-months. Care must be taken not to overfeed children, as less food is needed in warm than in cool weather. Moreover, owing to the depression produced by the heat, the child is less able to digest its food. The deficiency should be made up with water. **Hygienic measures** are of great importance—the infants should be kept quiet, given the greatest possible amount of fresh air, be lightly clothed and frequently bathed. The napkins should always be immediately disinfected. Opium and astringents are **contraindicated** in these forms of diarrhea. The summer-diarrheas are classifiable into fermental diarrhea, ileocolitis, and cholera infantum. In fermental diarrhea the number of discharges is moderate, from 10 to 12 in 24 hours. They vary in color from yellow and green through all shades of green; they are often watery and frothy, and may contain curds and mucus, but rarely blood. The odor is generally offensive; sometimes it is sour, at others very foul. On this basis two main classes have been recognized, the acid fermentative and the albuminoid decomposition. The first indication for **treatment** is to remove the cause. Castor-oil, or, if there is vomiting, calomel being most satisfactory. In severe cases, and in all in which vomiting is an important symptom, it is advisable to wash out the stomach. An ordinary soft-rubber catheter makes a very satisfactory stomach-tube, especially if the tip is snipped off and rounded by heat. Normal salt-solution, or a solution of borax or of soda bicarbonate is somewhat better than plain water. All food should be cut off for 24 hours, sterile water alone being given. Then an albuminoid diet, with an almost complete exclusion of sugars is advisable—albumin-water or somatose, in 10 to 15 grain doses, is satisfactory. The author does not object to the use of dilute milk-mixtures after the initial period of starvation. Of drugs, he finds bismuth most useful—not less than 1 or 2 drams being given in the 24 hours. Unfortunately, it is difficult to give an infant this amount. The subnitrate may be given in suspension in the following way: Ammonio-citrate of bismuth 5; nitric acid 30 drops. water to make 100 cc. Sulfocarbolate of zinc, in doses of $\frac{1}{6}$ to $\frac{1}{4}$ grain, seems to diminish the formation of gas and to improve the odor of the stools. In **ileocolitis** the treatment is also purgation, starvation, and diet. Proteids are better borne and should make up the greater proportion of the food. Fat should not be given except in very low percentages. Bismuth is very useful. Irrigation is indicated, and may be used from one to three times daily. Immediately after each irrigation, injections of from one to two drams of bismuth subnitrate or subgallate suspended in one or two ounces of fresh mucilage or starch solution should be given. In chronic cases irrigations of silver nitrate, in the proportion of 1 to 1000, once in two or three days, seem to hasten recovery. Suppositories of $\frac{1}{10}$ to $\frac{1}{6}$ grain of cocain relieve tenesmus. The **treatment in cholera infantum** must be prompt. Stomach and bowels should be washed out, and normal salt-solution injected under the skin. The best methods for restoring the surface circulation are rubbing, mustard baths, and the warm pack. To reduce temperature, cold in the form of sponging, packs, or baths, must be used. Stimulants must be given hypodermically—atropin, in doses of $\frac{1}{500}$ to $\frac{1}{800}$ grain, is most useful. Morphin is indicated when the diarrhea and vomiting are extreme—doses of $\frac{1}{100}$ grain are usually sufficient. In case improvement begins, stimulants and water may be given by the mouth, and soon after small amounts of pasteurized milk of very low percentages. [D.R.]

2.—Judd gives some timely advice on matters not often touched upon in the medical press. He advocates the daily use, on rising in the morning, of a warm bath of short duration, rubbing the body with the bare hands and without the use of soap, followed immediately with the sprinkler, with cold water from the spigot until the skin is in a glow. Once, about every 7 days, a full bath in hot or warm water, using pure Castile soap and following with the sprinkler with cold water. When the full bath or plunge cannot be had, daily sponging with hot and then cold water is the next best. The author has solved for himself and his patients the "underwear problem." He believes in the use of linen in preference to wool, and his reasons are seemingly cogent. Linen absorbs moisture better than wool and eliminates it quickly, and thus provides what the author calls a dry climate around the body, enabling it to endure extremes of heat and of cold with comparative comfort. [D.R.]

3.—**Hernia and bulging** occur frequently **after operation for appendicitis,** especially when drainage has been used, and they result from the separation of the muscles and other tissues in the scar. Muscle and tendinous fibers should not be cut transversely when avoidable. Drainage should be limited as much as possible. Stout belts and trusses are of little value and may even do harm. The abdominal muscles should at the earliest possible moment be developed by appropriate exercise. If hernia or marked bulging appears, operation for cure is safe and satisfactory. [G.B.W.]

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1. Section on Laryngology and Otology. Chairman's Address. EMIL MAYER.
2. Neurology and Psychiatry. FREDERICK PETERSON.
3. Appendicitis. W. J. MEANS.
4. Appendicitis. W. M. HARSHA.
5. The Death-Dealing, Long-Tube Nursing-bottle. ERNEST WENDE.
6. Summer Diarrhea of Infants. H. M. MCCLANAHAN.
7. Surgical Treatment of Acute Peritonitis. A. F. HOUSE.
8. Epithelial Structures in Peridental Membrane. F. B. NOYES.
9. Syphilis in Surgical Practice. A. D. BEVAN.

1.—See PHILADELPHIA MEDICAL JOURNAL, June 17, 1899.

2.—*Ibid.*, June 10, 1899.

3.—*Ibid.*, June 10, 1899.

4.—*Ibid.*, June 24, 1899.

5.—McClanahan suggests in the treatment of the summer diarrheas of children that change of location is one of the most valuable treatments possible. After the regulation of diet, the employment of sterilized and peptonized foods have failed to cure, a change of climate or habitat will often, apparently of itself, with the same diet and therapeutics, produce a rapid and complete recovery. [C.L.L.]

6.—See PHILADELPHIA MEDICAL JOURNAL, June 17, 1899.

9.—Bevan relates a number of **atypical cases of syphilis** which clearly show how protean the manifestations of this disease are, and how seldom we have the right to assume that it is absent, without the therapeutic test of the iodids, sometimes pushed to a remarkable extent, if the patient shows tolerance. Patients frequently deny syphilis, knowing that they have had it, and frequently they are ignorant that they have been infected till the tertiary symptoms give positive evidence. [C.L.L.]

Original Articles.

MEDICAL SERVICES OF THE ARMY AND NAVY.

Address in Surgery delivered on Thursday, August 3, 1899, at the Annual Meeting of the British Medical Association at Portsmouth.[1]

By ALEXANDER OGSTON, M.D.,

Surgeon-in-Ordinary to Her Majesty the Queen in Scotland; Regius Professor of Surgery, University of Aberdeen.

For the first time in all the centuries that have flown our profession has changed from a craft into a science, a result that, though many have contributed to it, we owe mainly to Lister. The achievements of the surgeons before his day have now for the first time become fruitful and certain. Fresh fields of relieving and curing disease have been opened up at every point of our horizon, and in all the busy centers of the earth is springing up a new race of surgeons, who effect as part of their everyday work marvels of cure that even 30 years ago, had anyone ventured to forecast them, would have been looked upon as the dreams of a visionary.

Surgical hospitals have been reconstructed and reorganized in accordance with the principles he taught, until nowadays, in our own and in all civilized countries, the most advanced, the most deeply scientific, the most marvelous and delicate methods of cure are daily practised and placed at the service of our fellow-creatures. It is, moreover, I think, impossible to avoid the conviction that the open-handed beneficence we now witness in the increased interest and support extended to public charities in all their forms, by all the liberal and benevolent, from the artisan to the occupant of the throne, has been in no small degree evoked by the great work he has enabled the surgical and nursing professions to carry out.

Since the surgical world was stirred to its depths 30 years ago by the doctrines of Lister, our Army and Navy Medical Services have been, I fear, gradually falling into a condition that cannot fail to evoke much anxiety regarding their present and future. It is moderate and reasonable to expect that the medical departments of the army and navy shall be in a condition commanding the respect and approval of the medical profession and the public; that their officers shall be at least as favorably placed in regard to their work as their civil brethren; and that both ashore and afloat they shall be able efficiently to perform their functions in time of peace, and fully prepared for the eventualities of war. Yet no observant member of the profession, particularly if connected with one of the medical schools whose graduates used to furnish many candidates to the services of the army and navy, can have failed to observe how changed is the estimation in which they have come to be held during the last three decades. The most talented graduates have ceased to aspire to enter them, and it has by degrees come to pass that few indeed, and these as a rule of inferior qualifications, can be induced by any means to present themselves at their entrance examinations. Such a one will have noted that those medical officers who possess a few years' experience of the services, however much loyalty seals the lips of most of them, and influences all, show themselves disappointed and discouraged with the professional life they have to lead, admit they have made a mistake in entering them, and would gladly, were it possible, sacrifice the years they have spent in them and quit them entirely, even for some comparatively unpromising post in civil life. He must have perceived that many of the most intelligent officers who remain in them are pervaded by a conviction that their abilities have been thrown away and their lives wasted, and that the services are not what they ought to be. He will have followed the continual endeavors made through all these years to remedy their growing want of attraction for men of ability, and the failure of these endeavors, one after another. He will have learned that year by year the medical services, especially that of the Queen's army, have become more attenuated and undermanned, so that an undue amount of foreign service, at the cost of health, is entailed on those who enter; and that hence it has become necessary to supplement the deficiencies at home by employing civil members of the profession, of a class whose work unfits them for forming officers of the stamp needed in the event of war, even if their other engagements rendered it probable they would consent to be so employed. He may, perhaps, have been told that in the last year or two the post of medical officer in the army has been going a-begging, and been hawked for presentation about the various schools and universities, where suitable men might be supposed to exist. And lastly, he may see how, when lapse of years has earned them a moderate pension, many of the medical officers, in the prime of their abilities and best working period of their lives, hasten to quit the services; but find themselves, save in the instance of a few gifted men, unfitted for any professional activity, so hopelessly have they fallen behind the acquirements of their civil compeers. There cannot be much smoke without fire.

Oft-repeated experience, over the very same ground, has taught us to conduct, in some respects, the medical part of expeditions in the jungles and swamps of West Africa, the deserts of the Nile, or the ravines of the Himalayas, in a way that probably no other Power could excel or even equal. Our enemies there are poorly armed and our casualties few. But it dare not be inferred from this that we are in a condition to deal with a war against a great Power, with arms and organization at least equal to our own, in which large numbers of wounded—thousands instead of tens—must fall to be treated. That would be a most erroneous conclusion, and would not be the general verdict of either the civil profession or the ranks of the services themselves. The duties of the Royal Army Medical Corps and Naval Medical Service involve preparation for war. This is the chief end of all departments of the army and navy; and, unless they fulfil that end, no matter how creditable they may be in other respects, they are but a pretence of what they ought to be. In this it must, I think, be admitted that they are in a condition leaving much to be desired.

No surgeon can now, as in former days, rise suddenly out of the ranks of those destitute of special training, however eminent his natural abilities may be. He who is skilled in exercising his profession becomes so by many years of special training. No man who is but theoretically acquainted—be it in ever so perfect a fashion—with the mere doctrines of antiseptic surgery is able to step at once into the arena as a practical surgeon. He must, in the first place, acquire by slow and painful degrees a familiarity with methods, manipulations, and procedures built up of a multitude of little details. It takes him many years to acquire these by practice, by training himself alongside of those to whom they are already familiar, by the discipline of his own failures, and by a study

[1] Abstracted from advance sheets furnished by courtesy of the Editor of the *British Medical Journal*.

and familiarity that eventually imprint them so deeply that they become a part of himself, and are carried out instinctively and unerringly under all ordinary conditions, as well as in the unusual events and emergencies that continually arise in so many of the cases he treats. Septicity is an enemy of infinite variety, not to be combated with success by theory alone, or by wielding a single weapon; the modern surgeon must be armed at all points, both for offence and defence, and acquaintance with his weapons and their powers is not attained save by a long course of study and training.

Even after the ordinary practice of surgery, as nowadays carried out, has had its foundations laid by a training in antiseptic and aseptic work, the greater part of the education of the skilled surgeon has yet to be acquired. The methods of cranial, thoracic, and abdominal surgery are necessary to meet the varying circumstances, so numerous, so intricate, and demand so great intellectual and manipulative skill, that only one who has spent years in constantly improving himself in them, whose mind has been fashioned by long experience and study of the problems he daily meets, and whose hands have gained by constant usage the technical facility and delicacy indispensable to success, can with impunity venture into these territories with the requisite boldness and confidence, and ensure the successful results which alone render these procedures justifiable.

A standard of work at least equal in excellence to that of the civil surgeon ought to be expected of army and navy medical officers. Senn, of Chicago, chief operating surgeon with the United States army recently in the field, and one who has done much for surgery, points this out in the following axioms:

1. That in theory and practice military surgery is equivalent in every respect to emergency practice in civil life.
2. That the wounded soldier is entitled to the same degree of immunity against infection as persons in civil life suffering from similar injuries.
3. That all formal operations in war must be performed where the wounded can receive the full benefit of aseptic and antiseptic precautions.
4. That operative interference is indicated in all penetrating wounds of the skull.
5. That gunshot wounds of the chest should be treated under the strictest antiseptic precautions.
6. That laparotomy in penetrating gunshot wounds of the abdomen is indicated in all cases where life is threatened by hemorrhage of visceral wounds, and the general condition of the patient is such as to sustain the expectation that he will survive the immediate effects of the operation.

These are reasonable demands, many might ask more, but nothing that falls short of some such standard can be accepted as satisfactory. Statistics prove that of all wounds in battle there are 7.4% of the brain, 7.5% of the chest, and 4.7% of the abdomen, amounting to 20% of all wounds. There must, therefore, in the next great campaign, be an enormous field of usefulness to properly trained antiseptic surgeons, and a fearful waste of life if they be not there to occupy it. It scarcely, moreover, requires to be pointed out that gunshot wounds of other parts besides those of head, chest, and abdomen offer a field for modern surgery that has scarcely yet been entered on. No extensive campaigns have been conducted since antiseptic surgery was fully introduced, but the smaller ones have shown the need for a class of surgeons more highly trained than hitherto to carry the best methods of antiseptics into the domain of gunshot wounds, where septicity is a danger greater and more frequent than in any other class of injuries whatsoever. And I am convinced, from a study of wounds inflicted by modern projectiles, on which it would be out of place to enter here, that in gunshot wounds of the soft parts and extremities a very much larger proportion of lives and limbs than hitherto can be saved, and another great field of modern conservative surgery opened up by the application of improved methods and principles of treatment in the hands of those who really know how to employ them. In all that pertains to surgical work, it will not be questioned by those aware of what is now required, that our military and naval surgeons have, in peace, virtually no training to fit them for what they may at any instant be called upon to undertake in war. Moreover, the destitution of the army and navy of institutions where surgery can be practised is very great. The provision of places of study and practice is imperatively called for, where the younger and middle-aged officers, provided with all the appliances found in civil institutions, and with every class of patients on whom they may be used, may fit themselves for their duties of attending the wounded during action or in field or base hospitals. And until such provision is made, we may be assured the services will not secure the number and quality of officers they require; for graduates will not nowadays, after being fashioned by years of high mental training, consent to exchange an intellectual profession for a life of stagnation. The services must either adapt themselves to the altered spirit of the times, or remain undermanned, and officered by a class of graduates inferior to those who would otherwise enter them. While the calls of modern science have been heard in the surgery and medicine of civil life, and effected the changes to which I have alluded; and while they have been taken to heart in the medical services of foreign armies and navies, they have fallen on unheeding ears among those responsible for the efficiency of our own. The contrast between the medical and other departments makes the matter more astonishing. Were the Engineers or Artillery treated thus, supposing that their officers, after acquiring the highest scientific culture and technical education that military academies can afford, were, on obtaining their commissions, to be denied any further opportunity of maintaining and increasing their familiarity with the ever-improving appliances, constructions, weapons, and maneuvers that war will compel them to employ, the absurdity would arouse universal derision, and enforce an immediate adoption of a saner system. Yet that is precisely what we witness in the medical services, where the problems dealt with are even more scientific and recondite, and in which constant practical application is even more necessary. These defects tend to their own perpetuation. Save in the case of a few exceptional men, medical officers trained under such conditions must, by the time they reach the higher ranks, where they possess to some extent the power of introducing reforms, necessarily have become so unfamiliar with the progress their science has been making, and so unaware of what ought to be done in the way of modernizing the services, that we cannot wonder they should be slow to move in the direction of effecting the necessary changes.

[A summary of the causes of discontent with the service followed, together with the statement that the service is at present undermanned.] In former days an army medical service could be extemporized, but this is so no longer. To manage in this fashion is simply to ensure, when a critical time occurs, a repetition of the scenes of the Crimea, where admirable medical officers were made a sacrifice by the war

authorities to appease the public indignation excited. A system that produces such results stands self-condemned, and none who remember the Crimean War will consider any efforts to prevent a repetition of like experiences ill-timed or unadvisable.

So complex an organization as the Royal Army Medical Corps ought to be kept in a high state of efficiency, and be vitalized by continual practice. It ought to consist of separate units, each complete in itself and familiar with its equipment and work. Each field-hospital should be completely furnished and frequently practised in its duties. Every corps should be ready to act, as in other departments, the moment it takes the field, and not have to learn its duties there when the day of trial comes in a campaign. Whether stationed at home or abroad, the officers should be provided with all the proper means of keeping themselves informed regarding the advances that are for ever being introduced into their science. The literature bearing on every new progress should be supplied to them at remote stations where scientific periodicals and books are not found; for no medical officer can, from his pay, purchase and transport a library of the newest medical works, even if he were aware, which he often cannot be, of what he should procure. The want of all these things prevents the due development of the services, and there can be no reasonable hope of a better state of matters until they are remedied.

In the medical department of the navy, as in the army, the fundamental error is perpetuated of adhering to a system whereby its officers, shut out from practising their profession as civil surgeons have to do, fall year by year more out of touch with the advancing requirements of science, and necessarily fail to familiarize themselves with what will be their great duties in the event of a naval war.

More than the army the navy requires the touch of a reformer's hand. I should be sorry to use any word that may give needless offence, but am forced to say that, even on board the most modern ships of war, a comparison of their surgical outfit and arrangements with the varied armamentarium and the conditions of work of the civil surgeon tends to evoke a vision of the knight of La Mancha equipped in his great-great-grandfather's suit of armor.

In the event of a naval engagement of any magnitude the wounded on board our ships of war would have to be attended to in a small dark room, unprovided with any save the rudest appliances and a few cots, where at most half a dozen men could be handled, and which is, moreover, in many vessels, as much exposed as any other part of the ship to the fire of the enemy. Were such a fighting-bay rendered untenable the wounded, however great their need, could be attended to only by being lowered, slung in a vertical posture, down the narrow hatchways, where the shot is brought up from the magazines to the guns, and even these would not be available during the heat of an action. Everything on board ship that can destroy life is in the highest perfection, everything that can save it is of the rudest description and behind the age. In the case of a gunshot wound through the abdomen the only chance of recovery is laparotomy performed within twelve hours, but on board none of Her Majesty's fleet is there any possibility of performing such an operation; there are neither accommodation, instruments, nor accessories. Or were 20% of the men of one of her battleships or cruisers killed and disabled in action, the wounded among them could not, in the present state of things, receive the attention that ought to be given them.

Yet there is no reason why the constructors of the navy should not arrange under the water line, shielded from the enemy's fire by the turtle-back armor deck of the vessel, a sufficiently large and well-lit space, fitted with all that is required. Into these the wounded could be lowered through hatchways made capable of transmitting men on stretchers or litters even in the midst of an engagement, so that all emergency operations could be satisfactorily performed.

Matters are even worse on board the smaller vessels, which have no surgeon and few surgical appliances. On torpedo-boat destroyers there are no materials for making splints, only a box of antiquated remedies like those supplied in the vessels of the mercantile marine, where the sailing master acts as the doctor. It would not sensibly retard the speed of such a boat to carry a surgeon—or at least several men specially and fully instructed in first aid, and really capable of efficiently affording it—and to furnish such appliances as would enable them to deal with wounds and compound fractures.

The requirements of naval warfare must always, more or less, impede the carrying on of surgical work on shipboard during naval actions. No person will impugn the principle that the efficiency of war-vessels as fighting-machines has first to be considered, and as much accommodation as possible allotted to their fighting armament. It is inevitable this should be the chief consideration in fitting out the navy. To keep the communicating doors of water-tight sections open during action, in order to convey the wounded to the surgeons, might cost the lives of all on board. It may also be that in naval warfare, especially in some vessels, success may occasionally best be purchased by throwing aside, for the time being, all considerations of dealing with the wounded. But the principle may be, and is being, carried too far; for it is a duty to see that, short of interfering with the perfection of the fighting machine, no suffering is left unrelieved or life needlessly sacrificed, and no means neglected of bringing wounded men the earliest and best attention that can be given. No questions of economy should be allowed to prevent officers and sailors wounded in naval warfare receiving such early and effectual help as their condition so urgently demands.

It may be desirable to state generally the lines on which the services can be brought into harmony with the requirements of modern science, so as to ensure the wounded in war the most enlightened treatment, and for the medical officers the means and training for carrying on their work in a manner that will bear comparison with that of their civil compeers. It would be easier to do so if we possessed universal military service, as we might then look for guidance from continental examples. In countries where this obtains the most eminent civil surgeons are at the disposal of the authorities in time of war, and in peace hold rank in the army, receiving promotion like those actively serving. They are soldiers in reserve, and can be made use of wherever their eminence and special qualifications make them most useful in war.

Although the arrangements of foreign services cannot be directly adopted in our own, they may teach us how to improve them, for we find most of them imbued with a recognition of the altered conditions of the surgery and medicine of to-day, and making progress in adapting themselves to these changes in a fashion that is not found among ourselves. Much that is instructive may be learned from the medical services of Germany, where, of course, compulsory service exists. In that empire every medical man who has served possesses a fixed military rank, even if engaged in civil prac-

tice, and is liable to be called upon to serve where and when required. Those who have not served in the regular army, but are in private practice, receive annually an inquiry addressed to them by the War Office as to whether they are prepared to serve their fatherland in case of war. Every German medical man who has served in the army at all is maintained for 19 years under military orders—that is, he possesses a fixed rank, and is allotted, even in time of peace, a known military post which he would occupy if war broke out. Thus the university professors hold high military rank, corresponding with their eminent civil position and scientific attainments, and are required to give annual courses of instruction to the medical officers serving in the army or navy. Such well-known surgeons as Bergmann, Bruns, Trendelenburg, and Mikulicz have to teach these classes during the Easter holidays, so as not to interfere with the winter and summer sessions of the universities. Each professor has his fixed military rank assigned to him in case of war; most of them rank as lieutenant-generals, some as generals, and even higher, and in the event of war they act as consulting surgeons to the medical officers of the army in the field or base hospitals. They receive the same pay as the military surgeons, as do also the other surgeons who are liable to be called out in case of war; and some of the latter have places assigned them in the sanitary corps, etc., so that their skill and experience are utilized in every department of the service.

All surgical instruments and appliances in the German Army are provided by the State, and in their navy this is likewise the case; every hospital in which the medical officers serve has its complete armamentarium provided for it, so that no unwise economy hampers the most thorough and modern practice of the healing art; and the same thing is true in regard to their naval medical service.

In the Russian Army and Navy similar care is taken of the professional culture of the medical officers. Russia has 3,000 surgeons in her army, and any of these may, if he show ability and powers of work, apply for and be ordered to return to study in the hospitals for a period of two years. There he has to work as a regular assistant, and on proving his capacity may attain a place among the teachers of the institution; or he may be tranferred to the hospital of some provincial city. In the Russian Navy the medical officers who show ability can obtain permission to return for two years to the hospitals, and can there advance by merit, ten every year, to become *privatim docentes*, and so proceed to the position of professor. And they have the same privilege as those of the army of obtaining, after 10 years' service, 2 years of study leave in the hospitals and schools, during which time they are granted extra pay.

The Russian State supplies its army, its navy, and their hospitals with instruments of the newest construction, embracing appliances for special diagnosis and treatment; the operation instruments, and even the boxes that contain them, are arranged so that they may be readily sterilized by heat or otherwise; and Schimmelbusch's sterilizers, and apparatus specially constructed for carrying out antiseptic and aseptic treatment under the difficulties of a campaign, are supplied with them. The drugs are prepared for the services in the form of tabloids, with the active principles accurately dosed and made up by the newest machinery. Dressings, bandages, and such like are prepared, sorted, made up, sterilized, and sent out from factories which are ideals of purity, ingenuity and care, in a way that is an example to the world.

In the French Army post-graduate courses, expressly for medical officers, are conducted by professors at the different universities throughout the Republic, and the cost is borne by the Army Medical Department; while a certain number of the medical officers of the active and reserve army are every year ordered to attend them, extra pay being drawn by those who do so.

We have much to learn from foreign countries; unless we follow their example, our officers, soldiers, and sailors who may be wounded in war will be attended to in a very imperfect fashion compared with those of other European Powers; and our services stand in need of great reforms, which must be more or less of the following nature.

It would, first, be a great advantage to the services were a Section created for military and naval surgery at the annual meetings of this Association, in which all professional matters connected with them could be discussed, and where all communications should be privileged. There can be little doubt that the responsibility for the defects of the services chiefly lies in the apathy and ignorance of the civil part of our profession regarding them, and this is the first thing that should be remedied. Such a Section would furnish instruction as to the actual state of matters and what amendments are required, and by its agency the profession and public would be educated to obtain them. Reforms so initiated and urged on the authorities by the Association could not fail to be quickly introduced. In such a Section also questions of ambulance, transport, equipment, wounds, and subjects of a kindred nature would be perennially dealt with. And special work by medical officers would secure due publicity and appreciation.

Were every meritorious officer, especially if he has been stationed abroad, set free to devote every fifth year or its equivalent during the first 20 years of his service, or up to 45 years of age, to visiting and participating in the work of military, naval, and, above all, civil hospitals and schools of medicine, much would be done to insure his possessing the skill in the higher methods of surgery and medicine to which he and those under his charge are entitled to lay claim. In this we should be but adopting what has been found indispensable by other European Powers. Officers receiving study-leave should be sent to act as assistants, residents, and house-surgeons and physicians to our hospitals and schools of medicine, in the same way as our younger graduates who are in training for the highest places in the civil profession. Officers from the services would be cordially welcomed in such institutions, where men of their stamp are continually in demand. There exist, besides, numberless infirmaries throughout the country unconnected with schools of medicine, where most excellent surgery is being daily done, in which they would be received with open arms and welcomed to take a share in the work. It is of the most vital importance that the development of military and naval hospitals should at once receive the attention of the authorities. The services can never be what they should until their hospitals and lazarettos, both at home and abroad, are multiplied, improved, and cherished into new life and activity. They should, wherever it can by any possibility be done, be thrown open for the reception of ordinary patients from the civil population, and for the admission of diseases of all kinds. The number of medical officers in charge of or serving in them should be largely increased. I cannot believe it possible that the medical arrangements on board our ships of war should be permitted to continue in their present state. The succor of the wounded in a naval action is, no doubt, a question of very great difficulty on board ship, and no consider-

able alteration of the existing distribution of space can be claimed with any hope of its being conceded.

New discoveries may possibly, some day, alter the conditions of naval warfare; but in the meantime it seems unlikely that any great change can take place in the general character of our fleets and warships, and a considerable naval action would certainly at present furnish such a mass of wounded men as might defeat the best efforts of the Naval Medical Service to cope with. The only means of doing so, and one so obvious that it is a marvel our country has not long since adopted it, is to provide every fleet with a certain proportion of fast steamers, without armor or armament, flying the Red Cross flag, fitted up with wards, operation-theaters and dressing-rooms, anesthetic, sterilizing, and apparatus-rooms, officered by a staff of surgeons and attendants, and in every way imitating the arrangements of the best civil hospitals. These should form as essential a part of every squadron as do the bearer-companies and field-hospitals of an army. Their duty should be to dash to the aid of ships disabled or out of action, or the moment the conflict was over; and, with the help of their trained attendants and the best forms of slings, litters, and barges, remove the wounded to the protection of the Red Cross, and render them the same attentions as those given in like straits to the injured and wounded in the army or in civil life. The cost of such vessels would be small compared with ships of war, and the good they would achieve in great naval engagements, and even in ordinary times, would be unspeakable.

It is necessary, also, to make strenuous war on one of the most serious obstacles in the way of obtaining the reforms required for perfecting the services, namely, the tendency on the part of the military authorities to believe that deficiencies in them can; at any time, by the power of money, be compensated by engaging civil aid. The fatal error of imagining that the Army Medical Corps can be supplemented by civil aid is one that has already done infinite harm; it has been made a constant pretext for hindering the due development of the services and producing the defects of which I have spoken, and is a mischievous delusion that cannot be too strongly combated. Were such a proposal made regarding any other scientific department—such as, say the Royal Engineers—its absurdity would be at once perceived; but so little is the peculiar position of military surgery known to the laity, that it passes as being reasonable among many without, and some even within, the limits of the medical profession. At its best it is but a poor palliative, but can never be a cure.

A SKETCH OF THE CENTURY'S PROGRESS IN MEDICINE AND SURGERY.[1]

Address of the President of the British Medical Association.

By J. WARD COUSINS, M.D., F.R.C.S.,
Senior Surgeon to the Royal Portsmouth Hospital.

(Continued from page 257.)

The Discovery of Surgical Anesthesia.

I must now ask you to return again with me to the early part of the century and glance at the relation which then existed between medicine and surgery. A hundred years ago the physician enjoyed, both professionally and socially, a far higher position than the surgeon. Medicine was regarded as a science, but surgery only occupied the position of a useful craft, which could be employed as a last resource when all other remedies had failed. Surgery was considered quite an inferior branch, and the leaders of that day looked down upon operative surgery as a reproach to the healing art. John Hunter spoke of operations as only humiliating examples of the shortcomings of the medical science. Abernethy had a great reputation as an operator in his day, but he considered surgical operations had no place in surgery as a science. So late as 1844 Liston said in a lecture at University College: "Operations are an inferior part of our professional duties. The field of operative surgery, although happily narrowed, is still extensive." It is not surprising that the knife as a remedy was greatly dreaded, and the prospect of an operation caused in many patients great mental depression. It is stated that Sir James Simpson, when a student, was so affected by the agony of patients undergoing operations that he was almost compelled to abandon the medical profession. The after-treatment, too, was often extremely painful and very roughly carried out. There was very little attempt to obtain union of the divided parts by first intention, and wounds were generally plugged with tents to keep them open, and dressed with plasters and ointments. Surely we cannot wonder that the art of surgery languished in those days.

The idea that some agent might be found to render operations painless appears to have engaged the attention of surgeons from the earliest times. Mechanical means were employed for compressing the bloodvessels and nerves, and tourniquets were tightly applied to relieve pain. At the early part of the century, hypnotic anesthesia was employed by some surgeons, but it soon fell into general discredit. About 1821 it appears to have been tried in many parts of France. In 1836 it was successfully used in Boston for dental operations. Not long before the time of the great discovery, opium and alcohol were freely administered to relieve the distress of very painful operations, but the results were often very unsatisfactory and dangerous.

It is recorded that, during the early years of the century, Sir Humphrey Davy studied the effects caused by the inhalations of different gases, and at length published some researches concerning nitrous oxid. At that time frequent exhibitions of the peculiar qualities of this gas took place, and these experiments no doubt suggested the employment of ether and other agents. Ether had been used in medicine for many years, and it enjoyed a great reputation for chest-diseases. In 1820 the vapor of ether was applied over the mouth to relieve dyspnea, and it was discovered that when inhaled it produced the same stimulating effect as that excited by laughing-gas. Dr. Crawford Long, of Pennsylvania, tried the vapor in some minor operations about 1840, but his patients were never carried beyond the stage of exhilaration. He never continued the inhalation long enough to establish complete insensibility, but he went very near success.

Horace Wells, a dentist of Hartford, Conn., and William Morton, dentist, of Boston, employed ether locally for toothache, and also to relieve the pain of extraction. Subsequently Morton experimented with ether on animals, afterwards upon some students in his class, and then upon himself. He administered it to his patients at length, and, after many careful and anxious trials with various kinds of inhalers, he privately communicated his experiences to Dr. John Collins Warren, and requested that he might be permitted to administer ether during an operation.

[1] Delivered at the 67th annual meeting of the British Medical Association, held at Portsmouth, England, August 1, 2, 3, and 4, 1899, and published synchronously with the *British Medical Journal*, through the courtesy of the Editor.

October 16, 1846, Dr. Warren consented to make the trial of ether-anesthesia, and this critical operation will ever be memorable in the history of our science. Many eminent physicians and surgeons were present in the old theatre of Massachusetts General Hospital, and, from the short introductory remarks which fell from Dr. Warren when the patient was placed upon the table, it is certain that he was in a very doubtful state of mind as to the possibility of surgical anesthesia: "To-day we are to test some preparation for which the astonishing claim has been made that it would render the patient operated upon free from pain." Now these words clearly indicated a very doubtful state of mind, and this incredulity was again manifested when William Morton did not arrive at the appointed hour, for then Dr. Warren turned to his friends and said with a smile, "I presume he is otherwise engaged." Of course this was followed by a laugh all round, and the doctor, irritated by the delay, took the knife in his hand, and was just about to proceed with the operation, when William Morton entered the theatre. Dr. Warren immediately turned to him and said, "Your patient is ready." The patient was a young man with a tumor in his neck, and after inhaling the ether a few minutes he was rendered completely insensible. Morton then turned to the doctor and said, in calm and confident voice, "Now, sir, your patient is ready." In a short time this ever-memorable operation was performed, and on recovering consciousness the patient gratefully remarked that he had suffered no pain, and had been completely insensible. Dr. Warren at once expressed his hearty congratulations to William Morton, and, addressing the visitors present, said, "Gentlemen, this is no humbug."

The next day Morton gave ether again for the removal of a tumor from a patient's arm, and the anesthetic was continued through the whole operation. On November 7 two more important operations were done by Dr. Warren under ether-anesthesia—amputation of the leg and excision of jaw.

The discovery was now carried with great rapidity to all parts of America and to the central cities of Europe. On December 24, 1846, Liston, in London, performed amputation of the thigh under ether-anesthesia with complete success. Sir James Simpson, of Edinburgh (then Dr. Simpson), took up the question with great enthusiasm. He had been earnestly seeking for years to develop means to soothe the pain of obstetrical operations, and the first case he selected for trial of ether was one of deformed pelvis, and the result was very satisfactory. Simpson, however, after considerable experience, considered that ether was not free from objection because of the large quantity required to establish insensibility, and he commenced to investigate the effects of other volatile fluids. After consulting many professional friends and chemists, he made experiments with various liquids more fragrant than ether, and he had the assistance of Dr. George Keith and William Duncan, and many other professional friends. Simpson at length tried chloroform on himself, and afterwards made many successful experiments at the University of Edinburgh. November 10, 1847, 13 months after the announcement of the great discovery of William Morton, he formally communicated to the Medico-Chirurgical Society of Edinburgh that he had exhibited chloroform to 50 patients without the slightest mishap of any kind.

I need not remind you that this splendid discovery was not immediately accepted in every quarter. Many had strong doubts as to the safety of surgical anesthesia, and progress was for a time hindered by the prejudices and jealousies of that day. Opponents rose on many sides, and, of course, the most obstinate were members of the medical profession. They declared that anesthesia would increase the mortality of surgical operations, and add to them the dangers of convulsions, paralysis, and fever. Experience, however, soon dislodged all these prejudices. How often obstruction proves the secret friend of progress!

After a lapse of more than 50 years we are now able to look back and trace the gradual evolution of this beneficent discovery. Dreams of soothing the pain of surgical operations had passed through many minds. The exhilarating power of nitrous oxid gas and ether had been slowly brought to light. In 1840 Dr. Crawford Long almost reached success. Horace Wells and William Morton applied ether locally in dental operations, and two years later William Morton introduced the inhalation of ether and discovered the possibility of maintaining continuous anesthesia. It was a bold and daring adventure to suspend vitality in a balance—an unknown distance from fatal insensibility. We can imagine the anxiety of Morton in his first administration. He was the first man who clearly discerned the possibility of suspending conscious life, and with profound courage and determination he then proved its practical application for the relief of human suffering. It must have been a great help to Morton when Dr. Charles Collins Warren, the most eminent surgeon in New England at that time, consented to share the responsibility of his first experiment. No doubt Warren had learned something about inhalation of ether, and stimulated by life-long devotion to the progress of medical science he willingly accepted the position.

In the noontime of this Victorian era surgical anesthesia was the brilliant gift to the civilized world by our brethren and kinsmen across the great Atlantic, and at the last annual meeting but one of this, the greatest of the centuries, we desire to record our admiration of the courage and genius of William Morton and the wisdom and surgical skill of Charles Collins Warren, and again to crown their memories with enduring fame as great benefactors of the human race.

It is an interesting fact that the original anesthetic agents still hold the confidence of the medical world. There are many differences of opinion upon their essential virtues and a widespread hope that soon safer remedies may be discovered. Sir James Simpson entertained this hope until the end of his career, and Dr. Snow, who did so much during his life to perfect anesthesia-administration, believed that better agents would be found. It is my opinion that surgical anesthesia can never be wholly stripped of risk, and that to day the risk is greatly reduced by our modern safeguards and improved methods of administration. It is certain that we have not reached finality in the matter of surgical anesthesia, but that by experience and the skilful adjustment of the dose we are entitled to regard the inhalation of our present agents as practically safe.

IMMEDIATE RESULTS OF SURGICAL ANESTHESIA.

During the pre-anesthetic age, operations were confined to cases in which surgical interference was absolutely necessary, and both patient and surgeon had to be brave and determined—one to suffer pain, and the other to perform delicate manipulations with rapidity and dexterity. The introduction of surgical anesthesia exercised at once a great influence on the practice of surgery, and the number of operations increased in all directions. Within six months the surgical work of the London hospitals was actually doubled, and in every department the domain of surgery rapidly extended.

Unfortunately, the surgical world was quite unprepared for the sudden outburst of enthusiasm which followed the great discovery. At this period surgical instruments were few in number, and very different from what they are to-day. The microscope was only just adopted as an instrument of pathologic research, and many ingenious aids to diagnosis now universal were not then in existence. The hospitals were for the most part wretched receptacles for the sick. They were constructed regardless of all sanitary precautions, and without any means for securing adequate light and fresh air for the safe treatment of urgent surgical cases and acute diseases. The nursing system, too, was rotten to the core. Nursing then meant nothing more than the attendance of a parcel of ignorant women who possessed no qualification for their high and self-sacrificing duties, and who had never received a moment's training. It is a fact that in those days thousands of lives were extinguished at the shrine of ignorance and superstition, and thousands more for the want of sobriety and cleanliness. Under such conditions it is not surprising that suppuration followed almost every wound, and that septic processes were started by every operation.

The high mortality which occurred both in the institutions of this country and the Continent excited great anxiety, and roused the profession to earnest investigation. The great increase in the work of the hospitals soon revealed their insanitary condition, and many structural defects. Again and again gangrene, pyemia, and erysipelas ran through the wards of these old buildings, and the medical officers saw clearly that these outbreaks were infective disorders, and were carried from one patient to another.

We have now reached the dawn of another important epoch in the medical history of the century. The terrible ravages of sepsis, which appeared to have got almost beyond control, helped to bring about better ward ventilation and improved sanitary arrangements in many of the old buildings. The evil of overcrowding was checked, and increased cubic space provided for patients. Many reforms soon followed in the administrative and nursing departments, as well as an improved technic in operative surgery. Some treated their cases with water dressing or irrigation; some, having discarded greasy compounds, closed all their wounds with friar's balsam; and others, after bringing together the cut integuments with strapping, used dry wool and pressure. There can be no doubt that greater cleanliness and new methods of treatment were introduced at this period with success, and these advances helped to prepare the surgical world for the coming of the great crisis when the doctrines of Lister shook the foundation and revolutionized the practice of surgery. Lord Lister demonstrated to the world the part that living organisms play in the production of septic diseases, and then exhibited the simple means by which their growth and development could be prevented. He proved that wounds could be made to heal by first intention, that the process of suppuration could be controled, and that precautions easy of application would stop the development of septic disorders.

During the last quarter of the century surgeons have carried out the aseptic system in every land and in every clime, and it has given a surprising impulse to successful practice, and has developed into a world-wide blessing. The methods employed have varied in detail, but in them all we may observe the same great principles which have brought forth such a complete reformation. The remarkable change for the better started in the wound, then extended to the whole body of the patient, then to his bed, then to the surgeon, the nurse, the whole ward, and at length to the whole hospital.

The progress of medicine and surgery has now exploded all the old notions concerning hospital construction, and proved the absolute necessity for radical and extensive changes. To-day a modern ward is a perfect little hospital in itself. Well-ventilated corridors are the only channels of communication between it and the other parts of the building. Every detail is arranged to obtain perfect ward-isolation so that the suffering inmates may be protected against the inroads of preventable disease and external contamination. These structural precautions are invaluable aids to successful treatment and the means by which a group of deadly disorders have now been effectually stamped out.

The Royal Portsmouth Hospital consists of a remarkable combination of the old and the new in hospital architecture, and these interesting specimens are to be seen standing side by side. I am confident there is no part of the country which can show more clearly the contrast between the notions in hospital construction which prevailed fifty years ago and the latest scientific developments. I trust that all who are specially interested in this science will not fail to visit the institution during the meeting, for it is our earnest hope that this remarkable contrast will soon be lost forever in the expansion and development of our new hospital.

Some good people have bewailed the fact that Lord Lister did not appear on this mundane scene some years before William Morton. They believe it would have been better if asepsis had been the precursor of surgical anesthesia, for then the surgical world would have been prepared for the sudden increase of operative work and the rapid progress of surgery. I am unable to accept this criticism of the evolution of our science. I believe that anesthesia was the true antecedent of asepsis. Surely, if the order of these great discoveries had been changed, the brilliant developments of our science in many departments would have been impossible. On the other hand, there is a humane and benevolent aspect of the question. The suspension of human pain by a dreamless sleep almost banished at once the dread of the surgeon's knife, and helped the sufferer to look forward to relief with hope and confidence.

Recent Progress and the Future.

I shall now conclude my remarks with a brief reference to recent progress and the work of the future. The medical profession was never so earnest in its efforts to prevent disease as it is to-day, and it is really a fortunate thing for the world that our ranks are not getting thinner. On the other hand, the people of this country, especially the educated classes, are more anxious than ever to obtain professional assistance in the early stage of their disorders, because they are beginning to appreciate the fact that this is the best time for cure. It is my opinion that in the near future there will be far less medicine taken than formerly—not that I think there will be much reduction in the quantity prescribed by the faculty, but rather that people generally are growing wiser, and will trust less to mysterious and puffed-up remedies. I hope the day will come when every vaunted specific protected by a Government stamp will carry a label revealing the exact nature of its composition.

Recent Advances in Medicine.

Bacteriology has already provided the physician with a new set of remedies; in diphtheria antitoxin has proved of

marked utility; the treatment of tetanus, both subcutaneous and intracerebral, appears to have been successful in some cases. As regards tuberculosis, enteric fever, and cholera, we must wait the test of experience. The remedies have a scientific basis, and I believe we may anticipate great progress.

The inoculation with the serum of animals, immunized by bacteria and bacterial products, is one of the most hopeful developments of medicine. One hundred years ago Jenner succeeded with this treatment, and almost destroyed one of the most deadly infectious disorders. Pasteur worked in the same direction with chicken cholera and splenic fever. Inoculation as a protection against cattle plague is steadily gaining ground. Recently very successful results have been obtained at Cape Colony, and the farmers are anxious to have their cattle treated with the protective serum. Similar treatment has been employed in India as a preventive measure against plague, and Professor Haffkine has reported very favorably on his results. If it fail to prevent the disease it renders the attack less virulent. Already the mortality has been proved to be greatly lowered among the inoculated as compared with the uninoculated.

The serum-treatment of specific disorders has only reached the initial stage, still it is full of promise. It has for its object the development within the body of a capacity for resistance, and invisibly fortifies it against the growth of a particular pathogenic organism. It is essentially a treatment for strengthening the defensive cells of the blood and tissues and promoting the natural means of defence.

Another step forward is the discovery of the great value of the products obtained from healthy glands in the treatment of certain disorders. The special utility of thyroid gland substance has been well established, and the most marked results have been achieved by its administration. The importance of the normal activity of this gland has been proved by clinical evidence, as well as by chemical and pathologic investigation. At the same time, we really know nothing about the nature of its secretion, which appears so essential to the nutrition of the tissues. One very remarkable feature is the benefit which sometimes follows the use of the remedy in disorders not suspected to have any connection with thyroid secretion. Many other glandular substances have been tried as remedial agents, but up to the present the results have been very indistinct.

The close of the nineteenth century will be forever memorable for the great efforts which have been initiated for the prevention and cure of tuberculosis, not only in this country, but in all civilized lands, and we sincerely hope that this united attack upon our deadly and widespread enemy will be followed by enduring benefits to the race. It is a matter of great congratulation that H.R.H. the Prince of Wales is the head of a great national association which has been formed for the purpose of arresting as far as possible this dreadful scourge, and that in all the leading centers men of every class are cordially cooperating in this important movement. As a profession we are anxious to teach the people what science has already accomplished, and the great value of sanitary precautions in their homes. We seek to inspire them with confidence in the wide application of simple and effective treatment which will arrest the disorder in the early stage, and help to reduce the death-rate from tuberculosis in future years. It is a fact that we have no specific remedy for the disease; the mineral and vegetable kingdom have been ransacked in vain. The tubercle-bacillus does not seem to care for all the physic in the world; but we believe that in a germ-free atmosphere and pure surroundings it may be made to die.

RECENT ADVANCES IN SURGERY.

Notwithstanding the great progress of medicine during recent years, the results have been less manifest than the brilliant advances of modern surgery. There is no organ or region of the body which has not been investigated by the surgeon; year by year the science has gained wider application, and reached a higher state of perfection by new methods of diagnosis and improvements in surgical technic. Only three and a half years ago the remarkable discovery of Professor Röntgen was communicated to the scientific world, and it has already proved of great value in surgical practice. It has revolutionized the old methods of military surgery, and rendered easy the location of metallic substances impacted in the body. It has given a fresh impulse to the study of diseases and deformities of the skeleton, and is an invaluable guide to the treatment of injuries and diseases of the epiphyses and joints. We can anticipate with confidence that the treatment of this large group of disorders will steadily improve.

The time is coming when there will be a considerable reduction in the number of adults suffering from hernial troubles, and this important result will be due to the latest improvements in radical operations. There will be a great reduction in the number of persons afflicted with loss of sight, the issue of the modern treatment of infantile ophthalmia and the corneal diseases of children, and also the early correction of errors of refraction.

HANS MEYER.

During the last 25 years great advances have been made in aural surgery, and the number of deaf persons in this and other countries has been greatly lowered. The celebrated Danish physician, Dr. Hans Wilhelm Meyer, was the first to put his finger into the little space between the nose and the throat for the purpose of removing "pharyngeal vegetations." It took him some years to convince the profession that these outgrowths were a common cause not only of loss of hearing and obstructed nasal respiration, but also of defective articulation and impaired mental and bodily development. It is no exaggeration to assert that the number of young persons who have been saved from life-long deafness by the removal of these obstructing glands amounts already to hundreds of thousands, and that hundreds of thousands more will be delivered from this terrible affliction in future times. Dr. Meyer lived just long enough to know that the medical world recognized the great value of his discovery, and to-night we desire to honor his memory and to record our admiration of his splendid labors.

SEPTICEMIA.

The experimental investigation of the causation of human septic disease is still far from complete. Up to the present time the virus of septicemia has not been isolated, although the bodies of infected animals must contain a very powerful poison. The filtrates of streptococcus cultures have exhibited very little toxic action, and there is no very satisfactory evidence of their value in the complex disorders included in the term "blood-poisoning." The prevention of inoculation through a wounded surface is now possible, but when the disorder is once fully established we are practically powerless to overcome the widespread disturbance. I have no doubt that some of the surgical victories of the future will

be won by bacteriologic science. At the present time we have no cure for sepsis when it has entered the body; still we have much reason to hope that a remedy will be found, and that the destruction of sepsis-producing organisms within the blood and tissues may be at length accomplished.

Cancer.

The treatment of cancer and its manifold complications is another great field for inquiry in coming years. For some time a growing impression has prevailed that the disease has been steadily increasing. Cancer causes about 6% or 7% of the total deaths of both sexes over 45 years, but these figures are probably rather under than over the real number. No doubt during the next few years the question of increase will be settled. Recently some investigations have been published suggesting that the disease is due to a parasite, and Mr. Plummer states that he has discovered parasitic bodies in 1,130 cases out of 1,278. Local irritation is certainly a great factor in the development of cancer, and this may possibly be the channel for the entrance of the parasite. Other observers have suggested that the disorder is liable to recur in particular places, and if this statement is corroborated by further investigation, it will certainly form a presumption in favor of cancer being an infective disease. A curative serum for carcinoma has not yet been discovered. Up to the present time surgical treatment yields the best results, and the earlier it is adopted the better. We look forward to the development of new methods of diagnosis, so that the surgeon may be able to recognize the seat and character of the disease in the incipient stage. The pathology and treatment of cancer still bristle with difficulties. We are anxiously waiting for more light, and we are ready to receive it from whatever quarter it may fall upon us. It is at least some satisfaction to know that many of the best pathologists and surgeons are diligently laboring in all parts of the world to unfold the mysteries which still surround this terrible disease.

Future Progress of Preventive Medicine.

During the last 50 years there has been a steady increase in the value of human life, and we can confidently hope that the health of the people of Great Britain will continue to improve. In the coming century a stronger and broader warfare will be carried on against preventable disease; sanitary authorities will grow in wisdom and will more graciously accept their responsibilities; the public health service will be better organized; the medical officers of health will be better paid, and wholly devoted to their duties; hospital accommodation for contagious disorders will be considerably increased; and the houses of the working classes transformed and reconstructed on modern lines. I believe there is every reason to anticipate that the death-rate of the country may still be greatly reduced, and that 10 to 12 per 1,000 may be the figures of the coming century.

The great hindrance to the progress of preventive medicine which we have to overcome is the overcrowded and insanitary condition of the dwellings of the working classes. This is the field on which the great battle with infectious disorders will have to be fought out. Our warfare will not be directly with microbic life, but rather with the conditions in which specific organisms are grown. We want to see more progress in getting rid of the crowded and dirty courts in every city. We want to behold fewer of these revolting pictures of impurity and wretchedness herding together in the narrow avenues where the light of heaven strives in vain to pierce the patched and broken windows, and where the meridian beams struggle in vain to penetrate through the gloom and corruption of these denlike homes. These denlike homes are the arch-enemies of sanitary progress in all our great centers. Philanthropy has long pleaded for the removal of these great social evils; the voice of the medical profession has long sounded the alarm; but we are still waiting for the educated and wealthy classes of the community to catch the same inspiration, and to join in demanding more sweeping measures by which these nurseries of disease may be exterminated.

But the battle against disease and death will only end in disappointment unless we have something more than the force of legislation and the unceasing watchfulness of a complete sanitary system. The great mass of the people must become willing and active helpers; the fathers and mothers of our land must learn how to maintain the healthfulness of their homes, and the blinding forces of selfishness and ignorance must be replaced by the best and purest aspirations.

If we had the power of transforming the dwelling-houses throughout the land, and of establishing everywhere a perfect system of drainage, and of securing for all an abundant supply of pure water, we should accomplish but little without the help of the people themselves. Depend upon it, the basis of national health is the personal cultivation of health. We want the fathers of England to be the enlightened sanitary officers of their own households. We desire to see a wider knowledge of the laws of health, and I hope the day is not far distant when they will be zealously taught in every school in the kingdom.

How little the working classes and operatives in our large cities appreciate the fact that the prevention of human suffering and the preservation of health are in a great measure within their reach. They have to learn that they lose both in physical development and vigor by too much toil and too little rest. They have to learn that rest is essential to overcome the strain of daily labor, and that personal cleanliness and temperance, and domestic sanitation lead the way to higher blessings. The weekly rest when rightly used gives another impulse to sanitary progress. It promotes purification of the body and cleansing of the dwelling. What washings and scourings, what polishings and decorations herald its near approach! What an army of buckets and brushes and dust-disturbers are called out at its coming; what floods of clean water are made to remove the accumulations of the week! Yes; the weekly rest falls like a reviving dew on the hot brow of industry; it stops the wheels of labor; it soothes the brain, gives rest to the hands, and calls forth the highest aspirations of human nature.

RECENT ADVANCES IN PHYSIOLOGY.*

By J. J. CHARLES, M.D., F.R.S.E.,
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Physiology is held by Max Verworn[1] to have as its task "the investigation of life;" but the nature of life is to us, as yet, a mystery. No doubt, we are acquainted with many of the phenomena which accompany it; but it has been truly said that "everywhere, to whatever branches of physiology we may turn, wherever the gross activities of the body are

* An address delivered at the opening of the Section of Anatomy and Physiology at the Annual Meeting of the British Medical Association, at Portsmouth, August, 1899, and published from advance sheets by courtesy of the Editor of the *British Medical Journal*.

traced to the activity of the individual cells, we always come upon an unsolved problem."[1] Thus, we cannot explain, nor can we discover, how nervous impulses originate in the retina, and give rise in us, through the agency of the cerebrum, to the idea of the image; why the salivary glands secrete ptyalin, and the glands of the stomach pepsin; or why some cells of the mesoblast develop into muscle and others into cartilage.

The minute structure of living cell-protoplasm is a question still open to discussion. W. B. Hardy recently, in an able paper,[2] gives the four views which are at present held on this subject. The first, that protoplasm is made up of a reticulum and a homogeneous fluid substance; the second, that it consists of a more or less solid material containing vacuoles in which there is a fluid; the third, that it is a homogeneous jelly, with granules; and the fourth, that it is entirely homogeneous. As the result of his observations on colloids, such as white of egg, and on the living cell-substance of the pancreas and other glands, Hardy has come to the conclusion that the reticulum which may be demonstrated in fresh or fixed cell-protoplasm is largely due to the physical and chemical alterations which occur in it at death, and to the action of fixing reagents upon it which induce coagulation. Hardy has succeeded in making preparations with egg albumen, showing a reticulum very closely resembling that of protoplasm. One of these, a film fixed by steam, while flowing between two cover-glasses, is very interesting, as exhibiting the *abrupt transition* from the network to the homogeneous substance similar to that demonstrated years ago by Schäfer, in the white corpuscle when fixed in the same way by heat.

The microscopic characters of striped muscle have not ceased to be a debatable subject amongst histologists. The interpretation given by Rutherford has met with much acceptance, and is undoubtedly supported by the examination of specimens of crab's muscle which have been prepared according to his method; but the recent researches of Hardy would lead us to look with suspicion on the appearances presented by this tissue after it has been subjected to the action of chemicals.

The contraction of muscle is believed by McDougall to depend on the elimination of lactic acid, causing the passage of the fluid sarcoplasm into the sarcostyles. Unstriped muscle has been found by Triepel in all the cerebral veins, but the muscle-cells, he says, are isolated and mixed with white fibrous tissue.[3]

By the use of osmic acid and uranium nitrate, with various dyes, Kolossow has demonstrated between the cells of the liver, testis, ovary, pancreas, and thyroid body, processes of connection which may serve for the conduction of impulses and the transference of nutrient materials.

The axis-cylinders of nerve-fibers have been shown by St. Apáthy,[4] in invertebrate animals, to be made up of fibrils which terminate, in the case of the "sensory"-cell, in a single basket around the periphery, and in the "motor"-cell in one basket around the periphery, and a second around the nucleus. This view, in some respects, resembles that which Arnold advanced, years ago, as the mode of origin of nerve-fibers from nerve-cells.

It is now agreed that the amount of hemoglobin in the blood is not greater in the inhabitants of high altitudes than in those living at lower levels.

Gamgee[5] has drawn attention to the absorption-band in the extreme violet end of the spectrum of blood, which he has named "the band of Soret," after its discoverer. He has pointed out that not only is it more distinctive than the bands seen in the spectrum when examined in the ordinary way, but that it is absolutely characteristic of hemoglobin and its compounds; so that by this means they can at once be distinguished from bilirubin and urobilin as well as from carmine and all other coloring matters yet examined. This is a matter of practical importance, because this method may yet come to be employed in medico-legal investigations. Gamgee has indicated that the best and easiest way of demonstrating this spectrum is by means of an electric arc, a fluorescent screen, and a Bunsen's spectroscope.

R. Jarry[6] has investigated the influence of reduced pressure and increased temperature in causing the compounds of silver-chlorid with ammonia to dissociate somewhat like oxyhemoglobin. Perhaps the further study of such "loose" compounds may lead to an increase of our knowledge with reference to the properties of hemoglobin.

Haldane[2] has discovered a quick and ready plan of liberating the oxygen of the blood by the use of potassium ferricyanid; but to insure success, the blood should be fresh, else bacteria will interfere with the result. Nicloux,[7] employing Gautier's test for carbonic oxid—namely, that this gas has the power of decomposing iodic anhydrid and forming carbon dioxid, while iodid is liberated and absorbed by copper*—has endeavored to prove its presence normally in blood; and Louis St. Martin[7] has estimated the quantity in the blood of animals living in towns to be 1.5 cc. per liter. But as it is possible that during the application of this test, while the blood is being boiled with acetic acid, carbonic oxid may be formed by combustion, in the absence of oxygen; and as several hydrocarbons at 60° can reduce iodic anhydrid, and as other gases besides carbonic oxid might respond to the test in a similar way, the results of Nicloux and St. Martin can only be provisionally accepted.

A fully satisfactory theory as to the coagulation of the blood has yet to be discovered. Probably, we shall not find it till we are better acquainted with the chemical constitution of the proteids of the blood. The view, however, which meets with most favor, and is open to fewest objections, is that there are three agents or factors concerned in the formation of fibrin, namely (1) fibrinogen, which is present in the plasma; (2) nucleo-proteid, derived in part from blood platelets, but chiefly from the shedding out, or perhaps from the disintegration of the white corpuscles; and (3) lime-salts, in solution in the plasma. The nucleo proteid, by the action of lime, is changed into fibrin ferment, and this ferment reacting with fibrinogen transfers its lime to the chief constituent of fibrinogen (thrombosin), and thus gives rise to fibrin. Pekelharing is of opinion that fibrin is a *compound* of fibrinogen and lime, but it has been proved conclusively that fibrin contains no more lime than the fibrinogen from which it is derived. It is admitted that a lime-salt is essential in some way in the coagulation of the blood, but the exact part it plays is still undetermined.

Delezenne[2] has succeeded in isolating an anticoagulant substance, of the nature of Lilienfeld's histon, from peptone plasma. He believes it is derived from the destruction of white corpuscles, but others hold that these corpuscles only leave the bloodvessels, and are not destroyed. The fact that a second dose of peptone injected into the veins of an animal shortly after the action of the first has disappeared, produces no anticoagulant effect, Delezenne explains by supposing that an antitoxin has been formed which protects the white

* $I_2O_5 + CO = {}_5CO_2 + I_2$.

corpuscles against their destruction by peptone. In favor of this view is the fact that the blood or serum of a "peptonized" or immunized dog, when injected into the veins of another animal, confers upon it immunity from the action of peptone, snake-poison, or extract of crab's muscle.

The formation of lymph is still a fruitful source of controversy. Some, as Heidenhain, regard it as in the main a secretion by the walls of the capillaries from the blood, while others maintain it is the product of filtration and osmosis from that fluid. Asher and Barbèra have lately advanced[8] the view that lymph is produced by the tissues and organs generally, such as the liver, the muscles, and glands; but the evidence in favor of it can scarcely be considered adequate.

Langley[2] has caused the vagus and the sympathetic nerve in the neck of a cat to join together; and on applying stimuli, before and after the injection of nicotin, he has been able to prove that the nerve-fibers of the vagus make functional connection with the cells of the superior cervical ganglion of the sympathetic, and give rise to the same results on stimulation as the sympathetic did before the section.

There has been considerable discussion of late years concerning the causes of the entrance of oxygen into the blood in the lungs. Most physiologists, following Pflüger, and believing that the tension of oxygen in the blood is less than in the air of the alveoli, regarded diffusion alone as sufficient to explain the passage of the gas. But the results obtained, first by Bohr and recently by Haldane and Lorrain Smith,[2] have induced many physiologists to consider this view untenable. Attention has accordingly been directed to the chemical affinity of the hemoglobin in the blood for oxygen. It is not likely that this affinity acts at a distance on the alveolar air; but undoubtedly the hemoglobin in the red corpuscles, by absorbing oxygen, is constantly lowering the tension of the oxygen in the plasma around them, as Foster has pointed out, and so indirectly causing more oxygen to enter the blood from the air-cells by diffusion. The chemical affinity of hemoglobin is, therefore, an important factor, though it acts more as an aid to diffusion than as an agent or force by itself. Another hypothesis—that the cause depends on the secretion of oxygen by the endothelial cells of the alveoli, and perhaps by the capillary walls—has of late come into prominence. In favor of it we have the fact that in the secretion of urine, and *possibly* in the transudation of lymph, the endothelium containing living protoplasm discharges a somewhat analogous function. Again, there are some grounds for believing that epithelial cells may be the active agents in causing the passage of oxygen from the maternal to the fetal blood in the placenta. But the most important evidence in support of this view is found in the case of the swimming bladder of fishes, in which oxygen, nitrogen, and likely argon, are at one time secreted and at another absorbed under the influence of the nervous system.[5]

Opinions are likewise much divided as to the causes of the exit of carbon dioxid from the blood in the lungs. Some physiologists endeavor to explain all the phenomena by diffusion; but we cannot regard this process by itself as sufficient, if we accept Bohr's statement that the tension of this gas in the trachea is usually greater than its tension in the blood. But Werigo,[7] whilst accepting this statement, has tried to prove that the diffusion hypothesis is correct. He alleges that the *actual* tension of the carbon dioxid in the blood in the capillaries of the air-cells may be higher than the tension as made out by the aerotonometer, because oxygen on its entrance into the blood breaks up the compound of carbon dioxid and hemoglobin (a very doubtful compound), sets carbon dioxid free, and thereupon raises its tension in those bloodvessels. But these grounds are insufficient to establish Werigo's supposition.

With regard, then, to the exchange of oxygen and carbon dioxid in the blood at the lungs, I think it must be admitted that though diffusion plays an important part it is by no means "master of the situation," but is supplemented and largely modified by chemical affinity and *possibly* by the vital or secretory activity of the endothelial cells.

Lorrain Smith[2] infers from a series of experiments on birds and other animals, that while oxygen at the tension of the atmosphere excites the cells of the alveoli to absorption, at a higher tension (say 180% of an atmosphere) it gives rise in 24 hours to inflammation of the lungs, and at a still higher tension (say 300% of an atmosphere) leads, as first pointed out by Paul Bert, to convulsions like those of tetanus, owing to its toxic effects on the nervous system.

G. N. Stewart,[2] by what is known as the "electrical method," and also by the injection of methylene-blue, has determined in the dog the duration of the circulation as a whole, and he concludes that in man the pulmonary circulation would take 15 seconds and the entire circulation one minute. This is a longer period than that hitherto accepted. The mean velocity of the blood in the larger arteries of the dog he has found to be about 100 mm. per second—a rate less than formerly believed. He has also by the electrical method made investigations in the dog as to the output of the heart, and he infers that the output in man would not be much more than 3 ounces of blood for each beat.

The old view—that a man may increase in weight without the use of food—has been revived. Bouchard has ascertained that the increase may amount to one ounce in an hour, and he attributes it to the absorption of oxygen, or to its retention in the body, along with the production of glycogen, and the imperfect oxidation of fat; but Berthelot believes it is due to the formation of new substances, and the imperfect oxidation of albuminoids.

Pembrey and Nicol,[2] with a flat bulb mercurial thermometer, have made a large number of observations on the temperature of different parts of the body, and have arrived at the conclusion that the temperature of the rectum is 0.26° higher than that of the urine, and 0.65° higher than that of the mouth; and that the mouth is not as trustworthy as the rectum for clinical observations. Pembrey thinks that the mouth, by increasing the loss of heat, takes part in the regulation of the temperature of the body during exercise.

The extract of the suprarenal capsules was injected by Langlois into the veins of rabbits and dogs, but its presence could not be detected in the arterial blood a few minutes afterwards. There is reason to believe that it is destroyed principally at the liver.

Information has been obtained regarding the movements of the stomach by observations made on animals immediately after death, and by means of the Röntgen-rays alone, or after the administration of bismuth subnitrate with the food, during life. It has been noticed that shortly after the entrance of food the stomach becomes almost completely divided by a transverse band of contraction, about 3 inches from the pylorus, into the fundus and antrum pylori. The fundus is for the most part at rest, retaining the food as a reservoir for digestion, but at intervals pressing it through the constriction into the antrum. The peristaltic contractions of the antrum—about 6 per minute in the cat—proceed always towards the pyloric valve, and drive its fluid contents into the duodenum; but any solid masses present which may be too

large to pass, are forced back by an antiperistaltic wave into the fundus, to be further acted on by the gastric juice.[9]

Bayliss and Starling,[2] by means of a "rubber capsule" and by "enterographs," have studied the intestinal movements in the dog. They have observed two kinds of movements in the small intestine—the "pendulum movements" and the true peristaltic contractions. The former, slight swaying movements, are caused by rhythmic contractions of the circular and longitudinal muscular fibers acting *simultaneously*, 10 times per minute, and traveling with a velocity of 2 to 5 cm. per second. The latter (the peristaltic contractions) travel as a wave, always from above down, and are, they say, "true coordinated reflexes, started by mechanical stimulation of the intestine and carried out by the local nervous mechanism (Auerbach's plexus)." A local irritation of the intestine causes excitation above the spot stimulated and inhibition below it. Stimulation of the splanchnics leads to inhibition of the longitudinal and circular fibers; stimulation of the vagus nerves produces first a short inhibition and then augmentation. The splanchnics exercise a tonic action on the intestine, but the vagus nerves do not.

In connection with the peristaltic action of the intestine, it is interesting to note that Grützner[10] has observed that liquids and particles, such as lycopodium spores, may, if placed in the human rectum, make their way to the stomach.

The entire stomach has been removed in man by different surgeons; the small intestine, nearly its whole length, has been cut out in the dog by Fillipi; and the large intestine, the greater part of it, has been excised in the dog by Vaughan Harley. In all these cases, when successful, digestion appears to have gone on as usual, except that after excision of the small intestine, fat was imperfectly absorbed. and after removal of the large intestine, proteids and water were only partially absorbed. Indeed, Mr. Treves, the eminent surgeon,[11] states, as the result of his experience, that we "might possibly dispense with our present type of stomach;" and the removal of considerable portions of the intestine "has done no more than to add to the comfort of those individuals who have recovered from the operation." It is probable that, after these operations, the remaining parts of the alimentary canal took on vicarious or abnormal action, and thus adapted themselves to the changed conditions. It is also, no doubt, true that care was taken to administer food easy of digestion. We cannot, therefore, attach much importance to the results of such operations and experiments as guides to the use of individual parts of the alimentary canal. It might as well be contended that because a portion of the cerebral cortex of a dog can be removed without inhibiting the performance of most of its ordinary functions, the portion so removed was unnecessary.

Vaughan Harley[12] recently isolated a loop of the large intestine of a dog, and after some months he found that the contents consisted of fat, cholesterin, proteid, and salts—which, he thinks, form the normal excretion of the large intestine—in fact, its contribution to the feces. Another observer (Moraczewski), however, described the excretion in a loop after the lapse of a year as made up principally of sodium carbonate! Voit, by a similar plan, ascertained the excretion of the small intestine to be fat, cholesterin, proteid, and salts, with coloring matter. But in these cases the intestine can scarcely be said to have been in a normal condition. At any rate, the results obtained are discrepant, so that it is difficult to know what inference should be drawn from them.

Carbon dioxid is a constant constituent of the gases in the intestines. It is the product of fermentation, and of the neutralization of the sodium carbonate of the secretions. Moreover, it is derived from the blood by diffusion, as well as given off in the small intestine by the bile, which, as I showed in 1881,[13] contains in the case of the rabbit a larger percentage of this gas than any other animal liquid.

Waymouth Reid's experiments[12] on the absorption of serum, peptone, and glucose from the intestine of animals by means of two loops of intestine—the experimental and the control loop—have led him to infer that the epithelial cells are essential agents, because absorption continues when filtration and osmosis have been excluded; and because it diminishes or ceases altogether after these cells have been injured or removed, as, for instance, when they have been poisoned with sodic fluorid, or when their blood-supply has been cut off. An attempt, however, has been made to explain results of this kind by the chemico-physical method. Thus, if we place a solution of gelatin in the inner cylinder of a dialyser and a solution of common salt in the outer vessel, the gelatin will not diffuse through the membrane, but, owing to its affinity or "elective" action for the salt, will draw the salt to itself by what has been termed "absorption." Similarly, it is alleged that the protoplasmic contents of the intestinal epithelial cell do not diffuse, but being complex in chemical composition may contain imbibing substances of various kinds. These substances are supposed to exercise an affinity for certain foodstuffs, which they draw from the contents of the alimentary canal into themselves, and form "loose" chemical compounds with them, whilst they leave behind, untouched, other substances, for which they show no such affinity. Further, as cells differ in chemical composition, it is said, they will accordingly vary in their affinities; and it is alleged that it is no more extraordinary that epithelial cells should take up fat and not pigment, than that phosphorus should unite with oxygen and not with platinum.[1] But that the cell-contents have an affinity for such a substance as fat, and afterwards form a compound with it, seems to be a mere conjecture; consequently this explanation, ingenious though it is, cannot be accepted—if accepted at all—as having more than a limited application.

A few years ago it was stated on authority that bacteria are not only useful in digestion, but that death would ensue if the air and food were sterilized. But the experiments of Nuttall and Thierfelder[14] have shown this statement to be erroneous.

Aldehoff and Mering[11] believe that they have proved by their experiments that the central nervous system exercises only an inhibitory influence on the stomach. They excised the vagus near the diaphragm, and observed that the movements of the stomach were unaffected; that the quantity of the secretion and the amount of hydrochloric acid in it were at first diminished, but afterwards became normal; and that absorption was not interfered with. Riegel[11] has experimented on the stomachs of animals after Pawloff's method, and has noticed that atropin diminishes the amount of hydrochloric acid and of gastric juice secreted, but pilocarpin, especially if there was no food present, increases it five times.

Bunch,[2] by using a plethysmograph for the intestines, has demonstrated the existence of vasoconstrictor and vasodilator nerve-fibers in the splanchnic nerves supplied to it, the vasoconstrictors being the more numerous. He has observed that nicotin, coniin, and piperidin cause great constriction of the vessels, followed by slight dilatation; that

stimulation of the central end of the vagus produces either constriction or dilatation of the vessels of the small intestine, whilst stimulation of the central end has no vasomotor effect on these vessels.

The process of internal secretion is carried on by many of the organs of the body. The action of the kidney in this respect is not yet fully understood, but the remarkable results of Bradford[2] indicate that it has an important influence in the nitrogenous metabolism of the tissues of the body. Bradford has removed two-thirds of the total kidney weight, and has observed that the urine is much increased, but the urea only slightly so. However, if three-fourths be excised, there is an increase in both the urea and the urine excreted, with an increase of nitrogenous extractives in the blood and in the muscles. He attributes the increase of the extractives, such as urea in the muscles, to a rapid breaking down of their substance. W. H. Thompson[2] has ascertained that normal salt-solution causes a marked increase in the urine and in the amount of urea in it, but he does not offer any explanation of the fact.

Many are now disposed with Heape[11] to believe that menstruation in monkeys is virtually the same process as menstruation in women; that, in both, "ovulation does not occur during each menstrual period, and that it does not necessarily occur during any menstrual period," and therefore may take place independently of it.

Vitzou[7] has found that the blindness following entire removal of the occipital lobes in young monkeys may be recovered from in the course of two years. The recovery he attributes to the growth of new nerve-cells and nerve-fibers; but this supposition is very doubtful, as regeneration of nerve-cells is unknown in the higher animals.

Mott and Hill,[2] after ligaturing all the cerebral arteries in cats, dogs, and monkeys, observed some hours (5 to 24) afterwards that the sensori-motor area of the cerebral cortex was in a very irritable condition, so that the application of a weak induced current gave rise to movements of the limbs, and sometimes even to fits. The cells of the cortex—their nuclei and processes—were all swollen, the granules of Nissl were altered, and the edges of the cells irregular. The interest in these results lies chiefly in the fact that corresponding changes have been noticed in the brains of persons who have died after prolonged epileptic convulsions.

Hodge and others, some years ago, described changes in the shape and size of the ganglion cells and of their nuclei as the result of fatigue. Recently, Lugano, of Florence,[11] by injecting Cox's solution (chiefly corrosive sublimate) into the carotid artery of a dog, killed it instantaneously, and at the same time *fixed* the nerve-cells of its cerebral cortex in the functional state they were in before death. His results lead him to agree with Ramon y Cajal that nerve-cells and their larger branches are incapable of ameboid movements, such as we find in the white corpuscle, but to believe that the small processes of the dendrites—the gemmules—exhibit forward and backward movements sufficient to make and break contact.

Lugano thinks that the nerve-cell in a state of functional activity has few connections, lest the entrance of other impulses should interfere with the impulse which at the moment is being elaborated in its interior, and consequently the most of its gemmules are retracted; but when it is ready to receive new impulses, the gemmules resume their expanded condition and approach others in their neighborhood. In sleep as well as in the narcosis produced by chloroform, ether or chloral, the gemmules are usually all expanded and in a torpid state, their capacity for contraction being exhausted until the sleep is nearly over. It is too soon to criticise the results of Lugano's experimental investigations and the ingenious theory he has based upon them. But I may mention that Ramon y Cajal has not found any histologic change in the dendrites during activity; and that Alex. Hill has adduced some reasons to show that Golgi's method is inadequate to prove a want of continuity between the dendrites of adjoining nerve-cells. Indeed, Hill holds that the gemmules serve rather as a mode of connection between the dendrites and unstained filaments in the intercellular material. Then, if we keep in mind the possibility of some of the dendrites and gemmules being produced by the action of chemicals on the nervous tissue, as structure in protoplasm has been shown to me by Hardy, there are undoubtedly good grounds for withholding our assent to any histologic theory of brain-activity till these questions have been settled.

Horsley and Lowenthal have found that the removal of the cerebrum in certain animals is followed by tonic contraction of the extensor muscles, and that in such animals the stimulation of the superior vermis of the cerebellum, at its junction with the lateral hemisphere, leads to the relaxation of the extensor muscles, and at the same time to contraction of their antagonists, the flexors.

It is now generally acknowledged that there is not sufficient evidence for belief in specific trophic nerve-fibers. The Gasserian ganglion and the part of the fifth nerve proximal to it have been excised, and no truly trophic effect has resulted.

A rare opportunity for studying the characters and the secretion of the cerebrospinal fluid has lately occurred to Drs. St. Clair Thompson and Halliburton in the case of a patient who is described as having had a "continuous dripping from the nose."[12] The liquid on examination proved to be cerebrospinal, and amounted in 24 hours to half a liter. The flow was observed to be increased by the horizontal posture, by compression of the abdomen, and by forced expiration—all of which usually cause in the capillaries of the brain a rise of blood-pressure. According to Cavazzani, the cerebrospinal fluid varies somewhat in composition at different periods of the day—that collected in the morning being more akaline, and containing more solids than that in the evening, the difference, it is conjectured, being due to the activity of the nervous system.

Our views of the functions of the spinal cord have been considerably altered of late years, owing to the remarkable results which have been found to attend operations made upon it. Goltz and Ewald, after destroying the lumbar and sacral regions of the cord in dogs, have observed that these animals in the course of time regained the power of retaining and spontaneously evacuating the contents of the bladder and rectum, while digestion as well as parturition took place in them as in normal animals.[10] Of course, the inference we are to draw from these experiments is not that the processes referred to are independent of the reflex and automatic action of the cord, but rather that much can be accomplished by the local nervous mechanism and by the tonicity of the muscles when they are deprived of central control.

There is still doubt whether, and if so, to what extent, the afferent fibers decussate in the spinal cord. Some maintain that in man they decussate almost completely; others that they do so only partially.

Schäfer[2] has recently made hemisections of the spinal cord in the monkey, and, as the result of his investigations, has come to the conclusion that Clarke's column atrophies almost

entirely in two or three months, on the same side, below the lesion, and that the fibers of the pyramidal tract do not terminate in the anterior cornu, but in the base of the posterior cornu and in Clarke's column. If this be the case, efferent impulses descending from the cerebrum by the pyramidal fibers would influence the motor cells in the anterior cornu of the cord *indirectly*, through the afferent arm of the reflex arc, and not *directly*, as hitherto believed. This view as to the termination of the fibers of the pyramidal tract is, however, so contrary to the results of all past observers, that it should not be accepted until it has been confirmed by further investigations. Besides, it has yet to be shown how these fibers terminate in the lower portion of the cord where Clarke's column is absent, and also that they are not diffused fibers belonging to some other descending tract. In addition, he has traced, he believes, the fibers of the descending anterolateral tract to the anterior cornu, where they end for the most part in arborisation among its cells.

In anatomy our knowledge has become of late years more minute and accurate, and this is due, no doubt, in part to the excellent work which has been done by the Anatomical Society. The exact shape and relations of the viscera of man have been carefully investigated by means of frozen sections of the body (Braune), by the reconstruction method after freezing (Cunningham), by hardening the viscera *in situ* (His), and by the use of long steel pins driven through the abdomen at definite points (Addison); and it must be acknowledged that in all these ways valuable information has been acquired which could not be obtained by dissection. But I venture to suggest that possibly too much importance has been attached to the facets and borders brought out by these methods. It should be borne in mind that the position of the body during the process of hardening, and the pressure of the ice upon it during the freezing process, must lead to the production of notable differences in the shape of internal organs; and this contention is supported by the fact that leading anatomists are at variance amongst themselves regarding the exact results obtained. Furthermore, it is rightly urged by Hepburn[13] that "we must not fall into the error of supposing that the solid abdominal organs present at all times during life the facetted appearances which characterize them after death, for as the hollow viscera are constantly changing their dimensions, so the solid viscera must similarly present larger and smaller surfaces of contact with the hollow viscera and with each other."

A. F. Dixon[13] has shown that the facial nerve contains afferent as well as efferent fibers. The afferent fibers are represented in mammals by the chorda tympani and the great superficial petrosal nerves, and are, he thinks, probably gustatory in function. He has brought forward a number of facts in support of his views; but the question as to the taste-fibers can scarcely be considered settled yet, as the clinical and the pathologic evidence is contradictory.

Cantlie[13] has adduced a number of satisfactory reasons for a change in the nomenclature of the lobes of the liver. He describes the liver as made up of a right and a left "side," nearly equal in weight, and joined along a line leading from the gallbladder to the groove for the inferior vena cava.

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THE ETIOLOGY OF MALARIAL FEVER.[1]

BY GEORGE THIN, M.D.

MAJOR Ross, after several years' laborious work, guided by scientific instincts of a high order, and characterized by a tenacity and strength worthy to be put in comparison with the best feats—and that is not saying little—of other eminent Scotchmen whose names are indissolubly bound up with the history of our Indian Empire, succeeded in finding the key to a problem which had long puzzled the ablest and most careful students of the etiology of malarial fevers. The coincidence of the fever-season in malarial countries with the period of activity of mosquito-life, the danger of exposure to night air, night being the time when mosquitos most actively bite, had long struck observers. I find, from an admirable summary by Dr. Nuttall, published in the twenty-fifth volume of the *Centralblatt für Bakteriologie*, that the causation of malarial fever by insects was referred to by Nott in 1848, at New Orleans, as something already known, whilst in 1883, Dr. King published in America an excellent exposition of the mosquito-theory. This theory was again suggested by Laveran, in 1891, and also by Flügge in the same year. In 1892 Pfeiffer, in a paper on the Coccidium of the Rabbit, in which he showed that this parasite is capable of two different cycles of development, one being exogenous, mentions that Koch had suggested that a similar condition might hold good for the parasite of malaria, and that exogenous malarial spores might be conveyed to man through the agency of blood-sucking insects such as mosquitos.

In 1894, Dr. Manson, in his Goulstonian Lectures, brought this problem prominently before medical men in this country, and urged that a mosquito-theory was best calculated to explain the various conditions of the problem. His suggestion was that, similarly to what takes place in the case of filaria Bancrofti, in connection with which his own work is so well known and appreciated, the female mosquito fills herself with infected blood, lays her eggs some days later, and dies beside them. The water then becomes contaminated with the spores of the parasite of malaria, through which they might be taken into the human body, or might be breathed in the dust of dried-up pools, or the larvæ coming out of the eggs might eat it with the body of the mother; or the ground might become infected by mosquitos containing the parasite falling and dying on it. I take this brief summary from Nuttall's paper. King, Laveran, Bignami, Mendini, and Koch, on the other hand, considered that the infection is conveyed by the direct bite of the mosquito.

So far we have been dealing with theories, more or less suggested and justified by reasoning from recognized facts, but no direct proof had been forthcoming; whilst, on the other hand, there were conditions which seemed to render a mosquito-theory improbable. It was well known that mosquitos might prevail in abundance in localities in which no malarial fever occurred. It was pointed out to me, for example, during a visit I paid to Sicily a few years ago, that a very narrow line separated the fever from the fever-free zone, while mosquitos prevailed equally in both, and some

[1] Introductory address delivered at the opening of the Section of Tropical Diseases at the annual meeting of the British Medical Association, at Portsmouth, August, 1899, and published from advance sheets by courtesy of the Editor of the *British Medical Journal*.

distinguished physicians, of great experience in the climate and in malaria, to whom I spoke of Ross's earlier work and the importance it seemed to me to have, found these objections insuperable. Ross's discoveries at once and for ever removed these objections. From the time that he showed that to inoculate sparrows with proteosoma by the medium of the mosquito a special mosquito was necessary, it was evident that the next thing to do was to discover whether some particular genus or species of mosquito was the host of the parasite of malaria, and in August, 1897, Ross, when examining two "dappled-winged" mosquitos which had been fed on a patient who had crescents in his blood, found in the middle intestine certain round bodies which contained malarial pigment and which he rightly regarded as a development of the parasite.

While Ross was working in Calcutta with proteosoma, the probable connection between mosquitos and malaria was being studied from another side by the distinguished Italian naturalist Grassi. During the summer of 1898 he made an exhaustive study of the mosquitos that prevail in different parts of Italy, and he found that there were many places where culex pipiens, the predominating mosquito, was common, but in which there was no indigenous malaria; whilst in places where malaria occurs he found a large mosquito, called by zoologists anopheles claviger. This species, characterized by four spots on the wings arranged like a capital T, may, he says, be defined as the true talebearer of the presence of malaria. He has mentioned a number of malarial places in Italy in which this holds good, and he refers to malarial zones existing in the midst of nonmalarial districts. In these zones he found anopheles claviger, but in the surrounding free zones the mosquitos were of other genera. At one part where he found tertian ague very prevalent he found this mosquito enormously diffused, and he associated it with the fever. He finally came to the conclusion that in connection with malaria in Italy all mosquitos may be excluded except three species, the characteristic marks and habits of which he has described at length. Anopheles claviger, to which fever could be most clearly traced, bites sometimes during the day and night, but mostly half an hour before and half an hour after sunset.

Such was the condition of our knowledge of this subject when Bignami first succeeded in getting positive results, which supported his theory of the direct inoculation of malaria by mosquito-bites. His first experiments, in which a number of adult mosquitos were brought from a malarial station and set free in a suitable room in Rome, were made in 1894. The result was negative. Another series of experiments was begun early in 1898, and again had a negative result. A second experiment in that year, which was begun on August 24, also had a negative result; but, at the end of September, Grassi's observations showing that malaria in Italy was associated with the prevalence of particular mosquitos, and Ross's papers, showing that a special mosquito was needed as the host of the proteosoma of the sparrow, were published, and at once suggested to Bignami the course which he had to take. The same man who had voluntarily submitted himself to the experiment in August, and in which the results were negative, again submitted himself to experiment. Bignami gives an account of the history of this man, which shows that he had never been exposed to the chances of malarial infection. Guided by Grassi's information, mosquitos were first brought on October 10 from Maccarese, where fever prevailed, and were identified by Grassi as culex penicillaris, culex malariæ, and anopheles. The experiment begun on September 26, was suspended on October 3 for want of mosquitos, and was resumed on the 10th to the 14th with new supplies. On the 23d, a new but scanty supply was again got. During the last days of October, the subject of the experiment began to suffer from symptoms of fever, which developed in an unmistakable manner on November 1, and was cured on November 3 by hypodermic injections of quinin. By November 7, the patient was perfectly free from fever, and rapidly regained his appetite and strength. On November 2, the blood carefully examined gave a negative result. On the 3d, a few, young, ring-shaped parasites, moving or discoid, without pigment, with characteristic appearances of the summer-autumn fevers, were found, increasing in the course of the day, and being very numerous in the afternoon, when very fine granules of pigment were found on the edge. Dried and stained preparations showed the characteristic appearances of the parasite. In the district in Rome in which the experiment was carried out, there had not been a case of spontaneous fever within the memory of medical men, the center of Rome being absolutely free from fever. The type of fever was that which prevailed at Maccarese, from whence the mosquitos were brought.

This result has since been amply confirmed by further experiments by Bignami and Bastianelli, and it has now been conclusively shown that anopheles may be made to bite a man suffering from malarial fever, and if then kept at a proper temperature (30° C.) for the requisite number of days to allow the sporozoites to be present in the salivary glands, and then made to bite a healthy man, who is free from malarial fever; this man will, after the regular incubation-period, develop malaria, and it is important to note that the parasite, so conveyed from man to man through the mosquito, retains its specific type. If the source of supply gives in the first instance crescents, the mosquito conveys to the healthy man the corresponding fever of the summer-autumn type. They have also shown by microscopic examination that in the different stages of development in the body of the mosquito the crescents and tertian parasites retain their distinguishing characteristics. It further results from their experiments that very few bites are sufficient to convey fever; probably a single one sufficing. What is important is the species of mosquito and the stage of development of the parasite in its body. They infer that, in the course of the winter, the parasites in anopheles die out, and that infection is conveyed in the spring by the insects biting persons who suffer from relapses of fever from the previous season, and then biting healthy persons after the sporozoites have developed.

Grassi, Bignami and Bastianelli have made a series of observations and experiments on the development of the parasite in the body of anopheles, and have collected much valuable information regarding the habits and life-history of that insect. The development of the parasite of malaria in the body of anopheles seems to be identical with the development of the proteosoma in the "gray mosquito" of Ross. If the mosquitos are placed in a temperature of 14° or 15° C., after they bite, no development takes place. Development takes place at 20° to 22° C., but more slowly than at 30° C. The observations which they record refer to cultivations at the latter temperature. They have found that in order that crescents should develop in anopheles it is necessary that they should be ripe. For the first 40 hours the crescents are still mostly fusiform in shape, being almost identical with those observed in fresh preparations, except that they are larger and the pigment is differently disposed. In preparations stained at this stage a large nucleus, with a mass of central rounded or elongated chromatin, is observed, and the protoplasm is already vacuolated. After 4 days the parasites have become larger, the vacuoles more distinct, and the pigment less in quantity, and scattered. After 6 days the parasites are very large, and are seen in the thickness of the middle intestine bulging into the body-cavity, from which they are separated by the external coat of the middle intestine. Some of them seem to have slight enlargements, and a great number of small bodies can be distinguished in them, consisting of a minute portion of nuclear substance around which there is a

small quantity of protoplasm. These sporoblasts become so many sporozoites. There are, in addition, to be observed shining corpuscular elements of a fatty appearance which could partly be seen in earlier stages. After 7 days the parasite contains an enormous number of filaments disposed radially around several centers. These filaments (sporozoites) are 14 micromillimeters long, and are extremely delicate. In some individuals a clear homogeneous mass is to be distinctly observed; in some 2 or 3 such masses can be seen; in others none are visible. Pigment still exists, and is found in the clear masses. From the parasite the delicate filaments escape through the burst capsule into the body-cavity.

On the following days there are the burst capsules still found adherent to the intestine, and near them the sporozoites. These spread through the body-cavity, and at a later stage are found accumulated in great numbers in the tubes of the salivary glands, either in the cells or in the duct. In this stage the capsules or the remains of them may still be found in the intestine, but in some mosquitos the remains of them are no longer to be seen. In the capsules and in the salivary glands the sporozoites were immobile, but in one case they saw them moving.

The process is the same as that observed and described by Ross in the proteosoma of the gray mosquito, and is common in many sporozoa. It consists essentially of increase of volume, accompanied by capsulation, which ends on the sixth day by division of the cell-contents into very numerous small nuclei around which a little protoplasm is arranged, leaving a *nucleus de reliquat.*

In tertian fevers it is the mature nonsporulating forms which develop in anopheles, the body of the parasite being paler, less refractive, and a little larger at the same stage of development, as compared with the crescent. The pigment is less in quantity and finer. The first phases of life in the intestine of the mosquito thus show a distinction between the crescent and tertian. The full-grown capsulated parasite is about 70 micromillimeters in size.

In rare cases in specimens of anopheles taken from malarial houses and from stables, they found separate bodies of a varied form and length—some sausage-shaped, longer than a sporozoite, and with swellings, others about half the measure of a sporozoite, ovoid, straight, or curved. These bodies have a strong membrane of a yellowish-brown color, and contain a body comparable to a sporozoite, particularly conspicuous in the shorter forms. The various stages of the development of the membrane can be followed. These bodies are found in the midst of granular masses, which may or may not be capsulated. They are evidently analogous to spores which are found in other sporozoa, but they have not yet been able to trace their development. These bodies are evidently of a similar nature to the "black spores" described by Major Ross.

Bignami and Bastianelli describe minutely the mode in which the parasites of tertian fever in developing in anopheles can be divided into two kinds, a smaller, *mikrogamete*, containing the male element, and a larger *makrogamete*, containing the female element. Although no one has yet seen the entrance of a flagellum into a *makrogamete*, nor has followed the first consecutive nuclear modifications, they believe that the sporozoon which develops in anopheles is the fertilized *makrogamete*. This view is based on structural resemblances to allied sporozoa in which sexual phenomena have been observed.

The Italian observers describe some other appearances which, as observations of this nature are sure to be extensively carried out in many parts of the world, it may be useful to describe. In specimens of anopheles which have bitten malarial persons for some time, there are frequently found in the salivary glands cells which, instead of being purely hyalin, contain the following appearances. Sometimes the whole cell is filled with minute bodies apparently rounded or slightly elongated, massed in heaps. In other cells they occupy only the center part. Sometimes in a tube only a few cells are found containing these bodies, but more frequently one or more of these tubes are full of them. If the gland is ruptured these fusiform bodies escape. They are much shorter than a sporozoite, are finer, and are furnished with what resembles a nucleus. In some cases they find in the same cell in the midst of these bodies filaments which can be easily recognized as ordinary sporozoites which come from the capsules contained in the body-cavity. They were at first disposed to consider these bodies to be a retrograde process in sporozoites which had not been expelled from the salivary glands, but in a later paper they describe that they found similar appearances in the salivary glands of newly-hatched specimens of anopheles, and that they can be referred with certainty to a process of secretion of the glandular cells and partly to the result of the method of preparation of the specimens. In addition to the bodies that have been described they have found surrounding the intestine in the dorsal vessel tubular or jar-shaped masses of spores which apparently belong to sporozoa. Usually a certain number of them have a yellowish-brown color which resembles that of the yellowish-brown bodies which have an undoubted relation to malaria, and the various stages of the formation of the dark membrane can be followed. After many examinations, in which they never found that they were derived from the parasite of malaria, they now believe that these are parasites *per se*, and are not parasites of malaria.

They had previously described in the developing eggs of some mosquitos numerous bodies which they thought might be interpreted as the spores of the human hematozoa, but as after further study they had not been able to meet with any intermediate stage connectiug the parasite of malaria with the spores with eight sporozoites which they had discovered in the eggs, they consider that these also represent an independent parasite.

The discoveries of Kilburn and Smith, by which it was shown that the hematozoon which causes the Texas fever of cattle is transmitted from the tick which is its temporary host to a second generation of ticks, by which it is again conveyed to cattle—the resemblance between the hematozoon of Texas fever and the human malarial parasite being so great that the proof that the one was conveyed by an insect was considered almost a proof that human malaria must be similarly conveyed even before it had been demonstrated that it is so—rendered it necessary to investigate whether in anopheles also the parasite is transmitted from parent to offspring. The Italian observers have, therefore, made a diligent examination of this question. They cultivated the larvae of anopheles taken from houses that were infected with malaria, and when the new generation of winged insects was developed they allowed them to bite healthy people. So far these experiments have turned out negative. At the Hospital Santo Spirito a person who had never had malaria exposed himself voluntarily to the bites of newborn anopheles. He was bitten from March 30 to April 20 by numerous insects of this species, which were developed in a room in the hospital. He has nevertheless continued to enjoy good health. In the Laboratory of Comparative Anatomy, Professor Grassi and five persons belonging to the laboratory exposed themselves to the bites from numerous anopheles developed in the laboratory from larvae or nymphs taken at many parts of the Campana, from places near to dwellings in which malaria had run riot. The first bites dated from April 10. These five persons continued to allow themselves to be bitten daily without one of them becoming infected with malaria. So far (up to May 7) all these experiments had been negative, and up to that date only those anopheles that had bitten human beings suffering from malaria had been shown to be capable of propagating the disease.

There is a strong presumption that the yellowish-brown spores found in anopheles infected by human malaria are equivalent to the black spores described by Ross in the gray mosquitos which have bitten birds infected with proteosoma, and that they are the first stage of a phase of the existence of the hematozoon which has not yet been discovered. Their strong membrane suggests a capacity to resist external agents, and it is natural to suppose that they might be destined to infect the offspring of mosquitos or man direct through drinking-water. The harmlessness of the bites of young anopheles appears to show that they do not affect the offspring, and other experiments indicate that they do not cause malaria through drinking-water. One of the experimenters has swallowed a great many of these bodies at various times without any bad effects. These negative results have raised the question in their minds as to whether it may not be possible after all whether these black bodies may be degenerating bodies, an idea which seems to be strengthened by their irregular forms and size and their stratified appearance.

It will be seen from what I have related of the experiments of the Italian observers that the habits of anopheles claviger are matters of enormous importance to the human race, and it is interesting to know that these insects pass the winter in human habitations, and that during this period their habits of migration are so much in abeyance that, although the anopheles in the dwelling-houses are found charged with human blood and contain the hematozoa of malaria, those in the adjoining stables and henhouses do not contain the parasite. This has, of course, an important bearing on the question of prophylaxis—a wide question about which you will probably hear more in the course of the discussion which is to be introduced by Doctor Nuttall in the absence of Major Ross.

In order to understand the bearing of Grassi's investigations, it is necessary to bear in mind that the family of European culicidae can be divided, according to Ficalbi, into three genera, based on the following characters. The first genus, anopheles, has the palpi in both sexes about the same length as the proboscis; in the second, culex, the palpi about the same length as the proboscis in the male only; in the female much shorter; the third genus, aedes, the palpi in both sexes much shorter than the proboscis. Five species of anopheles have been admitted for Europe. The first there, without spots on the wings, are A. bifurcatus, A. villosus, and A. nigripes. The remaining two have the wings spotted—anopheles claviger (maculipennis) and A. pictus. Ficalbi thinks it is possible that the first three belong to one species, and Grassi states that from an examination of a certain number of individuals, collected from different species, he is of opinion that anopheles nigripes is simply a variety of anopheles bifurcatus. This reduces the species in Italy to three—anopheles bifurcatus, anopheles claviger, and anopheles pictus or pseudopictus. Grassi, Bignami, and Bastianelli have now extended their investigations to all the three species; and have found that the parasite of malaria develops in all of them, although in Italy A. claviger is by far the most important.

The geographical distribution of anopheles thus becomes a matter of importance. The anopheles claviger is widely diffused in Europe. It occurs in Scandinavia, Austria, Germany, Russia, Italy, and the adjacent islands, and both anopheles bifurcatus and anopheles claviger were described in 1825 by Stephens as existing in England. It would be interesting to know what are its limits of distribution in England at the present time, and whether it can be found in districts in which malarial fevers still occasionally occur.

In the list of mosquitos contained in *Bulletin* No. 4, New Series, U. S. Department of Agriculture, Division of Entomology, no fewer than seven species of anopheles are described as existing in the United States. Amongst them are A. punctipennis, A. claviger, and A. nigripes.

The same year that has seen the momentous discovery of the cause of human malaria—a matter of world-wide interest—has seen the establishment of schools for tropical medicine in Great Britain, of which the interest and importance will, I hope, not be confined to these islands. A center of investigation in the etiology and pathology of tropical diseases within easy reach of London is a subject of congratulation, for there are students and investigators to whom residence in London is a necessity, and who would not be able to utilize a medical school situated in the provinces. Liverpool, with its immense shipping and its intimate relations with the African Coast, supplies more patients suffering from tropical diseases than are to be found in London. It is very fortunate then that private munificence and the enterprise of the University at that port have established a system of instruction in tropical diseases which an ample supply of patients and skilled teaching promise to render of great utility, the close association at Liverpool of instruction in tropical disease with the medical and pathological teaching of the University being an advantage which is too evident to require comment. But if we take into account the number of patients suffering from tropical diseases, and the opportunities of clinical study and experience, the great military hospital at Netley stands out prominently as offering conspicuous advantages with which London and Liverpool cannot compare.

That a school with the advantages of Netley should have been confined to army surgeons in a country whose connection with the tropics is so close as ours would be a subject of astonishment if we did not consider the manner in which education has hitherto been managed in this country. Private enterprise has always to a large extent taken the place of Government regulation. That private enterprise by quickening competition, and by a process of survival of the fittest, has its merits and has, as regards general medical education, done well, cannot be doubted, but there are occasions in which private enterprise does not find its scope, because it is limited and cramped by service regulations and *esprit de corps*. It is hardly possible that if the advantages of Netley as a school for tropical medicine had been brought before the notice of the Government they would have refused to open its wards and its classrooms to civilians who intended to practice medicine in the tropics. Not only would no government have taken the responsibility of refusing such a request, but, if the facts of the case had been sufficiently made known, I believe there is enough statesmanlike initiative in Government circles to have led to spontaneous action on their part. Probably in no ether European country would such opportunities be overlooked. The time which most young medical men can give to acquiring special professional knowledge after they have qualified in medicine is necessarily limited. It is of great importance, therefore, that as many cases as possible should be utilized in their teaching. Although for the purposes of scientific investigation a few cases may be sufficient, and the scientific work of a school may be not only not in proportion to the number of patients, but may conceivably be in an inverse ratio, with the clinical instruction which is the main object of a school for tropical medicine it is quite different. From the time the young practitioner arrives in the tropics he will in most cases be left to work unguided. Clinical knowledge does not come by intuition, and cannot be got from lectures and theoretic teaching. It is of the utmost consequence, therefore, that the young practitioner preparing for the tropics should see as many cases as possible within the short time that he can devote to their study.

While Liverpool and Netley afford excellent schools for the study of malarial fevers, and at Greenwich there is clearly a

sufficient number of cases to enable the main features of the diseases to be studied, for the study of dysentery Netley and Greenwich afford the only available supplies, while the material at Netley far outnumbers that at Greenwich; and when we come to the most important diseases, as hepatic abscess and hepatitis, in which clinical instruction is of so much importance, Netley appears to be the only school in this country in which adequate instruction can be given. The prevalence of these diseases among the civilian population in the tropics, the mortality and ill-health which they cause, and the frequent difficulty of diagnosis and treatment, render it a matter of the greatest consequence that medical men who are called on to deal with them should have instruction in a large hospital where there are groups of cases, and as Netley appears to be the only school in this country in which sufficient material for the study of hepatic abscess and hepatitis occurs, a course there ought to be considered indispensable to every medical man who wishes or is obliged to thoroughly equip himself for tropical practice. As regards beri-beri, Greenwich and Liverpool afford almost exclusive facilities, the reason being that it is a disease which is found almost entirely among natives. For the study of Mediterranean or undulatory fever the only available hospitals in this country appear to be Netley and Haslar, both hospitals being supplied by soldiers and sailors from Malta and the Mediterranean, Greenwich and Liverpool offering no facilities for the study of that disease.

A CASE OF ACUTE DILATATION OF THE STOMACH.

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B. B., aged 17, was admitted to the Lancaster General Hospital on December 21, 1898, in the service of Dr. T. C. Detwiler. He was suffering from a fracture of the middle third of the left femur, caused by a bank of sand caving in on him, while working in a railroad cut. From what we could learn of the accident, there had been no direct force applied to any portion of his body save the injured thigh. On admission he seemed in fair condition, physical examination being negative with the exception of the fracture noted. He complained, however, in addition to the pain in his thigh, of pain across the hips and in the lumbar region. The temperature was 100°, the pulse 108, and respirations 24. On the second morning the temperature was normal, pulse 100, and patient complained of abdominal pain and was exceedingly restless. On the third day the temperature was 99°, the pulse 120, and respirations 20, and the patient complained of general abdominal pain, without tenderness. There was on this day a slight attack of epistaxis. He was freely purged, and on the next day felt much better. From this time until the ninth day, the temperature slowly rose to a maximum of 101.8°, being fairly continuous; there were numerous attacks of epistaxis, the bowels were constipated, requiring salines or enemas, and there was present vague, diffuse abdominal tenderness, no rigidity and but slight distention. The suspicion of typhoid was entertained and the boy was kept on milk-diet. On the tenth day his temperature became normal and continued so, his pulse, however, still ranging between 100 and 120.

On January 1, 1899, the service changed and the boy fell under my care. His condition then was apparently excellent. The leg was in good position and was not troublesome, the patient was bright and cheerful, his temperature was normal, and his pulse though rapid was even and strong. On the next day—the thirteenth after his accident—he complained of severe abdominal pain and vomited copiously, twice, a dark-green, bilious fluid. Relief followed free purgation. For the next week there was no pain or nausea, but obstinate constipation and a gradually increasing distention of the abdomen. On January 8, the vomiting recurred and grew persistent, the material being apparently pure bile and mucus. On January 10, with a normal temperature, and a weak pulse of 110, the distention was so marked as to embarrass respiration. It was confined to the left upper quadrant, running well down to the iliac region. His expression became anxious and his face pinched. High enemas were ineffectual in relieving the obstinate constipation; the boy's general condition was evidently becoming worse, and, with a diagnosis of intestinal obstruction, he was prepared for an exploratory operation. From the contour of the abdomen the seat of the obstruction was supposed to be well down in the left iliac region, but the bilious, nonfecal vomit indicated trouble well up in the small intestine. Just before operation the temperature was 98°, pulse 130, respiration 30.

A median incision was made below the umbilicus, which was afterwards extended well up to the costal margin. The soft, cushiony tumor was found to be an enormously-dilated stomach, bent on itself and filling practically three-fourths of the abdomen, crowding the collapsed and empty intestines down into the pelvis. No cause for obstruction could be found. The stomach was delivered through the incision and opened, giving vent to a quantity of gas and green, bilious fluid. The pylorus and upper portion of the duodenum were examined with negative results. The opening into the stomach was closed, the abdominal cavity flushed with sterile water, and the abdominal wound closed with three tiers of sutures. The patient reacted well from the operation, and on the next morning was very much more comfortable, the pulse still being rapid. He was fed by nutritive enemas, and did well until the second night, when the abdomen was found distending in the same manner as before. At noon the next day he began vomiting, grew weaker, and died at 9 P.M., 2 days after the operation and 23 days after the accident.

An autopsy was performed the next morning, and absolutely nothing could be found abnormal, save the distended and dilated stomach. There was no evidence of sepsis, both the abdominal and gastric wounds being in good condition. In accounting for the course of the case our theory is as follows: At the time of the accident, in addition to the fracture, he received some obscure injury to the great sympathetic abdominal ganglia. There was at first nothing indicating any trouble, save, perhaps, the backache, which was ascribed to superficial bruises and the enforced rigid position made necessary by the fracture. Whether from nerve-degeneration or capillary hemorrhage, the final results became evident only after two weeks' time and resulted in gastric paralysis with resultant dilatation. It is regretted that no microscopic study was made of the ganglia, though on gross examination they seemed normal. The operation was done under a mistaken diagnosis, but was effectual in relieving the existing symptoms, though they returned in a short time. Lavage should have been tried.

In my hospital service a somewhat similar case presented itself. A man was admitted with a compound fracture of both bones of one leg and a simple fracture of the other femur, sustained by falling through an open trapdoor. For about 10 days he was obstinately constipated, with great abdominal distention. But the paralysis seemed to affect the intestine in his case, and did not involve the stomach. In his case, too, the paralysis was immediate and resulted in recovery. Is it not possible that certain of those cases of abdominal distention with intestinal paralysis which occasionally follow major abdominal operations, are due

rather to injury of the great sympathetic ganglia than to sepsis?

From the literature at my command I have been able to collect the following cases:

Fenger, in the *Clinical Review* for February, 1898, (abstracted in the Year Book for 1899) reports a case of cholecystotomy in which on the fifth day after the operation the patient complained of abdominal pain, and vomited dark, green, bilious matter; there was no general tympany, but a soft cushion-like protuberance in the left epigastric region, extending 2 inches below the umbilicus. Tympany and pain disappeared temporarily after the use of the stomach-tube. The patient grew worse and died on the tenth day. The autopsy showed an enormously dilated stomach, contracted and empty small intestine and colon, and no gross or bacteriologic signs of sepsis.

Box and Wallace report a case in the *Lancet*, June 4, 1898 (also abstracted in the Year Book), even more similar to ours, in which a boy of 16 received a blow on the epigastrium. The abdomen became distended and rigid. There was pain and tenderness in the region of the appendix. An operation for appendicitis disclosed a dilated stomach which was incised and emptied, but death followed. And in the discussion Weber reported a case of acute dilatation occurring during an attack of pneumonia, the condition being mistaken for intestinal obstruction, and causing the death of the patient.

NOTE ON A CASE OF NERVOUS ERUCTATION STUDIED BY SKIAGRAMS.

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In hysteric and neurasthenic persons, nervous belching is a frequent and annoying phenomenon. The majority of writers accept Weissgerber's[1] explanation of the origin, viz., that in hysteria there is increased contractility of the stomach, which paroxysmally forces the gases through the cardia, which is more easily overcome than the tightly contracted pylorus. This theory is based on the assumption that eructation is an active and not a passive process. Bristowe[2] refers the origin of the phenomenon to contraction of the muscles of the neck which raise the gas from the esophagus. The latter theory is accepted in explanation of some cases by so competent an observer as Ewald.[3] The gases usually eructated are tasteless and odorless, showing that they are not fermentative products, but probably only the atmospheric air which has been swallowed. This view is supported by the fact that the stomach, however distended, could never wholly supply the large volume of gases. The following anamnesis is cited in support of the theory that the eructations are of esophageal origin. I fully appreciate that the citation of an individual case proves nothing, but when observed under most favorable auspices it goes far in enhancing the value of the observation. I know of no examination having heretofore been made with a similar object in view. In the average examination of the chest by means of the Röntgen-rays, that portion of the stomach which is in direct contact with the chest-wall, occupying the space of Traube, is obscured by the shadow cast by the spleen. There is a small proportion of cases in which a considerable area of stomach-illumination is shown by skiagraphy. This condition is engendered by the favorable position of the spleen which does not lie sideward and upward from the stomach but downward and outward from the latter viscus. It has been my good fortune to have met with, in my skiagraphic examinations, two persons in whom the illuminated area of the stomach in Traube's space corresponded with the normal dimensions of the stomach in that region. I attributed the phenomenon to one of three things: Absence or atrophy of the spleen or the presence of rudimentary splenules. In both patients the usual physical methods failed to demonstrate the presence of the spleen. In the examination of one of the individuals, the unusual phenomenon was utilized in studying the influence of a dilated stomach[4] on the position of the heart. The history of the second patient is succinctly as follows:

Woman with pronounced hysteric stigmata. The chief symptom is distention of the stomach with gas (*pneumatosis*) leading to paroxysmal attacks of dyspnea (*asthma dyspepticum*). It is on account of dyspnea that counsel is sought. The nervous belching is an incidental symptom, but it is persistent and troublesome. Skiagraphic examination shows no obscuration of the stomach in the space of Traube, owing, no doubt, to the absence of the spleen (agenesia), atrophy or rudimentary development. The stomach is very much distended, raising the diaphragm and dislocating the heart upward. The respiratory excursions of the diaphragm are slight and the respiratory dislocation of the stomach correspondingly shallow. By suggestion, pressure on an hysterogenetic zone causes the expulsion of gases to such a degree that the heart resumes its normal position while the stomach recedes, maintaining, however, a condition of moderate distention. Nervous eructations now take place and are loud and continuous. Prior to each eructation the diaphragm descends slightly, about one-fifth the distance of its descent in ordinary inspiration, but the contour of the stomach remains unchanged and continues so during the entire skiagraphic examination.

It is evident that if the stomach were in any way implicated in the genesis of the eructations, it would be manifest at least by some slight movement on the part of that organ, especially so when decided movements could be provoked voluntarily by irritation of the skin in the epigastric region. On this account, and owing to the fact that introduction of the stomach-tube into the esophagus by interfering with its contractions caused the eructations to disappear even with closed mouth, the origin of the belching in this particular patient must be referred to the esophagus.

[1] *Berliner klin. Woch.*, No. 35, 1878.
[2] *Practitioner*, 1883, p. 61.
[3] Diseases of the Stomach, 1892, p. 417.
[4] Transactions of the California State Medical Society, 1898.

RECTAL CARCINOMA WITH SUBSEQUENT COLOTOMY.[1]

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WHILE rectal carcinoma is one of the most desperate pelvic conditions which confronts the surgeon, much comfort and additional life can be given, all of which would seem to depend upon the time of attacking the new growth. There is no reason why epithelioma of the rectum should not be as completely removed as epithelioma of the nose or face, if subjected to the same treatment at the same period of development, unless it be that rectal tissue be more easily encroached upon.

The latency of carcinoma of the rectum is perhaps more responsible for the delay than any other cause. This cause can only be overcome by more frequent and thorough inspection of the rectal mucous membrane, with the most radical means of the removal of any suspicious growth. If friction is the cause of their development it would be natural to suppose that carcinoma would be the most frequently found in cases of constipation, but there is no evidence that such is the case.

Excision should be done as often as is necessary to insure comfort and the evacuation of the bowel. When this is not practical, inguinal colotomy should be resorted to. The object of this brief paper is to elicit a discussion upon this question and to report a case in which excision was made somewhat earlier than usual, with a subsequent colotomy.

Excision of the rectum may be done from below, with or without the removal of a portion of the coccyx or sacrum, or it may be done through an incision into the peritoneal cavity over the crest of the ileum.

CASE.—Man, aged 39, white, farmer, stout and robust. Consulted me during the early part of June, 1896, stating that he had experienced some pain at the time of evacuating the rectum for several months. Examination revealed a nodule upon the left posterior aspect of the rectum about three inches from mucocutaneous border; the center was soft and blood would flow from it when but slightly manipulated; the area involved was not larger than a silver half-dollar. Under the influence of chloroform two-thirds of the circumference of the rectum, including the new growth, was removed from the sphincter to within two inches of the sigmoid, thus leaving a strip of muscular and mucous tissue one-third of the circumference of the rectum and extending from the sphincter to the sigmoid, so that stenosis would not be complete. No arteries or veins were ligated in this maneuver, but the rectal cavity was firmly packed with gauze saturated with 98% alcohol. This dressing was removed at the end of the third day and a new one of the same character replaced. On the sixth day following the operation he yielded to his desire to go home and escaped from the hospital, walked 7 squares, rode 60 miles on a railroad train, mounted a road train for 10 miles, and then walked 1 mile, all without any serious trouble. His condition remained very satisfactory for several months, having gained somewhat in flesh and having but little trouble in evacuating the bowel. During the following November and December much pain was experienced, so that it was found necessary in January, 1897, to make a colotomy. There was at this time almost complete occlusion of the rectal opening, with watery discharges and occasional blood. Chloroform was again given and a left colotomy made. The gut was brought out over a glass rod and left intact until the fifth day, when a transverse incision was made. He returned home at the end of 30 days and attended to his business for several months with comparative ease. The evacuations through the artificial opening became periodic, while the new growth became larger with all the conditions and symptoms of decline, and dissolution took place in December, 1898, 23 months after the colotomy, and 31 months after the excision.

[1] Read before the American Proctologic Society, Columbus, Ohio, June 6–9, 1899.

TO REMOVE BLOOD FROM THE CLOTHING.

BY J. T. RUGH, M.D.,
of Philadelphia.

SEVERAL years ago, while contemplating the removal of a large bloodspot from my clothes, I recalled the action of hydrogen peroxid upon albuminous substances during operations, and immediately applied it to the spot in question and was delighted to see the stain entirely removed. Since then I have used it many times and always with the same results. The earlier the peroxid is applied after the bloodspot is received the better the effects, but I have used it on spots more than a week old, and they were completely made. It should be used in its full strength, and, after oxidation has ceased, it should be wiped off and another application made. Several such trials may be necessary before the stain disappears, but the process may be hastened by rubbing with the finger or a cloth while oxidation is in progress. If hot water has been used or anything which will coagulate the albumin, the peroxid will not remove the stain, but otherwise its action is all that could be desired. I have frequently removed spots from my shirt-front, collars, and cuffs, and after the place was dried there was no evidence of any soiling having occurred. Quite recently I removed a very large stain from the carpet, following an operation in my office. I may add that I have never seen clothing bleached by the peroxid during the removal of spots.

An Absorbable Intestinal Coupler.—Jacob Frank (*Chicago Medical Recorder*, July, 1899) describes a new absorbable intestinal coupler which is based on the Murphy button, but is made with the idea of overcoming the objection which is found by reason of its nonabsorbability and its action as a foreign body in the intestine. "The apparatus consists of 2 decalcified bone collars with four needle-hole perforations at the apex or shoulder of each collar, and one piece of ordinary pure gum rubber tubing, the kind used for drainage, large enough to fit inside of the coupler. It is prepared for use in the following manner: A collar is slipped over a piece of rubber hose until the apex is brought to a level with the end of the tubing, when an ordinary medium-sized curved needle, threaded with silk, is carried through each opening and tied. This fastens the collar to the tube. The other collar is next fitted snugly to the one already fastened, and is then in like manner sewed to the other end of the tube, and all placed in absolute alcohol until they are to be used." Each end is inserted into the lumen of the intestine in succession, and the gut crowded down between them puts the rubber tubing on the stretch, so that its pressure produces necrosis. The lumen of the tube permits the flow of the intestinal contents, and when in time the bone is absorbed nothing remains but a piece of tubing, which may in time be absorbed if it does not pass. [C.L.L.]

The Philadelphia Medical Journal

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See Advertising Page 19.

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The Illegitimate Advertisement Bribe and the "Christian" Daily Paper.—The *Northwestern Christian Advocate* is delightfully ironical as regards the cost of a daily paper conducted in the way that "Christians" "are supposed to want." This kind of paper, it avers, is perfectly within the bounds of possibility; to resoul an old paper would cost less than to start a new one with the right kind of a soul. It says:—

A special distinctive, new Christian daily paper will consume $1,000,000 in a short time if it prints all legitimate news and refuses to print illegitimate advertisements. A certain proportion of existing daily papers can be purged at one quarter of the cost of an equal number of Christian dailies.

Quackery is not the exclusive possession of any State or any nation, but an epidemic disease of widespread distribution. Official statistics show that on January 1, 1898, there were throughout the province of Saxony in Germany, 1835 physicians and 785 quacks, the proportion of one to the other varying considerably in individual districts. Thus, in not less than 6 districts the quacks outnumbered the physicians, and in a number of others the figures were unpleasantly close. After all has been said it must be concluded that a portion of the people wish to be fooled, and there are always those who are ready to accommodate them.

An Illuminating Bit of History.—About a thousand years ago, in a far-off land, the lay proprietors of a popular and well-established medical journal required the services of a physician as editor. The physician accepted the offer and entered upon his duties. Very soon it became clear that secret reading-notices must go in the original article pages, and then was forced into the open the fact that advertising firms had contracts demanding the appearance, at least twice a year, of articles eulogizing certain preparations, in the regular reading-columns, and as if the bona fide contributions of medical men. The new editor at once resigned, but another was speedily found to take his place, and, as of old, physicians continued to subscribe for this "professional" "medical" journal.

Spanish-speaking trained nurses are beginning to be called for—a natural result of our territorial conquests—but it strikes one as somewhat strange that notwithstanding the intimate relations historically and topographically with Spanish-speaking people no such nurses are to be found. We recently had an inquiry for a trained nurse, capable by experience, character, and education, of taking charge of a training-school in one of our one or two thousand island-dependencies. Inquiry of several large training-schools brought the reply that no Spanish-speaking nurse had ever been graduated from the school named. There will be an opportunity in the future, we believe, for such women. Will it be utilized by those of Spanish birth, or by the girls of the United States who have the ability to acquire the Spanish language?

The cumulative effects of digitalis have long been a matter of contention among clinical and experimental therapeutists, but it is doubtful whether the manifestations so qualified are really due to the causes assigned. Nor has the discussion as to the pharmacology of digitalis yet resulted in unanimity of opinion. A rather interesting controversy has been going on as to whether the active principle of digitalis is digitalin or digitoxin. The former, however, seems more nearly than the latter to manifest the physiologic activity of the crude drug. Digitoxin, besides, when injected beneath the skin, causes local irritation, loss of appetite, nausea, vomiting, epigastric pain, but the physiologic effect was not manifested until the lapse of 6 hours. In a consideration of this subject in the *American Journal of Pharmacy* for August, England suggests that the apparent cumulative action of digitalis may be due to the slowness of absorption and of elimination of digitoxin.

Resultless and Unscientific Science.—For many years we have been periodically amused and disgusted by the reports sent out by foreign ophthalmologists of the examinations of the eyes or visual acuity of school-children or students. Why men are willing to do such an amount of work is a marvel only exceeded by the fact that they will do it in such a slipshod way. The last report of this kind that has reached us is that of Dr. Hermann Cohn, concerning the acuteness of vision of 50,000 Breslau school-children. Of this number 5,426 were deficient according to the tests instituted. But the author frankly adds: "The causes of this subnormality in acuteness are unknown to us. We do not know how many were myopic, how many were hyper-

opic, or how many had weak and diseased eyes." Of what benefit to science or humanity is such unscientific and useless work? Better one hundred examinations thoroughly and accurately made than these 50,000, concerning which the investigator himself offers the foregoing confession.

They that Go Down to the Sea in Ships.—According to an official report, there have been during the past year 419 English ships lost, and in the last 22 years, excluding men-of-war, 13,207. In only the part of this loss in which returns were obtainable, 38,382 persons lost their lives, 32,854 being of the crews, and 5,528 of the passengers. The average annual loss of life has been 1,744. This, it must be remembered, is the loss in only one nation, though it is the greatest one in regard to its mercantile marine. It is gratifying to know that the organization of the life-saving service, meteorologic bureaus, and the increased perfection of the art of shipbuilding, are having a slow but certain effect in lessening the mortality. But it must be confessed that it is altogether too high, due undoubtedly to the facts of imperfect legislation, and to evils which legislation cannot reach. Loss of property in this way is equal to an indirect loss of the life or lives that went to the creation of the property, and this, with the deaths directly caused by shipwreck, is a great drain upon the vital resources of civilization.

Medical literature mailed direct to the laity is a scandal that seems to be growing more and more frequent. We do not refer to the quacks and their almanacs, but to pamplets and circulars made up of excerpts from medical articles in medical journals, and by reputable authors. It may be said that these circulars by mistake are sometimes addressed to nonprofessional persons, and occasionally this may be true. That it is not so always we are sure—as is also the reputable physician who writes us the following letter:

> Some weeks ago I found in the hands of a girl of twelve of this town a pamphlet mailed to her address in an open envelope. Printed in a corner is the following card: "The Rational Treatment of Genito-Urinary Diseases. If not delivered in 10 days return to —— —— ——, —— —— St., New York City, U. S. A." The pamphlet is made up largely of excerpts from medical journals on the use of —— —— in genito-urinary diseases. Among the authors quoted I notice the names of —— —— —— and —— —— ——, with others of equal prominence. Of course such use of their names is not with the sanction of these gentlemen, but it appears to me that these facts should be called to the attention of the profession. A letter to —— —— elicited a reply which evaded the question and embraced a covert insult. I have also called the attention of the U. S. Postal authorities to the matter.

Strikes and Humanity.—That was a dastardly outrage committed recently by striking motormen in New York City, who struck with a brick and beat severely a physician, who, in response to the information furnished by a passer-by, went to the aid of a motorman and bandaged a wound of the head, in the face of threats of violence. In the boycott following the street-car strike at Cleveland a physician was warned not to attend the dying child of a nonunion man; but to his credit be it said he disregarded the order, and responded to the call of duty. Druggists also were admonished not to sell supplies to nonunion men. Acts like these are indefensible and must repel rather than invite sympathy and support. With regard to the conflicts between labor and capital, this is not the place for discussion; but we cannot refrain from an expression of opinion, that each individual in a community must, by right and law, be permitted to pursue his own way, in so far as he does not trespass upon the rights and privileges of others. No good cause was ever furthered by lawlessness, brutality and disregard of equity and justice. Tyranny in any form inevitably leads to revolution and its own overthrow.

The duties of boards of health are constantly increasing in importance and in scope, and they promise to comprehend in the future even more far-reaching measures for the protection and the preservation of the public health than at present. The diversity of work performed and the amount of good that can be accomplished by a progressive and well-organized health-board are shown in the report of the Health Department of New York for the quarter ending March 31. During this period there were 16,718 deaths, and the mortality-rate was 18.84. The number of marriages was 6,831, the number of births 20,180, the number of still-births 1441. Inspections by the sanitary police were made to the number of 88,048; 9,377 cases of contagious disease were reported to the medical inspectors; 13,497 rooms were fumigated or otherwise disinfected, 15,282 pieces of goods were disinfected, and 1,330 pieces were destroyed. Antitoxin was administered in 171 cases of diphtheria, of which 110 terminated in recovery. Eight hundred and fourteen schools were inspected, 28,892 visits being made, and among an average attendance of 389,304 pupils 41,043 were examined, and 2,536 were excluded. 268,520 food-inspections were made, and 1,402,773 pounds of milk, fruit, meat, fish, and other kinds of food were condemned. The Sanitary Bureau made 451,787 inspections and reinspections; 16,005 dead animals were removed, and 987 barrels of fish, 270 barrels of poultry, 608 barrels of offal, as well as 4 quarters of horse-meat, 176 quarters of veal, 68 quarters of beef, 8 quarters of mutton, 8 boxes of meat and 5 of game were seized in the markets and slaughter-houses. The community and the State can scarcely spend their money to better advantage than to put into the hands of intelligent and unselfish boards of health as large amounts as may be needed to carry on the disease-preventing and life-saving work in which such bodies are constantly engaged.

Impulsive Suicide.—The doctrine of psychopathic impulses will be fortified, in some people's opinions, by the case of the drunken man who recently jumped from the Brooklyn bridge. To a superficial observer the act may appear to have been purely impulsive, or committed, at least, in response to suggestion. Anyhow, it was a curious psychologic freak, and well worthy of a careful analysis.

The bald facts of the case are as follows: A man, under the influence of liquor, was crossing the bridge on a car. He overheard a child, sitting in front of him, ask her father several questions about persons who had jumped off the bridge, and finally express a wish that she could see some one do it. Whereupon, exclaiming that he would gratify her, the man jumped from the car, climbed the rail, and threw himself from the bridge. It was all done in a moment; the suggestion, whatever it was, had acted like magic, and the automaton (shall we call him such?) had almost instantly evolved what might have been a tragedy from a drunken farce.

Such a case suggests two possible explanations, one of them rather inclusive of the other. In the first place, the idea of suicide was probably not a new one to this man. It was probably lying dormant in his mind, and required but a slight jar to rouse it from its slumber. These impulses, in fact, are not impulses at all, but merely the sudden awakening or quickening into life of some immature conception. Suicide is one of the impulses that does not fructify in a day. It is not often an obsession in a true sense, but rather a half-formed resolution which, as alienists well know, does not in every case get through the formative stage. Hence impulsive suicide is a misnomer; there is probably no such thing, but what is called so is merely the sudden denouement of a secret motive—the rush of a dominating idea to the surface and to action.

In the second place, alcoholic intoxication furnishes a most favorable ground in these cases for the action of suggestion. Alcohol, as is well known, is an hysterogenous poison—and hypnosis is but a form of hysteria. The man who jumped from the bridge was in a state of high suggestibility because he was acutely intoxicated. With the dominant idea of suicide in his mind (a theory supported by the testimony of one of his friends) he needed but the weakening action of alcohol upon his higher brain-centers, and the suggestion conveyed in the idle talk of a child, to lead him to commit an act from which in his sober moments he probably would have shrunk with terror. Naturally the same reasoning can be made to apply in those cases of homicide, apparently motiveless and impulsive, occurring in alcoholics, which are so difficult to define in medicolegal phraseology.

Habeas Corpus and the Smallpox.—Although the act of habeas corpus, passed by Parliament in 1679, did not, according to Hallam, introduce, as is commonly believed, a new principle of liberty into the English Constitution, it is, nevertheless, generally supposed to be one of our chief bulwarks against all forms of illegal restraint. Such a fond superstition has this come to be that many persons, even including some lawyers, are firmly persuaded that the writ of habeas corpus can liberate anyone from duress unless the prisoner is an actual convict under sentence of the law. The fact, therefore, is interesting to note that the demands of public health are being gradually recognized as of even more importance than the traditions which have come down to us with the act of habeas corpus. Lunatics and their lawyers, for instance, not unfrequently find that the judges do not rely much upon the teachings of habeas corpus when they are asked to let an insane man loose upon the public after two physicians have certified that he should be kept under restraint. But now comes a still more noteworthy quashing of the writ of habeas corpus in the interests of public hygiene, and by a Philadelphia judge.

It appears that several people were removed to the Municipal Hospital from a house in which one of their number had been taken ill with smallpox. The others in the party did not have the disease, but were simply detained as a matter of precaution until the period of incubation should have passed. After a lapse of a few days these unwilling prisoners secured a writ of habeas corpus from Judge McCarthy; but he, having heard the testimony, but prudently not having allowed the suspects to come into Court, dismissed the writ and decided that the health of the public demanded that the petitioners should remain for a while longer in the hospital. This seems like commonsense applied to public hygiene, but how much it will jar the foundations of the law of liberty we do not know. Many interesting questions are raised by it, as to who, for instance, are liable, and under what circumstances, to be forcibly detained in a "pest-house" against their will. This is a large subject—too large to discuss here in detail—but we think the fact is noteworthy that under the influence of modern science and hygiene, one of the ancient legal processes for securing personal freedom is thus somewhat ruthlessly put aside.

Suggestions to Writers, No. 31. How to Make Temperature-charts for Illustrations of Articles.—We must once again speak of the method of preparing temperature-charts for illustrations of printed articles. The temperature-chart, as made for clinical purposes, cannot be used by the photographer and engraver. A new one is required for illustration of a printed article. This causes possible errors, and certain delays and expenses to the journal publishing the article, so that we would advise writers to redraw the chart in such a way as to economize space, to give a better artistic as well

as scientific effect, to aid clearness and ease of understanding, and legibility in reading. There are several things to be kept in mind :

1. Cut off the unimportant and blank parts of the paper, the headings, etc., so as to crowd the temperature-line and other necessary details as closely together as possible. Many things often written in the chart are much better expressed in "the legend" (*i.e.*, the explanation in fine type below the cut) or in the body of the text itself.

2. Use charts ruled only with black ink, and ruled clearly and sharply. Some manufacturers of blank charts use colored inks in some of the horizontal or vertical lines. Use black ink also in all writing, lines, or figures made upon the chart. Draw the temperature-line, the essential feature of the chart, exceptionally heavy and clear.

3. Make all writing and figures required two or three times the usual size of letters and figures in ordinary writing. This allows the photographer to reduce the whole chart uniformly to one-half or one-fourth the size, and still all details will be clear. Do not use the "running" or cursive style of writing (as in letter-writing), but separate each letter and "print" them, as the children say, in Roman fashion.

4. When more than one line is required, as, *e.g.*, to record the respirations, pulse-rate, or other synchronous phenomena, do not use differently-colored inks, but different kinds of interrupted lines, in black ink, as, *e. g.*, one continuous, one of dashes, one of hyphens, one of dots, or combinations of dots, dashes, stars, etc.

5. It is better not to use any of the blank clinical charts in common use for redrawing, but to take a large sheet of unruled paper, and rule it horizontally and vertically in squares of about $\frac{3}{16}$ of an inch. The changes or angles in the direction of the temperature-line may be indicated by pin-pricks through the paper before the line itself is drawn.

6. Get some enterprising publisher to devise and place on sale blank charts corresponding to the foregoing suggestions, not for clinical purposes, but for writers who wish to reproduce charts with printed articles, or to show to audiences at medical society meetings, etc.

Medical Sermonets, No. 5. The Newspaper and the Doctor.—An old and wise "newspaper man" has written : "The man who talks with an interviewer is lost. . . . If an interview with me is reported, it may be safely assumed, first, that I have not been interviewed at all; next and last, that the opinions, or at least the language, attributed to me are not mine. What journalism now chiefly needs to sweeten it and give it dignity is a decent respect for the personal privacy of all men." That, as we said, is the language of a man concerning his own guild. In applying the lesson to physicians it needs to be added that of all men in the world they have greatest reason to beware of the newspaper reporter and of the newspaper. It is hard for any layman to understand the reasons, most plain to ourselves, why a physician should not advertise, or, what in his case is the same thing, should not delight to see his name, fame, qualities, and exploits set forth in the morning papers. It is simply impossible for the typical newspaper man to understand it. Tell him, *e. g.*, that a physician can have nothing to advertise but himself, his superior knowledge and skill, and he will reply by asking, "and why should he not advertise these things?" If you reply that a gentleman does not brag, he will intimate pretty plainly that you are an ass. The newspaper man is sometimes so sure that the doctor is possuming that he will conscientiously, as it were, disobey the instructions of the interviewed in regard to personal praise and mention, believing that that is really what the hypocrite in his heart desires. Now, every good physician detests all mention of himself in the newspaper of an advertising sort; every wise one, though not good, knows the harm it does him; every sharper, neither wise nor good, plays the game but tries to make the world believe it was not of his own doing or by his consent. The very hypocrisy proves the evil nature of the custom. When anything is said of a physician in the newspapers that he would not set forth in a meeting of his equals in a medical society, that is advertising. If he would thus talk of himself and his deeds to his fellows it is scientific matter of which generally the public is no judge, and thus again in the newspaper it is out of place and is an advertisement. The possible exception is as to public hygiene and preventive medicine, and in these matters the naming of the physician is of no service to the public and would better be omitted.

Among the excuses that are made for the custom of inserting newspaper "puffs" of a physician, his pictures, accounts of his goings and comings, his operations and discoveries, it is said that when he has attained a certain eminence he deserves public reward and attention, he is, as it were, public property. But before admitting the validity of the argument we must first know if it is by his consent and desire, and if he authorized the exact wording, furnished his own photograph, etc. If so, there is to follow a reckoning with his profession. If he did not authorize or desire it what right has any paper to use a man's name, character, religion, personality—all that he must value dearest, without his consent? It is atrocious! Imagine, for example—an occurrence of last week in a Philadelphia newspaper—horn-blowing of a certain physician's religion! Imagine a really religious man reading such an account of himself. If the newspaper is so stupid that it cannot understand that the deed lessens the respect entertained for a physician by his fellow-workmen, lowers him in professional standing (because the suspicion will remain that it was inspired or at least permitted), that does not excuse or lessen the injury. The "puff" inspired, permitted, or published without knowledge of the bepuffed, is positively wrong for the reasons suggested, but it has a negative and indirect evil result in the injustice to the less famous and younger members of the profession. It spurs some of them as by evil example. They say if the big man can thus advertise they must "get even" by other methods. But the greatest harm is to the large majority of modest and honorable men who will not stoop to tricks, but who are all the more deeply hurt by the knowledge that the famous man is not so needful of patients as they, that the popular rage for the best, "the very best doctor," is silly, and that it is altogether an unfair and despicable advantage to take.

There is one way whereby the whole disgrace may be

ended: A physician who despises the newspaper doctor may definitely and specially notify each one of his city papers that his name is never to appear in it without his special and written consent. Or, each local medical society can so resolve and order as regards its members, and forward lists of the same to the managing editors. These are hardly likely to disobey, and if any should there are legal and financial methods of securing obedience. In this way, at least, physicians can easily determine who are playing the contemptible tricks of the secret advertiser.

As a profession we need a finer and firmer esprit de corps, the blowing through our guild of a purer and nobler breath of the spirit of self-respect that shall not only make medical huckstering and newspaper claptrap contemptible, but that will sweeten and dignify our lives as with a professional religion.

Special Articles.

RECENT ADVANCES IN PRACTICAL MEDICINE.[1]

Address in Medicine at the Annual Meeting of the British Medical Association, held at Portsmouth, August, 1899.

By SIR RICH'D DOUGLAS POWELL, Bart., M.D., F.R.C.P.,

Physician in Ordinary to Her Majesty the Queen; Physician to Middlesex Hospital.

It must be conceded that medicine has shown no lack of industry in utilizing every advance in science and art available to the purpose. It is probable that the introduction of photography into clinical medicine, and the more general use of bacteriological examination and surgical exploration, may, for a time at least, dim the prestige of auscultation and palpation in diagnosis. It should not be so. A great responsibility rests upon the teachers of medicine of to-day to keep up the refinements of auscultatory and tactile diagnosis with all the additional precision that instrumental education by graphic methods and surgical introspection will afford. The flexible stethoscope, which has come almost exclusively into use within the last 20 years, although a valuable and convenient instrument, is not one calculated to advance the refinements of auscultation. While it intensifies sounds it practically obscures impulses. The delicate mechanism of the ear can appreciate through the medium of the rigid stethoscope shocks and impulses not to be recognized by the hand, and which are lost in transit through an elastic medium. Thus the sense of touch in auscultation is, if I may use the phrase, in a certain degree becoming lost to us. I have known the diagnosis of an aneurysm missed in this way, and many of the points in cardiac conditions, especially exaggeration or otherwise of beat, shock, and accentuation-sounds, estimation of force, etc., are better recognizable with the rigid stethoscope. It is all-important, of course, to maintain our sense of proportion and comparison by adhering mainly to one instrument, but the tactile element in auscultation cannot be replaced by any equivalent means of diagnosis.

Happily we already see a revival of the appreciation of the pulse in practical medicine, an appreciation increased, not obscured, by the careful and detailed study and comparisons rendered possible by graphic recording methods, which very methods for a time threatened to discourage direct tactile observations. Except in the clinical wards and the physiologic laboratory the day of the sphygmograph may be said to be already past, but for the purposes of exact instruction with regard to the palpable features of the pulse it and all allied instruments must ever remain invaluable. It is an instrument *par excellence* for the school in the hands of an expert rather than for ordinary clinical use. The clinical habit of listening to the heart, not only with the view of hearing morbid sounds but to estimate work-value, is also of recent acquirement, and thus we are coming better to perceive the true function and value of instrumental methods to illustrate, record, and instruct in the more accurate use of our naked senses.

The late Sir William Jenner, in an address before this Association 30 years ago, classified the thermometer with the stethoscope in clinical medicine, and when we are sometimes led astray by pyrexial charts it is not the thermometer that is at fault but our insight that is imperfect. Not long ago the thermometer came almost to be regarded as a divining rod and a sole and sufficient indicator in febrile affections, and the temperature mistaken for the disease has been pursued round the dial by antipyretic medication and measures to the spoiling of the chart, the detriment of the patient, and the disappointment of the doctor. It is only comparatively recently that we have fully recognized that it is merely the exuberances of temperature or the abnormal effects produced upon the nervous system of individual patients by temperatures otherwise normal to diseased conditions that can be wisely treated by antipyretics. A better knowledge of the habits and vital history of the microorganisms upon whose doings pyrexial phenomena so largely depend, informs us that their initial attack and greatest activity is at the lower ranges of temperature and that the higher ranges, the result of such activity, are more or less inhibitive to their well-being; so that given a febrile disease, we must accept without necessarily interfering with a temperature normal to it. Thus we have often observed a pneumonia or an influenza treated too vigorously with pure antipyretics pursue an abnormally stormy and adynamic course.

The clinical study of anomalous fevers has gradually convinced us that in their development and full activity specific poisons may overlap one another in the same illness; thus the typical *crescendo* temperature of the early period of an enteric fever may be masked by the fluctuating pyrexia due to the toxin of an associated sepsis, or by the more abrupt incidence of a pneumonic or a rheumatic fever, and it is only as the course of these overlapping complications draws to a close that the more continued latent fever dawns through their misleading perturbations. In the later periods of enteric fever, again, the pyrexial process is normally overlapped and modified by blood-contamination from the intestinal lesions sometimes amounting to pyemia. A rational treatment of specific diseases must be guided by the recognition of these superfactors. The rational and most successful treatment of tuberculosis is for the most part unwittingly directed to attendant phenomena which are secondary, and which for brevity's sake we call septic. Tubercle in tissues at rest and protected from impure atmospheric contamination tends to obsolescence; our antiseptic treatment and our pure-air methods are mainly operative against such secondary infections.

Bacteriology.

It must be confessed that bacteriology in its application to diagnosis and treatment in practical medicine is yet in its infancy; but it is a very robust infancy, full of promise, the

[1] Published from advance sheets by courtesy of the Editor of the *British Medical Journal*.

complete fulfilment of which none of us will live to see. It is a matter for congratulation to see the departments of research and clinical observation approaching to closer communion in our great hospitals, a cooperation which cannot but be to the great advantage of the physicians, and scarcely less so to the research expert. We are thus acquiring daily a more accurate knowledge of organized poisons and we are interpreting better the phenomena they produce.

We are also coming to recognize better the third circumstance which renders virulent the specific microbe to its host. It has long been clear to every observant physician who has on the one hand even superficially kept in view the results of bacteriologic enquiry, and who has thought upon the incidences of such infective diseases as he happens to meet, that we carry about with us in our accessible mucous tracts, and especially in our naso-oral and respiratory passages, amidst other unconsidered trifles and as yet unclassified germs, samples of the organisms specific to many diseases. We are tenanted by these varied organisms from time to time in small colonies or singly, rendered inert only through want of opportunity. There is a natural cleansing if not antiseptic secretion from the healthy nasal membrane which preserves it from contamination by the numerous organisms which abound in the nasal avenues, so that mucus taken from the central membrane of the nose in health may contain few or none. Other bacteria surround us on all sides, and from time to time obtain a temporary but abortive lodgment within us. It is not, however, enough to have the poison-germ on the one hand to acquire the disease on the other; there are intermediate or antecedent circumstances of dosage, acquired susceptibility, or that subtle malformation of tissue in certain organs which is inherited, and renders them weak in resistance to certain forms of attack. Let a period of depression come over us, involving some slight change in our blood or tissues, some local or general alteration in our chemical or vital functions, and one or other of these organisms may receive the opportunity for aggressive cultivation. We virtually know that this is so in the case of a common cold. Acquired by a momentary chill at an open door, or through wet boots, such a catarrh becomes at once a highly contagious disease, and will "run through the house." There can be no doubt that the catarrh is associated with the cultivation of an organism; it is equally probable that that organism must have preexisted in some part of the nasal surface. Does some vasomotory disturbance bring about the local conditions of increased heat and moisture needful for that particular form of microbic cultivation, or is it merely depressed vitality that makes the host susceptible? No one, so far as I am aware, has yet condescended to work out the bacteriology of a common cold. Yet it is the type of a large number of more important diseases, and carefully investigated it would, I believe, be fruitful in side-lights upon their etiology and prophylactic treatment.

There are many people of somewhat feeble vitality whose complaint is that they are constantly catching colds. Such attacks are due probably to the cultivation of successive crops of an ever-present organism. We have little power in attacking the organism; we might as well do battle with a sunbeam. Our treatment is to fortify the host, although, meanwhile, some local applications of a cleansing kind will in these, as in hay asthma, help to protect from the poison. Whatever the true bacteriology of a common cold may be, this humble malady is one of the most common starting-points of more important respiratory diseases, both as regards initial and secondary attacks.

The tendency to rheumatism runs in families. It is hardly possible to conceive that chorea is not a manifestation of the rheumatic poison, which is most probably a microorganism. A mental shock is the usual intervening etiologic factor in chorea, which presumably weakens the resistance of the nerve-centers upon which the toxic influence falls. It is hardly possible that the mental shock and infection should have coincided in time; until more exactly informed we can only provisionally assume that the infective agent was indefinitely preexistent. This intermediate quantity in infective disease requires to be yet more carefully thought out in regard to measures of prevention and even of treatment.

In regard to serum-therapeutics, it has for some time been recognized that it is useless to employ an antistreptococcus-serum for a pneumococcus infection, and even the two organisms, streptococcus and staphylococcus, which seem to work most cordially in couples, require a separate treatment. Thus is in part accounted for the very poor success as yet achieved by the serum treatment of certain maladies. From the clinical side one would judge there to be very frequently more than one poison in association. This is certainly the case in many diseases. We must push our diagnosis then further to include a recognition of the precise organism or organisms which have obtained lodgment in any given case.

While the possibility of neutralizing by appropriate treatment the specific poison in certain diseases will relieve practitioners of some anxiety, it cannot fail on the other hand to add much to the tension of their labors by requiring an earlier diagnosis, and by the great care needed to avoid accidents in the use of delicate organic fluids prone to contamination and decomposition. It is impossible that the treatment can be much developed in general use until abundant local centers are secured for the povision of materials of guaranteed purity.

It seems possible that we may look in the near future for considerable development of preventive serum-treatment in the prophylaxis of endemic diseases. Already within the past few months we have seen maturing towards successful action the researches of Haffkine and Wright and others on the means of procuring immunity from typhoid fever and plague in those regions of our world-wide empire in which as yet the sources of the infection are beyond our control. We are no doubt becoming more susceptible to specific infections from the very increasing purity of our sanitary home surroundings, and it may be the more necessary on this account to grant an artificial immunity for those about to proceed to less favored regions and who would otherwise present, as it were, a virgin soil for microbic cultivation. Indeed, the whole question of antitoxin and serum therapeutics has only within the last five years become of practical interest to the physician; doubtless many mistakes will have to be retrieved, many apparent steps forward retraced, but we may expect every day to bring to light fresh developments in the sure advance of the new departure. It must be a matter of consolation to our ultra-humane friends to note that although some sacrifice and some suffering to animal life may be involved in the necessary experiments, countless dumb creatures as well as many mere human beings will thereby be saved from destruction.

Among the questions that have in the present year ripened considerably, and have been urged forward strenuously toward a final settlement, that of the prevention and treatment of tuberculosis has taken a very prominent place.

Truly a disease which still claims one-ninth of our mortality may well command our deepest interest. That it is *au fond* a right grouping to place all the previously ascertained causes of consumption among the predispositions, and to regard the disease itself as produced by definite infection or contagion through the inhalation of sputum-dust, or by the ingestion of tuberculous foods, has been accepted at least for the last ten years; but we must not discontinue to attach a due importance to the other etiologic factors because one of them may seem *prima facie* to be sufficient. To set heredity at naught, to regard climatic considerations as of no importance, and to state that the disease is always acquired by direct contagion or infection, is, in my opinion, to ignore much that is true, and to magnify that which should be carefully guarded from exaggeration.

We cannot, of course, prevent consumptive people from marrying; there are exceptional conditions under which they may rightly do so, but the advice of the family physician should be steadfast in discouraging such alliances, which are, unfortunately, often prolific. Life-insurance offices, whose calculations are based upon experience, will probably wait for much further evidence against the heredity of phthisis before they will feel justified in accepting without surcharge the lives of those who present a consumptive family history.

We are all familiar with circumstances connected with the incidence of certain cases of tuberculosis which render it probable that they have been acquired by indirect contagion through the contaminated dust of dirty rooms, and know that under certain conditions of stagnant, dark surroundings a patient with advanced phthisis of unclean habits would cause local danger of tubercular infection to his attendants and friends and to future occupants of the room. But except under such and similar almost experimental conditions the evidence of the contagiousness of phthisis is extremely slender. It, for instance, has not been proved that tuberculosis is more prevalent among married than single people, and Dr. Longstaff has shown that normal coincidence would account for more than the deaths reported. Pulmonary consumption is comparatively rare before puberty, infantile mortality being almost exclusively from bowel consumption through milk infection. Tuberculosis is nearly twice as frequent among male as among female infants. The mortality from tuberculosis has diminished more greatly, by from one-third to one-fourth, among females than males above the age of 20 in the last 30 years (Hugh Beevor), when one would think that industrial, nursing, and indoor conditions generally would have told against the female in this respect. The records of the officials and servants of one of our largest consumption hospitals taken out for 50 years, including a period precedent to the use of any special preventive measures beyond those of ordinary sanitation show a death-rate not in excess of that of the ordinary population.

It is remarkable that two at least of the most deadly of disease-microbes, tetanus and anthrax, should be normal inhabitants of the soil, and yet how comparatively scarce these diseases are, and, as regards one at least, how communicable. It would seem that, as is the case also probably with malaria, while the ultimate source of the disease is vegetation in the soil, yet a greater virulence and activity is attained, and for a short time maintained by cultivation in the human body, or in that of certain other warm-blooded animals. With regard to tuberculosis I would make this final remark, that while we may hope on the one hand by further careful sanitation, by destroying and diminishing the careless distribution of bacillary dust, and by withdrawing from human consumption tuberculous foods, still to effect a considerable inroad upon the remaining 14 per 10,000 mortality from consumption; we cannot afford, on the other hand, to withdraw or relax precautions dictated by observations, sound in themselves, although in some regards capable of amended explanation, or we may have to make some deductions from the two-thirds diminution in mortality already achieved. In my belief there is a mephytic laboratory beyond our special control, yielding organisms ever ready to attack the unwary and those whose vitality is depressed. General sanitation and cleanliness is our first line of defence against them all. Wherever the conditions of insanitation, dampness, deficient sunlight, and the prevalence of favoring diseases are present, there aggressive activity may be again looked for.

TABLE INDICATING THE ACTIONS OF VARIOUS SERUMS.

	Bactericidal.	Antitoxic.	Prophylactic.	References.
Diphtheria . .	*Nil.*	Strongly.*	Decidedly (similar to tetanus.)	Behring,[1] Cobbett, and Kanthack,[2] Clinical Soc.,[3] Sims Woodhead,[4] American Pediatrics Society.[5]
Tetanus . . .	*Nil.*	To circulating poison, that which is as yet unfixed by the tissues. More promising in early and less acute cases. Cerebral or subdural injection preferred.	Prophylactic for tissues as yet not attacked.	Roux and Borrel,[6] Köhler.[7]
Septicemia† (streptococcal and allied affections, erysipelas, puerperal fever, etc.	Doubtful.	Decidedly.	Decidedly.	Bulloch,[8] Mitchell Bruce,[9] Commission American Gyn. Soc.,[10] Petruschky.[11]
Pneumonia . .	Probably not.	Decidedly (experimentally).	Decidedly. (experimentally.)	Pane, Eyre, and Washbourn,[12] Mennes.[13]
Yellow fever .	Encouraging results.	*Nil.*	Decidedly.	Sanarelli.[14]
Snake poison .	. . . . .	Antitoxic.	Prophylactic.	Calmette and Delarde.[15]
Leprosy . . .	?	? (probably not.)	?	Atherstone and Black,[16] Herman aud Abraham,[17] Palakawski.[18]
Botalismus (meat poisoning).	. . . . .	Antitoxic.	Prophylactic.	Van Ermenger,[19] Kempner.[20]
‡ *Plague* . . .	. . . . .	? Slight.	Decidedly.	Haffkine,[21] Clemow.[22]
‡ *Cholera* . .	Yes.	Not.	Decidedly.	Haffkine.[21]
Anthrax . . .	Yes.	Not.	Decidedly.	Haffkiue.[21]

* N.B.—Paralytic affections are apparently increased by the use of antitoxin, greater number of lives being preserved to the period when paralysis occurs.

† N.B.—The "streptococcal infections" are difficult to differentiate, and are frequently manifold, so that for the present each case is more or less experimental, and must be judged on its own merits until we can push diagnosis to exact variety of organism or organisms involved.

‡ In plague and cholera the treatment is rather a vaccination than a serum-treatment.

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THE ETIOLOGY OF YELLOW FEVER.

Abstract of the Report of the Commission of Medical Officers, Marine-Hospital Service, Detailed by Authority of the President to Investigate the Cause of Yellow Fever.

UNDER date of November 8, 1897, Passed Assistant Surgeon (now Surgeon) Eugene Wasdin and Passed Assistant Surgeon H. D. Geddings, were detailed by authority of the Secretary of the Treasury and the President, as a commission to investigate in Habana the nature of yellow fever. Their full report, dated July 10, 1899, has been received and is printed as a separate publication. The report embodies the work of the Commission in fairly testing the claim of Professor Sanarelli, of Bologna, Italy, that the bacillus icteroides is the cause of yellow fever, and the conclusion is drawn that this famous scientist has isolated the true cause of the terrible scourge.

This conclusion is based upon a careful bacteriologic study, in the well-equipped laboratory of the Marine-Hospital Service in Habana, Cuba, of 22 cases of disease thought to be yellow fever by the native physicians in attendance. Of these cases, all were seen during the progress of the disease, and in 14 of them the Commission concurred in the diagnosis. Each case was the subject of careful bacteriologic study before, and, if practicable, after death. This consisted in the abstraction of blood in sterile bulb-tubes from the ear-tip under careful asepsis. This blood was then diluted in the bulbs with meat-peptone bouillon, and after an incubation of 24 hours the growth was transplanted to fresh tubes of bouillon, from which, after 24 hours, Petri plates were made in series. From these the organisms present in the blood were isolated in pure cultures, and studied. After isolation each organism was subjected to cultural examination on all mediums, by means of which those meeting the demands of Sanarelli for the organism he discovered were readily selected and their pathogenicity for animals established.

Of the 14 cases diagnosed as yellow fever, the Commission isolated the organism of Sanarelli, the bacillus icteroides, from 13, and in the case in which this organism escaped the observation of the Commission it was isolated by an independent observer for whom tube-cultures had been taken at an autopsy conducted by the Commission. Thus the even percentage of isolations has been obtained in these 14 cases, all of which presented prominent symptoms of the disease. In the cases not thus diagnosed the organism of Sanarelli was not obtained. From the living blood in 12 of the 14 cases, abstracted not earlier than the third day of the disease, the organism was isolated, and in the 2 others it was obtained postmortem. The Commission having preserved a number of cultures made at the isolation hospital in the city of New Orleans from cases seen during the epidemic of 1897, also isolated therefrom the bacillus icteroides in the proportion of 83.33% of the cases examined, the cultures having been made at autopsy.

Thus the identity of the bacillus icteroides of our Southern States with that found in Cuba, and that sent the Commission by Professor Sanarelli which was obtain in South America, was established.

As a control to these examinations the Commission made use of a number of cases suffering from diseases other than yellow fever, from which the blood, extracted in the same manner and treated in the same way, failed to yield any organism at all comparable to Sanarelli's. These diseases were representative of those usual to the city of Habana and were seen during the same period of time in which the cases of yellow fever were under observation.

Also there were 31 dead bodies examined, bodies dead from known and unknown diseases, many of them in the city morgue, the most of them in the Spanish military hospitals. In each instance careful section was made and the blood from the heart, from the liver, the spleen, and the kidneys, urine, and feces, planted directly into bouillon or upon agar-agar slant tubes, from which culture a series of plates were made.

All bodies thus examined, at times many hours after death, yielded colonies of various organisms, save one, and this at the time of autopsy was diagnosed pathologically as yellow fever, and was sterile.

In none of these cases of comparative autopsic examination was the bacillus icteroides found; neither in the blood, nor urine, nor feces. Therefore, the Commission assumes that the organism of Sanarelli is found only in bodies sick with, or dead from, the disease of yellow fever, at the same time conceding that in many of the sick the blood does not yield the germ, and that in the dead it may prove absent only under certain conditions.

Coincident with the above observations the Commission carried on the study of the natural history of the organism as to its mode of entering the body; its colonization therein; its toxic possibilities; and its distribution in the organs postmortem.

Numerous and interesting experiments were made with animals, the Commission finding all the animals at its command, such as mice, rats, dogs, cats, guineapigs, rabbits, and monkeys, quite susceptible to the artificial infections produced by inoculating them under the skin, intraperitoneally and endovenously. At the same time it became convinced that the same, or very similar, results were obtainable by the use of other organisms of different kinds. It found, as had been claimed by Sternberg, that similar clinical and anatomic results could be found after the artificial administration of the bacillus x, as well as that of Havelburg, and of the bacillus coli communis, all of which proved, artificially exhibited, very pathogenic to all animals, and autopsies upon these revealed similar conditions in the organs. Moreover, the toxins elaborated *in vitro* by the above-named organisms, x, Havelburg, and coli communis, and icteroides, were precipitated, purified, and tested comparatively upon animals, with the result that the Commission decided that the *mode of death* from these toxins, when injected into animals, *was the same in kind*, and that the toxins differed only in intensity and that of these the bacillus icteroides produced the most potent.

From these facts the Commission, early in its work, became convinced that the claim of Professor Sanarelli, of having discovered the germ of yellow fever, was not established by any evidence presented in his published works, and that it was not tenable, so long as it could be claimed that the bacillus of Havelburg and the bacillus x of Sternberg produced the same pathologic conditions when artificially inoculated, and the Commission recognized the validity of this claim, in view of the facts given above, although it had, for a long time, recognized both of these organisms as belonging to the colon group.

At this stage of its work, the solution of the problem seemed very remote, but before turning to some other and unknown cause of this disease, it was determined to place experimental animals under *natural conditions of infection*, since it was rec-

ognized that all preceding experimental work was so artificial that it was impossible for the Commission to judge of the pathogenic, or rather *specific*, merits of the three prominent organisms.

From this animal-experimentation the Commission proves the *natural specificity* of the organism of Sanarelli; the absolute *innocuousness* of the bacillus coli communis, of the bacillus x, and of the bacillus of Havelburg, to even the most susceptible of animals; and a marked degree of similarity in the reaction of these animals (mice) to the *acute infectious organisms*, such as bacillus typhosus and bacillus cholerae suis, when exhibited to them naturally. The Sanarelli organism is thus eliminated from the colon group and associated with the acute infectious organisms.

The Commission recognized that Sanarelli's claim was *only* one of pathogenicity and not of *specificity;* that until such demonstration of specificity there could be no *valid* claim for his organism. This validity the Commission believes to have established in the conclusion that the bacillus icteroides is "naturally infectious to animals, the degree varying with the species; that in some rodents local infection is most quickly followed by blood-infection; and while in rabbits and dogs there is no evidence of this subsequent invasion of the blood, monkeys react to the infection the same as man."

The Commission has determined "that the infection takes place by way of the *respiratory tract*," and that the primary colonization in the lungs is responsible for the first evidences of absorptive intoxication such as fever, pains, etc., characteristic of the disease. Also that this primary colonization in the lungs and its poison-symptoms may constitute the *entire attack* of the disease in many instances, an attack so light, so ephemeral, that even the most expert diagnosticians may not differentiate them from other ephemera, or poorly marked attacks of allied diseases, as for instance *dengue.*

Moreover, the conclusion has been reached that what is known in the literature of yellow fever as the "reactionary fever," the "secondary infection" (from microorganisms normal to the body), and the "secondary paroxysm," is due to the passage of the infecting germ, the bacillus icteroides, from its primary colony in the lungs into the general circulation, thus producing the "secondary paroxysm" so familiar clinically in all marked cases, unless they are of the *siderant* type.

This "secondary paroxysm" is then a septicemic one, and it depends not upon the bacillus coli communis, or bacillus proteus, or upon the micrococci, but upon the further colonization of the specific organism in the blood, thus bearing out Paget's observation that the "*decline" of the fever*, the true "secondary paroxysm," is as *specific* as the "rise," or the primary attack.

The Commission recognizes the coincident invasion of the blood by the organisms of the respiratory-tract, among which are found colon and proteus, as of possible, it may be frequent, occurrence; or these may invade from the alimentary canal "during the last hours of life," when the mucosa becomes impaired from stasis and this invasion becomes possible, such mixed septicemias being of most severe type and frequently fatal.

The Commission, therefore, differs entirely from Professor Sanarelli in his theory that the disease of yellow fever is primarily a septicemia. Indeed, it can scarcely be a matter of surprise that Sanarelli formulated this opinion, seeing that he always produced, with (as he thought) unimportant exceptions, *artificial infections* by internal inoculations, which perforce must have produced septicemias. Those cases not open to such explanation, which he observed in man, he explained in a still more unsatisfactory way; in fact, by the assumption that the germs elected to hide away in the spleen in small numbers during the *whole course* of the disease, only to suddenly come forth and produce septicemia at its termination.

The Commission, therefore, concludes that the theory of Sanarelli in this regard is not sustained by the facts of these cases, and offers the above solution of probably the most widely and generally observed characteristics of yellow fever, the "secondary paroxysm" characterized by a septicemia.

The theory formulated and expressed by Dr. Sternberg, U. S. A., that the "general principle" in yellow fever was to be looked for in the alimentary tract, an opinion evidently dependent upon the well-known influence of the disease upon the organs adjacent and contributive to this tract and portions of the tract itself, as the duodenum, has been found untenable by the Commission, since there is no record of anyone ever having isolated the specific germ from this canal save in the case of its presence there through some capillary hemorrhage into its lumen.

The influence of the various disinfecting agents upon the bacillus icteroides has been studied by the Commission with an eye to the practical advantages to be derived from a better acquaintance with the organism, and it is found that the organism is readily influenced by the mechanical and chemical agents in ordinary use. Cold, however, is not a factor in this process, for the organism resists the most extensive refrigeration, and no reliance can be placed on this mode of disinfection. On the other hand, the organism is very susceptible to dehydration and cannot withstand artificial drying for more than 10 to 12 days, and it is very probable that its susceptibility to *frost* is due to the lessened humidity of the atmosphere at such seasons rather than to the degree of cold experienced. Sunlight is very fatal to this organism, and no doubt is more so if the organism has lost its vitality through evaporation of its fluids, as in a frosty atmosphere.

The resemblance between the bacillus icteroides, in its behavior on certain mediums, and the bacillus of hog-cholera, has been brought to the attention of the Commission, and it has deemed the observation that there is a possible similarity in the pathogenicity of the two organisms in the domestic hog, of great importance, although its experience in the observation of the cultural similarities leads to the conclusion that they are culturally distinct; while the infection of the domestic hog, in its experience, is impossible by the method pursued of feeding the bacillus icteroides to them.

However, the question being of too much importance to be determined without full data, the Commission placed under treatment a number of domestic hogs, in an environment free from suspicion of the possibility of any contamination with the bacillus cholerae suis, with a view to deciding the question of the reaction of these animals to the bacillus icteroides, administered to them in pure cultures in their food. These experiments were conducted at the United States Quarantine Station at Delaware Breakwater, and therefrom it is deduced, first, that the domestic pig is incapable of infection from the bacillus icteroides when introduced through the intestinal or digestive tract; and, second, that the bacillus icteroides when fed to pigs will not produce any of the lesions or intestinal symptoms of hog-cholera.

Conclusions of the Commission.

1. The microorganism discovered by Prof. Giuseppe Sana-

relli, of the University of Bologna, Italy, and by him named "bacillus icteroides," is the cause of yellow fever.

2. Yellow fever is naturally infectious to certain animals, the degree varying with the species; in some rodents local infection is very quickly followed by blood-infection; and while in dogs and rabbits there is no evidence of this subsequent invasion of the blood, monkeys react to the infection the same as man.

3. Infection takes place by way of the respiratory tract, the primary colonization in this tract giving rise to the earlier manifestations of the disease.

4. In many cases of the disease, probably a majority, the primary infection, or colonization in the lungs, is followed by a "secondary infection," or a secondary colonization of this organism in the blood of the patient. This secondary infection may be complicated by the coinstantaneous passage of other organisms into the blood, or this complication may arise during the last hours of life.

5. There is no evidence to support the theory advanced by Professor Sanarelli that this disease is primarily a septicemia, inasmuch as cases do occur in which the bacillus icteroides cannot be found in the blood, or organs in which it might be deposited therefrom.

6. There exists no causal relationship between the bacillus "x" of Sternberg and this highly infectious disease; and the bacillus "x" is frequently found in the intestinal content of normal animals and of man, as well as in the urine and the bronchial secretion.

7. So far as the Commission is aware, the bacillus icteroides has never been found in any body other than one infected with yellow fever; and whatever may be the cultural similarities between this and other microorganisms, it is characterized by a specificity which is distinctive.

8. The bacillus icteroides is very susceptible to the influences injurious to bacterial life; and its ready control by the processes of disinfection, chemical and mechanical, is assured.

9. The bacillus icteroides produces *in vitro*, as well as *in vita*, a toxin of the most marked potency; and, from our present knowledge, there exists a reasonable possibility of the ultimate production of an antiserum more potent than that of Professor Sanarelli.

A Device for Washing out the Pelvis of the Kidney through the Ureter.—(L. B. Tuckerman, in *The Cleveland Medical Gazette*, June, 1899.) The device consists of a No. 6 French catheter, an ounce glass bulb, and the common exploring aspirator with the ordinary three-way stopcock, all connected by rubber tubing. The catheter is introduced in the ordinary manner through the Kelly speculum. It is necessary to use a stylet in the catheter, passing the catheter up as far as possible without force, then withdrawing the stylet a couple of inches, passing the catheter further, and so on, until the pelvis of the kidney is reached; then, by exhaustion, the contents of the pelvis of the kidney can be drawn into the bulb and inspected. From the amount of fluid which is drawn into the bulb we may judge the capacity of the pelvis of the kidney. If pus be present and it is deemed advisable to wash out the kidney, the bulb can be detached from the catheter, filled with boracic acid solution, or such disinfecting fluid as the practitioner may deem best, and, by reconnecting and reversing the stopcock, the fluid can be injected into the pelvis of the kidney, again withdrawn, new fluid reinjected and withdrawn, until, as in washing other cavities, the fluid comes away clear. Various medicaments can also be employed according to the ideas of the practitioner. He has employed the device with gratifying success, and finds it efficient, while he has been enabled to dilate the ureter in a slight degree, overcoming a commencing stricture. [C.L.L.]

Correspondence.

THE BRITISH MEDICAL ASSOCIATION MEETING AT PORTSMOUTH.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

THE Sixty-seventh annual meeting of the British Medical Association was opened at Portsmouth on Tuesday, August 1, under the presidency of Dr. John Ward Cousins, M.D., London, F.R.C.S., Senior Surgeon to the Royal Portsmouth Hospital.

This is the first occasion on which the Association has met at Portsmouth, and the old town—Portsmouth ranks with York, Winchester, and Chester as a place that has been the site of a city for more than 1,000 years—proved itself an ideal meeting-place. The accommodation for the members was ample and good, while the refreshing sea-breezes and delightfully picturesque environment helped wonderfully in imparting a picnic tone to what is after all only half a scientific affair.

The facts that Portsmouth is a great naval and military center, that its dockyards are the headquarters of England's maritime strength, and that the Royal Naval Hospital at Haslar and the Royal Military Hospital at Netley are only a few miles away, combined to make Service affairs of particular importance at this meeting. More medical officers in the army and naval services attended the congress than have ever attended any previous meeting of the Association, and their voices were listened to with interest in debates upon many questions of surgical, sanitary, and social importance.

The proceedings began as usual with religious services, the sermon at the Protestant celebration being preached by the Bishop of Winchester and that at the Roman Catholic Cathedral being preached by Monsignor Cahill.

At the first general meeting, held on August 1, Dr. J. Ward Cousins delivered his presidential address. He had taken for his theme medical progress during the past century, and it proved rather large for him. How, in fact, can a man survey within the limits of one oration all the developments in medical science lying between the work of John Hunter, who died, it will be remembered, in 1793, and that of Lord Lister, Koch, and Pasteur? The President of the British Medical Association should not, therefore, be blamed for his omissions or for having failed now and again to allot to certain discoveries their due meed of importance; but we may be permitted to wonder how he ever came to think that he could frame a connected and well-balanced discourse suitable for an audience of experts, with such a stupendous range of material as was implied by his title.

At the second general meeting, held on August 2, the Address in Medicine was delivered by Sir Richard Douglas Powell, who discoursed with sound wisdom upon recent advances in practical medicine. Sir Richard is the best-known English authority upon pulmonary tuberculosis, and his remarks upon the question of prevention of tuberculosis were listened to with close attention. While he agreed that it is "*au fond* a right grouping to place all the previously ascertained causes of consumption among the predispositions, and to regard the disease itself as caused by definite infection or contagion through the inhalation of sputum-dust or the ingestion of tuberculous foods," still, he said, we must not discontinue to attach a due importance to other etiological factors because one of them may seem at the first glance

all-sufficing. In other words, Sir Richard Douglas Powell holds that the discovery of a specific bacillus must not lead us to discard all our old knowledge, gained by practical experiences, of the influence of heredity, occupation, and climatic environment.

At the third general meeting held on Thursday, August 3, Professor Alexander Ogston, professor of surgery in the University of Aberdeen, delivered the Address in Surgery. His subject, The Medical Services of the Army and Navy, was obviously suggested by the fact that the meeting of the Association was being held at Portsmouth, and with great clearness and force he expounded the causes of discontent known to be existent among the members of those services. He said that the Royal Army Medical Corps was undermanned and ungenerously equipped, so that it did not attract the best students; that the India Medical Service, though a better service, to some extent, shared in the defect of the Royal Corps; and that even more than the military branches, the naval medical service called for the reformer's hand. Much of what Professor Ogston said was undeniably true, but occasionally he erred on the side of severity, for of late years there has been a good deal of improvement, at any rate in the organization of the Royal Army Medical Corps, and of these reforms he made no mention. But the burden of his discourse was, that the medical man in the British army and navy has no proper opportunity given him to keep up his work or to learn anything fresh. And here he put his finger on the weakest spot of all in the medical departments of the British Combatant Services. No arrangements of any kind are made for study-leave, and no encouragement is given to men of a scientific bent, so that with all the will in the world to keep his learning bright, the medical officer in the army or navy is compelled to see it rusting, and to do nothing.

In the sectional meetings, which began on Wednesday, August 2, the various presidents generally contented themselves with a few brief words introducing the first business on the agenda of the section, but one or two noteworthy addresses were delivered. In the Section of Anatomy and Physiology, for example, Professor J. J. Charles, professor of anatomy and physiology in Queen's College, Cork, Ireland, delivered an eloquent summary of recent physiological progress all over the world; while Mr. Simeon Snell, ophthalmic surgeon to the Royal Infirmary at Sheffield and President of the Section of Ophthalmology, delivered an admirable discourse on the Prevention of Eye Accidents occurring in Trades. As Sheffield is the center of the English hardware trade, it goes without saying that the ophthalmic surgeon of the Infirmary—one of the best English provincial hospitals—was able to speak from vast personal experience.

But of all the sectional addresses the one that caused the greatest sensation was the presidential address delivered in the section of State Medicine, by Dr. George Wilson, medical officer of health to the Mid-Warwick district. Dr. Wilson, in the desire to let his audience know exactly and unreservedly what he felt, expressed himself in terms concerning recent developments of bacteriological learning that cannot fail to do harm. "The bacteriologists," he said, "so dominate the public press that we almost seem to live in a bacillus-stricken world. And, so far as preventive medicine is concerned, bacteriology has rather led us on false lines in assuming that the pathogenic microbe of any disease is the *causa causans* of that disease." It is needless to say that these words and certain other critical expressions employed by Dr. Wilson towards bacteriological work have already been seized upon as a medical confession of failure by the noisy band of agitators who are anti-this and anti-that whenever this or that stands for a scientific departure in medicine. We are certain that Dr. Wilson spoke from conviction and with a genuine desire to warn his hearers that they must not jump to conclusions or accept all innovations in therapy as spelling progress, but while we can read this in his words we also can read that he is not himself a first-class bacteriologist. He has been betrayed by a little knowledge into using big words, while the occasion was unfortunately one when his big words had grave importance added to them by circumstance. He may have done considerable harm by his ill-timed confession of mistrust in the honest and arduous tabors of his fellow medical men.

Social functions were rife in Portsmouth during the week. The Mayor of Portsmouth gave a ball and a garden party. The officers of Haslar Naval Hospital and Netley Military Hospital did the same; boating excursions on the Solent to the Isle of Wight, to the New Forest, to Winchester, to Salisbury and to Mr. Jonathan Hutchinson's house, at Haslemere, were arranged for; while facilities were also given to the members to inspect certain men-of-war in the harbor, the dock-yards, the victualing yards for the army, navy, and transport services, the military gymnasia, the armories, etc. The pugnacious character of the entertainments provided for the Association is, of course, due to the fact that Portsmouth's *raison d'être* is to be a military and naval center, and not due to any sudden development in the breasts of the Association of the warlike and expansionist spirit that is colloquially termed in England "jingoism."

The members of the Continental Anglo-American Medical Society gave a luncheon at the Royal Pier Hotel on Wednesday, August 2. Among the guests were Professor Osler, Sir William Broadbent, Sir Richard Douglas Powell, Dr. Frederick Roberts, Professor Clifford Allbutt, Dr. Bryan of Washington, Dr. Louis Bar of Nice, Dr. Mitchell Bruce, and Dr. J. Watson. The toasts of "The Queen" and the "President of the United States" were proposed by Professor Osler, and the toast of the "Continental Anglo-American Medical Society" by Sir William Broadbent, who pointed out how useful such a society was as a bond between British practitioners and those on the continent.

The scientific side of the Association's sixty-seventh and very successful meeting came to an end on Friday, August 4, though some of the social functions still remained for fulfilment on the following day. At the concluding general meeting Dr. J. R. Thomson, a Bournemouth physician and an ex-president of the association, was chosen president of the council in the room of Dr. R. Saundby, resigned. Ipswich, the old East-Anglican town immortalized by Dickens in the Pickwick Papers, has been chosen for the venue of the meeting next year, the president-elect being Dr. W. A. Elliston, of that city. It is 26 years since the Association met at Ipswich.

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THE DIAGNOSIS OF SMALLPOX.

By BENJAMIN LEE, M.D.,

Secretary of the State Board of Health.

To the Editor of The Philadelphia Medical Journal:—

The presence of smallpox at several different points in this State at the present time, and the fact that many physicians have failed to recognize the true nature of the disease on its first appearance, makes a few remarks on this subject appropriate. Since the disease was first reported in Bedford

County, in the month of November, 1898, it has made its appearance in 21 counties and more than 100 different localities. The number of cases reported has been about 900 and the number of deaths 7.

What first strikes one in considering this statement is the extreme mildness of the disease, the mortality being astonishingly low. At the same time, the fact that fatal cases have occurred is sufficient to exclude the diagnosis of chickenpox and impetigo contagiosa. It can readily be understood, however, that the practitioner might easily be thrown off his guard by this peculiarity of the epidemic. When, in addition to this, it is borne in mind that, owing to the beneficent influence of vaccination, smallpox has become a disease of very infrequent occurrence in this State, thus making it impossible for the great majority of practitioners to have had an opportunity of personally studying the affection, it would have been rather to be expected than otherwise that they should fail to recognize it. The warning note issued by the State Board of Health, some months in advance of the invasion, pointing out the steady progress of the disease from Florida up along the coast, and calling especial attention to its mild character, might indeed have aroused their suspicions, but does not seem to have been generally regarded.

In order to set this vexed question at rest, the State Board of Health, has, on five different occasions, caused inspections to be made by experts whose decision may be considered as authoritative. In every instance these physicians have not hesitated to pronounce the disease in question to be true smallpox. The last of these investigations was made in Allegheny County, by Dr. Wm. M. Welch, Surgeon in charge of the Municipal Hospital of Philadelphia, a physician who is confessedly the authority on this subject in the United States. I beg leave to introduce his report in full:

"PITTSBURG, August 5, 1899.

"DR. BENJAMIN LEE,

"*Secretary State Board of Health of Pennsylvania.*

"DEAR SIR:—After a careful examination of a number of cases of an eruptive disease now existing in various towns and boroughs adjacent to Pittsburg, concerning which, I am informed, there has been some question as to the diagnosis, I have no hesitation in saying that the affection is smallpox. It is exceedingly mild in character—so mild, indeed, that many of the more usual symptoms are either absent or so indistinctly marked as to be overlooked. Wherever smallpox has recently prevailed in this country it has uniformly been of the same unusually mild type. It seems scarcely possible that a disease so fatal as smallpox ordinarily is can continue very long without assuming its characteristic severity. Possibly a change of type may be seen on the approach of cold weather. It is, however, of vital importance that the true nature of this malady should be recognized, and that every effort possible should be made to stamp it out before winter sets in, or before a change of type occurs.

"Very respectfully,

"WILLIAM M. WELCH, M.D."

After so authoritative a statement as this, the physician who derives his knowledge of the disease entirely from books, or who has seen at the most but one or two cases in the course of his whole experience, will have absolutely no excuse for committing the error referred to.

The warning conveyed in Dr. Welch's report of the danger that the affection may assume greater virulence with the approach of cold weather, should not be unheeded. The only safety exists in the prompt reporting to the health-authorities, either local or State, of every suspicious case of eruptive disease which the practitioner cannot, with the utmost confidence, pronounce to be either scarlatina or measles, and until the diagnosis, if in doubt, has been positively determined by a physician, deputed by a health-authority, the enforcement of strict quarantine, not only of the patient, but of the house and the inmates thereof.

The symptoms which should put the practitioner on his guard are: A prodromic period of more than 24 hours; the immediate abatement of the prodromic symptoms on the appearance of the eruption; the firm, shot-like sensation conveyed to the finger by the papules; the tendency of the eruption to appear on exposed surfaces to a greater extent than on protected surfaces; the appearance of an areola, however slight, around the vesicle; the persistence of the marks left by the falling off of the scabs for a considerable period of time, and the pigmentation of the marks; the appearance of the pustules within the mouth, on the eye, on the palms of the hands and the soles of the feet, are extremely valuable corroborative symptoms. Absolutely no weight should be given to the absence of the so-called characteristic "smallpox odor" or to the absence of the secondary suppurative fever. While these symptoms have been observed in many cases during the past few months, yet, in many other cases, equally well-marked as smallpox, they have been absent.

The alert watchfulness of family practitioners, and their hearty cooperation in the efforts of the health-authorities to stamp out this infection, is earnestly to be desired, and will, undoubtedly, accomplish this result before the advent of the winter season.

CARBOLIC-ACID POISONING.

BY JOHN C. BUCHER, M.D.,
of Lebanon, Pa.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

I WISH to report the following case, which at least seemed interesting to me:

A young man, aged 18, swallowed two ounces of carbolic acid with suicidal intent, June 24. As the messenger did not know what the trouble was I made my first trip empty-handed as regards an outfit for the case. Reaching there within 10 minutes after he had taken the poison, I found him totally unconscious, pulse weak, and rapid upper chest breathing. I gave him $\frac{1}{5}$ grain apomorphin hypodermically and at the same time $\frac{1}{100}$ grain of nitroglycerin. The jaws were rigid. I returned to my office, got the stomach-tube and began washing the stomach after prying the jaws apart. He took the poison at 10 P.M. At 11 there was only a weak pulse, and at 11.30 no pulse. I gave him the nitroglycerin every 10 minutes. There was a reaction for 10 minutes, then a sinking, when I renewed the stimulant.

What surprised me was the quick effect of the nitroglycerin and the ineffectiveness of the apomorphin. Towards 1 o'clock the heart became more steady. I continued the use of the stomach-tube until I had used from 6 to 8 gallons of water. Later in the night his stomach voluntarily rebelled and threw off some undigested food which was too large for the tube. The fellow is gradually becoming stronger and now is able to be about. I am keeping him on milk exclusively, though he wants other food. I attribute his recovery to the full stomach, the use of the tube, and nitroglycerin hypodermically.

Congress of Otology.—About 30 members attended the sixth International Otological Congress held in London the week of August 12. Although in the designation of the congress otology is specified, laryngology and rhinology came within the range of the discussion. Most of the time, however, was devoted to otology.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Dr. H. H. Glosser, of Paoli, has been elected physician of the Reading Hospital.

The will of John Gillespie, the well-known brick manufacturer, who died on August 3, provides that $10,000 each shall be given to the Methodist Episcopal Hospital, Broad and Wolf Streets, and to the Covenant Methodist Episcopal Hospital, Eighteenth and Spruce Streets.

Mrs. Mary A. McKee, for the past 33 years housekeeper of the State Hospital at Trenton, N. J., and a nurse throughout the Civil War, being one of the most trusted aids of the late Dorothy L. Dix, serving in the General Union Hospitals at Baltimore, Washington, and Alexandria, died August 4, after a short illness, aged 66 years.

Petty Thieving at Easton Hospital.—A thief with sleeves rolled up to his elbows and wearing overalls gained admission to the Easton Hospital August 8, and, under the pretense of being an electrician sent to examine the electric wires and lamps, got into into the rooms of the nurses, broke open trunks and bureau drawers, and stole all the money he could find, $25.

Moss Home for Incurables.—The laying of the corner-stone of the Lucien Moss Home for Incurables, now in course of construction on the grounds of the Jewish Hospital at Logan Station, will take place on Thursday afternoon, September 21, by the Right Worshipful Grand Master and the officers of the Grand Lodge of Masons. The structure is progressing rapidly towards its completion, and will probably be ready for occupancy early in 1900.

Medical Appointments in the National Guard of Pennsylvania.—The following appointments have been announced: W. J. Ashenfelter, of Montgomery County, to be surgeon, with the rank of major; John M. B. Ward, of Delaware County, to be assistant surgeon, with the rank of captain; Andrew Lyle Russell, of Allegheny County, to be assistant surgeon, with the rank of first lieutenant. Major Ashenfelter is assigned to the Sixth Regiment; Captain Ward to the Sixth, and Lieutenant Russell to Battery B, Light Artillery.

Smallpox Epidemic had its Origin in Cuba.—Dr. Benjamin Lee, secretary of the State Board of Health, has expressed the opinion that the recent outbreak of smallpox in Allegheny County may be traced directly to Cuba. This opinion is based on observations made by Dr. Lee and Dr. William M. Welch, in the course of a visit to Allegheny County. While, owing to the mildness of many of the cases, he does not feel disposed to censure physicians too severely for their failure to properly diagnose the cases, he says they were at fault for their failure to acquaint their patients and the public generally with the true conditions after the State Board of Health had diagnosed the disease as smallpox.

Dr. Charles J. Stillé, former provost of the University of Pennsylvania, died of heart disease at Atlantic City, August 11. He was born in Philadelphia, September 23, 1819, of old Swedish stock on his father's side. He studied at the University of Pennsylvania and at Yale College, where he graduated in 1839. In October, 1861, he was appointed a member of the Philadelphia Associates of the United States Sanitary Commission, and was made chairman of the committee on supplies, in which capacity he served during the remainder of the war. In 1868 he was chosen provost of the University of Pennsylvania, which office he retained until 1880. He was influential in introducing the elective system and during his administration as provost the Towne Scientific School was established, the University was moved to its present location, and the University Hospital was built. It was he who really began those innovations on the old life of the University of Pennsylvania, which laid the foundations for the work which his successor, the late Dr. Pepper, and Provost Harrison have carried forward with such brilliant success.

Vital Statistics of Philadelphia for the week ending August 12, 1899:—

Diseases.	Cases.	Deaths.
Total mortality		445
Cholera infantum 49, cholera morbus 4, inflammation of the bowels 32; diarrhea 2, dysentery 2		89
Tuberculosis pulmonary 46, bowels 1		47
Heart-disease 17, inflammation of the heart 1, angina pectoris 3		21
Nephritis 7, inflammation of the kidneys 3, dropsy 3		13
Marasmus 35, inanition 13, debility 3		51
Congestion of the brain 3, inflammation of the brain 11		14
Apoplexy 14, paralysis 6, softening of the brain 2		22
Pneumonia 14, congestion of the lungs 3		17
Convulsions		13
Senility		19
Diphtheria	52	6
Carcinoma 21, sarcoma 1		22
Typhoid fever	72	9
Scarlet fever	32	2
Casualties 10, drowned 4, homicide 1, suicide 8, coroner's cases 2, burns 1		26
Abscess 3, atheroma 1, alcoholism 2, childbirth 1, chlorosis 1, cerebrospinal meningitis 1, cirrhosis of liver 1, membranous croup 2, cyanosis 3, diabetes 5, erysipelas 1, hernia 1, inflammation of bronchi 3, inflammation of the liver 1, inflammation of the peritoneum 5, appendicitis 3, insanity 2, intussusception 1, jaundice 3, obstruction of the bowels 3, shock 2, septicemia 7, sore mouth 2, stricture 1, teething 3, tetanus 3, whooping-cough 3, unknown 9.		

Berks County Medical Society held its monthly meetinff at Dr. Horace Schlemm's summer home at Laurel Run. As this was the meeting for the annual outing it was very well attended. Dr. Thomas J. Mays, of Philadelphia, read a paper on **The nervous system in phthisis pulmonalis.** Dr. Mays laid no stress upon heredity, but classed as some causes of the disease insanity, typhoid fever, diphtheria, pneumonia, bronchitis, and various other diseases. He quoted statistics to show that phthisis is practically unknown among the colored population of the South, excepting in those who were confined in insane asylums, and thus tries to prove that insanity was a large factor in the causes of this disease. Dr. Mays' theory of the causes of this disease is some irritation of the vagi nerves, at the base of the brain. Just what it is or how it affects the tissues he does not attempt to explain. His treatment now is to use an injection of 10 drops of a 10% solution of silver nitrate into the tissues of the neck over the region of the pneumogastric nerve. He says it increases the appetite, weight, and general condition, and allays the cough. The injections are made once a week. Sometimes the spot where the injection is made suppurates, but he does not recommend incision; either absorption or self-evacuation is recommended. Dr. Mays says in the incipient stages the improvement is marked at once, in the more advanced stages the treatment is not so successful. In the third stage of phthisis the results are not so well marked. He mentioned a few cases where the improvement had been as many as 10 pounds in that many days following an injection; the most rapid improvement following in a few days after the injection. He also advises strychnia in large doses, rest in bed, and forced feeding. The paper was discussed by Drs. Bachman, Cleaver, Buehler, and Frankhauser.

NEW YORK.

Modesty of a Charitable Gift.—The Ossining Hospital, in Sing Sing, has just been equipped with an ambulance which will be of particular value in such a scattered community. It is similar to those which are used in Central Park, New York, and is said to have cost $600. Dr. W. A. Miner has acted as the agent for the donor in presenting this useful gift. He says that all the charges have been defrayed by a woman in the village, who has asked him to preserve her anonymity.

Smallpox at Niagara.—Woes have heaped themselves on the communities at the western end of the State far beyond their deserts this summer. It is less than a month ago since rabies made its appearance among the dog-population of the smaller villages in several western counties, and in addition to serious destruction of stock a considerable number of cases of hydrophobia developed in the human population, the percentage of mortality being somewhat alarming. On the heels of this difficulty smallpox has broken out in a number of towns and villages.

Deaths in Public Institutions.—Within the last few days a paretic patient at the Manhattan State Hospital died while being brought under restraint in a paroxysm of violence; his friends insisted on an inquest, three attendants were sent to jail without bail, on a charge of homicide, by a coroner. Concerning the merits of the case it would be improper to comment now that it is *sub judice*. But it may be well to direct attention to the fact that the mere fact of holding a coroner's inquest on an institution-case is apt to stimulate the sensational press to renewed efforts simply because it is unusual. The general practice in this country is that medical superintendents of public institutions are authorized to issue death-certificates which are accepted by the health-authorities as valid, just as in the case of physicians in private practice. When such a certificate is for any reason not accepted the rarity of the occurrence gives the matter more weight than in itself it might deserve.

Movements of the New York Health Department.—The Contagious-Diseases Department of the Board of Health has moved out of the Criminal Court building into the new quarters provided for it at Fifty-fifth Street and Sixth Avenue, the building formerly occupied by the New York Athletic Club. The Health Department has been slowly moving for several months past, and, as about one week is allowed each department, it is expected that a fortnight more will see the board settled in the building which has been remodelled to suit its requirements. A house has also been secured in Elm Street, to be known as the down-town station of the Contagious-Diseases Department. It was hoped that the old fire-house in Worth Street might be available for this purpose, but the efforts to secure it were not successful. Thousands of down-town children have to be vaccinated in order to comply with the Board of Health regulations before the schools open in the fall, and it is partly for this reason that the down-town station has been provided.

Civil Service and a Hospital.—The new civil service law has just come into effect, and the first effect in the city has been to rob the King's County Hospital of nearly all service whatever, so many as 115 assistants in the lower grades being forced out the hospital with more regard for the law than for the condition of the thousand or more patients who need the services of the dismissed employes. The secretary of the civil service board recognizes that the needs of the hospital are peculiarly urgent, but he says that the law leaves him no recourse. Dr. J. T. Duryea, in charge of the hospital, called on the board to ask for immediate assistance in replacing the 115 nurses, orderlies, helpers, waitresses and other employes who have been dismissed. Some of the nurses volunteered to stay for a few days without pay in order to help him in tiding over the difficulty until their places could be filled. The pay of the dismissed employes has been so small that they did not care to take the trouble of passing either a noncompetitive examination for temporary reappointment or a competitive examination for permanent employment.

The Starvation Cure.—Among the victims of pseudo-medical fallacies is Rev. J. Hughes Parry, pastor of the Moriah Welsh Calvinistic Church, of Utica. The particular vagary which proved fatal in this case was neither Christian science nor faith cure, but the "rest cure," which it seems is administered by a doctor of Meadville, Pa. Mr. Hughes had been ailing for some six years with a complaint which had been variously diagnosed as some kind of dyspepsia or catarrh of the bowels. The most conspicuous feature of the treatment was complete abstinence from food for 20 days. At the end of this term the patient's complaint was found to be still present, therefore he entered immediately upon a second term, before the end of which period, specifically at the forty-seventh day of the fast, the patient declared himself cured. It is said that during this protracted fast he took no nourishment whatever, and restricted his diet rigidly to cold water, the loss of weight being 36 pounds. It is said that he was hungry only during the first week of starvation while the system was getting used to living on nothing at all. After 47 days of famine had cured the kind of dyspepsia or catarrh of the stomach, or whatever it was, the patient began eating again, and then his trouble began. He was so reduced by the "rest cure" that he died.

NEW ENGLAND.

Fractured Leg of a Centenarian.—It is not often that fractures reunite sustained after a person has passed the century mark, but a good union resulted in the case of Mrs. Sally Batchelder, of Peabody, who broke her leg in her 100th year. Mrs. Batchelder celebrated her 105th birthday August 8.

To Investigate Picnic Grounds.—September and October are the typhoid-fever months, and the appearance of the disease is believed by the Massachusetts Board of Health to bear a direct relation to the sanitary condition of the places where people resort for "health" in summer. The Board is about to begin an examination of various popular picnic grounds and summer resorts relative to the state of their water-supply and sewerage facilities.

Lead-poisoning in Lowell, Mass.—A dangerous amount of lead has been found at Lowell, Mass., in every one of 74 samples of water taken from driven wells there. The physicians of the city have reported over 40 cases which had recently developed unmistakable symptoms of lead-poisoning. It is urged as a remedy that the lead pipes be removed in the houses supplied from these wells, and it is further suggested that filters be placed at the source of supply.

New Buildings of the Massachusetts General Hospital.—Work has been begun on three new buildings at the Massachusetts General Hospital, an operating theater,

a nurses' dormitory, and a domestic building. The surgical or operating building is the most important. It is to be 144 by 128 feet on the ground, build of brick, and steam-heated. It will stand on the lot between the out-patient department and ward B. It will contain an admirable sterilizing plant, a number of etherizing and recovery rooms, and a theater fitted up with the very latest and most highly approved appliances of every sort. The new operating room at the Boston City Hospital has naturally excited the emulation of the older institution, and this surgical building is designed to be one of the finest in the country. The dormitory for nurses, also of brick, will be 6 stories in height, 52 feet front, 33 feet in the rear, and 66 feet deep. It will join the present nurses' home on the Allen Street side of the hospital grounds. Fifty nurses are to be added to the school, and this building is to meet the requirements of the newcomers. The domestic building, 116 by 89 feet, as its name indicates, is to be a home for the employes of the hospital, other than nurses and house-officers. By the terms of the contract all buildings must be completed by February 1, 1901. The cost will be about $200,000.

WESTERN STATES.

Dr. Mary Breene was lately appointed city health-officer of Lemart, Ia. She is the first woman to hold such position in that State.

Colorado State Medical Society.—At the recent meeting Dr. Spivak moved that a committee of three be appointed whose duty it shall be to request all medical societies of the State of Colorado to devote one regular or special meeting to the discussion of the question of establishing a local medical library, or, if that is not feasible, of increasing the efficiency and membership of the largest medical library of the West, the Colorado Medical Library Association, located in Denver, Col.

The Board of Health and the Board of Supervisors of San Francisco, Cal.—The latest feature of a political fight in San Francisco between the Board of Health and the Board of Supervisors, is the closing by the Board of Health of all the city receiving hospitals. It is alleged by the Health Board that they cannot operate these hospitals on the appropriation allowed by the supervisors. As a matter of fact the whole thing is but a question of political patronage. There is to be an election in the fall under a new charter for the city of San Francisco, and consequently both parties are striving for the control of the election. Under the new charter about all the patronage is placed in the hands of the Mayor. The action of the auditor in refusing to audit the warrants for salaries drawn by the Board of Health for employes not specified in the statute, and of the Board of Supervisors in cutting down the appropriation for the Health Board, has reduced the patronage of the Board of Health office very materially and may injure the party which was the cause of its appointment. It is most unfortunate that hospital existence should depend upon political patronage, machine politics, etc. A morning paper of the jaundiced variety has taken advantage of the closing of the receiving hospitals to do some extensive advertising; it has reopened the waterfront hospital and purposes to run it at its own expense until the matter is cleared up.

SOUTHERN STATES.

Fever Quarantine Off.—Newport News, Hampton, and Old Point, Va., are no longer closed to the outside world. All quarantines against these places by Norfolk and the Northern ports were raised August 12 at 6 o'clock. Orders were also received from the Post Office Department to discontinue fumigating the mails. No new cases and no more deaths have been reported.

MISCELLANY.

The American Electro-Therapeutic Association.—With the near approach of the annual meeting of the American Electro-Therapeutic Association, to be held on September 19, 20, and 21, in the city of Washington, under the presidency of Dr. F. B. Bishop, the local committee of arrangements is redoubling its efforts to make it a success. Many electrical manufacturers will be represented in the Exhibit Hall, and information will be freely given. Papers have thus far been promised from Drs. R. G. Nunn, A. D. Rockwell, Margaret A. Cleaves, F. J. Leviseur, Walter White, Robert Reyburn, G. A. Corson, C. O. Files, J. H. Kellogg, John Lichty, W. W. Scheppegrell, L. Howe, E. Wende, F. B. Bishop, Robert Newman, W. J. Herdman, G. B. Massey, and Profs. Bergonie, of Bordeaux; Apostoli and Dolbear, of Paris.

Insane Asylum for Indians.—At its last session Congress appropriated $42,000 for the erection of an Indian Insane Asylum, and an additional $3,000 for buying suitable grounds. The site selected was at Canton, S. Dak., and work on the structure will be begun about the middle of this month. This will be the only Indian insane asylum in the United States. According to the best statistics obtainable, out of the total of 250,000 Indians in the United States, there are 58 insane Indians. Seven of the 58 insane Indians are being cared for in retreats created for the custody of mentally diseased patients, leaving about half a hundred irresponsible Indians with no provision whatever for their care and treatment.

It has been demonstrated by experience that the various State asylums for the treatment of the insane are not disposed to receive Indian patients. Generally they are overcrowded with white unfortunates, and, being under no legal obligation to open their doors to Indians, it is the almost general rule to refuse them admittance. The Government Hospital at Washington is also overcrowded, and is therefore unable to accommodate Indians beyond the few at present under treatment there.

Obituary.—Dr. George W. Ammon, of heart disease, at Reading, Pa., August 13.—Dr. James F. Judd, August 5, aged 38.—Dr. F. H. Fincke, formerly of Baltimore, a member of Commissioner-General Peck's staff, died at Chicago, August 13, of heart-failure. He had been assigned to duty as expert in medicine, surgery, dentistry, and chemistry in the Department of Liberal Arts and Chemical Industries at the Paris Exposition.—Dr. Chas. W. Adams, of Kansas City, Mo., died suddenly August 3. Dr. Adams was one of the founders of the University Medical College of that city, and its dean from 1880 to 1895.—Dr. Maria M. Gross, the second woman to practise medicine in Chicago, and for many years the oldest woman practitioner in Chicago. She was the wife of Dr. James E. Gross, and began the study of medicine soon after her marriage in 1853.—Dr. Francis C. Greene, a prominent physician of Easthampton, Mass., died August 3, aged 72 years. During the Civil War he served as a surgeon under General McClellan in the Peninsular campaign.—Dr. D. O. Davis, of Baltimore, died August 3, aged 53 years.—Dr. Ross Dunn, demonstrator of anatomy in the medical department

of the University of Tennessee, died July 29, aged 33.—DR. JOHN H. GILBERT, one of the most prominent and successful physicians of Quincy, Mass., died at his home on August 3, aged 66.—DR. ROBERT HUNTER, Netherwood, N. J., July 29, aged 75 years.—DR. D. A. LINTHICUM, Helena, Ark., August 1, aged 80 years.—DR. W. W. PARKER, Richmond, Va., August 3, aged 75 years.—DR. G. W. RYAN, Niantic, Ill., July 30, aged 51 years.—DR. RUDOLPH H. SCHMIDT, Seymour, Wis., July 29, aged 53 years.—DR. JOAQUIN M. PEREZ, August 11, at Santa Spiritus, Cuba, aged 71. Dr. Perez was a native of Cuba, but came to Baltimore in 1860, where he was a practising physician for a number of years.—DR. IRVING C. SCHUREMAN, Toms River, N. J., August 6, aged 59.—DR. JOHN M. FLETCHER, Belfast, Me., August 7, aged 73.—DR. H. R. FETTERHOFF, of Baltimore, Md., aged 61.

Health-Reports.—The following cases of smallpox, yellow fever, cholera and plague, have been reported to the Surgeon-General of the U. S. Marine Hospital Service, during the week ended August 12, 1899:

SMALLPOX—UNITED STATES.

			Cases.	Deaths.
KENTUCKY:	Louisville . . .	July 26-Aug. 2 .	2	
LOUISIANA:	New Orleans . .	July 22-29 . . .	3	
MASSACHUSETTS:	Boston	July 29-Aug. 6 .	1	
OHIO:	Columbus . . .	July 29-Aug. 3 .	1	
"	Dayton	July 29-Aug. 6 .	1	
WASHINGTON:	Spokane	July 22-29 . . .	2	

SMALLPOX—FOREIGN.

BELGIUM:	Antwerp	July 5-22 . . .	4	2
BRAZIL:	Rio de Janeiro .	June 15-30 . . .		32
COLOMBIA:	Panama	July 25-Aug. 1 .	1	1
EGYPT:	Cairo	June 24-July 15		7
ENGLAND:	London	July 6-19 . . .		1
GREECE:	Athens	July 15-22 . . .	11	3
INDIA:	Calcutta	June 24-July 1 .		1
NETHERLANDS:	Rotterdam . . .	July 13-23 . . .	1	
RUSSIA:	Odessa	July 8-23 . . .	9	4
"	St. Petersburg .	July 8-23 . . .	15	6
TURKEY:	Erzeroum . . .	July 8-15 . . .	2	

YELLOW FEVER—FOREIGN.

BRAZIL:	Rio de Janeiro .	June 13-30 . . .	15	
CUBA:	Manzanillo . . .	July 13-30 . . .	1	1
"	Matanzas . . .	July 25-Aug. 2 .	1	doubtful.
"	Santiago	July 13-22 . . .	12	2

CHOLERA.

INDIA:	Calcutta	June 24-July 1 .		7

PLAGUE.

EGYPT:	Alexandria . .	From outbreak to July 9	65	32
INDIA:	Calcutta	June 24-July 1 .		6
STRAITS SETTLEMENTS:	Penang	Jan. 1-June 30 .	42	33

Changes in the Medical Corps of the U.S. Army.

CARDWELL, Major HERBERT W., chief surgeon, is relieved from duty with the First Division, Eighth Army Corps, and assigned to temporary duty on the U. S. transport "Morgan City" on her voyage to San Francisco, Cal. Having completed the duty assigned, he will return to this station.

KEEFER, Captain F. R., assistant surgeon, is granted leave for one month on surgeon's certificate, with permission to leave the Island of Luzon and visit Japan.

JONES, R. FLEMING, acting assistant surgeon, recently arrived on the U. S. transport "Leenanaw," will proceed to Morong, Island of Luzon, for duty.

RAYMOND, Major HENRY I.. brigade-surgeon, will report to the commanding general, First Division, Eighth Army Corps, for assignment to duty as chief surgeon of that Division.

STRAUB, Captain PAUL F., assistant surgeon, is assigned to duty in connection with enlistments for the First Philippine U. S. Veteran Volunteer Infantry, and will report to Major J. F. Bell, assistant adjutant-general, for instructions.

KEMP, First Lieutenant FRANKLIN M., assistant surgeon, is relieved from duty in the department of the Pacific on account of physical disability, and will comply with orders directing him to proceed to Fort Hamilton.

COX, First Lieutenant WALTER, assistant surgeon, is granted leave for one month on surgeon's certificate, with permission to return to the United States.

SOUTHALL, EDWARD, acting assistant surgeon, is relieved from duty at Humacao, P. R., and will proceed to San Juan, P. R., and report to the chief surgeon of the department.

BROWN, Major IRA C., surgeon, is granted leave for one month on surgeon's certificate, with permission to visit the United States.

STEPHENSON, Captain WILLIAM, assistant surgeon, is granted leave for 7 days.

WARE, Captain ISAAC P., assistant surgeon, is directed to report to Major-General William R. Shafter, president of the Army Retiring Board at San Francisco, Cal., for examination by the board.

HARVEY, Major PHILIP F., surgeon, is relieved from further duty at Fort Snelling and will proceed to the Presidio for duty to relieve Major EDWARD B. MOSELEY, surgeon.

MOSELEY, Major EDWARD B., surgeon, will proceed to Angel Island for duty to relieve Major ROBEBT J. GIBSON, surgeon.

GIBSON, Major ROBERT J., surgeon, will proceed from Angel Island to Manila, P. I., and report to the commanding general, department of the Pacific and Eighth Army Corps, for assignment to duty.

BERLIN, WILLIAM C., acting assistant surgeon, will proceed from Cleveland, Ohio, to Fort Snelling for duty.

KENERSON, VERTNER, acting assistant surgeon, is relieved from further duty at Fort Myer, and will proceed to Buffalo, N. Y., and report by letter to the Surgeon-General of the Army for annulment of his contract.

WOODRUFF, Captain CHARLES E., assistant surgeon, is relieved from further duty at Benicia Barracks and will proceed to Fort Riley for duty to relieve Major JUNIUS L. POWELL.

POWELL, Major JUNIUS L., will proceed from Fort Riley to San Francisco, Cal., and report to the commanding general, department of California, for temporary duty.

BOSS, RUFUS D., acting assistant surgeon, is relieved from further duty at Fort Armistead, Md., and will proceed to Fort Myer for temporary duty.

BULLOCK, EARL S., acting assistant surgeon, will proceed from Fort Collins, Colo., to Fort Bayard for duty.

MITNICK, J. H., acting assistant surgeon, will proceed from Baltimore, Md., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

VAN WEGENEN, CORNELIUS D., acting assistant surgeon, is relieved from further duty on he U. S. hospital ship "Relief," now at San Francisco, Cal., and will proceed to New York City for annulment of his contract.

HOWARD, Captain DEANE C., assistant surgeon, will proceed from Fort Columbus to West Point, N. Y., for temporary duty.

MCADORY, ROBERT J., acting assistant surgeon, now at Angel Island, will report on the transport "Indiana," to sail July 31, for duty during the voyage of that vessel to the Philippine Islands and return.

STEARNS, C. H., acting assistant surgeon, now at the U. S. General Hospital, Presidio, will report on the transport "Indiana," to sail July 31, for duty during the voyage of that vessel to the Philippine Islands and return.

GIBSON, Major ROBERT J., surgeon, is relieved from temporary duty assigned him in S. O. 129, c. s., these headquarters, and will rejoin his proper station, Angel Island.

RAYMOND, Captain THOMAS U., assistant surgeon, will resume his duties at headquarters, department of California.

MCADORY, ROBERT J., acting assistant surgeon, is relieved from temporary duty at Angel Island and will rejoin his proper station, U. S. General Hospital, Presidio.

COHEN, HYMAN M., acting assistant surgeon, will stand relieved from further duty at the U. S. General Hospital, Presidio, at that hospital only.

MCVEAN, W. A., acting assistant surgeon, will rejoin his proper station, the U. S. General Hospital, Presidio.

BATH, THOMAS W., acting assistant surgeon, now at the U. S. General Hospital, Presidio, will report on the transport "Indiana," for duty during the voyage of that vessel to the Philippine Islands and return.

BOWEN, EDWARD N., acting assistant surgeon, is assigned to duty at U. S. General Hospital, Presidio.

ANDERSON, CARL H., acting assistant surgeon, will report for duty at the U. S. General Hospital, Presidio.

ANDERSEN, CARL H., acting assistant surgeon, now at the U. S. General Hospital, Presidio, is detailed for temporary duty in connection with the medical examination of officers and enlisted men of volunteer troops returning from the Philippine Islands.

BAILEY, GUY G., acting assistant surgeon, is assigned to the U. S. General Hospital, Presidio, for temporary duty, awaiting transportation with troops to Manilla, P. I.

SANDALL, L. B., acting assistant surgeon, is assigned to the U. S. General Hospital, Presidio, for temporary duty, awaiting transportation with troops to Manilla, P. I.

MUNSON, EDWARD L., assistant surgeon, now on duty in the office of the Surgeon-General of the Army, will report to the commanding officer, Washington Barracks, for temporary duty.

BOYD, ROBERT, acting assistant surgeon, is granted leave of absence for one month.

BOYD, ROBERT, acting assistant surgeon, on the expiration of his present leave, will proceed to San Francisco, Cal., and report to the commanding general, Department of California, for assignment to duty.

Changes in the Medical Corps of the U. S. Navy,

for the week ended August 12, 1899:

WAGGENER, J. R., medical inspector, promoted to medical inspecto from April 9.

Streets, T. H., medical inspector, promoted to medical inspector from April 16.
Berryhill, T. A., surgeon, promoted to surgeon from April 9.
Stone, E. P., surgeon, promoted to surgeon from April 16.
Moore, J. H., passed assistant surgeon, ordered to the "Vermont." August 10.
Wright, B. L., assistant surgeon, detached from the "Vermont," and ordered to duty with the Second Marine Battalion for Manilla, P. I., and on arrival at Manilla to report to the commander-in-chief of the Asiatic Station for duty.
Arnold, W. F., passed assistant surgeon, granted extension of sick leave for one month.
Pickrell, G., passed assistant surgeon, authorized to drop middle initial of name.
Pickrell, G., passed assistant surgeon, detached from the "Baltimore," and ordered to the "Monterey" and to the Cavite Naval Station.
Hass, H. H., assistant surgeon, detached from the "Oregon," and ordered to the naval hospital, Yokohama, Japan, for treatment.

Changes in the U. S. Marine-Hospital Service, for the week ended August 10, 1899:

Brooks, S. D., surgeon, to proceed to Augusta, Me., for special temporary duty. August 5.
Blue, Rupert, passed assistant surgeon, to proceed to Columbia, Wash., for special temporary duty. August 6.
Fricks, L. D., assistant surgeon, to report to passed assistant surgeon A. C. Smith for duty. August 5.
Todt, W. C., acting assistant surgeon, granted leave of absence for 7 days. August 6.
Magruder, G. M., passed assistant surgeon, commissioned as surgeon. August 5.
Kinyoun, J. J., passed assistant surgeon, commissioned as surgeon. August 5.

Foreign News and Notes.

CONTINENTAL EUROPE.

Professor Lazarus Fuchs, professor of mathematics at the University of Berlin, has been elected rector of the University.

Professor von Michel, professor of ophthalmology in the University of Würzburg, has been elected rector of the University.

Professor Ludwig, professor of chemistry in the University of Vienna, celebrated the twenty-fifth anniversary of his professorship on August 3.

Professor von Röntgen, at present of the University of Würzburg, and who, it will be remembered, last year declined a call to the University of Leipzig, is expected to accept a call to the University of Munich.

Of the 16,234 births in Munich last year, 28.6% were "out of wedlock." And yet the German papers glory in the fact that ⅓ of the births in Paris are illegitimate.

University of Breslau.—Four of the five new buildings are now completed and in use: the anatomic, pharmacologic, and hygienic institutes, and the eye-hospital. The psychiatric clinic is still in the old building.

Dr. Christfried Jacob, for some years assistant to Professor von Strümpell, in Erlangen, and more recently a practising physician in Bamberg, and who, as announced in this Journal, a short time ago accepted the offer of a professorship in Buenos Ayres, died while on his way to that city.

An International Pharmacopeia.—Dr. Rommelaere has submitted to the Belgian Academy of Medicine a proposal that it should take steps to promote the adoption of an International Pharmacopeia. He suggests that the Academy should ask the Belgian Government to invite the cooperation of other governments in the furtherance of the scheme.

The Cinematograph in Surgery.—It is reported that Doyen, the eminent French surgeon, has exhibited to numerous doctors and students at the Kiel University, cinematograph pictures showing various surgical operations. Dr. Doyen advocates the use of such pictures for the education of students, saying that they are far more effective than the most elaborate written descriptions.

The State Examination is now required as a prerequisite for obtaining the **degree of doctor of medicine at the University of Munich.** In this connection it is interesting to note that the Prussian Government has proposed that only those who have their degrees of doctor of medicine from a Prussian University shall be eligible to appointment as "Kreisärzte" in Prussia. Naturally this has aroused the non-Prussian universities to send a signed protest, stating that such a step would be fatal to the unity of the German degree.

The Paris Medical Club, a new social organization, has been founded and the club house, formerly occupied by the Cercle Nationale, at 5 Avenue de l'Opera, was formally opened July 10. The following are the officers: President, Dr. Pozzi, member of the Senate; vice-presidents, Dr. de Panse and Dr. Faisans; secretary-general, Dr. Doléris; secretaries, Dr. N. Lefèrre, Dr. de Saint Léger, and Dr. Bonnin; treasurer, Dr. Desnos; librarian, Dr. Chassevant; members of the committee, MM. Marcel Baudouin, Boloumié, Boursier, Brissaud, Chervin, Chevallereau, Coudray, Durand-Fardel, Florand Jamin, Laborde, Lataste, Marchant (Gérard), Maygrier, de Molènes, Poyet, and Valude.

Apropos to Dr. Valentine's article on "Advice to Gonorrheal Patients" (vol. 4, page 80), our German correspondent writes: It is interesting to note that the Heidelberg Kliniks pay little attention to gonorrhea, but lay the stress on the importance of recognizing the dread nature of syphilis. Professor Erb, from his researches in 1,000 cases, believes that "tabes" (locomotor ataxia) is almost without exception due to syphilis. He has repeatedly this semester spoken to his students on the subject of syphilitic aneurysm, syphilitic liver, and syphilitic diseases of the walls of blood-vessels, especially in the brain, and has urged his students that they use all their power to combat the spread of the disease. They should warn their patients that he who once has syphilis is thereafter a changed man, in that very slight diseases or accidents (as colds, etc.) will serve to bring out (auslösen) the effect of the syphilis in the system. From the pessimistic tone assumed here, one would imagine that the world were hopelessly sensualistic, and that a white cross crusade were more than needed, in Germany, at least. But the statement is made that one man in four in France has syphilis!

MISCELLANY.

The International Congress for the Prophylaxis of Syphilis and Venereal Diseases will meet in Brussels September 4. The governments of most European and American states as well as Japan will send delegates.

Honorary Members.—Geh.-Rath Professor Liebreich, of Berlin, has been made an honorary member of the Paris Society of Therapeutics. Professors Olshausen, Martin, and A. Baginsky have been made honorary members of the Paris Society of Obstetrics, Gynecology, and Pediatrics.

Obituary.—Dr. Balbiani, professor of comparative embryology in the College of France.—Dr. Hermann Klotz, professor of obstetrics and gynecology in the Medical Faculty of Innsbruck.—Dr. Genuino Marques Mancebo, professor of histology at the University of Rio de Janeiro.

Society Reports.

[From our Special Correspondent.]

ROCKY MOUNTAIN INTERSTATE MEDICAL ASSOCIATION.

First Annual Meeting at Salt Lake City, July 25 and 26, 1899.

DURING the meeting of the American Medical Association, at Denver, in 1898, this association was organized. Its first meeting for the reading of scientific papers was held at Salt Lake City, July 25 and 26, 1899. It starts with a membership of 100, and about 60 were in attendance. On the first evening of the meeting the Association was entertained by the local members at the bathing pavilion at Saltair; and the next evening partook of a banquet. The President, DR. CHAS. PINCKNEY HOUGH, of Salt Lake City, presided at the sessions, and an address of welcome was given by HON. HEBER M. WELLS, Governor of Utah. The scientific program was as follows:

The Medico-Legal Supervision of Prostitution.—This was advocated by DR. SALATHIEL EWING, of Salt Lake City, as a necessary sanitary measure. He urged the dangers of syphilis and gonorrhea, and that since prostitution could not be eradicated it should be supervised so as to lessen the ravages of these diseases. The usual attitude of the police towards prostitutes, as a class, was condemned. Funds obtained by licensing prostitutes should be employed only to aid in limiting venereal disease; and to support hospitals and reformatory institutions. Inspection should be practised weekly, and strict quarantine, with hospital isolation and treatment, must be maintained for those found diseased. Although he entertained a high respect for the clergy, he thought that upon this question they had generally taken quite a wrong attitude.

Treatment of Chorea.—DR. S. D. HOPKINS, of Denver, had obtained satisfactory results by the administration of antipyrin according to the method of Dr. J. T. Eskridge. The drug was given in increasing doses, beginning with one grain for each year of the child's age and increasing one grain each day. In the mildest cases the child was permitted to sit up a part of the day, and the antipyrin was only given in the evening. In severe cases absolute rest in bed was required and the dose of antipyrin was given 3 times a day. So soon as the choreic movements ceased, or greatly diminished, the drug was stopped; and Fowler's solution and iron were given until two or three weeks after the cure appeared to be complete. In giving such doses of antipyrin (20 grains 3 times a day to a child 8 years old) certain precautions had to be observed. The child must be kept in bed and carefully watched. If there were heart-disease or any fever, antipyrin was not given. He had seen no bad results from its use, and in the 19 cases on which his paper was based, had obtained rapid cures.

Hydatid Mole.—DR. SOL. G. KAHN, of Leadville, reported a case of hydatidiform mole or cystic degeneration of the chorion from his own practice with 3 other hitherto unpublished cases from the practice of others. He had also sent letters of inquiry to 400 physicians from whom he received 78 replies reporting altogether 12 cases. This illustrated the rarity of the disease, and the impossibility of obtaining valuable statistics. The results of inquiries with regard to factors of causation had been quite negative.

Cases of Hemophilia were reported by DR. A. A. KERR, of Salt Lake City. One was in a boy of 10 years, who was bleeding from an abrasion of the gum. His mother's brother had died of hemorrhage following an operation. The parents were healthy, as were two of their children. Two other children had been bleeders, dying from hemorrhages at the ages of 12 days and 6 months respectively. The second case was that of a baby 10 months old, whose family-history was negative.

The President's Address, delivered at the opening of the afternoon session of the first day, emphasized the need for closer association among the physicians of the inter-mountain States. They had many themes of especial common interest; and were too far removed to regularly attend the society meetings held in the East. They could meet each other once a year at some place in the inter-mountain region, with great advantage. He was in favor of proper regulation of the practice of medicine, but thought that medical laws should be so modified as to permit a physician of established fitness and experience to practice in any State, without having to pass an examination which some of the examiners might have been able to pass when they first graduated. If membership in the American Medical Association were not sufficient guarantee of fitness to practise anywhere, that association ought to be reorganized.

Use of the Hematokrit.—DR. JUDSON DALAND, of Philadelphia, urged the clinical value of blood-examinations with this instrument. He pointed out the great amount of time required to make a careful blood-count, the importance of duplicating it to obtain reliable data, and the great probability of serious inaccuracy. The hematokrit did not exactly replace the blood-count; but the ease with which the volumetric estimate of the corpuscles could be made gave it great clinical value. More time was required to keep the apparatus in order, and get it thoroughly cleaned; but with an assistant the volumetric estimate could be made in three minutes. A diluting fluid to prevent coagulation was not necessary, unless the tendency to coagulate was very great; but rapid manipulations were essential to secure accurate results. He used 10,000 revolutions of the tube per minute for two minutes. This gave 50% as the volume of corpuscles in normal blood. By multiplying the percentage of corpuscles found in any specimen of blood, by two, one could obtain the percentage of corpuscles as compared with normal blood taken as 100%. For comparison with blood-counts the 100% so obtained might be taken as representing 5,000,000 corpuscles to the cubic millimeter.

Fibroid Phthisis Induced by Quartz Dust.—DR. W. W. BETTS, of Salt Lake City, called attention to the terrible mortality of the lung-trouble induced by the dust of the De La Mar mill, where certain gold-bearing ores are reduced to a fine powder, and the air is filled with an impalpable dust. It was stated that all who had worked in these mills from 7 to 9 months previous to January, 1898, are now dead. The total deaths up to March 1 of the present year, he believed to be 166. He reported 14 cases in tabular form. They were those of men of 20 to 43 years of age, and previously healthy. One was able to work 23 months, and had lived two years afterward. Another had worked but 3 months, and died 7 months later. The average time they were able to continue working was 13 months; and the average time they lived after leaving the mill was 10 months. The trouble began with attacks of acute bronchitis with inflammations of all the exposed mucous membranes. Later there was loss of appetite and loss of weight, rapid respiration and general malaise. The pulse ranged from 90 to 120, and became weak and intermittent; and in the late stages the temperature rose to 102° or 104°. Two autopsies showed great disease of the pericardium; the lung-tissue excessively firm, with great increase of connective tissue, and air-cells partly obliterated. On chemical analysis the lung-tissue was found to contain 2.8% of silica, and the bronchial glands 3.8%. There was tellurium in the ore, but no arsenic. The only remedy was prophylaxis. DR. P. E. JONES, of Salt Lake City, thought the disease in question was the same as that which affected the employes in cutlery works and grindstone quarries, and to which grain-shovelers were especially liable. So long as life was less valuable than gold would the sacrifice continue. DR. F. CLIFT, of St. George, Utah, said all the men who left St. George to work in that mill came back with this trouble. There were three of them still alive, but on the way to follow their fellows. There was not the slightest doubt but that all who now worked in the mill were likewise doomed. DR. MAYO, who had been surgeon for the De La Mar company for 4 years, had carefully investigated the subject with the aid of the company's records; and had found that only 34 had died, who had been employed during that time. He believed a similar mortality would be discovered among the workers in other mills handling similar ores. When the disease was once contracted, it probably was necessarily fatal. Since the attention of the company had been called to the matter extensive changes had been made in the mills. Fans, hoods, and ventilators had been put in, and respirators supplied for the men with instructions about using them. Recently an inspector of the New York Life Insurance Com-

pany had reported that the workers in these mills were in no more danger than the workers in the flour mills of Minneapolis.

Repeated Extrauterine Pregnancies.—Dr. C. K. Fleming, of Denver, reported two cases. The first case, after marked evidences of a rupture of the sac, had presented the symptoms of sepsis, and was treated three weeks for typhoid fever, before Dr. Fleming saw the woman. She promptly recovered after the evacuation of a pelvic abscess. After 18 months of regular menstruation she had the same train of symptoms, but refused operation, and slowly recovered without it. The second patient was operated on shortly after the occurrence of symptoms of tubal rupture, and a pelvic hematocele was found. One year later similar symptoms appeared, and on operation the right tube was found ruptured and containing a large blood-clot. This patient also recovered. There was no history pointing to previous disease in either case.

Carcinoma of the Uterus.—Dr. W. W. Grant, of Denver, pointed out that the universal increase in the mortality from cancer made its causation and prevention of practical interest. The theory of a specific parasite seemed, on the whole, to be gaining ground. Certain it is that it occurs chiefly in parts most exposed to both traumatism and infection. On early diagnosis rests the only chance of cure. He favored frequent examinations of women near the menopause, and microscopic examinations of suspicious lesions. In women who have borne children, all lacerations of the cervix should be repaired at 40 years of age.

Treatment of Acute Conjunctivitis.—Dr. Edward Jackson, of Denver, said that acute conjunctivitis included, beside the effects of eye-strain and local irritants, at least five specific infections; and that successful treatment depended on the careful discrimination between the different classes of cases. Eye-strain was always to be thought of and eliminated. In all forms of conjunctival infection, complete cleansing at sufficiently short intervals was of the greatest importance. Protargol was to be employed for purulent conjunctivitis, with a few applications of a strong solution of silver nitrate in bad cases. Mydriatics and cocain should not be prescribed for acute conjunctivitis, because they were more likely to do harm than good. To secure the greatest cleanliness of the conjunctiva, and to limit the dangers of infection, all forms of poultice, bandage and compress should be carefully avoided.

Points in Eye-work.—Dr. R. F. Le Mond, of Denver, spoke of the important relations between eye-lesions and brain-disease. He believed the pathologic changes, often found in the astigmatic eye, were for the purpose of relieving the brain of strain that would otherwise come upon it.

Improved Artificial Eyes.—Dr. G. Melville Black, of Denver, in a paper on ocular prosthesis, called attention to the recent suggestion of Snellen, of different forms for artificial eyes. The shell heretofore generally used was designed to wear over a shrunken eyeball, and not to fill up the orbit after an enucleation. There were also needed a concavo-convex form of artificial eye, to be worn over a small stump, and a double convex form to properly occupy the orbit after enucleation. Artificial eyes of these latter forms not being obtainable yet in this country, he had resorted to the expedient of filling in the cavity of the ordinary shell with a preparation of wax (Gilbert's temporary stopping) used by dentists. This had proven quite satisfactory in preventing the unsightly sinking of the artificial eye, and the accumulation of discharges behind it, and irritation of the conjunctiva by formation of a vacuum beneath the shell.

Operation for Gallstones.—Dr. I. B. Perkins, of Denver, reported 3 cases of distention, inflammation, and sepsis, arising from obstruction of the duct by gallstones, cured by operation, removal of the stones, and drainage. Gallstones were so common, and gave rise to so many and such obscure symptoms, that the subject was one of great practical importance. The greater frequency among women (more than 2 to 1) was probably due to constriction of the abdomen by customary styles of dress, and a more sedentary life. He had done the operation of incision, removal of the contents of the gallbladder, and drainage, with closure of the opening subsequently. He believed the operation of immediate closure of the gallbladder, and dropping it back into the abdomen, was rarely applicable to cases requiring operation, and that it ought not to be called the "ideal" operation. Of the stitches passing through the abdominal wall to close the incision, those opposite the opening into the gallbladder were made to enter its wall and then emerge from it again, like a Lembert suture, before crossing the incision. Two or three of these stitches were left untied at the center of the incision, and the gaping part of the wound packed with gauze, to ensure free drainage. When drainage was no longer needed, the edges of the abdominal wound were slightly freshened and the stitches tied, without the need of anesthesia to introduce fresh sutures. The inversion of the edges of the incision in the gallbladder, by what acted upon it as a Lembert suture, secured prompt union. Dr. John B. Roberts, of Philadelphia, was favorably impressed with Dr. Perkins' plan of closing the wound. When a gallstone, however, was impacted in the common duct, it would be extremely difficult to dislodge it by any such operation. He suggested that the duct might be followed down to its entrance into the duodenum, and an opening made in the duodenum opposite this point. A probe could then be introduced through the mouth of the duct and the obstructing stone pushed back into the gallbladder and removed. The dilatation of the ducts above the point of obstruction would commonly render the dislodgment of the obstruction not difficult.

Appendicitis with Anomalous Position of Appendix.—Dr. A. J. Hosmer, of Salt Lake City, exhibited a boy operated on for appendicitis, in whom, through the usual incision in the right iliac region, no trace of the appendix or head of the colon could be found. A mass of exudate could, however, be felt far up and to the right. A median incision was made and the gangrenous appendix removed from the midst of this mass. In this case the pain was referred to the left side.

Suprarenal Extract in Surgery of Ear, Nose, and Throat.—Dr. W. W. Bulette, of Pueblo, reported upon an experience with this agent in 201 cases, 137 of nasal, 46 of throat, and 18 of ear-disease. It produces anemia of the tissues, reducing swelling, and preventing hemorrhage that would otherwise be very troublesome by obscuring the field of operation. It also aids in prolonging local anesthesia, which is cut short by the hemorrhage washing away the cocain. With its help operations can be done without pain or loss of blood. There are no unpleasant effects, and there is little secondary hemorrhage. Since employing it, cases presenting symptoms of cocain-poisoning have been fewer. It reduces to a minimum the patient's dread of operation.

The Bottini Operation for Hypertrophy of the Prostate.—Dr. Leonard Freeman, of Denver, reported 8 cases of enlarged prostate, operated on with the Bottini instrument, which burns grooves in the hypertrophied organ. It consists of a platinum galvanocautery knife, arranged like the male blade of a lithotrite. Any general burning of tissue in contact with the instrument is prevented by a stream of ice-water circulating through it. The operation causes very little after-pain or bleeding. Of the 8 cases, 5 were practically cured. One case, improved at first and still having no residual urine, again suffered from pain and frequency of urination as badly as ever, and cancer was now suspected. He believed this the best operation yet proposed for enlarged prostate. Few men submit cheerfully to castration or even to vasectomy. Bottini's operation causes no external wound. It can usually be done under local anesthesia. In the above cases general anesthesia was used but once. The burned surfaces are practically sealed against absorption. The benefit is immediate. There are few relapses. The patient can move about within a day or two. The mortality of the operation (in general 5%) is less than by other modes of operation. None of Freeman's cases were fatal. Patients will submit to this operation when they will not submit to other operations.

Disease of the Mastoid.—Dr. C. K. Cole, of Helena, reported 4 cases illustrative of 16 that he had seen in the last 20 months. Such cases are essentially surgical. He advocated thorough opening of the mastoid and irrigation with not less than 2 to 4 quarts of hot sterilized water, or antiseptic solution. The periosteal incision may sometimes be useful in young patients. In extreme cases multiple openings were advised. Dr. H. R. Bull, of Grand Junction, had recently encountered two cases of mastoid disease following measles. He employed hydrogen dioxid as a cleansing agent in these cases.

Toxic Causes of Insanity.—Dr. Hubert Work, of

Pueblo, called attention to the generation within the body of poisons capable of causing mental alienation. Loss of weight and anorexia occur so constantly in connection with certain psychoses as to suggest at least a common cause. Some of the most distressing symptoms of dyspepsia are mental. It is certain that insanities do result from prolonged digestive disturbances. Autoinfection from the alimentary canal may alone cause many cases. He reported 4 illustrative cases in which treatment directed to the source of the toxic influence brought about a cure of the mental symptoms. The first, a case of digestive disturbances, was cured in 3 months. The second, a case of rheumatism, was cured in 18 months. The third was a case of chronic cystitis cured in 4 months. The fourth, due to hepatic derangement, was cured in 2 months. Insanity was a symptom, and removal of its cause brought recovery. In no disease was proper medical treatment more needed at the beginning.

Autointoxication and Blood Morphology in Relation to Operations.—DR. P. S. KEOGH, of Salt Lake City, discussed the bearing of these conditions on the preparation of the patient for a surgical operation. The older surgeons well knew that complications followed less frequently when the patient had been prepared for operation by catharsis. Symptoms of indigestion and gastrointestinal disease should always be carefully looked for. Examination of the urine might reveal a deficient elimination of solids. General anesthetics increased the danger from autointoxication. The examination of the blood, particularly with reference to the percentage of oxyhemoglobin, and the condition of leukocytosis, gave very important evidence regarding the patient's power of resistance.

Cases of Infection by the Bacterium Coli.—DR. J. N. HALL, of Denver, stated that this organism, at first regarded as only a harmless inhabitant of the normal alimentary canal, was now known to be one of the important pathogenic bacteria. Probably the name was now applied to a whole group of bacteria, presenting varying degrees of virulence, and not to a single species. He reported two fatal cases, both in males. The first patient, after 24 hours of retention, presented great numbers of colon-bacilli in the urine. There ensued pleuritis, bronchopneumonia, pericarditis, a purpuric eruption, pyelitis and perinephritic inflammation. In the second patient there was a purpuric eruption, and abscesses scattered over the body. The bladder was distended with acid, foul-smelling urine, containing sugar and loaded with bacilli; and gas was generated within the bladder. The spleen and liver were found septic. There was nephritis, and a large abscess behind the upper end of the sternum.

The Early Diagnosis of Tuberculosis.—DR. A. M. HOLMES, of Denver, thought there were sufficient early evidences of this disease; and if these were heeded recovery might be brought about. Loss of appetite and weight, gastric disturbances, dyspnea and persistent cough should lead to careful and repeated examinations. The importance of the early examination of the sputum he thought had been overrated. If the bacilli were found the evidence would be conclusive; but they might exist in concealed foci of infection a long time before making their way into the sputum. He regarded subnormal morning temperature and "cog-wheel respiration" as important symptoms; but hemorrhage was not. Early in the disease the study of the blood was more important than the study of the sputum, especially the examination of stained blood-films with a differential count. There is no excuse for delay in the diagnosis of tuberculosis, for we have a certain test in the reaction produced by tuberculin. He employed at first an injection of 1 milligram. If no reaction followed this, three days later 3 mg. were injected, and if this produced no effect 5 mg. were tried. The injection was made in the evening, and the reaction commonly occurred 6 to 10 hours later.

Officers for the Ensuing Year.—The following were elected: President, Chas. K. Cole, of Helena, Montana; vice-presidents, Leonard Freeman, of Denver, and R. H. Reed, of Wyoming; treasurer, Chas. G. Plummer, of Salt Lake City; recording secretary, Donald Campbell, of Butte, Montana; and corresponding secretary, S. D. Hopkins, of Denver.

Drs. Judson Daland and John B. Roberts, of Philadelphia, were elected honorary members. The place selected for the next meeting is Butte, Montana, and the time, the last week in August, 1900.

[From our Special Correspondent.]

AMERICAN OPHTHALMOLOGICAL SOCIETY.

Meeting held at New London, Ct., July 19, 1899.

(Continued from page 241.)

A Case of Expulsive Intraocular Hemorrhage after Preliminary Iridectomy for Cataract.—DR. R. L. RANDOLPH, of Baltimore, said this accident occurred on the third day after an iridectomy preliminary to cataract extraction. The patient was 76 years of age, in good health, and had a mature cataract in the right eye and commencing opacities in the left. Iridectomy was performed with perfect satisfaction and for two days the patient did well. On the third day she suffered a great deal of pain, and on inspection it was found that the corneal wound was bulging, the anterior chamber obliterated, the lens pushed forward and the iris was resting against the posterior surface of the cornea. On the following day it become necessary to extract the lens, since the condition was steadily becoming worse, and no sooner was the section completed than the lens was ejected with great force and a mass of vitreous immediately followed. The corneal flap was replaced and light compresses applied, but healing took place slowly and a shrunken eyeball resulted. In the course of six months glaucoma of the left eye set in and advanced rapidly to blindness. It was not thought wise to attempt an iridectomy in view of the experience with the right eye, but the pain became so intense that paracentesis of the vitreous was performed twice, and, although the eye remained hard, the pain entirely disappeared. The development of glaucoma of the left eye seemed to justify the conclusion that the same condition was present in a milder stage in the right eye, at the time of operation.

Discussion.—DR. FRYER said that he had met with several cases of hemorrhages after cataract extraction, and he thought it was interesting to note in this case that the very slight change of pressure that follows an iridectomy could produce a hemorrhage in those eyes which are so predisposed. DR. SUTPHEN reported a case of hemorrhagic glaucoma in which he had undertaken to do an iridectomy, but had profuse prolapse of vitreous and finally destruction of the eye. DR. CARMALT asked if there had been any examination of the kidneys and of the arterial system in these cases. DRS. RANDOLPH and FRYER both answered that they had made urinary analyses without finding any albumin. DR. MILLIKIN reported a case of hemorrhage occurring on the sixth day after extraction, without serious results; the hemorrhage gradually cleared up. DR. REEVE referred to a case in which he had operated upon the second eye successfully by first doing a paracentesis, then an iridectomy, and finally extraction. DR. WADSWORTH reported a profuse hemorrhage occurring after iridectomy and rendering it impossible for him to proceed further towards extraction. The wound healed perfectly, however, the hemorrhage cleared up, and extraction was done later.

Retinitis Albuminurica as a Factor in the Causation of Secondary Glaucoma.—DR. C. S. BULL, of New York, stated that the connection between retinal hemorrhage and secondary glaucoma is recognized by all, but the connection between retinitis albuminurica and secondary glaucoma does not seem to be so clearly recognized. The connecting-link is probably more or less extensive disease of the walls of the bloodvessels, which may be regarded as a common cause of both the retinitis and the hemorrhages. It is generally conceded that interstitial nephritis is the variety usually accompanied by retinal hemorrhages and in this form of nephritis the general constitutional symptoms vary greatly in different cases. Albuminuria, the most certain sign, is occasionally absent, and when present is slight in amount and not easily detected. Two symptoms are rarely absent, however, and these are cardiac hypertrophy with a doubling of the first sound, and certain cerebral phenomena; the most frequent head-symptom is a continuous frontal or occipital headache. When these symptoms are found, the urine should be subjected to frequent analysis. In looking over the literature of hemorrhagic glaucoma I find that many of the published cases were marked by these symptoms. In almost all the cases of secondary glaucoma, preceded or accompanied by retinal hemorrhages and exudation, it is quite impossible to decide whether the glaucoma is really secondary to the hemorrhages or whether the two are

simply associated. Dr. Bull then reported in detail four cases of glaucoma following exudative retinitis albuminurica.

Discussion.—Dr. Prout suggested that possibly we could gain some knowledge of the cause of glaucoma if we should follow up a number of cases to see what those patients eventually die of. Dr. Wadsworth reported one case of secondary glaucoma of both eyes, in which he had been able to follow the patient's history until she died of acute pneumonia, but at no previous time had she been the subject of any discoverable disease. Dr. Howe brought up the question of heredity as a factor in the causation of glaucoma and reported one family with eight cases of secondary glaucoma occurring in three generations.

On Anomalies in the Epithelial Layer of the Crystalline Lens, Anterior Polar Cataract.—Dr. A. Alt, of St Louis, reviewed the various theories concerning the origin of anterior polar cataract, and said: It seems to me that contact between the anterior lens capsule and the posterior of the cornea, whether this membrane otherwise healthy, or infiltrated with pus, even if it be prolonged, cannot alone be the cause of the formation of an anterior polar cataract. If it was it should occur, at least now and then, after a perforating injury of the cornea, and with more frequency after ulcerative perforations of this membrane. He was not inclined to accept the theory of intrauterine corneal perforation as an explanation of the congenital cases in view of the fact that heredity seems to play such an important part in their history. As a result of his examinations of a number of eyes he is inclined to believe that the prime cause of the formation of an anterior polar cataract is some congenital malformation of the lens, and that this represents a break in the continuity of the capsular epethelial layer as well as a dissolution of contact between this layer and the lens capsule. This would permit the penetration of substances into the lens and possibly the formation of cataract.

A Method of Converting the Alternating Current for Use in Connection with the Johnson Magnet.—Dr. W. B. Johnson, of Paterson, N. J., said that the portable electromagnet devised by Dr. Johnson and described in the May number of Knapp's *Archives* is only of use in connection with a direct electric current of 110 or 120 volts and consumes one-half ampere of current. Municipal lighting in many cities is accomplished entirely by the alternating current, and as some means of converting this into a direct current is essential to the adoption of this or any other magnet for general use, the following method is suggeested: a $\frac{1}{4}$ horse-power fan motor adapted to the alternating current is to be fitted with a pulley and belted at a distance of 3 feet to another pulley attached to a $\frac{1}{6}$ horse-power fan-motor wound for the direct Edison current; the speed of the motors must be the same. The Edison motor acts as a generator and furnishes the $\frac{1}{2}$ ampere current at 110 volts necessary to fully saturate the core of the magnet. The probable cost of such an appliance would be about $50. The Johnson magnet was exhibited and was offered as a substitute for the Haab magnet, being less cumbersome, equally as strong, portable and more easily adapted to use in cities having alternated currents, as it requires only one-half ampere of current, while the Haab requires 10 or 12 and needs a motor and generator of several horse-power.

Report of Three Cases of Magnetic Extraction of Steel from the Eyeball through the Point of Entrance.—Dr. W. B. Johnson, of Paterson, said that in all three cases large pieces of metal were removed from the eye without difficulty by the Johnson magnet. In every instance considerable pain was produced as the magnet first approached the eye, and in the second case the wound of entrance having become partially enclosed had to be enlarged. The largest piece of metal was $\frac{3}{8}$ of an inch long by $\frac{1}{8}$ wide.

Discussion.—Dr. Howe said that he had experienced some difficulty with other magnets in that when the foreign body was drawn up to the wound it was scraped off as the magnet was withdrawn. Dr. Holt said that he had overcome that difficulty by having an assistant open the edges of the wound with a small Stevens' strabismus-hook. Dr. Johnson said that this magnet is not to be introduced into the eye, and also suggested the advisability of enlarging the wound of entrance in some cases before attempting to remove the bit of metal from the vitreous chamber. Dr. Harlan spoke of the necessity of attempting the removal of foreign bodies as soon as possible after the injury in order to prevent their becoming bound down by the products of exudation.

A Cyst of the Vitreous (with patient).—Dr. J. O. Tansley, of New York, said that on ophthalmic examination of this patient a floating spheroidal body about the diameter of the optic disc could be seen in the center of the vitreous. When the eye was quiet it slowly settled to the lower part of the cavity and remained there in contact with the retina, but the slightest movement of the eyeball caused it to jump rapidly about. The cyst had a distinct capsule, and though one could see through the anterior capsule and cyst-contents, small pigmented spots were noticeable on its posterior capsule. It was apparently benign, and though under observation for some time has not undergone any change.

Discussion.—Dr. Alt suggested that it might be an adenomatous tumor detached from the ciliary processes and undergoing mucoid degeneration. Dr. Randall thought it was more likely such a cyst as is occasionally seen at the edges of a coloboma, and that it had been set adrift through the closure of the congenital cleft.

A Case of Sympathetic Ophthalmia Due to Glioma Retinæ in the Fellow Eye.—Dr. A. Alt, of St. Louis, said the patient, a child of 5 years, had one year previously had the left eye removed because it was blind and was the source of irritation to the right eye. When seen by Dr. Alt there was well-marked sympathetic ophthalmia with blindness in the right eye. After treatment by mercurials and iodids a marked improvement took place in the eye, so that the child was able to count fingers at 8 feet, but his general condition did not improve, and in a few months two small growths appeared in the left orbit. The enucleated globe was obtained and an examination of it, as well as pieces of new growth, showed gliomatous tissue. Cases of sympathetic ophthalmia due to intraocular growths are rather uncommon.

Cases of Metastatic Panophthalmitis.—Dr. D. L. Millikin, of Cleveland, stated that Case 1 was one of typhoid fever with monocular iridochorioiditis and severe earache and headache. Although there was no autopsy it seems likely that the panophthalmitis in this case was the result of extension from some meningeal involvement. In Case 2 there was monocular panophthalmitis, probably due to septic endocarditis, although the systemic diagnosis was not certain. In the Case 3 there was binocular panophthalmitis in connection with a fatal pneumonia. In the second and third cases it is probable that the eye-disease was embolic in character.

Discussion.—Dr. Fryer said that these metastatic cases would seem to be due to some peculiar forms of sepsis. During the Civil War he had seen a large number of cases of pyemia, but remembered only one case in which there was metastatic trouble within the eyeball. Dr. Randolph referred to a case, which he reported 3 years ago, of panophthalmitis occurring in a child 9 months of age, and in whom it was impossible to determine a cause for the disease. The only disease the child could have had was possibly la grippe.

A Case of Spontaneous Rupture of the Eyeball.—Dr. B. L. Millikin, of Cleveland, said the patient, a woman aged 68 years, had for a number of years complained of neuralgic attacks in the head. In January, 1896, she had an acute attack of pain in the left eye, and within a week a similar attack in the right. There was rapid loss of vision, and since then she has been blind. The tension in both eyes was plus 3. On January 4, 1898, while sitting quietly in her room, she had an acute attack of pain in one eye, followed immediately by spontaneous rupture of the globe and profuse hemorrhage. The rupture was a nearly vertical one through the center of the cornea, from the lower margin of the pupil upwards into the sclera.

Multiple Rupture of Sphincter of Iris with Subsequent Development of Myopic Astigmatism.—Dr. W. F. Mittendorf, of New York, stated that in this case there were six distinct ruptures of the pupillary border, produced by a blow on the eye, but no unusual dilatation of the pupil except at the seat of the ruptures. After the injury had healed a myopic astigmatism of 3 Ds. was observed, with the axis of the cylinder in the direction of the most pronounced rupture. The eye was apparently normal before the injury, and the ophthalmometer showed a normal cornea afterwards, so that the astigmatism must have been lenticular.

Normal Pupillary Reaction with Microscope for Its Measurement.—DR. LUCIEN HOWE, Buffalo, said that in regard to the measurements in pupillometry, those made with the naked eye are entirely unreliable. The best form of instrument is that in which the scale is fixed in a tube of a microscope or of a telescope. The instrument exhibited gave a great amplification with a flat field, and the slightest variation in the size of the pupil could be easily detected and measured.

The Value of Acoin as a Local Anesthetic in Eye-Surgery.—DR. R. L. RANDOLPH, of Baltimore, said that in January, Trolldenier, of Dresden, published a report of experiments upon rabbits with a new anesthetic, namely: acoin, using it both in powdered form and in solutions of varying strengths. Dr. Randolph has tried this preparation in solutions in 1 : 100 and 1 : 300 upon the human eye, and finds that in many respects it is not as satisfactory as either cocain or holocain. For instance, if the eye be congested or irritated repeated instillations will not give satisfactory anesthesia; it produces rather more stinging than the other anesthetics named, and is not so rapid in action. It does not affect the accommodation, and a few experiments made seem to indicate that organisms cannot live in a solution of it.

More Uniform Tests for Vision, Color-Sense, and Hearing.—DR. C. H. WILLIAMS, of Boston, offers some new cards, 3½ by 9 inches, containing one row of letters adapted for the distances of 20, 30 or more feet, and a number of them can be carried in the pocket. In addition to the test-letters similar cards have been prepared on which are printed representations of the ordinary semaphore arm signals of such height and width that when seen at a distance of 20 feet they correspond to the standard semaphore arm when seen at the distance of half a mile. Concerning the tests for color-sense he insists that it should consist of not only a comparison of colors by the Holmgren method, but also a test with colored lights so arranged that the intensity of the light can be varied and the names of the colors given by the person being examined. Dr. Williams exhibited a lantern which he had prepared for this test and explained its workings. The test for hearing submitted was ratchet acoumeter, which emitted a series of sharp metallic sounds when the milled screw was turned.

A Modified Perimeter.—DR. C. H. WILLIAMS, of Boston, has attached to the self-registering perimeter an electrical apparatus so that very small incandescent lights can be used for the point of fixation and for the movable point on the arc. By means of ground-glass globes the light intensity can be varied and with colored globes the color-field mapped out.

Two New Stains for the Gonococcus.—R. G. Schuec (*Bull. Cleveland Gen. Hosp.*, April, 1899) describes Rick's solution as follows:

Ziehl's carbol fuchsin	15 drops.
Concentrated alcoholic solution of methyl-blue	8 drops.
Distilled water	20 cc.

Stain cold for 10 seconds, wash with water, dry, and mount. The gonococcus will be stained a deep blue, other bacteria a light blue, cell-nuclei a still lighter blue, protoplasm pink. The second stain is recommended by Lanz and should be freshly prepared, though they have employed them for six weeks. Formula: Saturated solution of fuchsin in 2% carbolic (aqueous), 10 cc. Saturated solution of thionin in 2% carbolic (aqueous), 40 cc. Stain without warming, for ¼ to ½ minute, and wash with water. The gonococci are stained by thionin, the cell-protoplasm by the fuchsin, and the nuclei by both colors at the same time. If these solutions are allowed to act too long the desired effect is not obtained. [C.L.L.]

Intracerebral Injections of Serum in Tetanus.—Leo Zupnik (*Prager med. Woch.*, No. 2599) says a series of experimental and clinical researches have led him to conclude from the numerous cases in which the injections have been without results, and in spite of 2 serious cases in which it was employed with good results, that further tests of the efficiency of this particular method of treatment must be secured to prove that the favorable results in severe cases that recover where it is used are to be attributed to it and not to the other means that are employed at the same time. [C.L.L.]

The Latest Literature.

British Medical Journal.

July 29, 1899. [No. 2013.]

1. Remarks on the Operative Treatment of Various Internal Derangements of the Knee-Joint. W. J. WALSHAM.
2. An Effective Treatment of Vesical Hemorrhage when Caused by Papillomatous Growths. HERBERT T. HERRING.
3. Note on the Blood in a Case of Beri Beri. F. W. MOTT and W. D. HALLIBURTON.
4. Remarks on the Treatment of Impermeable Stricture of the Urethra by Excision of the Strictured Segment and Suture of the Divided Ends. EDWARD DEANESLY.
5. Note on a Case of Obliteration of the Male Urethra. RICHARD H. KENNAN.
6. Extraction of Ligatures from the Bladder. MURRAY MACLAREN.
7. A Case of Abdominal Nephrectomy for Renal Calculus. WALTER L. BELL.
8. Fragilitas Ossium Among Workers in Lucifer Match Factories. W. F. DEARDEN.
9. The Mechanical Factor in Surgery. C. HAMILTON WHITEFORD.
10. An Inoperable Case of Epithelioma of the Larynx and Neck Treated with Formalin Injections. J. D. McFEELY.
11. A Rare Abnormality of the Mouth. GEORGE W. GRIFFITHS.
12. Two Cases of Acute Nephritis due to Influenza. W. B. RUSSELL.
13. Hydrobromate of Hyoscin in Chorea. A. C. RENDLE.
14. Note on a Case of Communicating Pleural and Peritoneal Effusions. ALEX. JAMES.

1.—**The internal derangements of the knee** may be classified as follows: (1) Loose bodies; (2) detachment on displacement of the semilunar cartilages; (3) enlargement with nipping of hypertrophied synovial fringes; and (4) elongation of the ligamentum patellae. In all these derangements, except the last, it may sooner or later become necessary to open the knee-joint if a radical cure is to be obtained. Walsham believes that the knee-joint may be opened with a freedom equal to that of opening the peritoneum, but likewise an equal amount of care for strict asepsis should be taken in opening the joint as in the peritoneal cavity. He calls especial attention to the 5 following points: (1) Preparation of the patient, *e.g.*, rest in bed 3 days to a week previous to operation, with the limb in a splint, regulation of bowels, etc., and careful asepticising of the skin; (2) arrest of all hemorrhage; (3) accurate suture of the synovial membrane and capsule; (4) postoperative absolute rest for the limb; (5) early passive movements and massage. As to the treatment of elongation of the patellar ligament, it is best to transplant it further down the tibia by the use of an ivory peg. [G.B.W.]

2.—The method of **treating vesical hemorrhage when caused by papillomatous growths,** as suggested by Herring, consists essentially in the frequent and continual injections of silver-nitrate solution, whereby the hematuria is checked and the growth may be permanently controled. He begins with a ½ gr. of silver nitrate to 4 ounces of warm water, acidulated with a small quantity of free nitric acid. The solution is increased in strength as the patient becomes tolerant to it. The injections should be made daily for 4 to 6 months, then every other day for 6 months more, and finally every third day for a variable time. The patient may be taught to treat himself, but the strictest aseptic rules are to be observed. [G.B.W.]

3.—An experiment by Mott and Halliburton showed that **the blood of a patient suffering from beriberi** contained a substance that caused a fall of arterial pressure when injected in the veins of animals. The same result is caused by the choline found in the cerebrospinal fluid from cases of general paralysis of the insane. The presence of choline in the former case could not be proven chemically. [A.G.E.]

4.—Deanesly reports a case of **stricture of the urethra** in which the strictured portion of the urethra was

excised and the ends brought together and sutured end to end. The operation was most successful, except for a small sinus persisting because of the retention of an infected suture, but no urine escapes through the sinus and there is absolutely no recurrence of the stricture, a full-sized sound passing with ease into the bladder. [G.B.W.]

6.—Mrs. J. A., aged 24, had been operated on for pyosalpinx and numerous silk ligatures had been required. One year and 9 months later she began to pass the ligatures from the bladder. Some were passed spontaneously, but the majority were extracted through the cystoscope as soon as they appeared through the bladder-wall. Eight ligatures finally came away, the earlier ones being encrusted with calcareous salts. [G B W.]

7.—The **kidney** in this case was misplaced so that the enlarged organ had been mistaken for obscure tumor of the tubes or ovaries. There were 4 calculi in the kidney whose total weight was almost 4 ozs. The removal of the kidney was effected by going through mesocolon. The abdominal wound was closed without drainage and the patient made a good recovery. [G.B.W.]

8.—Dearden concludes that there is sufficient presumptive evidence to show that the osseous tissues of the body generally can be so altered by the prolonged action of phosphorus or its compounds as to render them less resistent to the application of external violence. He reports the examination of a phalanx of a phosphorous "dipper" and "mixer" in which a relative increase in phosphoric acid of about 1% over that of normal bone was found. [G.B.W.]

10.—McFeely gives the following conclusions as drawn from a case of **inoperable epithelioma** of the larynx, treated by injections of formalin: (1) Up to a ½ dram of pure formalin can be injected into the body without producing toxic symptoms; (2) although a powerful styptic, it does not seem so liable as other styptics to produce clotting and embolism; (3) it is probably as safe to use formalin undiluted as diluted with water; (4) when used undiluted it seems to produce an anesthetic effect more quickly; (5) unlike most other powerful antiseptics or irritants, it does not stimulate, but retards cell-multiplication and growth in malignant tumors. [G B W.]

11.—An infant was born with the gums adherent to each other, and the cheeks to the gums posterior to the position of the future canine teeth. Only the posterior half of the tongue was developed, the stump being closely applied to a cleft in the hard palate. There was no opening of the posterior nares and no uvula. An interesting point is that the child cried loudly and naturally immediately after birth. It died in a few days from obstructed respiration. [A.G.E.]

12.—Two cases of **acute nephritis caused by influenza** are detailed. [A.G E.]

13.—Hydrobromate of hyoscin caused marked improvement and final recovery, followed in **a seemingly hopeless case of chorea** after the failure of other drugs. [A.G.E.]

14.—James reports a case of ascites and pleural effusion in which **the abdomen and pleura were tapped interchangeably with the same result.** The same kind of fluid was obtained in each case, and the abdominal cavity seemed to be more thoroughly emptied through the pleura than when tapped directly. One pleural tapping yielded 446 ounces of fluid. Tests were made and there was found to be an inspiratory rise of pressure in the pleural fluid. There seems to be no doubt of a free communication between the cavities. [A.G.E.]

Lancet.

July 29, 1899. [No. 3961.]

1. The Influence of Heredity upon the Drink Habit. G. Sims Woodhead.
2. History of Pharmacy in Ireland. J. C. C. Payne.
3. The Practical Aspects of Dorsal Percussion and in particular of the Percussion of the Spine. William Ewart.
4. Dermatitis Exfoliativa Neonatorum or Ritter's Disease. Kedarnath Das.
5. Six Cases of Operation for Appendicitis. Horatio P. Symonds.
6. Two Cases of Severe Subcutaneous Injury to the Peroneal Nerve; Operation. R. G. Hogarth.
7. A Case of Recklinghausen's Disease complicated with a Sarcomatous Growth involving the Brachial Plexus. H. D. Rolleston.
8. Interscapulo-thoracic Amputation. A. W. Mayo Robson.
9. A Case of Acute Intestinal Obstruction; Laparotomy; Recovery. Edward R. C. Earle.
10. Pulmonary Embolism following Abdominal Operation; Recovery. Edward Joseph Blackett.
11. A Case of Sudden Extrusion of Uterine Fibroid simulating Inversion of Uterus. Edward Malins.
12. A Case of Herniotomy in a Septuagenarian following Immediately on an Attack of Hypostatic Pneumonia. T. Wilson Parry.
13. A Foreign Body in the Rectum. James S. Martin.
14. A Case of Strangulated Inguinal Hernia of Cecum and Vermiform Appendix, in a Child six weeks old, Successfully Treated by Operation. E. A. T. Steele.
15. A Case of Rupture of the Gravid Uterus; Abdominal Section and Removal of Fetus and Universally Adherent Placenta; Enterectomy; Recovery. Lieut.-Col. Joubert and Captain Hubert M. Earle.

1.—Woodhead takes exception to Reid's theory of **immunity against drunkenness** obtained by use of alcohol for successive generations. A certain degree of immunity to the action of alcohol on the tissues may be attained, but not to the taste or liking of alcohol. He holds strongly that a direct transmission of the taste for alcohol never occurs. Drunkenness as a disease is not transmitted, but only the weakly and unbalanced condition of the tissues of alcoholic parents. [A.G.E.]

3.—Ewart states that thoracic surgery, to keep up its present rate of progress, must be more and more dependent upon accuracy of diagnosis; for this reason **dorsal percussion is of great value to surgeons,** and also to physicians for early recognition of disease. The anatomic relations of the organs are outlined and methods of percussion studied. The use of a pleximeter is advised and the value of using the bones of the chest as pleximeters is emphasized. The dorsal percussion areas include 3 resonant and 4 dull outlines: (1) Spinal resonance along the tips of the spinous processes; (2) lateral bands of vertebral resonance on either side of the spines; (3) scapular resonance; on the other hand (1) interscapular dulness; (2) post-cardial dulness; (3) post-hepatic dulness; (4) post-splenic dulness. Each of these is treated at length. **The lower dorsal dull patch of pericardial effusion** is believed to be the dulness of the liver, pancreas, etc., unusually well conducted to the back. The fluid spreads out over the liver and acts as a mute upon its vibrations. This patch is at the eleventh and twelfth spines. [A G.E.]

4.—A case of **Ritter's disease** is given and Das thinks that many of the cases are diagnosed as acute pemphigus. It usually appears earlier than pemphigus, and the exfoliation of the epidermis distinguishes it. The general prognosis is unfavorable. Treatment is by tonics, and the use externally of fats and oils with some antiseptic. [A.G E.]

5.—The six cases of **appendicitis** reported by Symonds illustrate the varying complications that are met with in appendectomies. In one case the appendix was difficult to find on account of the adhesions, but when discovered was found to contain a concretion which had caused ulceration almost to the point of perforation. Two other cases were of the gravest possible nature and demanded immediate operation. The others showed how severe the symptoms may be and yet no great amount of inflammation be present in the surrounding peritoneum. [C.L.L.]

6.—Hogarth reports two cases of **traumatic injury of the peroneal nerve** that illustrate very clearly how severe the symptoms resulting from the contusion of a nerve may be and how far its function may be destroyed and yet its integrity remain and be capable of regeneration under favorable conditions. This condition undoubtedly results in many cases of fracture and is erroneously attributed to exuberant callus. In both of the cases reported the nerve was found bound down by newly-formed connective-tissue, but its continuity uninjured. When it was freed and electric stimulation and massage appropriately applied recovery of sensation in the group of muscles and area

effected first took place, finally followed by complete restoration of muscular tone and movement in both cases. [C.L.L.]

7.—Rolleston describes a case of **Recklinghausen's disease,** which is a combination of multiple lesions affecting the integument and nervous system. The growth involved the brachial plexus and was complicated by a sarcomatous growth involving this plexus. There was, in addition, a molluscum fibrosum of the left neck and shoulder with a ptosis of the lower eyelid on the same side. The sarcomatous growth produced pressure-symptoms on the trachea, interfering with breathing. The patient finally died in collapse. [C.L.L.]

8.—Robson reports two cases of **interscapular-thoracic amputation** done for sarcomatous disease of the shoulder in one instance, and for advanced tubercular disease with necrosis of the bones in the other. The author does not find specific instructions regarding the method of operating to be of much value; "the coat has to be cut according to the cloth" in each instance. Loss of blood was prevented by the use of an Esmarch bandage to drive all the blood into the body, the exposure of the subclavian vessels and clamping, in one case, and in the other by pressure followed by the catching of the bloodvessels during the operation. The two methods seemed to work equally well under the circumstances related. [C.L.L.]

9.—Earle reports a case of **laparotomy for acute intestinal obstruction** in which he established a fecal fistula in the inguinal region above the obstruction, as it was impossible to raise the portion of intestine involved or to dislodge the obstructing mass. After a period of time the patency of the gut was restored and the fistula closed. The patient recovered completely and has had no recurrence. [C.L.L.]

10.—Blackett reports an interesting case which might have been attributed to the effects of ether upon the lungs of the patient. A **pulmonary embolism followed operation,** giving rise to hemoptysis, night-sweats, and rapid pulse, which, together with a family history of tuberculosis, led the author to think of tuberculosis, but no tubercle-bacilli could be detected in the sputum or signs in the lung. There was no sudden onset of symptoms, and the diagnosis was made by exclusion. The effusion of serum after the onset of the pleurisy was the only time that the breathing was embarrassed, and this was relieved by tapping. [C.L L.]

11.—Malins reports a case of sudden **extrusion of a uterine fibroid** which closely simulated an inversion of the uterus. The growth weighed 2 pounds and 6 ounces, and had the characteristics of an edematous fibromyoma, with some extravasations of blood in places, and here and there in the interior some small cysts filled with colloid-looking material. [W.K.]

12.—A remarkable amount of vitality was shown by the patient in a case reported by Parry in which he performed a radical operation for a **strangulated femoral hernia in a patient 74 years old** who had just recovered from an attack of hypostatic pneumonia. [C.L.L.]

13.—Martin reports the removal of a glass bottle, 3 inches high, 6 inches in circumference and 2 in diameter, from the rectum of a patient. It had been placed there by some of his comrades while he was drunk, and swelling of the parts prevented the patient from removing it. [C.L.L.]

14.—Steele reports an interesting case of **hernia in a child six weeks old.** It was a strangulated inguinal hernia containing the cecum and vermiform appendix. It was congenital in type, and as the opening was very small it was surprising that it had not become strangulated sooner. It was probable that while the contents of the bowel were fluid it could readily pass, but when the cecum became filled with solid matter the hernia first became incarcerated and then strangulated. The patient, though so young, stood the operation remarkably well and recovered rapidly and completely. [C.L.L.]

15.—Earle reports a case of rupture of a gravid uterus, the abdomen was opened and a dead and partially decomposed fetus weighing over 2 pounds was removed, the placenta was adherent and with difficulty was extracted. The small intestine was almost completely ruptured, and it was necessary to resect 2 inches of gut. A fecal fistula followed, which ultimately healed, and after prolonged convalescence the patient recovered. [W.K.]

New York Medical Journal.

August 12, 1899. [Vol. lxx, No. 7.]

1. Why Some Severe Cases of Appendicitis end in Recovery without Operation. J. H. CARSTENS.
2. The High Aims of the Physician. BEVERLEY ROBINSON.
3. The Effects of Influenza upon the Eyes. HENRY S. OPPENHEIMER.
4. Hemoglobinuric Fever. EDWARD E. FIELD.
5. The Pathology and Etiology of Rheumatism, with Some Remarks on Treatment. CUVIER R. MARSHALL.
6. The Treatment of 43 Cases of Typhoid Fever with no Deaths, and with Complications in but One Case. EDWARD C. SEUFERT.
7. Some Remarks on the Use of Suprarenal Capsule in the Nose and Throat. J. CLARENCE SHARP.

1.—Carstens reports two cases illustrative of conditions in which severe **appendicitis** may end in recovery without operation. In the first case, that of a woman who had had three attacks of appendicitis, an operation was undertaken in the interval, and the appendix was found with its point adherent to the cecum for fully an inch. In this condition it is easy to understand that should the appendix get filled with pus it would rupture into the cecum, the direction of least resistance. In the second case, that of a woman who was operated upon in the interval after 2 attacks, the appendix was found lying flat along the cecum over its whole extent with absolutely no mesentery. [M.B.T.]

2.—Robinson emphasizes **the great importance of character,** as well as scientific attainments, in physicians. He also states that the *art* of medicine is the practice thereof, and this must not be neglected for the *science* upon which the art is in part based. The clinical features of disease must not be slighted because of search for germs which cause it. There may be some infections without bacteria. [A.G.E.]

3.—An extensive list of clinical observations of **eye-troubles during or shortly after influenza** is given. The vitiated digestive functions, changes in the blood, lowered nutrition, and depression of the heart's action during the disease account for the profound impression upon the nervous system commonly observed, and this explains the frequent eye-lesions. [A.G.E.]

4.—Field **differentiates between yellow fever and hemoglobinuric fever.** The points of analogy also given are black vomit, yellowness of skin, high degrees of pyrexia, and constipation. He believes that, under proper predisposing conditions, quinin furnishes as readily exciting a cause of hemiglobinuria as does a crop of malarial parasites. Hence he would not give the drug until all signs of hemoglobinuria had disappeared. He relieves constipation by salines, withholds quinin, gives morphin for pain and restlessness, applies cold to the head, and administers arsenic to prevent recurrence of the malarial paroxysm. [A.G.E.]

5.—Marshall concedes that **the presence of lactic acid in the economy is a predisposing cause of rheumatism,** but there is no conclusive evidence that it is the **exciting** cause. The disease is characterized by reduced alkalinity of the blood and caused by toxic agents whose character and identity are as yet a mystery. Points in treatment are given. [A.G.E.]

6.—Seufert is strongly in favor of **the antiseptic treatment of typhoid fever.** He reports 43 consecutive cases with no death. Great attention is given to rest and diet. Patients are put to bed so soon as the disease is suspected, and not allowed to leave it until convalescence is established. Systematic cold sponging is employed. After clearing the alimentary tract by calomel, salol, naphthalin, and guaiacol carbonate are each given for one week, in the order named. No other internal medication is used, unless complications set in. The average duration of the fever was 21 days. [A.G.E.]

7.—The use of a 10% **aqueous extract of suprarenal capsule as an astringent for the nasal mucous membrane** is highly recommended. After a year's trial, Sharp considers it much better than cocain. [A.G.E.]

Medical Record.

August 12, 1899. [Vol. lvi, No. 7.]

1. An Abdomino-Sacral Method for the Removal of Rectal Carcinoma. H. OTTO SOMMER.

2. Acute Bronchitis—A Symptom; the Treatment from an Etiological Standpoint. Thomas F. Reilly.
3. A Case of Asexualism. Harlow Brooks.
4. Epiphora, or the Watery Eye: Its Complications, Etiology, and Management. J. H. Woodward.
5. The Operation of Celiotomy. Robert Banker Talbot.
6. Typhoid Mortality in 24 American Cities, 1889–1898. F. S. Crum.
7. Carbolic-Acid Poisoning. J. Drysdale Buchanan.
8. A Case of Crescent Malaria Occurring in a Boy Aged Five Years, Always Resident in New York. Henry Heiman.
9. Treatment of Pulmonary Edema of Cardio Neurotic Origin. D. J. Hamburg.

1.—An **operation for** the removal of a **rectal carcinoma by the abdomino-sacral method** is reported from Prof. Kraske's clinic in Freiburg. A woman, aged 49, who had suffered abdominal pains and renal tenesmus for a year, passed a large quantity of blood by the rectum, in large clots. The patient was emaciated and cachectic, her abdomen was distended, and rectal examination showed the tumor to be firmly adherent posteriorly and anteriorly, and the region about the intestine greatly infiltrated; the tumor was located so high up and was so firmly adherent to the sacrum as well as to the uterus, that every attempt to remove it by the sacral route seemed to be unjustifiable. An incision was made 2 fingers' breadth above Poupart's ligament and parallel to it, and the abdominal cavity was shut off with gauze tampons. A tumor was found extending from the lower part of the sigmoid flexure downward into the rectum and firmly adherent to the surrounding structures. The peritoneum was excised posteriorly in the region of the promontory, as was also the mesorectum and the peritoneum of Douglas' culdesac laterally and anteriorly. A large branch of the superior hemorrhoidal artery was ligated and the peritoneum was separated off by the fingers alone. After the rectum had been entirely freed the cavity was packed with gauze and the patient placed in the right lateral position. A typical sacral incision was made through which the carcinoma was easily drawn out and excised, and anastomosis of the resected gut was performed. The patient suffered from constipation for the first few days, but her progress since then has been good, and she was allowed out of bed on the eighteenth day after the operation. [M.B.T.]

2.—The author particularly emphasizes the fact that **bronchitis is a symptom merely,** and that it is an evidence of some intoxication, very frequently being due to the condition commonly termed uric-acid poisoning, oftentimes to autointoxication from the gastrointestinal tract, or frequently to specific infections. He condemns the usual treatment with so-called expectorants, and insists that the most important point in treatment is to discover the cause and treat upon this basis, and especially to give eliminative treatment. [D.L.E.]

3.—A case of **asexualism** was that of a man of 29, a native of Russia, who was admitted to the hospital for intracerebral hemorrhage, with resulting paralysis. It was noted that he had a highpitched voice with a feminine inflection, and that his manners were rather effeminate. He said that he had always been devoid of sexual impulse. He died from severe mitral stenosis. The general conformation of the body was more like the female than the male. The pelvis, in particular, was of the feminine type, and there was a well-developed mons veneris. The penis was small but well-shaped. The testes were apparently absent, but rudimentary testes were found beneath the pelvic peritoneum on each side. These, microscopically, proved to be made up chiefly of fibroid septa with epitheloid cells of irregular size and shape, without any evidence of cell-activity. These glands resembled lymph-glands more than any other structure. No well-formed prostate gland could be made out. The ducts leading from the testicles were imperfect, and the vasae contained no lumen. It is notable that, in spite of the absence of psychic manifestations of sexuality, erection occurred. [D.L.E.]

5.—Talbot discusses **celiotomy**, the preparation of the patient, the abdominal incision, ligature and suture material, and after-treatment. He regards the Tuffier's angiotribe as the most perfect instrument devised for the control of hemorrhage. If drainage is necessary an opening is made in Douglas' culdesac through to the vagina, and iodoform gauze carefully packed into the abdomen and the end left protruding from the vagina. [W.K.]

6.—A study of the **typhoid mortality** in the largest cities of the country shows that in the first place, it is almost uniformly in evidence that the mortality from this disease is excessively high, and at the same time there has been a marked reduction in the death-rate during the past ten years. The wretched condition of some of our cities is shown by the fact that Pittsburg had for the decade a mortality of 82 per 100,000 from typhoid fever, while Berlin during the same period had a mortality of 7 per 100,000 from this disease, and London had a mortality of 13 per 100,000. The reduction in mortality in this disease has been marked, however; Newark, New Jersey, having reduced its mortality so much as 70.1%. New Orleans alone shows a rising mortality from typhoid. The reduction in the mortality in Newark seems fairly attributable to the improved water-supply. The year previous to the change in this supply, the typhoid mortality had reached 99 per 100,000, while when pure water was obtained the mortality dropped the next year to 42, the following year to 22, and in 1894 to 16 per 100,000. The same explanation holds for the improvement in the mortality in Chicago; the water-supply there having been very greatly improved. The water-supply of Philadelphia receives deserved condemnation. Brooklyn has the lowest mortality of the largest cities, and it is a very noteworthy fact that had the mortality of Brooklyn prevailed instead of the general mortality, 22,705 deaths would not have occurred. [D.L.E.]

7.—The point of the report is that the woman had swallowed over an ounce of **carbolic acid,** and was treated by washing the stomach with 35% **alcohol.** Recovery from the immediate effects occurred, though the woman was badly burnt about the face and seemed to have lost the larger portion of her gastric mucous membrane. [D.L.E.]

8.—The main interest is contained in the title. It is thought to be the only case on record in New York of **crescent malaria in a child.** [D.L.E.]

9.—The two cases which are reported were treated by giving morphia in doses of one-sixth or one-eighth grain, repeating this dose in a half-hour, and if necessary continuing its repetition until one grain was given. The result was marked improvement, and it is recommended that **morphia** be used freely in **pulmonary edema,** as Hamburg believes that it does not embarrass respiration nor increase congestion [D.L.E.]

Medical News.

August 12, 1899. [Vol. lxxv, No. 7.]

1. Some Observations and Controversial Remarks on the Specific Cause of Yellow Fever. G. Sanarelli.
2. Tuberculosis of the Kidney as an Indication for Nephrectomy. Edward Reynolds.
3. Retention of the Testicles, with Report of Cases. L. L. Hill.
4. The Choice of Drugs to Dilate the Pupil. Edward Jackson.

1.—Sanarelli makes a vigorous reply to certain American criticisms regarding the **etiologic relation of the bacillus icteroides to yellow fever.** He discredits the identity of Sternberg's bacillus x, with the organism discovered by himself, for he does not believe it to be possible to isolate from the intestinal tract the specific germ of yellow fever, particularly because of the difficulty of separating any one microorganism from the great mass found in that region, partly because in his opinion it is found chiefly in the organisms and tissues of the body, that is to say, particularly in the liver. Sternberg's cultures from the blood and viscera were made during the immature stage of the technic of that subject and were entirely inconclusive. In regard to the claim made by Reed and Carroll that the bacillus icteroides is a variety of the bacillus cholerae suis, he calls attention to the great differences in the cultural peculiarities of these organisms, and to the marked differences of the toxins in their reaction to temperature and their action upon animals. He is particularly surprised that these authors should have found necrosis of the liver in animals inoculated with his bacillus; such a necrosis not occurring

in his experience nor in that of many other observers. He is, therefore, of the opinion that their results are due to a faulty technic. Both Reed and Carroll, and Novy have claimed that the faculty of resisting cold exhibited by the bacillus icteroides is sufficient proof that it is not the specific germ for yellow fever. Sanarelli treats this claim with some derision, justly observing that the vitality of practically all the pathogenic germs is destroyed by cold, and that experience with ships infected with yellow fever proves conclusively that the organism is not destroyed, but merely that its growth is inhibited, by low temperatures. The argument that the bacillus icteroides has not been found in all cases of yellow fever is not valid because the technic at first was faulty. In regard to the claim that the fatty degeneration of the liver is not a characteristic lesion of the yellow fever germ, Sanarelli quotes some results obtained by himself, which show that the amount of fat in the dry residue of the liver of dogs after infection with diphtheria is only 14.65%, whereas in similar dogs, after infection with the bacillus icteroides, it was 22.69%. Finally, he claims that his organism is the only one agglutinated by the serum of a yellow-fever patient if the dilution be at least 1 to 40; and that it does produce a soluble toxin with which, under favorable conditions, an efficient antitoxic serum may be obtained. [J.S.]

2.—Reynolds says that points of interest in his cases of renal tuberculosis were the long standing of the disease, in one case 20 years, the apparent absence of all other symptoms, except a slight deterioration in health, with either a habitual or transient urinary discomfort, and, thirdly, out of the 4 cases there was a family history of tuberculosis in 3. His treatment in 3 of the cases was nephrectomy, and in the other simple incision. The results were very satisfactory. [G.B.W.]

3.—Hill reports 3 cases of **retention of the testis.** One of these cases was of especial interest because of a reflex epilepsy, which ceased immediately after the testis had been fastened to its proper position in the scrotum. [G.B.W.]

4.—As to the choice of **mydriatics:** For refraction, atropin when it is desired to keep the eye under its influence for some time, and homatropin for a short time, are the drugs of choice. In central corneal opacity or partial cataract, when dilatation is desired in order to increase vision, atropin should be employed. For operations cocain is the mydriatic of choice. For simple dilation a mixture of homatropin and cocain is most satisfactory. [G.B.W.]

Boston Medical and Surgical Journal.

August 10, 1899. [Vol. cxli, No. 6.]

1. The Proteids of the Urine. WILLIAM B. HILLS.
2. Osteo-Arthritis of the Spine; Spondylitis Deformans. JOEL E. GOLDTHWAIT.
3. Operations in the Treatment of Palmar Abscess. W. A. BROOKS, JR.
4. Preliminary Note on the Prognosis of Nephritis. RICHARD C. CABOT and FRANKLIN W. WHITE.

1.—From a study of **73 urines of acute and chronic nephritis, secondary renal hyperemia, and local inflammatory affections of the urinary membranes,** and a review of the relevant literature, Hills concludes (1) that **albuminous urines contain also globulin** in the great majority of cases; (2) that globulin occurs in a small proportion of cases as the sole coagulable proteid of the urine, and (3) that the same statement is probably true of albumin. The **significance of globulin** as a constituent of the urine and its value in diagnosis or prognosis are unknown. There is, however, some basis for the belief that an increase of the proteid quotient (that is, the number obtained by dividing the quantity of albumin excreted in the 24 hours' urine by the quantity of globulin) is a favorable indication, a decrease an unfavorable one. Regarding **peptonuria,** the author thinks that up to the present no case of true peptonuria has been recorded, if under the term peptone is understood those proteids only which are not precipitated by saturation of the liquid containing them with ammonium sulfate. The methods of isolating and of testing for globulins and peptones are given. [D.R.]

2.—The terms **osteoarthritis and spondylitis deformans** are used to denote the disease of the joints characterized by nodular deposits at the edges of the articular cartilages, associated with atrophy or degeneration of the cartilage at points of pressure. It is to be differentiated from rheumatoid arthritis, in which condition joint inflammation and atrophy result in ankylosis, and marked distortion are the chief features. It is essentially a disease of adult life, but not necessarily a disease of old age. No one cause explains the onset of the disease; in the majority of cases the cause seems to be some exposure to rapid change in temperature of the affected part. Pathologically the disease consists of a nodular enlargement of the edges of the articular cartilages with the subsequent ossification of these nodes and an extension of the process into the ligaments which have their origin or insertion near by. In the spine the process usually begins upon one side anteriorly and extends up or down along the anterior lateral ligament. As the disease goes on in the ligaments and cartilages the intravertebral substance atrophies, and when the disease is slow the entire intravertebral disk may be absorbed before ankylosis takes place. The back becomes rounded and the spine very much arched. If the process is more active the vertebra may become ankylosed before the disc has become absorbed and no spinal deformity is produced; if more active on one side than on the other, lateral deformities may result. The subjective symptoms are usually slight; often there is considerable pain referred to the back and aggravated by change of position; besides the pain in the back and limitation of motion, neuralgic pains in the arms and legs, together with disturbances of sensation, numbness, or hyperesthesia, due to pressure upon the nerve-roots, are the most common symptoms. Following these pains, pressure-paralysis may result, but after the active stage has passed, lessened vascularity is followed by lessened pressure upon the cord and relief of symptoms. Deformity has a wide range of variation. In the most extreme form the back is rounded, the head protruded, the chest flattened, but there may be ankylosis of the whole dorsal and lumbar spine, with scarcely any change in the normal curves. The general treatment should be nourishing and stimulating; extra diet, stimulating baths, massage of the affected parts, electricity in a middle current, and dry heat are all of value. Iron, arsenic and strychnia are the drugs which are of the greatest value; codliver-oil and alcohol in medicinal doses are also useful. In the mechanical treatment, some form of spinal support should be used—partly to relieve the pain by restricting the motion; partly to prevent marked deformity from developing. [M.B.T.]

3.—In the **treatment of palmar abscess** the usual short incision permits the pus to escape, but Brooks considers that this method is not sufficiently thorough, for, in the great number of cases many pockets of pus remain undiscovered and unopened. The postoperative treatment is also unsatisfactory, for the openings are so small that gauze often prevents rather than favors free drainage, and their removal causes considerable suffering. The incisions, owing to their number, location and direction, commonly cause stiffness of the hand. To obviate these disadvantages an incision is advocated, commencing at the end of the transverse furrow of the palm on the ulnar side and carried almost its entire length across to the furrow which winds around the base of the thumb and along this to the wrist. The skin is carefully dissected up from the palmar fascia and the flaps turned outward. Various pockets of pus can be seen and cureted, tendon sheaths may be examined and opened if necessary, and there is slight danger of cutting vessels or nerves, for they can be seen. The cavity is packed with gauze wrung out in hot mercuric chlorid solution and the whole hand is done up in an antiseptic poultice. The hand should be soaked in a hot antiseptic bath for an hour or so daily and the dressing changed. After a week or so the structures in the palm become covered with granulations, packing is no longer needed, skin-flaps are folded back and gradually brought together and a dry dressing applied. [M.B.T.]

4.—The authors have investigated the important question **whether** cases of **chronic nephritis** (either diffuse or interstitial) **can ever recover,** and how long patients suffering from this disease may live. The data were collated from the records of the Massachusetts General Hospital and from letters received, upon request, from physicians. They conclude (1) that chronic nephritis is not an absolutely incurable disease. Recovery occurs in rare instances. (2) That

chronic nephritis may exist for a long series of years without causing any apparent constitutional disturbance. (3) That the average duration in 322 cases of chronic nephritis was nineteen months. That acute nephritis is less common than has been supposed; many cases formerly diagnosted as such have been shown to represent exacerbations in chronic nephritis. [D R.]

Journal of the American Medical Association.

August 12, 1899. [Vol. xxxiii, No. 7.]

1. Tuberculosis of Fascia. JAMES E. MOORE.
2. Knee-Joint Tuberculosis. A. F. JONAS.
3. The Longitudinal Silver-wire Suture. M. L. HARRIS.
4. Femoral Artery and Vein. B. MERRILL RICKETTS.
5. Tuberculosis of Pharynx. CLEMENT F. THEISEN.
6. Accessory Thyroid Tumors at Base of Tongue. JACOB E. SCHADLE.
7. Criminal Morphomania. T. D. CROTHERS.
8. Rational Treatment of Chronic Morphinism. AUSTIN J. PRESSEY.
9. Persistent Pyorrhea. GEO. T. CARPENTER.
10. Therapeutics of Inflammation. WARREN B. HILL.
11. Medical Journalism. JOHN DUNCAN EMMET.
12. Recent Bacteriologic Research. JAMES J. CLAUSEN.
13. A Case of Middle-Ear Disease. WILLIAM L. BALLENGER.

1.—See this JOURNAL, Vol. III, p. 1272.
2.— " " " " " " 1273.
3.— " " " " " " 1273.
4.— " " " " " " 1274.
5.— " " " " IV, " 16.
6.— " " " " " " 16.
7.— " " " " III, " 1337.
8.— " " " " " " 1337.

11.—Among the many excellent suggestions contained in this paper are: the adoption of the principle that **medical journals,** like other journals, must be paid for in advance; the abolition of the credit system and the cutting off the subscription-list of all subscribers who are too dishonest to pay for what they have bought; the encouragement of professional proprietorship of medical journals, and the discouragement of all journals whose policy is not entirely under medical control. The end of medical journalism must be to strive for the corporate interests of the profession, to obtain its recognition as a corporate force in fact as well as in name, that thus the public well-being in all that pertains to health may be best protected and advanced. [M.B.T.]

Wiener klinische Wochenschrift.

May 25, 1899. [12. Jahrg., No. 21.]

1. Report of 52 Myoma Operations. E. WERTHEIM.
2. The Expressible Bladder. G. KAPSAMMER.
3. A Case of Perforation of the Gallbladder toward the Free Abdominal Cavity Cured through Operation. J. HOCHENEGG.
4. The Knowledge of the Human Gallbladder. R. v. ZEYNEK.
5. Subcutaneous Kidney-Rupture; Nephrectomy; Cured. F. PENDL.

1.—Wertheim thinks that only those tumors which do not reach above the umbilicus should be removed by the vagina. In cases of women who are very anemic and who have degeneration of the heart-muscle, the size of the tumor should not be greater than a child's head, to be removed in this way. Of course, the width of the vagina has much to do with the case. The topographic relation of the tumor to the collum uteri, and the mobility of the uterus, are also of importance, especially when the uterus is greatly displaced. Of 52 operations for **myoma,** 36 were planned per vaginam and 34 executed. In the other two the operation had to be changed to laparotomy. In 25 of the 34, morcellement was performed, in 3 of them the tumor being more than double the size of a child's head. Only one of the 34 ended fatally. Wertheim believes that the vaginal operations, though more difficult than the abdominal, are safer, and have well-marked indications. Instead of working in the dark, as many suppose, he thinks the field is thoroughly under control of the eye; also that injuries to neighboring organs are less frequent and the uterus and its adnexa may more readily be saved, and abdominal hernia avoided. In abdominal operations the author favors supravaginal amputation whenever possible, as it also allows the leaving of a piece of functionating uterine tissue. This method of operating is contraindicated when it would predispose the cervix to carcinoma. Myomata of the cervix or other parts, which have developed in the pelvic connective tissue, infected uteri, and cases of suppuration, demand total extirpation. Of the 14 total extirpations through laparotomy, he considers that 6 might just as well have been supravaginal amputations. Of the abdominal operations also one was fatal. [W.K.]

2.—Kapsammer studies with care the rationale of the **expression of the urine from the bladder** and believes that it is of value in many instances where for any reason the power of the detressor muscles is deficient either from muscular atonicity or because of deficient innervation. To make it possible there must also be some weakness in the nervous mechanism of the internal sphincter, for it is impossible to produce expression while this muscle is intact. The external sphincter is only capable of maintaining its control over the bladder temporarily by mental exertion which proceeds from the brain. A condition sina qua non to the expression of the urine mechanically from the bladder is a paresis of the external sphincter. This condition can be produced by disease of the central nervous system, the peripheral nerves or by anatomic changes where the nerves are intact. [C.L.L.]

3.—The case reported simulated **occlusion of the bowels.** The operation disclosed an enormously distended transverse colon which had prevented the passage of the bile into the lower portion of the abdomen. Examination disclosed a large perforation of the gallbladder through which a calculus projected. There was a large amount of bile mixed with serous fluid in the peritoneal cavity. The patient made a complete recovery. [C.L.L.]

4.—In the case reported by Hochenegg [No. 3], the author was able **to collect and study the bile** for a period of 11 days. The fluid was golden-yellow, but slightly turbid, of a characteristic stale odor, alkaline, and had a specific gravity of from 1011 to 1012: The daily quantity varied from 300 to 400 grams, with from 7 to 12 grams solids. A diastasic ferment was present, but not a proteolytic one. A study of the bile collected hourly was also made. During the first few days after the operation the bile was thinner than afterwards. The principal mineral ingredient of the bile was sodium chlorid; traces of iron and copper were found. Urea and trimethylamin were also present. The author describes a reaction for bile-pigment, which consists in treating the bile, markedly diluted with water, with zinc chlorid and ammonia in excess. The fluid in ½ to 1 hour turns green and gives a characteristic band in the red of the spectrum. The test is applicable to urine containing bile. [D.R.]

5.—In the case reported, operation was delayed until the tumor about the kidney became very large, while a quantity of blood was being lost daily through the ureter. The operation was commenced 22 days after the accident. There was found to be an extensive hemorrhage about the kidney with a rupture of the pelvis. Such alterations had taken place in the kidney as to make its retention valueless, while the hemorrhage present was so great that it could only be controled by ligation of the pedicle of the kidney. Nephrectomy was, therefore, indicated for two reasons. The patient made a good recovery. This case shows that in doubtful cases of **apparent subcutaneous rupture of the kidney,** operation is indicated, and a favorable prognosis is admissible. [C.L.L.]

The Alexandra Hospital for Hip-Disease, at Queen Square, Bloomsbury, London, which was established 32 years ago to provide 10 beds for children suffering from hip-disease requiring prolonged treatment, has increased gradually until it contains 60. The building was, however, unsuitable, and the friends of the hospital provided $100,000 to purchase the site and erect new buildings. The work has been completed, and on July 20 the Princess of Wales, after whom the hospital is named, declared the new buildings open. The hospital is free of debt.

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.

[In the prescription for acute coryza, page 291, issue of August 12, the quantity of pilocarpin hydrochlorate should be one-half grain instead of one-half gram as printed.]

Dionin.—Fromme (*Berl. klin. Woch.*, April 3, 1899) speaks highly of dionin in the treatment of the morphin-habit. The gradual lessening of the amount of morphin taken must be strictly distinguished from a total withdrawal. An agent is required to lessen the symptoms attending the total withdrawal. Cocain as a substitution agent may induce a habit worse than the morphin craving. Codeinum phosphoricum has been found useful in the treatment of morphinomania. Fromme has tried dionin, which is an ethyl derivative of morphin, and has found it superior to peronin (benzyl morphin) or codein (methyl morphin). The dose of dionin, according to v. Mering, is 0.015 to 0.03 grams subcutaneously, and 0.03 to 0.06 grams by the mouth. Trial of the dose must be made in each case, as some require a larger and some a smaller dose. The dose may be diminished in two or three days. Dionin produces no euphoria, and consequently it can be discontinued easily. Too small doses must be avoided at first, and the drug must be continued until the symptoms due to the withdrawal of morphin have disappeared. These symptoms are chiefly noted during the first four or five days. Dionin does away with the obstinate sleeplessness and the anxiety attending it. The effect of too large a dose is a feeling of weariness. The author warmly recommends dionin in the treatment of the morphin-habit.—*British Medical Journal*, May 27, 1899.

Applications of Alcohol in Lupus Erythematosus.—Hebra (*Wiener klin. Woch.*, No. 1, 1899) has treated several cases by the application of alcohol with remarkably good results. In an acute case the eruption, which had spread steadily downwards as far as the lower edge of the manubrium, disappeared completely after a treatment of 4 weeks, and there was no trace of it 6 months later. Chronic cases were cured or at least benefited. The method is simply to moisten—not to rub—the patches with a pad of cotton-wool soaked in alcohol. The more often this is done the sooner the effect appears. To increase the antiphlogistic effect in his last cases, Hebra has used:

℞.—Absolute alcohol,
Sulfuric ether,
Spirit of peppermint, } equal parts.

It is important during the treatment to avoid soap.—*Medical and Surgical Review of Reviews*, London, May 1, 1899.

Orexin in Anorexia.—Yonge (*The Therapist*, London, May 15, 1899) states that in his experience no remedy has proved so generally useful in cases of impaired appetite as orexin, a base obtained by a synthetic process from coal-tar derivations, which was introduced for therapeutic purposes by Penzoldt. The two preparations with which the writer has made clinical observations are orexin base and orexin tannate, and the latter has been the one chiefly used. The tannate is a yellowish-white, odorless, almost tasteless powder, insoluble in water, soluble in dilute acids, and therefore in the gastric juice. It shortens the process of digestion, as demonstrated by Penzoldt, by stimulating the secretion of hydrochloric acid, and by increasing the motor power of the stomach. In the writer's practice the drug was exhibited in a large number of instances, and it acted with excellent effect in anorexia, associated with varied diseases. The majority were cases of phthisis. The dose, which depends upon the degree of anorexia, varies from 4 to 8 grains in children, and 8 to 16 grains in adults. The drug appears, so far as the writer's experience goes, to act as a reliable stomachic and an excellent stimulant to the appetite, and it has on several occasions succeeded when ordinary bitters had failed. A feature of the drug is its rapid action; but it is sometimes desirable to continue its administration for some days after the appetite has been restored, as otherwise there is a possibility of the anorexia reappearing.

Antipyrin and Arsenic in Severe Chorea.—Comby (*Archives de Médecine des Enfants*, April 1899) states that antipyrin and arsenic are to-day the two drugs most in favor in the treatment of severe cases of chorea. The following treatment is outlined by Comby: (1) In severe cases the child should be confined to bed, kept absolutely quiet, and so isolated that the noise of his companions will not disturb him. He should be given a liquid diet; in case of aversion to milk, bouillon and clear soups may be employed. Constipation should be combated by laxatives. (2) Antipyrin, to be efficacious, should be given in large doses 3 or 4 times a day. The dose that can be reached, and that should not be exceeded, is 8 grains per day for a child of one year. This amount should not be given at once, but reached in 2 or 3 days. A good formula for a child of 10 years is:

℞.—Antipyrin..... 4 drams.
Sirup of orange..... 10 drams.
Distilled water..... 6½ ounces.

Two drams can be given the first day, 3 the second, and 4 the third, and 5 during the following six days. Before giving antipyrin the condition of the kidneys should be ascertained. If their function is impaired antipyrin proves dangerous. Children support these large doses admirably, and accidents are very rare. Occasionally a morbilliform or scarlatinal eruption is produced, vomiting is excited, or the urine is temporarily suppressed. The results are excellent. The chorea is generally cured in 15 days. (3) Arsenic can be given in large doses when well diluted, without irritating the stomach. Intolerance manifests itself by nausea, vomiting and persistent indigestion. Curable palsy and pigmentation of the skin have been noted. Very often a cure is obtained with arsenic in 10 days.

Hygienic Rules in Mitral Stenosis.—The late Sir Andrew Clark, in a clinical lecture which was published after his death, gave some valuable hygienic rules for a patient with mitral stenosis. In the daily dietary, fluids should be restricted, for after their absorption they distend the vascular system, and increase the bulk without increasing the nutritive value of the blood within the vessels. The ingestion of much liquid enfeebles the heart and increases the labor of the right ventricle into the left ventricle. The patient should have three good meals a day as dry as he can make them; over-eating and indigestible foods must be strictly guarded against. I consider it a good plan to advise that the two meals of the day of which meats form a portion should be taken without alcohol, and with a little pure water or toast-water only; and subsequently to each of these a wineglassful of milk with two teaspoonfuls of good old brandy or whisky may be allowed. In some patients there is a slight appearance of jaundice, the liver is embarrassed; there is often constipation. There may be basic congestion of the lungs. Sir Andrew Clark said, "To relieve the lungs give something to relieve the bowels." Sulfate of soda and phosphate of soda, equal parts in powder, may be administered in doses of two or three teaspoonfuls dissolved in water in the morning, or a teaspoonful of sulfate of magnesia may be taken in hot water. Such aperients relieve the portal system, and so the right side of the heart and the lungs. Mercurial purgatives are occasionally of service.—SANSOM in *Allbutt's System of Medicine*.

Diphtheria-Antitoxin.—The Committee of the Clinical Society of London reports the results obtained in 633 cases of diphtheria treated with antitoxin. The conclusions arrived at were as follows:—(1) The general mortality is reduced one-third; (2) the mortality in tracheotomy falls by one-half; (3) extension of membrane to the larynx very rarely occurs after the administration of antitoxin; (4) the duration of life in the fatal cases is decidedly prolonged; (5) the number of fatal cases is less when antitoxin is used early in the illness than in those in which they do not receive it until a later period; (6) the frequency of the occurrence of paralysis is not diminished, but the percentage of recoveries in cases with paralysis is slightly increased; (7) rashes are produced in about one-third of the cases, and are attributable to the antitoxin; (8) pain and occasionally swelling about the joints are produced in a small number of cases; (9) even when used in very large doses no serious ill effects have followed the use of antitoxin.—*The Practitioner*, June, 1899.

Original Articles.

THE RELATION OF LOCAL METEOROLOGIC CONDITIONS TO THE INFLUENZA-EPIDEMIC IN PHILADELPHIA, WINTER OF 1898-99.*

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The rapidity and extensiveness of the spread of influenza have been its conspicuous characteristics ever since its recognition as a peculiar, if not a definite and specific, epidemic disease. That the very name *influenza*, introduced by the Italian writers probably so early as the fourteenth century,† and retained and used even at the present, is appropriate, seems quite clear, and at once indicates more or less belief in the surrounding atmosphere as being either actively or passively productive of the affection. The French term *la grippe*, and English (or United States?) *grip* are equally suggestive, however, in the clinical sense.

The problem involving a study of the meteorologic conditions relative to the etiology of epidemics of influenza is essentially a large and intricate one. For it means the investigation and analysis of accurately recorded data for different urban and rural localities in connection with a given epidemic; a comparative study of both antecedent and associated meteorologic conditions observed in a series of localities during epidemic and non-epidemic years, *i.e.*, to learn whether these conditions in one place are similar to those of other places; a comparison of the given observations of a given locality during one epidemic with those of the same place for corresponding periods of the year visited by other epidemics, and so on.

Moreover, it would be desirable and helpful to know what, if any, special weather-states bear a causal relation to influenza, either in predisposing individuals to the disease, or in encouraging the cultivation of Pfeiffer's bacillus ready for active invasion, or both. In short, the problem is primarily and, for the present, purely scientific. Will the outcome be practical also? Finkler[1] says: "We cannot, however, *at the present time* (italics mine), at least, predict the appearance of an influenza-epidemic from any existing atmospheric conditions." But, is it not really likely that a careful study may afford the induction of principles that may have at least hygienic value, just as storm-signals, when heeded, may save lives and property?

From the title of the paper it will be obvious that the results here put forth are but a beginning; a preliminary paper which, God willing, it is hoped to have followed by further work along the lines stated.

* Read at the meeting of the American Climatological Association, New York, May 10, 1899.

† By English writers in the eighteenth century.

We are met at the outset by such a variety of dicta concerning the idea of atmospheric conditions influencing the production or aggravation of "grip" that, on *a priori* grounds, there are truly no sound or sure premises upon which to argue a safe and stable conclusion. We must endeavor and continue to maintain a mental attitude of wholesome skepticism throughout the laborious attempt at solving a problem that may have an answer either positive or negative.

Schönbein attributed influenza to the ozone in the atmosphere.

Flint[2] wrote: "The special cause doubtless exists in the atmosphere, and is independent of appreciable atmospheric changes. This fact was exemplified in the Massachusetts General Hospital during the extensive prevalence of this epidemic in 1832. Nearly all the patients in the hospital were affected, although the wards were kept day and night at a uniform temperature."

The late Dr. Pepper[3] made the following sweeping negation: "There are no known conditions of climate, soil, elevation or season which affect it." Osler[4] has it thus: "The outbreak of epidemics is independent of all seasonal and meteorologic conditions, though the worst have been in the colder seasons of the year;" and J. M. Anders:[5] "The affection is only slightly influenced, if at all, by meteorologic conditions."

Seminola (*New York Med. Jour.*, April 11, 1891), while assuming the parasitic nature and origin of influenza, nevertheless suggests: "But for all that, there may be cosmotelluric conditions, undetermined and undeterminable, capable of producing very severe disturbances."

Dr. Goodhart[6] believes that the supposed atmospheric origin of influenza is unworthy of belief, but that it is contagious by man and fomites and spares no climate. Yet, he doubts not that some atmospheric influences must exist that "make for an epidemic;" and suggests that certain conditions of environment may obtain by which the reproduction of lower orders of life has been extraordinarily facilitated; and that meteorologic influences operate is quite probable from the common observation of the effect of low barometer on corns. "And as in all zymotic diseases, even endemic ones, there are times when the disease is violently active, times when it sleeps and seems about to disappear, the condition of its life-history remaining constant all the time, there is no need to labor the proof of epidemicity. We know nothing, whatever, and are a long way off the discovery of subtle influences of this kind, but none the less they certainly exist."

In this connection it will do no harm to quote the radical assertion of G. V. Poore recently, in one of the Milroy Lectures before the Royal College of Physicians, London: "'The proper study of mankind' is not man, but what goes on in nature outside his body, for here is where we must look to get to the bottom of the problem

of infectious disease, especially when it takes an epidemie form."

Coming to a more definite opinion, we find Curtin and Watson,[7] in a conjoint study of the epidemie of 1893–4, expressing their belief that fogs and a warm, humid atmosphere seemed to favor the spread of influenza in aneient epidemies; and that there is a form of the disease always present "as the cold we 'cateh' under various atmospherie eauses, which under vicious atmospheric conditions and elimatie variations is eapable of developing in one or another direction,"—of the epidemic. As an unwarrantably extreme view, unsupported by any adduced faets, mention may be made of Kline's[8] allegation coneerning "a sudden and extreme ehange in the barometric pressure; a change in temperature, and an inereased development of electricity; and, as a result, a greatly increased quantity of ozone" (as Sehönbein).

The epidemiologic history of influenza shows that the fall and winter months were those during whieh its sharp outbursts and extensive prevalenee were most marked, as far baek as the twelfth century even, particularly in England. Thus, Thomas Short, writing of the epidemic of 1557, says: "It was a very unseasonable year in England. . . . In the end of September eame a very strong eold north wind, presently after were many eatarrhs, quickly followed by a most severe cough, pain of the side, diffieulty of breathing, and a fever." Sydenham reports the epidemie of 1675 to have followed a sudden frost, in Oetober, which was preeeded by a long period of elear weather. Webster speaks of Philadelphia being attaeked in the winter of 1760–61.

Hufeland, writing of the 1833 influenza-epidemic, believed it to be due to air-infeetion. Hagen's opinion (epidemic of 1857–8) was that the disease was miasmatie-contagious,—the contagion developing in the patient, and aeeumulating in the air, but not being directly transmissible to another person.

Finkler, of Bonn (*loc. cit.*), says: "We know that the pandemie is not more quickly disseminated than would be possible by our most rapid means of travel, the railroads and the oeean steamers." Nevertheless, he aeknowledges that, owing to the eharacter of the disease, and its seleetion for the respiratory organs, the weather is an important factor, and can only account for the exceptional instanees of rapid spread. It should be recalled just here that the bacillus of Pfeiffer is strietly aerobie.

One's intellectual or intuitive temptation to infer the atmosphere to be either actively or passively eoneerned in the diffusion of influenza is, to a degree, rational when one eonsiders how the malady attacks suddenly, over large areas of city and eountry, "all sorts and conditions of men," especially those exposed out of doors,—the strong and the weak, the young, middle-aged, and old, the comfortable and the unfortunate.

While some authors admit, then, that eertain atmospherie states or movements may exert an influence on the dissemination, if not the produetion, of this affection, what special meteorologie eonditions thus favor it we do not know. To my knowledge, only within the past six months has any partieular study of the subjeet been reported. I refer to the work of P. Dignat,[9] in Paris, last November (1898). While my own data were being gleaned, my attention was directed to his analysis of the meterologic conditions concomitant to influenza since 1895. He considers an abnormal increase in the barometrie pressure, abnormal temperature-ranges, lowering of the eleetrical influence, abnormal predominance of north winds, and weakening of the actinometric degree to be the meteorologic conditions that preeede epidemics of influenza.

It should be pointed out, however, that in conection with the great pandemie of November and December, 1889, Assman observed a very unusual drought in eastern and eentral Europe, the absence of a protecting eovering of snow, and low-lying clouds and high barometer.

Since the fourteenth century there has been a sort of grouping of periods of from two to eight or ten consecutive years, when influenza was more or less markedly epidemic, these periods being separated by longer intervals, just as we have had several epidemics since the great visitation of 1889–90. So that, while it is nearly eertain that like poverty, tubereulosis, taxes, and sin, influenza is always with us, it has its stormy waves of epidemieity and its overwhelming tidal waves of pandemicity. The difficulty of comparing the weather observations of years of marked prevalence with those of absence of the disease is thus manifest. Hence in this loeal and limited research, the tabulated data of the recent epidemic in Philadelphia are compared with those of the three previous years of milder prevalence. In a future communication I hope to bring the results of a more extended analysis and comparative study of these observations as they may be related to the great pandemie of 1889–90, and to still earlier sporadic years.

The figures given were transcribed from the records made and kept in the Philadelphia Station of the United States Weather Bureau; and I take sincere pleasure in expressing here my gratitude to Mr. Luther M. Dey, local forecast offieial, and to his assistants, Messrs. Doherty and DeGraw, without whose kind permission, constant courtesies, and ready explanations the most of this work would not have been as possible, profitable, and pleasurable as I found it to be.

Referring to the following table, it will be seen that in the recent epidemic of influenza (1898–99), the mean monthly atmospherie pressure was moderately high for the two months (October and November), preceding the marked outbreak, although quite a number of sporadic cases, especially in the latter month, were noted. During the month of rapid development (December), the pressure mean was also moderately high. The

highest mean occurred in January, while the disease was most severe and generally prevalent (excepting the last week); the extremely high pressure of 30.907 having been reached on the second day of the month.

TABLE No. 1.—Atmospheric Pressure (Inches).

	Barometer.	October.	November.	December.	January.
1899.	Mean monthly.	. . . . .	. . . . .	. . . . .	30.134
	Highest.	. . . . .	. . . . .	. . . . .	30.907
	Lowest.	. . . . .	. . . . .	. . . . .	29.329
	Range.	. . . . .	. . . . .	. . . . .	1.578
1898.	Mean monthly.	30 096	30.051	30.034	29.918
	Highest.	30.415	30.450	30.446	30.426
	Lowest.	29.428	29.252	29.063	29.253
	Range.	.987	1.198	1.383	1.173
1897.	Mean monthly.	30.030	29.994	29.979	30.021
	Highest.	30.506	30.490	30.44	30.584
	Lowest.	29.543	29.318	29.17	29.459
	Range.	.963	1.172	1.26	1.125
1896.	Mean monthly.	29.940	30.102	30.074	30.074
	Highest.	30.383	30.645	30.79	30.447
	Lowest.	29.518	29.482	29.51	29.572
	Range.	.865	1.163	1.27	.875
1895.	Mean monthly.	29.942	30.067	30.028	. . . . .
	Highest.	30.462	30.548	30.64	. . . . .
	Lowest.	29.429	29.325	29.44	. . . . .
	Range.	1.033	1.223	1.20	. . . . .

If the calculations mentioned by Professor Davis,* of Harvard, be correct, namely, that the mean atmospheric pressure over the whole earth for the year is 29.89 inches, and for the northern hemisphere for January, 29.99 inches, and when it is realized that increments or decrements of a few tenths or hundredths of an inch may involve changes of potential significance in the atmospheric mass, the barometric figues given above deserve careful consideration.

Comparing the mean monthly pressure of these epidemic months of 1898-9 with that of the corresponding months of 1897–8, when influenza was lightly prevalent, the diminished pressure for the latter is obvious; although the highest barometric readings for the corresponding months were about the same, except for January.

In 1895-6 and 1896-7, the mean monthly atmospheric pressures for November, December, and January were also moderate, and yet grip was not intense, though present to a degree. In January, 1897, this affection manifested a brief exacerbation, and we note that the barometer registered the high point of 30.584 inches (on the 31st); preceded by the November and December, 1896, highest points of 30.645 and 30.79 inches respectively.

Perhaps the most marked feature is the distinctly greater absolute range between the highest and lowest atmospheric pressures for the epidemic months December and January) of 1898-9, as compared with those of 1895-98, showing a probable relation of prevalence to extreme pressure-changes, the lowest readings being (with one exception, January, 1899), lower than the lowest for the corresponding months of the latter years.

* Elementary Meteorology, p. 92.

TABLE No. 2.—Mean Monthly Temperature.

Months.	1899.	1898.	1897.	1896.	1895.
October	. . .	58.6°	56.1°	52 4°	51.2°
November	. . . . .	44.6°	44.8°	49.2°	45.4°
December	. . . . .	35.9°	36.6°	33.9°	37.8°
January	32.3°	34.5°	29.8°	30.2°	. . . . .

The mean monthly temperatures show that it was slightly colder during the epidemic months (December and January) of 1898-99 than during the corresponding months of the preceding winter; but not quite so cold as the winter of 1896-97, when influenza was again somewhat epidemic; and, on the average, about equal in temperature with the same months of 1895-6. It is to be noted that the mean monthly temperature for October preceding the recent epidemic was rather high comparatively, as was also that of November, 1896—in both instances about two months before the height of the influenza-epidemic.

TABLE No. 3.—Temperature—Mean Monthly, Maximums and Minimums.

Months.	1899.		1898.		1897.		1896.		1895.	
	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	Min.
October	. . .	. . .	66.5°	50.7°	66.9°	49.6°	60.2°	47.°	61.3°	44.°
November . . .	. . .	. . .	51.3°	37.8°	53.1°	38.7°	58.3°	42.5°	53.8°	39.8°
December . . .	. . .	. . .	42.°	29.8°	44 4°	31.8°	41.3°	28.2°	4.6°	32.3°
January	39.5°	25.1°	41.2°	29.5°	37.3°	24.2°	36.6°	25.5°	. . .	. . .

This table gives the means of, or average differences between, the highest and lowest temperatures for the months noted; to be discriminated, therefore, from the absolute and greatest daily ranges of temperature for each month.

During the height of the recent grip epidemic (December, 1898, January, 1899), both maximums and minimums of temperature were lower than for the same months of the previous winter, with a lighter epidemic; but not so low, quite, as in 1896-7, when the disease was also markedly in evidence.

An exceptionally low mean maximum, for a mild influenza year, is observed for January, 1896, although this is counterbalanced somewhat by the relatively much higher means—both maximum and minimum—for December, 1895.

Of the preceding autumn months of October and November nothing characteristic seems to mark the data, unless it be the rather close correspondence between the figures for the mean maximums and minimums of October for the years 1897 and 1898, respectively.

Regarding temperature extremes (not tabulated here), for the month of December, the *absolute ranges* (between the highest and lowest points recorded) for the years 1898–7–6–5 were 44°, 47°, 48°, and 53°, respectively; while the *greatest daily ranges* for the same month of these years were 35°, 25°, 21°, and 28°, respectively.

For January, 1899, and the three preceding years, the *absolute ranges* were 50°, 46°, 54°, and 49°, respectively; and the *greatest daily ranges* were 29°, 27°, 25°, and 20°, respectively. From these figures it will be evident that the absolute ranges of temperature bear no characteristic relation to decidedly epidemic years on the one hand, or to merely sporadic or mildly epidemic years on the other, unless we except January, which shows a greater absolute range in the former than in the latter. But any relative importance that absolute ranges of temperature throughout given months and years may have, in such a study as this, is at best only problematic and indefinite.

Furthermore, whilst the greatest daily ranges for the two months (December, 1898, to January 1899), of the height of the epidemic in Philadelphia show marked extremes between the maxima and minima as compared with preceding years, their direct relationship will depend most probably upon the dates of their occurrence, their suddenness, rapidity, and frequency of movement,—data not obtainable for this article, with one exception: the latter shows that both greatest daily ranges, of 35° and 29°, occurred on December 31, 1898, and January 10, 1899, respectively, while influenza was most violent.

However, Table No. 3 and that following (No. 4), giving the means of more extensive observations, are evidently better criterions of temperature-conditions.

Finally, I found, taking the actual number of days, that the mean temperatures were above 50°, 59°, and 68° (*U. S. Weather Bureau Monthly Records*). October, 1898, was an unusually warm month compared with the four years immediately preceding; November, on the other hand, was decidedly colder in 1898, two days of mean temperature below 32°, and seven days of minimum below 32° having been recorded; December showed great comparative coldness, too, not only in the small number of days of mean temperature above 41° and 50° (3 and 1, respectively), as contrasted with previous years, but in the fact that there was one day in which the maximum temperature was below 32°, and seventeen with a minimum below 32°; in the same way, January exhibited a distinctly though less marked relative increase of coldness.

TABLE No. 4.—TEMPERATURE—MEAN DAILY RANGE, AND MEAN VARIABILITY.

Months.	1899.		1898.		1897.		1896.		1895.	
	M. D. R.	M. Var.	M. D. R.	M. Var.	M. D. R.	M. Var.	M. D. R.	M. Var.	M. D. R.	M. Var.
October	. . .	. . .	15.8°	3.6°	17.2°	5.1°	13.2°	3.6°	17.3°	4.3°
November	. . .	. . .	13.5°	3.3°	14.4°	6.0°	15.9°	6.8°	14.0°	6.4°
December	. . .	. . .	12.2°	4.2°	12.5°	4.9°	13.1°	4.6°	13.7°	5.5°
January	14.4°	6.9°	11.6°	4.7°	13.1°	6.2°	10.9°	4.4°	. . .	. . .

The *mean daily range* and *mean variability* afford a very fair basis for estimating the equability of temperature in various localities and at different times. The mean variability represents the monthly mean of the day after day differences in maximums and minimums or daily ranges of the dry-bulb thermometer.

Analysis of the table shows, contrary to what one might expect, that the months of November and December, 1898, were more equable than for the other years; but that January, 1899, was exceptionally non-equable.

TABLE No. 5.—RELATIVE HUMIDITY—MEAN MONTHLY PER CENT.

Months.	1899.	1898.	1897.	1896.	1895.
October	. . . . .	75.4	72.	73.	61.
November	. . . . .	74.2	72.	75.	78.
December	. . . . .	70.0	77.	68.	70.
January	71.2	72.	74.	71.	. . . . .

It is usually stated that influenza prevails, by selection almost, in cold, damp weather,—rather vague terms, and totally lacking in scientific precision or rational discrimination. The history of influenza-epidemics shows that the disease may spread in warm or cold, dry or damp weather, yet the rapidity, intensity, and universality of spread may be dependent in a measure upon certain sequences and associations of atmospheric temperature and moisture.

It is certainly true that the temperature of the air that we *feel* is very much influenced by the amount of vapor it contains at a given time—*absolute humidity*. But it is much more appropriate and important to determine the *relative humidity*, which expresses the percentage of saturation, or the proportion of aqueous vapor actually present compared with the amount of vapor that might exist if the air were saturated at the temperature taken.

A glance at the table above shows the average mean relative humidity for October and November, 1898, to have been distinctly higher than for 1897, and a little higher than in 1896, when influenza was mildly epidemic; and again markedly higher than in 1895—also an "off" year like 1897; the mild influenza year of 1896 also shows a higher relative humidity for these breeding (?) months as compared with the sporadic years, 1895 and 1897.

On the other hand, while grip was at its height during December and January of the recent prevalence, the mean percentages of saturation were lower than for the two preceding winters, and practically the same as for 1895–96.

Just here it should be stated that the *mean monthly dew-points* have been directly in accord with the variations of relative humidity, *i. e.*, comparatively high in October and November, and low in December and January, for the years tabulated.

As a test of the mean monthly relative humidity-table, the hygrometric records (means of the daily 8 A.M. and 8 P.M. observations) for the month of December only were classified, as follows:

TABLE No. 6.—RELATIVE HUMIDITY, BY DAYS.
December.

Years.	No. of Days. Percentage Above			No. of Days at
	70	80	90	100%
1898	15	9	6	2
1897	23	12	6	3
1896	14	4	1	0
1895	16	9	4	0
Means	17	8.5	4.25	1.25

This corroborates the statement regarding the lower relative humidity for the time of greatest development during the influenza-epidemic of the past winter, as well as of the beginning development of that of 1896–97, compared with the alternate years of slight disturbanee.

TABLE No. 7.—PRECIPITATION (INCHES).

Months.	1899.	1898.	1897.	1896.	1895.
October	.....	4.85	1.70	2.08	2.97
November	.....	7.19	4.44	2.50	2 32
December	.....	3.21	4.52	1.00	1.76
January	4.01	4.10	2.17	1.57	.....

Any possible etiologic relation that the amount of precipitation might have upon the epidemicity of influenza would seem to be connected with the soil rather than the air. And, indeed, assuming such a telluric relationship to be true, reasoning *a priori* we would infer that the influenee of a dry or wet soil, as the case might be, would be a predisposing rather than an exciting one—a good culture-medium for the bacilli of Pfeiffer, as it were.

The question arises, then, whether the considerable rainfall of October and November, 1898, had any effect in preparing a rich and robust crop of influenza-microbes. A relatively moderate amount of precipitation was also noted in the fall of 1896 and 1895.

It may be pertinent to this matter, also, to mention the fact that last September (1898) was dry, the total rainfall having been but 1.82 inches; while August, on the contrary, was remarkable in that the total precipitation, was 9.06 inches, 5.44 inches of which fell within 1 hour and 45 minutes.

The *prevailing direction* of the wind (from the west) was generally opposite to the direction (westward) of travel of the epidemic. Most of the time the wind blew from the northwest during the months tabulated, except those of the greatest prevalenee of influenza last winter, when it was southwest. It should be noted, however, that in December, 1898, the wind blew from the northwest almost as much as from the southwest. From the northeast and east, that is, more in the trend of spread of the disease, the wind was observed to blow from 14% to 24% of the time throughout the 4 months. See table below.

TABLE No. 9.—WIND: DIRECTIONS AND PERCENTAGES. (1898–99.)
Percentage of Times Wind Observed Blowing From:

Months.	N.	N. E.	E.	S. E.	S.	S. W.	W.	N. W.	Easterly.	Westerly.
October	13	13	11	16	10	8	10	19	40	37
November	8	10	7	5	13	12	10	35	22	57
December	6	11	3	3	7	28	16	26	17	70
January	21	10	6	5	10	23	19	6	21	48
Totals	48	44	27	29	40	71	55	86	100	212

Whence it is apparent at once that the westerly winds prevailed more than twice as often as the easterly, especially during the heavy "grip" months of December more than 4 times as often. In this conneetion, Tyson[10] writes: "It (influenza) travels as rapidly against the wind as with it, some observers say more rapidly." Certainly influenza, unlike a U. S. weather map arrow, does *not* "fly *with* the wind," in its prevailing direction, at least.

Nevertheless, since westerly winds are usually associated with high barometer, low temperature, and low relative humidity, it is not unreasonable to infer that in some way, by their combined effect upon either the human anatomy or the telluric soil, the disease and its germs are favored in their propagation and multiplication.

The *total wind-movement*, in miles (Table No. 8), was relatively greater during the recent epidemic than for the same period of 1897–8; and also for January, 1897 (grip prevailing), as compared with January, 1896. But the preceding month of October shows correspondingly and considerably less total movement of wind.

The *avcrage hourly wind velocity* was only slightly higher for the epidemic months of last winter as compared with the same months of the year previous. It is more likely that the degree of *maximum velocity* of wind at certain times may bear some relation to the

TABLE No. 8.—WIND: PREVAILING DIRECTION, TOTAL MOVEMENT, AND VELOCITY (MILES).

Months.	1899.			1898.			1897.			1896.			1895.		
	Prevailing Direction.	Total Movement.	Av. Hourly Velocity.	Prevailing Direction.	Total Movement.	Av. Hourly Velocity.	Prevailing Direction.	Total Movement.	Av. Hourly Velocity.	Prevailing Direction.	Total Movement.	Av. Hourly Velocity.	Prevailing Direction.	Total Movement.	Av. Hourly Velocity.
October	.....	.....	.....	N. W.	7250	9.0	N. E.	7978	10.7	N.	7618	10.2	N. W.	7999	10.8
November	.....	.....	.....	N. W.	7354	10.2	N. W.	6998	9.7	S. W.	7097	9 9	N. W.	7195	10.0
December	.....	.....	.....	S. W.	7857	10.6	N. W.	7563	10.2	N. W.	7281	9 8	N. E.	8492	11 4
January	S. W.	7942	10.6	N. W.	7837	10.5	N. W.	8422	11.3	N. W.	8121	10.9	.....	.....	

spread of influenza. Thus, the weather records show that October, 1898, was unusually calm and free from high winds, as compared with former years, the maximum hourly velocity for the month having been but 27 miles, which was decidedly lower than for at least nine years previous, and this on the sixth day of the month, some time before la grippe became epidemic.

On the other hand, not only was November, 1898, characterized by a greater total wind-movement than for four years prior, but by increased high winds—principally northwest—above 25 miles per hour on the 8th, 11th, 20th, and 27th days of the month (26, 36, 28, and 42 miles per hour respectively), while sporadic cases of influenza were beginning to multiply rapidly. The maximum hourly velocity for the month—42 miles on the 27th—was higher than any that had been reached for seven years.

Influenza became virtually an epidemic in the first week of December, 1898, and after the high wind noted just above came the maximum wind-velocity of this month on the fourth day, from the southeast, at the rate of 48 miles per hour; higher, with one exception (1895), than any year since 1890. The next day the wind blew from the west at 25 miles an hour. Again, during the height of the epidemic the dates and rates were as follows: 27th, 27 miles; 28th, 30 miles; 31st, 26 miles, the wind coming from the northwest on the first two days, and from the north on the last day.

It is interesting to note that there were twice as many clear days during the epidemic months of December and January as there were for the same months of 1897–8; and fewer partly cloudy days; but the same number of cloudy days and one more foggy day. November, 1898, was also more sunshiny than November, 1897.

And yet, when one considers that less than one-third of the days were clear, and that the hours of sunshine are very few during the short days of the winter solstice, it seems not improbable that somehow, on the whole, grip likes the darkness better than the light, because certain condition for its ravages are more favorable then than at any other time of the year.* Otherwise, the relatively greater number of clear days during the recent epidemic is perfectly consistent with the other meteorologic phenomena that seem to be associated with the spread of influenza, namely, that cold, dry, windy (westerly) weather and sunshine go together.

Finally, attention may be called to the fact that the number of clear, partly cloudy, and cloudy days of December, 1898, and January, 1899, were exactly equal.

My personal observations during the development and height of the late epidemic, without any endeavor to obtain precise meteorologic data, were generally as follows: (1) that during November and December, there were several volleys of attack, as it were, in which influenza suddenly overcame numbers of people for three or four days, or a week, perhaps, and then seemed to subside to a degree, to be followed by other exacerbations and remissions of invasion; (2) these attacking periods were invariably preceded by sudden thaws, "thick, ill-smelling" fogs, and relatively warm, moist, and calm weather; (3) they were apparently introduced by, and associated with, cold, clear, dry, and windy weather; (4) these changes appeared to be unusually sudden, extreme, frequent, and rapid. I was impressed particularly by the character of the early evening fogs, with their intensely carboniferous odor and suffocative heaviness. Physicists, accepting the theory that each tiny mist-particle has, for its nucleus, a particle of soot, or smoke, or dust, would seem to have a rational explanation to account for fogs, and the phrase, "climate of cities," is truly fitting. It is a fair question to ask, whether the sporadic cases of influenza in nonepidemic years occur only in large towns or cities and thickly-populated districts; and whether their local peculiarities of weather are, directly or indirectly, concerned in their production.

As hinted at the beginning of this paper, we have to face these queries: Do weather-conditions in general prepare for or sustain epidemics or pandemics? Are there special atmospheric phenomena that increase the susceptibility and weaken any possible immunity of our bodies to influenza, or that facilitate the growth and multiplication of the bacilli of Pfeiffer, or both? Or, is it more probable that meteorologic occurrences influence the former more, and telluric states the latter more? *Das kommt darauf an!*

Future studies of future epidemics and, comparatively, of normal years, over widely scattered places of the grip areas of the globe, by careful and compe-

TABLE No. 10.—GENERAL WEATHER CONDITIONS.

Months.	1899.				1898.				1897.				1896.				1895.			
	Clear.	P. Cloudy.	Cloudy.	Foggy.	Clear.	P. Cloudy.	Cloudy.	Foggy.	Clear.	P. Cloudy.	Cloudy.	Foggy.	Clear.	P. Cloudy.	Cloudy.	Foggy.	Clear.	P. Cloudy.	Cloudy.	Foggy.
October	. . .	. . .	. . .	. . .	11	8	12	2	13	4	14	2	9	7	15	2	21	5	5	0
November	. . .	. . .	. . .	. . .	8	11	11	2	5	14	11	3	9	10	11	2	11	6	13	4
December	. . .	. . .	. . .	. . .	10	8	13	3	5	13	13	2	11	12	8	0	10	7	14	0
January	10	8	13	2	5	13	13	2	10	7	14	1	10	10	11	0	. . .	. . .	. . .	. . .
Totals	(For the seasons)				39	35	49	9	28	44	51	9	39	36	48	5	52	28	43	4

* The rare experience of a midwinter thunderstorm was had on December 22, 1898.

tent observers only, will enable us to know precisely the answers to these queries.

Any summary that the data of this unfinished study may justify is practically in accord with my statements (2) and (3) given above. The conclusion of the whole matter thus far is partly interrogatory and problematic.

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CONSERVATIVE GYNECOLOGY.[1]

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We hear much, in these latter days of the century, of conservative surgery, conservative gynecology, and conservatism in everything except national policy of government, and general legislation, both state and municipal—here radicalism seems to have run mad.

I find the definition of conservative to be—by the best authorities:

1. "Preservative—having power or tendency to preserve in a safe or entire state—protecting from loss, waste or injury."

2. "Disposed to retain and maintain what is established, as institutions, customs, and the like—opposed to innovation and change—in an extreme or unfavorable sense opposed to progress."

If I understand the application of the term to gynecology, it means to "preserve in a safe or entire state" the organs contained in the pelvis proper, or, generally, the female organs of generation. In a safe state does not necessarily mean an entire state—so that whatever is done by way of operation, that does not entirely remove these organs, or destroy the function, would be called conservative gynecology. Much has been done in the name of conservatism by some of the eminent men of this, as well as other societies. Polk and Dudley, of New York, have been specially prominent in this work, and while time alone can determine the full value of their work, none of us doubt the conscientiousness of it, and hope for the best results.

The chief object the patient has, when she consults the gynecologist, is to be relieved of her suffering—to use her own language, "I have suffered long and desire to be cured of the ills that afflict me." Many arrive at the point (after long and tedious suffering) of saying: "I am ready to submit to anything, provided I can be well. If it be necessary to make a surgical operation be sure and do everything that ought to be done to secure health."

[1] Read before the American Gynecological Society, at the meeting held in Philadelphia, May 25, 1899.

To the patient "conservative" means that which conserves *health*—saves it when she has it; restores it when lost. Often, too often, in my opinion, the word "conservative" has an entirely different meaning to the surgeon and patient. In the blind haste to follow a leader, or so-called, sometimes miscalled, leader, men of small experience attempt what, in the hands of those of large, long, and careful experience, has proved eminently successful, and most signally fail, where failure means ruin to professional reputation, and discredit to surgical science.

Because some veteran in the profession has found benefit from the simple operation of curetment in cases of diseased endometrium, attended as it often is with dysmenorrhea, leukorrhea, hemorrhage, etc., it does not follow that all cases of dysmenorrhea should be cureted, especially when no physical signs of diseased endometrium exist. Yet it is done, and repeated several times, with worse results following each time, simply because the gynecologist was too "conservative" to open the abdomen and remove the whole or part of the genital organs. It was conservative of the organs, but not of the health of the patient. The finale is, that she falls into the hands of a so-called radical, has hysterectomy, and gets well, after suffering for years.

While it is undoubtedly true that in many cases the uterine appendages have been removed, when resection or some less complete operation would have accomplished the same result, and while it is also true that in many cases, perhaps, the operation failed to give the relief hoped and promised, yet it is also true that resections have failed to relieve, when complete hysterectomy has given entire relief and hundreds of women who have been utterly "useless and aimless" invalids, are now rejoicing in perfect health.

From my own somewhat extensive experience, I am satified that while the so-called Tait operation did much good in many cases, it would have been much better had the uterus been removed with the appendages. Left in the pelvis it is a useless bag, with no function to perform, and the uterine arteries pumping blood into it from each side, keeping more or less of a state of chronic passive congestion, producing pressure and pain.

The same, and more, may be said of the Hegar operation for the removal of the appendages for fibroids. While a few cases have been favorable for absorption and relief to symptoms, in many more cases, the tumor remains, and not infrequently undergoes calcareous or other degeneration, making the last state of that woman worse than the first. What may have been conservative surgery in the days that Hegar proposed this operation (before we were so familiar with such cases), it certainly does not merit that title now, when hysterectomy is attended with no more, or as much, danger as oophorectomy was then. True conservatism would, in my opinion, demand complete removal,—conservatism

from the patient's standpoint, which is one where she can enjoy good health—without a second abdominal or vaginal section.

Spencer Wells found and operated a second time upon about 6% of the women from whom he had removed one ovarian tumor. How many more required it cannot be known. Even in his day, he seriously doubted the expediency of allowing the other ovary to remain where he found it necessary to remove one—never permitting it in women after the child-bearing period is passed. The same cause that produces disease (especially cystic disease) in one may produce it in the other.

I have no word of disapproval of the work that is being so honestly done by the men alluded to, but I hope that we shall in good time know the results. I am sure that much good is to come out of work in this direction. The ideal education of the gynecologist will be reached when we are able to make the sharp, clear diagnosis in this class of cases, and not waste so much time in useless experimentation in what some one has called "tinkering" the uterus. Certainly the days of office intrauterine treatment has largely passed away, let us hope never to return to plague and torment the patient, waste her time, patience and money, and bring discredit upon the profession. The years of suffering endured by women subjected to this mode of treatment have been in some degree compensated for by the more radical abdominal section, which ended suffering, and was "*conservative of health.*"

In 1886 I read a paper before the American Medical Association, entitled "Hysteria—its relation to disease of the uterine appendages." I then cited several cases of severe hysteroepilepsy, which were cured by removal of these organs, after all reasonable means had been exhausted without any benefit. I have continued this operation (adding hysterectomy) and find occasionally cases requiring it, and equal benefit coming from it. A very recent one in one of our hospitals is a most striking example of its value. A brilliant, beautiful young lady of good family had suffered with this terrible affliction for years. All sorts of treatment had been resorted to without avail. Any pelvic examination was torture, and almost invariably followed by a convulsion of severe character. Menstruation was agony, and life a burden. She preferred death to such a condition of things, and after much discussion among the members of the staff, it was decided by the majority to perform hysterectomy, the minority claiming that more "conservative" measures should be adopted. Curetting, tampons, douches, rest, etc., etc., had been tried, such things being called "conservative." The result was all that the most ardent advocate of the operation could even hope. From that date she was relieved from suffering, and life to her was a renaissance—a comfort and pleasure to her, and a delight to her friends. Who will doubt that in this, and hundreds of similar cases, hysterectomy was "conservative"? No one who looks at it from the patient's point of view.

There are cases where a discriminating diagnosis is required, and where the experience of men who have passed through the various epochs of gynecology becomes valuable, if they have carefully and conscientiously observed what has come under their eyes, and have not been blinded by any prejudice, or flattered into a blind submission to the leader of some fad, or sentiment, which appeals to popular approval. That plenty of cases of neuralgia are due to nerve-pressure in the ovary, especially where it has been inflamed, and the cortex thickened, I have no question, and while the ovary may not require removal altogether, yet that anything short of abdominal or vaginal section will reveal the true condition, and some operative interference be necessary to remove the diseased state, is abundantly demonstrated by every man of large experience.

Dr. Palmer, of Cincinnati, gave us a most valuable paper on this point some few years since—"Intermenstrual Pain," where a condition of the ovary is found which can scarcely be diagnosed by ordinary examination, but generally requires extirpation of the organs to ensure relief. I have seen several of such cases. I do not feel called upon to apologize for this radical proceedure to restore and conserve the patient's health, who has borne this trouble for many years—her latter state is so much better than her former that it is all the apology needed.

Another question which is now exciting quite a good deal of interest is myomectomy versus hysterectomy. In the decade 1870 to 1880 many men in this country did many operations per vaginam for removing submucous fibroids, principally by morcelment. Emmett, Thomas, and others, in New York; Atlee, in Philadelphia; Storer, in Boston; Tewksbury and Greene, in Portland. I found several cases during this period where it seemed the proper operation to perform. Many of them were comparatively easily removed, others much more difficult. In not a few cases it was abandoned after portions of the tumor were taken, and the remainder allowed to slough away. Not infrequently the loss of blood and shock proved too much for the patient, and she died on the table, or soon after.

I think no man who had much experience with this class of cases would have hesitated to do hysterectomy, had the operation been so well known then as now. We did what was best under the circumstances, and with the light we had upon the subject.

The abdominal section now so freely done, under more rigid aseptic methods, has shown such low mortality in all pelvic and abdominal operations that myomectomy through this route has become popular and has undoubtedly been conservative both to organs and health. Martin in his textbook, about 1887, speaks of the operation with much favor, and others

since have been doing more or less good work in this direction.

At the last meeting of this society the subject was, for the first time, brought prominently before us by the paper of one of our most experienced coworkers—Kelly, of Johns Hopkins. While we certainly must admire the careful observation and painstaking labor involved in this paper, showing by the tabulated list the history, condition, and results—so far as known—of each of the cases reported, we may fairly question, in some of the cases, whether the operation was one of conservatism or the reverse.

In estimating the relative value of myomectomy and hysterectomy we may fairly assume that the risk to life is equally great in one as the other, especially where multiple fibroids are removed, and unless there are many advantages in favor of myomectomy, the patient should have the benefit of the operation which promises the most in conserving or restoring her health. My experience and observation confirm me in the belief that we have a much greater guarantee in that of hysterectomy, and therefore only women of child-bearing age and married should be subjected to an operation that does not promise as much in restoring health as another of equal risk.

The friends of myomectomy lay great stress upon the fact that hysterectomy destroys the function of reproduction. Admitting all this, and that we should, as a rule, keep this in mind in all these operations, it certainly cannot be claimed, that in cases where this is not possible, or even probable, we should not do the operation which, more than any other, is the most conservative of the patient's health.

By this rule let us examine some of the cases published in the tabulated list. The first case given in this list is :

Gyn. No. 362. Widow, age 51; 1 tumor. Prolapse; abscess three years before.

Why myomectomy in such a case as this? Prolapse; abscess showing infection would be strong indications for hysterectomy.

Gyn. 638. Single, age 46; 4 tumors; enucleation and suture.

Why leave this uterus?

Case 1150. Age 45, married; lost child 11 years before; Number of tumors marked (?).

Under the head of "convalescence" we find "recovery," instead of "good," as most have.

Case 1155. Age 45, widow; 1 tumor; enucleated and double salpingo-oophorectomy.

Why not hysterectomy?

Case 1173. Age 43, single; profuse menstruation, 2 tumors. A previous operation for submucous myoma; death; purulent peritonitis.

Hysterectomy could do no more.

Case 1422. Age 50, married; 1 tumor, 6 x 6 cm.
Case 1455. Age 57, married; 1 tumor, also as a complication right papillo-cystoma of ovary fibroid in left cornu.

What reason against hysterectomy?

Case 1576. Age 46, single; 7 tumors, requiring 7 incisions. Pleurisy with effusions during convalescence.

May it have been due to infection from one of the 7 wounds? More likely than from hysterectomy.

Case 1709. Age 39, married; never had any children (and probably never would); 4 tumors; enucleation; double salpingo-oophorectomy.
Case 1667. Age 40, married; no children; 1 tumor; menstruation profuse, almost constant lately; pain in abdomen. Elevation of retroflexed uterus.

Would seem to be an ideal case for hysterectomy.

Case 1821. Age 39, married 7 years; no children; dysmenorrhea, backache, edema of legs; 1 sessile tumor, base 5 x 5 cm.; double salpingo-oophorectomy.
Case 1862. Age 38, single; 2 tumors, one large 10 x 12 cm. on fundus, 1 2 x 3 behind; no symptoms; used rubber ligature while excising; death; peritonitis.
Case 1909. Age 43, single; irregular 1 year, flowed weekly for 6 weeks; cystomyoma on fundus (hematomata), salpingo-oophorectomy.
Case 1916. Age 40, single; 1 tumor, or cyst; sigmoid adhesions.
Case 1917. Age 47, married; 1 tumor, r. b. lig.; retroflexion.

Typical case for hysterectomy.

Case 2709½. Age 55, widow; hemorrhages 4 years ago; 1 tumor.
Case 4340. Age 48, married 24 years; no children; 1 tumor, existing since marriage.

Why not hysterectomy?

Case 4415. Age 40, married 18 years; no children. Pleurisy and phlegmasia followed.
Case 4537. Age 42, married 19 years; no children; 5 miscarriages; large myoma; left tuboovarian cyst, both enucleated.
Case 4912. Age 44, single; 5 tumors, 3 anterior, 2 posterior; 5 incisions; shortening of round ligaments.

Why leave the uterus?

Case 5452. Age 41, single; hemorrhage; periods last two weeks; 17 tumors removed by 6 incisions; 55 catgut sutures.

I fail to see any advantage, in such an operation, over hysterectomy.

Case 5638. Age 37, single; 1 large tumor, posterior; 1 incision; 6 small anterior; 5 incisions; death; peritonitis.

Sanatorium Cases.

Case 297. Age 46, single; 7 tumors removed; 6 incisions.
Case 449. Age 40, married; 2 children, last 15 years old; 2 tumors; removal of right and left papilloma of ovaries; 1 myoma removed, 1 left.

Perhaps hysterectomy not possible.

Case 413. Age 33, married 11 years; 1 child; 6 tumors removed, 4 small, 1 large; 6 incisions; suspension of retroflexed uterus.

In this case childbearing had undoubtedly ceased. I believe hysterectomy would have been conservative of health.

From these cases, selected from quite a number of a similar character, I question if the results will justify calling mymectomy true conservatism. That many of the tabulated list may be so classed, I do not deny, and yet time alone can fully demonstrate it.

This paper goes before the profession of the world as an expression of the practice of one whose sources of material are very large, and while the American Gynecological Society does not, by any action, other than by discussion, become responsible for, or approve the author, it seems to me a proper subject for consideration by any Fellow.

My conclusions, then, upon this subject of myomectomy, as given in the 90 cases, with 4 deaths, are as follows:

1. That myomectomy is attended by a mortality as large as hysterectomy.

2. That fibroids may exist where large ones have been removed, and develop more rapidly after such removal, demanding a second abdominal section. That this condition is one of frequent occurrence in cases of small growths.

3. That in all operable cases, in women who have passed the childbearing age, hysterectomy is by far more conservative of health than myomectomy.

4. That only in comparatively young women is the gynecologist justified in doing a myomectomy when it is found necessary to make an abdominal section.

5. That conservative gynecology demands saving health rather than diseased and useless organs.

A REPORT OF A CASE OF COMPLETE MONOCULAR BLINDNESS FOLLOWING AN INJURY TO THE HEAD, ATTENDED BY FULL RESTORATION OF VISION.[1]

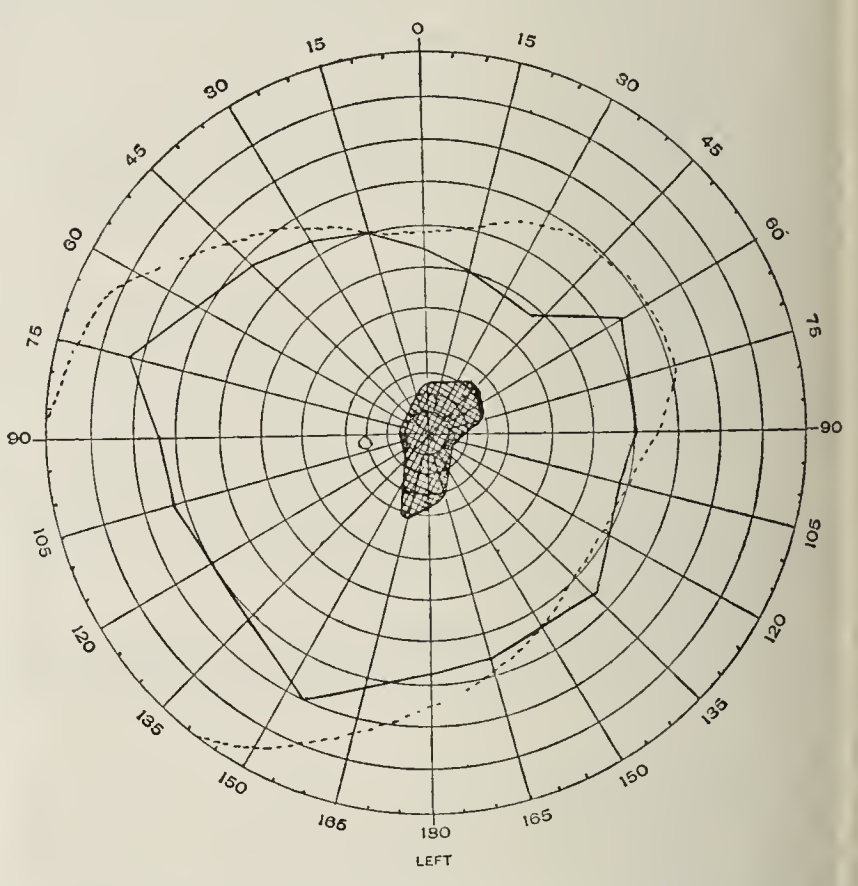
BY WILLIAM CAMPBELL POSEY, M.D.,
of Philadelphia.

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ABOUT a year ago, a vigorous and healthy young man consulted me in regard to his left eye, as he said that he was quite blind in that organ as the result of an accident which he had met with six days previously. While romping with his little boy on the bed, their heads came violently together, and he received a hard blow over his left eye by the occiput of his child's head. The blow was so severe that he was quite stunned for 15 minutes, during which time he suffered excruciating pain in his left eye and temple. The pain gradually ceased, however, and after a few hours, he went about his occupation entirely forgetting the incident, as there were no marks of external violence or any evidence of injury to the eye to worry him. The skin was not even discolored and the vision was apparently unaffected. About 36 hours after the accident he began to suffer considerable pain at the back of the left eye, and to notice that the sight was getting dim in that organ. He described the loss of vision as though a veil were dropping down over his eye, and said that he thought at first that this might be due to a drooping of the lid, but when he looked in the mirror he saw that the lid was in its normal position. The veil dropped more and more over his eye, so that at the end of the fifth day after the accident the eye was totally blind. He then became alarmed about his condition and sought my advice.

At that time, six days after the accident, there were absolutely no signs of external violence; the skin was not even broken, and there was no staining of the conjunctiva to indicate a previous ecchymosis. When rather deep pressure was made on the outer part of the supraorbital ridge, however, the patient complained of some tenderness in that locality. The movements of the eye were good, the pupil (3 mm.) was slightly larger than that of the fellow eye ($2\frac{1}{2}$ mm.), and did not respond to direct light-stimulus, but reacted promptly consensually. The media of the eye were clear, but with the ophthalmoscope the optic-nerve head was found to be much paler than in the fellow eye. In addition to the pallor of the nerve, one was at once struck with the character of the venous pulse. This was very much accentuated, the veins on the disc and for several diameters off from the disc appearing to almost collapse at the diastole of the heart. The vessels were of good size and the arteries did not pulsate. The eye was absolutely blind, there being not the faintest amount of light perception. The right eye was normal, possessing full visual accuity and accommodative play.

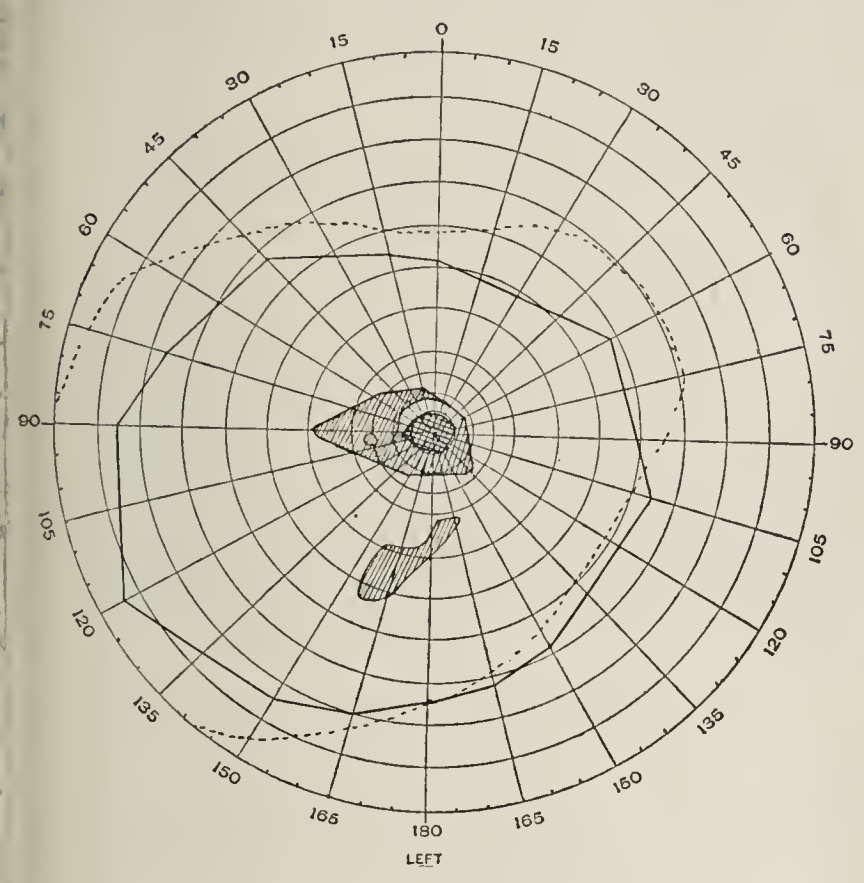
Upon account of the blindness and the pallor of the head of the optic nerve following a blow on the eye, a probable fracture of the apex of the orbit and irreparable injury to the optic nerve was feared, and a guarded prognosis given, although the patient was also advised of the possibility of the blindness being caused by compression of the nerve by a hemorrhage, or by an extravasation of lymph, and he was counseled to place himself under active treatment, although it was feared that this would be in vain, and that he would probably be permanently blind in that eye. The patient



being very desirous of regaining his sight, and being willing to do anything which offered the slightest hope of improvement, consented to the plan of treatment which I advised, He was accordingly placed in bed and leeches applied to his left temple, his bowels were freely opened by salines, and a dram of mercurial ointment rubbed into his body night and morning. After three days of this treatment the patient was rewarded by a little bit of sight in the upper inner part of his field, and three days later a candle-flame could be distinctly seen in the same area, though there was still no central vision. From this time his vision improved very rapidly, so that at the end of another three days of active treatment with salts and diaphoretics, the mercury having been withdrawn at the end of the fourth day on account of ptyalism, he had $\frac{1}{60}$ vision in his nasal field. His field was obtained for the first time with the perimeter, and showed: Slight concentric contraction, with a large irregular scotoma occupying fixation. The circulation of the nerve had greatly improved, and no difference could now be noticed between its color and that of the fellow eye. The venous pulse had also lost its curious beat. The patient living at a distance, and being quite contented with the improvement which his eye was making, it was with some difficulty that I could persuade him to come to see me as often as I wished to note the changes which occurred in his

[1] Read before the Section in Ophthalmology of the College of Physicians of Philadelphia, April 18, 1899.

fundus, so that a week elapsed before I saw him again. He now had $\frac{5}{2^{\frac{5}{2}}}$ vision, and as shown by the accompanying diagram the peripheral field was practically full with a large relative scotoma about fixation, the center of which was occupied by a small oval absolute scotoma, with its long axis horizontal. There was also an irregular relative scotoma in the lower field. The patient said that he had caught a heavy cold, which had induced several severe spells of coughing, and that after these he had a sharp pain at the back of the affected eye, which was followed by a curious throbbing sensation. He was now placed on high doses of potassium iodid and ascending doses of strychnia. When seen a week later, the vision of the affected eye equalled $\frac{5}{5}$. As he complained of a marked soreness over the left supraorbital notch for several days previously, a blister was applied directly over the foramen, which relieved the pain at once. A week later his vision equaled $\frac{5}{5}$ partly, and there was now no trace of a scotoma even when tested with the smallest colors. He was told to gradually discontinue the alterative, and to report in a month, and as at that time there was full vision, and as all of the normal functions of the eye appeared to be quite restored, all treatment was stopped.



The interesting point in this case is undoubtedly the ause of the blindness, which, by reason of its transient haracter differs so greatly from the loss of vision which enerally follows a blow in the neighborhood of the ye. In the latter class of cases, the blindness is usually ermanent and complete, or at least nearly so, and has een shown to be dependent upon compression or a olution in the continuity of the optic nerve, the result f a fracture through the optic foramen. Instances of is type of cases are common enough, but examples of ansient blindness as a result of trauma about the orbit re very rare. Nettleship reported three cases of this ind in the *Ophthalmic Review* of 1895.

CASE 1.—This was that of a young man aged 30 years, who d suffered a fall when 7 years old, striking his head on the ght frontal eminence. Although there was considerable eeding from the wound, there was no hemorrhage from e nose and ears, and no subconjunctival ecchymosis. ision was good until 2 hours afterward, when he became ddenly blind in both eyes. This remained complete for a rtnight, when the sight began gradually to return, so that 6 weeks from the accident it was as good as ever. An examination made 23 years later by the author showed slightly atrophic nerves, more marked on the right side.

CASE 2.—Injury of right temple in a woman aged 50 years, followed by unconsciousness for 4 hours. Vision said to be good until 2 days after the accident, but on the third was so low that she could not count fingers. Six days after the accident there was pain across the forehead and eyes, and clots of blood came from the mouth on blowing the nose. Vision greatly improved after a month in the hospital.

CASE 3.—Extensive injury to the head, followed by blindness in the left eye and complete paralysis of the right external rectus. The ophthalmoscope showed changes in the left eye similar to those observed in embolis of the central artery of the retina. The author did not think that there was a fracture in this case, but considered the lesion to be in all probability the result of an effusion of blood into the space within the sheath of the optic nerve, and, as evidence that such a condition might occur after head-injuries, he quoted a case recorded by Priestly Smith, where the sheath of the nerve was distended with blood, secondary to a large intracranial hemorrhage.

While it is true that in his first case there were no evidences of fracture, in his second the clots of blood which came from her mouth after blowing the nose, suggest the presence of a fracture which had involved one of the accessory nasal sinuses, possibly the sphenoidal; and, in the third case also, the history, meager though it is, suggests the possibility of a fracture of the orbit.

In the case which I have reported, similarly, while there were no apparent signs of fracture, nevertheless, the pain on blowing the nose and the throbbing sensation which accompanied it, on the third day after the injury, suggest the thought that there may have been present in this case a fracture of the wall of one of the accessory sinuses, and that this may have been the primary cause of the blindness.

So much is certain: The lesion was retrobulbar, and was sufficiently extensive to completely interrupt for a time the function of the fibers in the nerve, as shown by the blindness, the pallor of the head of the nerve, and the change in the character of the venous pulse.

That the damage done to the nerve was very transient, and that it suffered no material change, is evidenced by the complete recovery of vision and the return of the nerve to its normal appearance. Ophthalmoscopically the lesion must have been one of compression, and while the nature of this compressing force is obscure on account of the lack of any pathologic examinations in similar cases, there can be only two suppositions regarding it, for the nerve-fibers were compressed either by a hemorrhage or by an extravasation.

From a careful study of the history of the case, it seems probable that as a result of transmitted force attending the blow over the eye, the sphenoid was fractured, the roof of the sphenoidal cells especially being involved in the injury. This supposition is supported by the manner in which the loss of vision first manifested itself, for it will be remembered that the loss of sight began in the upper part of the field, the patient complaining of a veil dropping before his eye. This would indicate that the inferior portion of the nerve was the first to become involved, which may be accounted for by the fact that the optic nerve lies upon

the delicate process of bone which forms the roof of the sphenoid, and would be peculiarly liable to become inflamed secondary to a fracture in this locality. The complete blindness which followed indicated that the neuritis which was at first localized below soon involved the entire nerve in an acute interstitial process.

In addition to the loss of the upper part of the field, the pain at the back of the eye, the throbbing sensation induced by blowing the nose, are further evidences of involvement of the sphenoidal cells.

In any event, the comparative lateness after the injury with which the visual disturbance manifested itself, indicates that the lesion must have been external to the nerve, for if the hemorrhage which caused the blindness resulted from a rupture of one or more of the vessels of the sheath of the nerve, it is probable that the nerve would have been affected at once by the outpouring of the blood, and vision would have been lowered almost immediately. Furthermore, it does not seem likely that the lesion was due to a hemorrhage into the subdural space around the nerve, as in the postmortem findings of the case reported by Priestly Smith, referred to by Nettleship, as well as in a similar case cited by Silcox, in which there were grave intracranial lesions which had originated the hemorrhages into the lymph-spaces about the nerves, for in the case which I have reported there were evidently no intracranial complications.

When these factors are taken into consideration, it seems to me that it is probable that the lesion which induces transient blindness after head-injuries may be imputed to a fracture involving one of the bones of the orbit, and that it operates quite similarly to that which induces permanent blindness, the difference being only in the extent and the position of the fracture.

As there is usually no means of telling the cases capable of improvement in vision from those in which blindness will be permanent, it behooves in all instances of blindness after injury to the head, to use every method in our power to aid in the absorption of any hemorrhage or extravasation which may be compressing the nerve. Of course, in those cases in which there is an actual laceration or complete compression of the nerve, nothing will be gained; but it is probable that, in many instances where the involvement is less serious, substantial results may be obtained by measures similar to those employed in the case which has just been reported.

Diagnostic Signs in Diseases of the Kidney.—Joseph T. Smith (*Maryland Medical Journal*, July 1, 1899) agrees with the general modernized views of those conditions regarding nomenclature and that they should be classified as varying forms of nephritis, thus relieviug them from the confusion that has long attended them. The significance of dropsy seems to be a serious interference with the blood conditions. Uremia is complex in its nature and can be no more than an indication of functional or organic kidney disorder. Albuminous urine, as determined by the usual tests, means a faulty kidney. Tube-casts, except possibly the hyalin, indicate serious kidney disturbance. [C.L.L.]

TYPHOID FEVER WITH DEATH IN ONE WEEK FROM ONSET; AUTOPSY FINDINGS.[1]

BY WILLIAM FITCH CHENEY, M.D.,
of San Francisco, Cal.,
Professor of Principles and Practice of Medicine, Cooper Medical College, and Physician to Lane Hospital.

ON Sunday, February 12, 1899, about 4 P.M., there was brought to Lane Hospital, and referred to my service, a rather remarkable case. The patient was a man aged 25, an Italian, who could speak no English, and who was, furthermore, delirious, and could not answer questions put to him in his own language. A friend who accompanied him, gave the following meager history:

The man was a baker by occupation; he began to feel ill on the Tuesday preceding his admission and stopped work on that day; on Wednesday, he felt so ill that he went to bed; on Thursday he became delirious, and the delirium had continued ever since. This was the extent of the information that could be elicited.

The notes of my first examination, made one hour after the man's admission, are as follows:—

The patient is pale and somewhat cyanotic. The skin is moist with perspiration. The expression is anxious and the eyes are wide open and bright. There is no talking by the patient except unintelligible sounds in resistance to examination. No response is made to questions, whether asked in English or Italian. The patient objects to handling, and tries to forcibly put away the nurse. He coughs occasionally, but not frequently, and without expectoration. The respirations are labored and 56 to the minute. The pulse is 128 and dicrotic. The temperature in the rectum is 106°. Over the lower portion of the right lung dulness is found on percussion, extending as high as the fourth rib in the mammary line. Over this area, there is bronchial breathing, on auscultation, and numerous dry and fine moist rales. The abdomen is tympanitic and much distended.

A diagnosis was made of lobar pneumonia, for the following reasons: (1) The abruptness of the onset; (2) the rapid development with early delirium; (3) the appearance of the patient, with face pale and cyanotic, skin covered with perspiration, anxious expression of countenance, and rapid and difficult breathing; (4) the hyperpyrexia; (5) the diagnostic pulse-respiration ratio of $2\frac{1}{4}$ to 1; (6) the cough, and (7) the physical signs at the base of the right lung. One important symptom was lacking from the picture of pneumonia, namely, the rusty sputum; and one marked symptom was present that did not belong to the picture, namely, the greatly distended abdomen.

The patient was ordered to have strychnin, $\frac{1}{30}$ grain, and nitroglycerin, $\frac{1}{100}$ grain, hypodermically, every 4 hours; milk, 6 ounces and whisky $\frac{1}{2}$ ounce, by the mouth, every 2 hours; an ice-cap to the head, and cold sponge-baths every hour, until some impression was made on the temperature.

The notes made at my visit on Monday, February 13, at 10 A.M., are as follows:

During the night the patient has slept none, has been continually delirious and at times violent; has had nourishment and stimulants regularly as directed. The abdomen has re-

[1] Read before the Medical Society of the State of California, April 18, 1899.

mained greatly distended, and loud rumbling has been repeatedly noted. The bowels have not moved, except for a slight brownish, watery discharge in bed, involuntary, whenever the patient's position was changed. The pulse has been as high at one time as 154, about midnight, and persistently above 120; at this visit, it is 128. The temperature has been reduced slightly by baths given, but only temporarily; it has fallen somewhat during the early morning; at this visit, it is 103 2°. The respirations have remained between 50 and 60. Much nervous trembling of the muscles has been noticed, and at times picking at the bedclothes. There has been no expectoration, and only a slight and infrequent cough. Dulness is again noted over the lower right thorax, even as high as the third rib in the mammary line. The breathing is bronchial over the lower right lung, with many moist rales. Over the base of the left lung are also heard dry and moist rales, but there is no dulness on percussion. No splenic enlargement can be made out owing to the enormous tympanites. The abdomen is greatly distended and very tense.

Some suspicion now arising as to the correctness of the diagnosis previously made, it was decided to employ the Widal serum-test for typhoid, and to make a blood-count. The directions previously given as to treatment were in the meantime continued; in addition, an enema of soapsuds and turpentine was ordered and turpentine stupes to the abdomen.

The notes of my visit at 4.30 P.M., the same day, read as follows:

The enema was without result, and the rectal tube inserted high brought no gas. The patient's appearance is much worse. The skin is livid and cyanotic. The respirations are gasping in character and 60 to the minute. The body is bathed in profuse perspiration, so much so as to thoroughly soak the pillow and bedding underneath. The patient is excited and restless, groaning and talking unintelligibly. The pulse is 140 and very weak, the temperature is 105.4°. The Widal test, made with blood taken at noon, gave a positive clump-reaction for typhoid. The blood-count showed a leukocytosis of 17,000.

It was decided to employ venesection in the hope of relieving the heart, and 21 ounces of blood was withdrawn from the right arm at 5 P.M. The patient's breathing became easier, and his pulse fell temporarily to 120, but at 6 P.M. the rate had risen to 140. From that time on, it became progressively more rapid and weak, until at last, too thready to count. Violent perspiration was renewed at 6.30 P.M.; the temperature rapidly ran up, being 106.8° at 7.20 P.M.; 107.2° at 7.45 P.M., and 107.4° at 8.30 P.M. The patient died at 9.25 P.M. on Monday evening, February 13, after an illness that began only on the preceding Tuesday.

The next day, February 14, at 11 A.M., an autopsy was made by Dr. Wm. Ophüls, pathologist to Lane Hospital, to whom I am indebted for the following notes taken from his records:

The body is that of a very strongly-built, well-nourished man. There is no swelling of the superficial lymph-glands and no edema. The abdomen is much distended. The left pleural cavity is entirely obliterated by connective-tissue adhesions. The right pleural cavity is empty. The left main bronchus is filled with a foamy, slightly bloody fluid. The left lung is small, its consistency is a little firmer than normal; the upper and lower lobes are hyperemic; there is very little air in the lower lobe, and in one spot the lung contains no air at all. The right lung and bronchial tubes present the same condition as the left. No areas of consolidation are found in either lung.

The liver is entirely hidden behind the free margin of the ribs. The diaphragm on the left side reaches as high as the fourth rib; on the right side, as high as the third rib. The spleen is very large—the size of a child's head; is soft in consistency and dark purple in color. The mesenteric lymph-glands are much enlarged and softened. The stomach and intestines are greatly distended. The mucous membrane of the jejunum is slightly swollen, edematous, and, here and there, are a few patches in which the mucous membrane is distended with small bubbles of gas. In the lowest part of the ileum, the solitary follicles and Peyer's patches are much enlarged, grayish, reddish white, and very soft. The solitary follicles all through the colon are also swollen; quite a number of the latter show beginning loss of substance on the summit of the thickening. The swelling of the solitary follicles extends all through, and even down to, the sigmoid flexure.

On subsequent bacteriologic examination of cultures taken at the time of autopsy, typhoid bacilli were found in those from the spleen and from the mesenteric glands; but cultures from the kidney, peritoneal fluid and blood were all sterile. Cultures made from the material in the bronchial tubes and lungs showed the presence of staphylococci.

The anatomic diagnosis was, therefore, typhoid fever with bronchopneumonia. The history and course of this case had already stamped it as a remarkable one from a clinical standpoint; several discoveries made at the autopsy likewise served to distinguish it as a remarkable case from a pathologic standpoint. *First* should be mentioned the unusual extent of involvement of the solitary and agminated follicles in the intestine, not only in the ileum, but largely in the colon, even so low as the sigmoid flexure. It has been estimated from statistics that the lesions of typhoid are found in the colon in 25% of all cases; but usually, they are few in number there, and do not extend far below the cecum. In this case, the whole colon was thickly studded with enlarged lymphoid nodules, as low as the sigmoid flexure. This extensive distribution of lesions explains the violent course and early termination of the case. There must have been an unusual production of typhotoxin from such an enormous area of infection, and the toxemia thus brought about was early manifested by delirium and high temperature; it was likewise the toxemia that overwhelmed the heart and caused the early death.

The *second* point of especial interest from a pathologic standpoint was the condition of the intestinal lesions; nearly all were in the first stage of swelling and infiltration, so that the agminated and solitary follicles looked like flat elevations or plateaus standing out above the level of the mucous membrane with sharply defined borders. Nowhere were there ulcers found, but now and then one of the swollen follicles was seen whose center showed a breach in continuity where necrosis was beginning. This appearance corresponded closely with the clinical history as to the duration of the morbid process. The case could not have been more than 10 days old at the time of death, and probably was not more than one week.

A *third* revelation at autopsy was the greatly displaced

liver, which was entirely hidden behind the free margin of the ribs, and extended as high as the third rib, pushed up into this unusual situation by the enormously distended intestines. It was this that had given the dulness over the lower right thorax on percussion, and that, by compressing the lung; had produced the bronchial breathing on auscultation; while the complicating bronchopneumonia had helped to confuse the diagnosis by the dry and moist rales it set up.

A *fourth* discovery was the greatly enlarged spleen, which could not be found during life, either by palpation or percussion, though careful search had been made for it. The same tympanites that displaced the liver, also served to put the spleen out of reach.

Finally, due credit should be given the Widal serum-reaction, which presented its testimony positively in favor of typhoid fever, at a time when the majority of symptoms and signs were against such diagnosis. It seemed more than likely at the time that the reaction was wrong; but the autopsy proved conclusively it was right. Accumulating experience demonstrates more and more the reliability of this test for typhoid fever, and in doubtful cases, the answer it gives should always be respected.

ACUTE DIABETES.[1]

BY HENRY L. ELSNER, M.D.,
of Syracuse, N. Y.

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BARRING the cases of acute diabetes associated with fulminating cerebral disease and acute changes in the pancreas, the rapidly fatal forms of diabetes may be considered to be of rare occurrence, comparatively speaking. The student who spends sufficient time studying the literature of diabetes, including the larger monographs by Williamson, Frerichs, Saundby, Purdy, Ebstein, Van Noorden, and Naunyn, will be thoroughly convinced of the fact that such cases are rarely encountered. I have taken pains to look through the 30 volumes of the Transactions of the London Clinical Society, and in these fail to find a single case of acute diabetes and but one case of acute glycosuria reported, and that by Dr. Hale White. In this case the glycosuria was associated with meningeal hemorrhage. To this I will refer again. Osler, in the last edition of his Practice, mentions the occurrence of both the acute and chronic forms of the disease, and speaks of a case of a man aged 73 years "in whom the entire course of the disease was less than 3 weeks." Williamson, in his recent monograph, makes the following statement and then dismisses the subject: "But occasionally cases are met with which run a very acute course. The patients are often children or young people, under the age of 30, though acute cases may occur later in life. The disease may terminate fatally in a *few* weeks after the symptoms are first noticed. In one patient at the Manchester Royal Infirmary, who was 18 years of age, the symptoms were first noticed only 2 weeks before death occurred; in two cases the symptoms were first noted only 4 weeks before the fatal termination; and in two other cases death occurred at the end of 6 weeks and 8 weeks respectively, after the symptoms first attracted attention. Death occurred from diabetic coma in all of the cases. Of course it is possible that in some of these cases the disease may have been present for a short time before the symptoms attracted the patient's attention; but others are on record in which the urine had been examined and found free from sugar shortly before the diabetic symptoms appeared." Williamson refers to a case reported by Wallach "of acute diabetes in which the urine of the patient happened to have been examined chemically a little more than 5 weeks before death. No sugar was present at that time; but after an attack of bronchial catarrh, diabetes developed suddenly, and terminated fatally 5 weeks after the urine had been examined."

In an experience of over 20 years I have seen but 3 cases of acute diabetes in hospital and private practice. Of these, 2 were in children; one child, 5 years of age; the other, 7; the third case was in an adult whose history I will present.

The first child sustained an injury to the head a few weeks before the onset of symptoms, when suddenly great thirst tortured the child, polyuria soon followed, the urine was examined, found to be saccharine, specific gravity, 1042, and in less than 10 days after this examination the child became comatose and died with symptoms of acetone poisoning. The urine gave the characteristic reaction with iron chlorid. In the second case the child gave no history of head-injury, had been perfectly well, suddenly developed great thirst, a voracious appetite, the urine was found to contain sugar. This child died before the ninth day, comatose, with the classical symptoms of acetonemia. In neither of these cases was there anything in the family history which predisposed in any way to diabetes. The third case to which I wish to call your attention was one which, to me, is most interesting.

November 6, 1897, I was hurriedly summoned by Drs. Lee and Joy, of Fulton, N. Y., to see Mr. S. C., aged about 45 years, a banker, who had enjoyed excellent health, with the exception of a slight gonorrhea, from which he had fully recovered. This was the only urinary disturbance which he ever had. There was nothing noteworthy in the previous or family history.

On the preceding Tuesday he came to Syracuse to hear the election-returns, and while watching the bulletin became thoroughly wet. He returned to his home at Fulton on a late train and complained of dysuria during the night, which was slightly relieved toward morning by a continuous dribbling of urine, to which very little attention was paid. The next morning he complained of incontinence of urine, but his physician supposed that his bladder had become dis-

[1] Part of a discussion on Diabetes Mellitus before the Syracuse Academy of Medicine at its regular meeting on Tuesday evening, April 18, 1899.

tended during the night when he failed to empty it and that the symptom would soon disappear.

Wednesday and Thursday he remained quiet, the urine dribbling continually, and on Friday morning, the day before I saw him, he was greatly disturbed by hiccough which was not controled. He suffered from somnolence. There was some mental hebetude and his breath had a peculiar sweet odor.

When I saw him, late in the evening of November 6, the odor was quite characteristic, he was dull and apathetic, his pulse was 90, of poor quality, his pupils were moderately contracted, but responded to light, deep and superficial reflexes unchanged. Urine was continually dribbling. The abdomen was distended by an enormous tumor which filled it. The percussion-note over the mass was flat.

The incontinence of urine with the mental condition of the patient and the abdominal swelling at once made me suspicious of an enormously distended bladder. This suspicion was confirmed when on introducing the catheter, 2½ vesselfuls of urine was withdrawn. The specific gravity of the urine was 1015, acid, containing a large percentage of sugar. An accurate quantitative test was not made at this time. During the next 24 hours over 5 gallons of a 3% diabetic urine was drawn from the bladder, and during Monday, November 8, the last day of his life, over 1 quart of urine was drawn from the bladder every 2 hours. The specific gravity remained between 1015 and 1025. The temperature remained normal during the first 4 days of the disease, finally became subnormal.

With this enormous polyuria there was excessive thirst, the mind became more and more clouded, the odor more and more characteristic, the pulse more feeble, very rapid, averaging between 120 and 150 until a few hours before death, when it was found to be 180 per minute. The respirations were never below 31, usually between 40 and 50. The color of the patient was ashen, and one could easily note the enormous loss in strength and weight from hour to hour. At 7.30 P.M., on Monday, less than one week from the beginning of symptoms, the patient died from exhaustion with symptoms of profound poisoning.

This case is of intense interest because of its fulminating course, the enormous polyuria with the continuous high percent of sugar, a comparatively low specific gravity of the urine, and the enormous distention of the bladder originally present.

Dr. Lee, with whom the patient lived during several years, asserts that before the advent of the acute and fatal diabetes, Mr. C. had been in perfect health. There were no evidences of pancreatic or other associated diseases.

My records contain the history of a patient who died suddenly with symptoms of cerebral hemorrhage and glycosuria. In this case the patient, a young man, aged 34 years, was syphilitic and a beer-drinker.

September 10, 1897, he considered himself perfectly healthy and supposed that he had been cured of syphilis. He had had repeated attacks of syphilitic iritis. On the morning of September 11, he arose at 6 o'clock, opened his store, as had always been his practice, and returned to his home at 8 o'clock for his breakfast. He then complained of slight pain in the ear and head. He told his mother that an hour's rest would relieve him, and begged her to awaken him at the end of that time.

On entering his room to do as he bade her, she found him unconscious, and was unable to arouse him. He was breathing stertorously. I saw him with Dr. Rupp, who was with the patient when I arrived, later, with Dr. Didama, and took charge of the case.

The breathing became very irregular, exceedingly rapid, averaging between 90 and 110. The temperature reached 104°, later in the day mounted to 105°. The pulse was at first 80, but soon became more rapid and reached 100. The patient never regained consciousness, finally had Cheyne-Stokes breathing, the pupils were moderately dilated, reacted at first to light and accommodation, later they refused to react to light. There was no paralysis. Occasionally during the day the respiratory muscles were thrown into active spasm; there were clonic spasms of the right hand, the thumb was drawn in, the arm and forearm were fixed; later these spasms became general, the reflexes, both superficial and deep, were slightly exaggerated.

The urine, drawn from the bladder, was found to contain .83% of sugar, specific gravity 1,037. These symptoms continued, the temperature reaching 106.8° in the axilla before the death of the patient.

The urine had at all times contained sugar in abundance and the specific gravity was never below 1,035. There was acetone-reaction. No postmortem could be obtained. The history, however, parallels very closely that of the case reported by Hale White in the Transactions of the London Clinical Society, to which I have already referred.

In his case meningeal hemorrhage was found postmortem, and the subdural and subarachnoid cavities were found filled with blood, besides hemorrhage in other parts of the brain. In the case just reported there was probably a cerebral hemorrhage, and from the early involvement of the respiratory center, the rapid pulse, great hyperpyrexia, and the immediate glycosuria, we are made suspicious of a ruptured syphilitic artery with more or less effusion into the medulla, pressure on the floor of the fourth ventricle with probable associated meningeal changes.

THE TWENTY-FOUR HOURS' URINE IN CYSTIC KIDNEY, WITH OBSERVATIONS ON AN ACETO-SOLUBLE ALBUMIN.

By CLIFFORD MITCHELL, M.D.,

of Chicago, Ill.

I have examined the 24 hours' urine in a case of cystic kidney, probably congenital, and proving fatal before the age of 40. Postmortem examination confirmed the diagnosis and showed that both kidneys were cystic, the weight of the one being 6 pounds, and of the other 5½ pounds. The following examination of the urine was made about a week before death from exhaustion following excessive hemorrhage.

The volume of urine per 24 hours was at this time 1260 cc. (42 fluidounces); the color dark-red from admixture of blood; the specific gravity 1011, but after removal of blood only 1005; the odor ammoniacal; the reaction strongly alkaline; the appearance opaque from presence of dark blood; the frothiness increased.

The quantitative determination of urea, phosphoric acid, and uric acid was undertaken by the simplest clinical methods, first on the original urine, as voided by the patient, and second after removal of the albumin by acidulating, heating, and filtering. For urea the hypobromite process was used (instrument of Bartley with Beebe clamp). It was found that the determinations of urea agreed both before and after removal of the albumin, namely 4 grains per fluidounce (about 8.5

grams per liter), in each case, making a total of 168 grains (about 10.75 grams).

The patient showed various evidences of uremia at the time the urine was voided, in the odor of the breath, by muscular twitchings, and by hiccough.

Phosphoric acid was determined by use of standard solution of uranium nitrate. As is well known, this process is inaccurate in ammoniacal urine and difficult in case of urine frothy from large amount of albumin, so in order to determine P_2O_5, 200 cc. of the original was taken acidulated with 20% acetic acid until showing bright-red with litmus, then set in a beaker on the water-bath until coagulation of the albumin had taken place, when it was filtered hot through one rapid filter-paper. The filtered urine was clear, of light-yellow color, and of 1005 specific gravity. In this urine, free from blood and albumin, the amount of P_2O_5 for 24 hours was found to be a little over one gram (16 grains).

The same urine freed from blood and albumin was used for determination of uric acid by method of Heintz, and a little over one quarter of a gram (about 4 grains) per 24 hours was found. The ratio of urea to phosphoric acid was 10 to 1, of urea to uric acid 42 to 1.

A rough estimate of the amount of chlorids and sulfates was made by the method of centrifugal sedimentation in a percentage-tube, with results that the chlorids were found to be exceedingly deficient—only one-fifth the usual normal bulk-percentage—and the sulfates deficient—only one-third the normal bulk-percentage.

In other words the deficiency of solids bore out the statement in the books that in cystic kidney we find diminution in the quantity of normal solids (urea, phosphoric acid, uric acid, etc.). In this particular case the deficiency in chlorids was most marked.

By far the most interesting feature of the case, however, was the peculiar kind of albumin present. The original urine neither filtered nor boiled showed $2\frac{1}{2}$ points of albumin in the Esbach tube at the end of 24 hours, but only 4% bulk-percentage by centrifugal sedimentation (1,000 revolutions per minute for five minutes) with the ferrocyanic test. After the urine had been acidulated with 20% acetic acid, heated on the water-bath and filtered hot, the following results were obtained with 5 albumin tests in order as below:

1. Cold filtrate *boiled* and treated with a few drops of 20% *acetic acid:* result negative. No cloud.

2. Cold filtrate superimposed on equal bulk of *cold nitric acid* (Heller's test); result negative. No zone.

3. Cold filtrate superimposed on equal bulk of solution of *acidulated urine:* a delicate white ring about the width of a hair, only visible against a dark background.

4. Cold filtrate superimposed on equal bulk of *Tanret's solution;* hazy zone (not a well-defined ring) visible only against a dark background.

5. Cold filtrate superimposed on equal bulk of *Spiegler-Sharp test solution:* large, sharply defined ring, visible in any light and at considerable distance.

In other words there was present in this filtrate an acetosoluble albumin which the Spiegler test (modified by Sharp by substitution of glycerin for sugar) showed far better than Tanret's reagent. Twenty percent acetic acid alone superimposed in equal bulk on the test solution gave no ring.

It must not be forgotten, in applying Spiegler's test for albumin in the urine, that ammonium compounds may afford opportunity for error. If one cubic centimeter of ammonia water, sp. gr. 0.90, be diluted with 3,000 cc. of water and overlaid in equal parts on some of Spiegler's test-liquid, a white zone is clearly visible. Even in a dilution of 4,000 to 1, a faint white ring is perceptible. Phosphatic urine of ammoniacal odor, containing traces of proteid, gives a bulky white zone with Spiegler's test and also with Jolles' test. But if such urine first be made strongly acid with acetic acid, only a delicate white ring is obtained. It seems probable, therefore, that in the case described above, in which the urine had first been made strongly acid with acetic acid and heated, that the comparatively large zone was due to the presence of a proteid.

Lack of time on the day in question prevented me from experimenting further with albumin-tests.

Microscopic examination of the sediment showed blood-corpuscles, pus-corpuscles, and crystals of triple phosphate.

It is said in the books that pus and triple phosphate, due to an accompanying cystitis, are found in the urine in the last stages of cystic kidney. The patient, however, made no complaint so far as his bladder was concerned, although these substances were present in the sediment.

The patient's urine was collected during another 24 hours, and I attempted further study of the proteids present, but encountered a peculiar difficulty. This time, when heated on the water-bath, prior to filtration, the urine coagulated into a kind of jelly from which it was not possible to obtain by filtration more than a few drops of fluid. Moreover, when, also, the original urine of this particular 24 hours was treated with Esbach's reagent in the usual manner in the Esbach tube, an almost solid mass of proteid was obtained, such, that when the tube was uncorked and inverted, only a few drops of fluid ran out.

This same condition was found to exist in the urine from day to day until the patient died, in a little less than a week from the time when the albumin increased so suddenly to such an enormous amount.

A Latin-American Medical Congress will be held at Santiago de Chili in the fall of 1900. The suggestion originated in Chili, but all the medical bodies of the South American republics are to send delegates.

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A Medical Diamond Jubilee.—It is not often that medical men have the opportunity of celebrating diamond jubilees of members of the profession, so that such a celebration by the Liverpool Medical Institution, on March 15, of the sixtieth anniversary of one of its members, Dr. John Cameron, seems worthy of notice. A special meeting of the Institution was held in observance of the event, with a reception, and addresses by the President and others, and the presentation to Dr. Cameron of an illuminated address.

Still another medical journal is announced. The circular of notification is worth some study. It is of a journal yet to be, and notwithstanding this fact, it *has* a guaranteed circulation of 60,000 copies; its subscribers *are* of a class that are open to conviction; it *is* the best medical journal published, etc., etc. In the space of 120 pages each, of four numbers a year, it promises to give "the gist and substance from the best articles in all medical journals published at home and abroad." As there are about 1,000 such medical journals in the world, we are a little doubtful about the realization of the promise. The English of the circular is of the kind to be expected from a consideration of the subscription price, the astounding promises made to the prospective advertiser, the fame of the publisher, who says, *inter alia*, of his publication, "the world today is surfeited with words; it wants ideas, and we propose (sic!) to cater to its wants." Amen! We shall watch the "cater."

To Instruct the Public.—At the last meeting of the Colorado State Medical Society Dr. C. D. Spivak offered a resolution which was unanimously adopted:—

"That a committee of five be appointed by the incoming president, whose duty it shall be to cooperate with similar existing, or hereafter to come into existence, committees of other State medical societies for the purpose of publishing and distributing, either periodically or from time to time, such literature as will expose to the victimized public the folly, delusion, wickedness, and criminality of the advertising quacks and abortionists, and of all systems of alleged healing which are not based upon scientific principles."

There can be no doubt that it is the duty of some one, or, as that indefinite person never was known to do his duty, of the medical profession, to instruct the public in the elementary matters of sanitary prudence. If a few of the well-informed and the half-informed go astray from wickedness, a great many of the ignorant and stupid do so because no one has ever warned them. If done in the right spirit, and by good methods, there is no work more obligatory upon medical men and societies than that undertaken by the Colorado Society. Literature of the sort proposed should be placed in the hands of every practitioner for free distribution.

The hygienic value of fruits and vegetables in the general dietary of people in health seems to be only partly recognized, as is evidenced by the large variety of meats on our ordinary bills of fare and the quantity served, as compared with that of the vegetables. The albumins have long been considered the ideal foods of a highly nutritive diet, and their value is undoubtedly great, but it is now a well-known scientific fact that an even greater amount of starchy food is essential to the nutrition and development of the body. But besides this, our body has need of certain mineral salts, in small quantities, it is true, but still the demand is imperative, and the supply of potassium, sodium, calcium, and other salts, and of iron, phosphoric acid, phosphates, etc., must be furnished, and is best furnished, by a diet containing an abundance of fresh vegetables. We are not aware that anyone has given a complete explanation of the way in which fresh fruits act to prevent scurvy, but the fact is too well known to need mention, as well as the favorable influence of many fruits in preventing constipation and aiding digestion. The special value of certain vegetables is now becoming generally known; for example the action of celery and lettuce on the nervous system, the easily assimilated small quantity of iron contained in spinach, the slightly stimulating effect of asparagus on the kidneys, and so on almost ad infinitum. These effects are no doubt too slight to be of any great value in treating pathologic conditions, but still sufficient to be of decided value in maintaining the healthy balance. We have no desire to take sides either for or against vegetarianism, but we believe that an increase of the number of well-cooked vegetables on our bills of fare to that usually found on European menus would add not only to the pleasures of eating, but to the health of the eaters.

A new etiology and pathology of carcinoma is to be found in the last number of the *Occult Science Library*, published by Ernest Loomis & Co., of Chicago.

Occultism, according to Loomis, seems to be a sort of revival of astrology, plus "polarization," plus "vibration." The July number of the periodical appears to have been written during the season, or in the zodiacal sign, of the cancer. As all modern humbugs finally in one way or another seek their victims by the way of the road marked *medicine*, so the sign suggests tumors. The occultist, of course, knows all about the etiology of carcinoma. Whether a typical case of abdominal or mammary carcinoma could be cured by "practising the true principles of occultism," the author shrinks from saying. But he has no doubt as to the means of prevention. The prophylaxis of the disease is sure, as may be gleaned from the extract given below:

CANCERS AND TUMORS. The sign Cancer pertains to the water and also to the Mother principle in nature. Where this overshadowing, caring for and sometimes hoarding maternal tendency becomes excessive, it necessarily produces disease, or inharmony of the forces, and is liable to function in the breasts or abdominal regions as tumors or cancers. There are people whose external circumstances closely resemble these cancerous conditions. Silently examine your own interior and external conditions and see if you can find any such symptoms. If you are setting up such causes you may know that the consequent conditions will function sooner or later in your life or environments. Remove the cause by practising the true principles of occultism and you need have no further concern about such consequences. . . . Think of this deeply and thus settle once and for all the doctrine of "fate," so that its generally accepted fallacies will not prevent you from becoming the master of your fate. Learn in the silence the occult art of "ruling your stars," and if the impulse come to you to silently "hurrah" for the unchangeable interior vibratory law which gives to each the power to finally master himself and all things, then yield to the impulse heart and soul, for you thus praise the giver of your life and of this power.

We do polarize to the unchangeable interior vibratory law, and silently hurrah, at the top of our voice.

The Relation Between the Malignancy of Tumors and the Presence of Glycogen in the Tumor-cells.—Once in a while we come upon a book of small dimensions which is brimful of new information. This little monograph of Brault is one. Recognizing that the morphology of tumors was not always an index of the degree of their malignancy, this author has studied them along another line. The fact that all fetal structures during their most rapid growth contain large quantities of glycogen has long been known. Malignant tumors are made up largely of embryonic cells which contain glycogen in abundance. Brault has seized upon this fact and has found that the quantity of glycogen is an index of the degree of malignity. Benign tumors he finds contain no glycogen in their cells. According to Brault, the cells of malignant growths do not derive their glycogen from the liver, but form it independently. The method which Brault has employed to demonstrate the presence of glycogen is as follows: The tissue, in small fragments, is fixed by being kept suspended in alcohol for twenty-four hours. Then it may be cut directly, or if too soft, it may first be embedded in collodion. The sections must not be exposed to water, for it dissolves the glycogen. The sections are then treated with an iodized solution of gum arabic, which is prepared in the following way: Ten grains of potassium iodid and 1 grain of iodin are dissolved in from 30 to 40 grains of water; to this 200 grains of a sirupy solution of gum arabic are gradually added, the mixture being stirred constantly. The gum arabic prevents the action of the glycogen. The section is extended upon a glass slide and covered with the iodized solution and then with the glass cover. The tissue becomes yellow, but in the cells may be seen the dark mahogany-brown granules of the glycogen. This simple proceeding is worthy of the attention of pathologists.

The teaching of Hospital Economics has been undertaken by the Teachers' College of Columbia University, and we heartily commend this fresh proof that the nurses are doing all in their power to dignify their profession, and to enable it to meet the demands of the future upon it. The first class of these special students will be admitted in the fall of this year. The course has for its purpose the preparation of trained nurses who have the necessary qualifications for teachers in training-schools for nurses and superintendents of hospitals. Its aim is eventually to attain uniformity in curriculum and training-school methods, which shall make the standing of a trained nurse practically the same from any training-school connected with a general hospital in the country, and also in the course of time to be able to supply thoroughly trained superintendents to take charge of the small hospitals and training-schools.

The American Society of Superintendents of Training-Schools for Nurses is responsible for the development of this course, and in order to secure a careful selection from candidates it has appointed a board of examiners of experienced superintendents whose duties are to receive the names of all candidates for the teachers' course, and to endorse them. They decide upon their qualifications as practical trained nurses, examine their certificates, and receive a full statement from the superintendent of the school from which they graduated as to the candidate's qualifications to become a superintendent. In addition to these requirements the board requires that the candidate enter the Teachers' College for the full term of eight months, and that she will either before or after this term spend from three to four months in doing private duty. Then, after this year of extra preparation, having passed the required examinations satisfactorily, she will receive a certificate as a qualified superintendent for a training-school for nurses or a hospital.

Nonsense science about the eye seems to be possessed of the proverbial nine lives of the mythical cat. However absurd, however frequently disproved, the

stories reappear with a pertinacious vitality and regularity that is inexplicable. Of no other organ are these popular superstitions and fallacies so prevalent. A brief review of a few may prove interesting:

Nonsense No. 1. For centuries novelists and story-tellers have been utilizing the tale of the image of the murderer photographed upon or in the eye of the murdered man. In the last years two novelists have repeated it, and in the newspapers it often pops up with comic innocency and solemnity. According to *variant a*, the spectator rushes to the corpse and sees the image on the cornea, or on the iris; *variant b*, requires deep gazing into "the interior of the eye" to see it; in *variant c*, the photographer is required to "develop it;" in *variant d*, the picture is on the retina and dissection is needed to reveal it to the naked-eye vision of the bystander; or, lastly, according to *variant e*, only the photographer or the microscope will show the retinal photograph. Of course no image can be formed on or in the cornea or on the iris if the laws of optics are true, and without an ophthalmoscope no eye except that of the novelist could see the retina, and if by death there were an image fixed there (which there is not), it could not be seen by another eye aided or not by the arts of dissection, photography, or microscopy.

Nonsense No. 2. A novel has recently been issued from the press of a New York publishing house, for which the professional title of the author may give authority to the pseudoscience which, somewhat like the nonsense photography mentioned, has a fairylike ability to revive after death. The plot of the novel turns on the absurdity that the brain-cells have the power to retain impressions like a photographic plate. We remember to have seen a comically grave account of the brain of a chess-player in which the microscope showed numerous chessboards in its texture, somewhere.

Nonsense No. 3. Even in the most serious of newspapers (perhaps also in some medical journals) there has been lately appearing a grave scientific explanation of the snakes seen by patients with delirium tremens. This consists in the fact that some oculist has reported the retinal vessels in the disease to be increased in size and tortuosity. A "jump" is then made to the supposition that the snakes are the images of these tortuous and overfilled vessels. The vessels of one's own retina are invisible except by a little device of which the drunkard knows nothing.

Nonsense No. 4. Pseudoscientific persons are fond of rediscovering the old bit of dogmatism that the eyes, *per se*, have no "expression," *i. e.*, apart from the emotions indicated by the rest of the face. Last year one of the most self-satisfied essays of one of the most self-satisfied of English essayists was devoted to showing up what she supposed the pitiable fallacy of the whole world that the eye does have power of expressing feeling. But what an utterly different expression does mydriasis give not only to the eyes but to the entire face! Pupillary diameters and mobilities are most sensitively obedient to the play of the emotions, and they who do not recognize this must be strangely inobservant.

Nonsense No 5. Although anyone can be made to see them, so few indeed have ever observed what the oculists called muscae, that when first they happen to catch a glimpse of the filmy dots and strings floating across a page or a cloud, they are frightened. Quacks set great store by these "black specks" and treat the poor worried patients for months with medicines and lotions. Muscae have no pathologic significance whatever, unless perhaps occasionally to the disordered imagination of a dipsomaniac.

Practical instruction and work in sanitary science and public hygiene are offered under favorable conditions by the Chicago Department of Health to those who are qualified and desire to avail themselves of the opportunity. The courses are open to graduates in medicine and senior undergraduates. Applicants must first pass a preliminary examination in physics, chemistry, bacteriology, and biology. For graduates the service covers three hours daily for two weeks each in (1) general bacteriologic work, (2) bacterial diagnosis of disease, (3) chemic analysis of water, ice, and food-products, (4) bacteriologic examination of water, ice, and food-products, with special work in milk-examination—chemic and bacterial.

In each branch the participant will be required to perform with his own hands—under the direct supervision and instruction of the experts of the Department—all the practical work necessary in making analyses, examinations and determinations. At the end of his term, if his work has been satisfactory, he will be given a certificate by the Commissioner of Health, setting forth his qualifications and the fact of his attendance in the laboratory.

Undergraduates who have passed their sophomore year will be received, after examination by the Department as to their fitness.

They will be required to serve a single term of four weeks, attending three hours each day, and doing such work as may be assigned them in preparing culture-mediums, putting up culture-outfits, incubation, sterilizing, the care and technic of instruments, the fitting and construction of apparatus, etc.—the elementary practical work of the bacteriologist and sanitary chemist. They will also assist the experts and receive instruction from them in all the details of their work.

At the end of the term provisional certificates will be given, entitling the recipients to admission to the senior course without further examination.

Special courses of instruction and practical work in Sanitary Inspection, in the Registration of Vital Statistics, in the Method of dealing with the Contagious Diseases

and in the Department Method of Disinfection are also offered. These will take up defects in the ventilation, lighting, plumbing and drainage of habitations and their correction; nuisances and their abatement; the removal and disposal of household wastes, etc.

The term is for four weeks, during the first half of which the student will be required to accompany a sanitary inspector in his daily work. In the remaining two weeks, or so soon as the student has demonstrated his ability, he will take assignments, make inspections and reports, and act as sanitary inspector on his own account, under the authority of the Department.

A two-weeks' course in vital statistics embraces the record of births and deaths; the causes of deaths and their nomenclature and classification; the computation of mortality-rates and the graphic representation of statistical results; the disposal of the dead and the laws and ordinances relating thereto.

Instruction in the Department method of dealing with contagious diseases—notification, isolation, prophylaxis, etc.,—also will be given. This will also include the technic of vaccination with glycerinated lymph and the use of diphtheria-antitoxin, and the Department method of formaldehyd-disinfection. No fee will be charged for any of these courses, and the number of voluntary assistants will be limited to the facilities of the laboratory for thorough personal instruction. Instruments and appliances, reagents, etc., will be furnished for use gratuitously.

Too great praise cannot be given the Chicago Department of Health, and especially its efficient commissioner, Dr. Arthur R. Reynolds, for the enterprise that it has manifested in various directions, and particularly for this novel and practical means of enlarging its field of usefulness and offering the opportunities and privileges of its service to a wider circle of workers. The proposed plan is no longer an experiment, as it has been in successful operation already for two years. Sanitary science is daily assuming greater prominence and greater importance, and the step taken by the Chicago Department of Health will do much to enhance its popularity as well as its applicability.

Suggestions to Writers, No. 32. Style.—We are often asked how one may acquire a correct and cogent style of writing, and naturally and rightly every young writer wishes to know if this can be done. There are a few instances of persons, Cicero and Voltaire, for example, able to say a commonplace in a way to command attention,—who had style apart from matter, but for the vast mass of writers this would be not only undesirable, but also dangerous. In the final analysis it must be confessed that as a rule style is not to be acquired by any amount of conscious study, because it ultimately depends upon a man's originality and the character, if one may so speak, of his mentality. According to Buffon's classic maxim, style is the man himself. The matter at last resolves itself into the old discussion as to form and content in art, and a judicial mind can have no tolerance for the sillies who argue that form is everything; for, according to that long-eared dictum, a painter could expend the technic acquired in a lifetime of industry in painting rotten eggs, or a poet could waste the utmost metric and linguistic skill in lilting elegancies and meaningless mellifluousness. Unless the poet think great thoughts and quiver with feeling his verses will never become poetry. In precisely the same way, the ability to write perspicuous and convincing prose will primarily and ultimately depend upon the mental energy, the clearness of thought, and the reality of emotion, of the writer.

But just as poetic sensibility must learn the art of poetic expression, just as the painter must learn drawing, color-blending, etc., so one who would best convey to another his experience and opinion by means of prose-writing and printing, must learn the necessary and intermediating art. For an art there is, although in acquiring it many a poor man, forgetful of *Le style c'est l'homme*, has lost his way in the labyrinths of dilettanteism. At least there are hundreds of mistakes and wrong ways that he may avoid by a little patient study. With much aptness it has been said that "a great commander must know how to pick his recruits, to drill them, and to handle them when drilled, but he must still have something more,—generalship; and what generalship is in a commander, that clearness of thought and of expression is in a writer." He would indeed be a brave man who would attempt to teach the higher qualities of generalship or of literary mastery, but in the picking and drilling and handling, either of recruits or of words, much may be learned by those who have neither the ability nor the wish to become great generals or great writers.

We are attempting in these suggestions to writers to give a few hints of the worst things to be avoided, and of the best to be encouraged, but at last, to be sure, these have nothing to do with style, they only caution about some of the more striking blunders. They also need to be supplemented by the study and often the memorization of parts of a few manuals that any good bookseller can supply, such as Roget's *Thesaurus*, the *Stylebook of the Chicago Society of Proofreaders*, Hodgson's *Errors in the Use of English*, White's *Words and their Uses*, and his *Every-day English*, *The Verbalist*, and *Cobbett's English Grammar*, by Ayres, etc.

Nearly all physicians are under the obligation of giving to their profession the results of their experience. This can be done only by the written and the printed page. Deprived of leisure, engrossed with the facts and the work of life, frequently with insufficient literary training, physicians often betray an excusable but lamentable inability to write even correct English. Because of this fact conscientious editors grow prematurely

gray, and the files of the conscienceless sort are inexhaustible mines of fun for the jester and of irony for the cynic. It is when there exists no need for writing except the need of conjoined vanity and ignorance, doubled perhaps with the cunning of the advertiser, that we get things that give shame to gods and men and are fit to arouse the cacchinations of the imps of hell.

Some of the general rules for writing are as follows:

1. *Do not put pen to paper*, or at least do not set the typesetter at work, *unless you have something to tell* that will probably prove of value to the profession or to the science of medicine. Do not write to advertise yourself, or for vanity's sake.

2. *Think out in advance and clearly* what you wish to write; so far as you are able, find what others have written on the subject; arrange the order or sequence of what you will say.

3. *Avoid exordiums*, introductions, and prefatory explanations, plunging at once *in medias res*, and striking out straight for your essential point with clear and strong strokes, and without detours or tiresome indirections.

4. *Avoid highfalutin*, choose simple words arranged in short though not in choppy and staccato sentences. Profound interest in what you have to say, singleness of desire to give to others what you have learned, will make you write better English than all the grammars and rhetorics ever compiled.

5. *Stop when done.* If you have not made the matter clear you will only befog it by explanations and variations. Go back rather and rewrite what you have said. Have no perorations, or long-drawn "clap-trap fortissimos in g," like an opera singer hungry for applause.

The Reappointment of Dr. J. T. Rothrock as Commissioner of Forestry of Pennsylvania is not only a matter of justice, not only of civil service honor, not only of recognition of the medical profession, not only of good politics, but also of the welfare and prosperity of the State. We trust every physician will do what he can to encourage Governor Stone to reappoint Dr. Rothrock, whose commission expires next month.

The Philadelphia Monthly Medical Journal for July presents an unusually excellent array of scientific articles, many of which have a time value. The range of subjects is pathological, practical, didactic, surgical, therapeutic, and analytic. The issue is No. 7 of the series, and has been mailed to subscribers this week.

Guaiacol in the Treatment of Malaria.—Charles J. Whalen (*Chicago Medical Recorder*, July, 1899) reports 3 very severe cases of malaria in which he used guaiacol with marked success. He says he is unable to state positively that it is a specific in malarial fever, but in guaiacol we possess a therapeutic agent of great value in many cases which have resisted the ordinary methods of treatment. Quinin failed to control the chills and fever in the cases presented, yet the result obtained by guaiacol was immediate and lasting. One case was not cured, but was beneficially affected, and higher doses would probably secure the desired result. [C.L.L.]

Correspondence.

UNIQUE CASE OF VACCINATION.

By D. A. MODELL, M.D.,
of Philadelphia.

To the Editor of The Philadelphia Medical Journal:—

G. V., aged 5, was vaccinated the early part of June. A few days after the formation of the typical vesicle his little brother, aged 2, owing to some controversy during play, bit him at the place of vaccination. All attention being directed to the injured one, no notice was taken of the youngster who caused the trouble, till a few days later, when a typical vesicle appeared on the left side of his upper lip at the junction of the skin with the mucous membrane.

THE BIBLIOGRAPHY OF AN ANTI.

By ALBERT LEFFINGWELL, M.D.

To the Editor of The Philadelphia Medical Journal:—

In your editorial comment upon Dr. Dudgeon's article on certain human vivisections made in Europe, it seems to me that the Journal has not quite come up to what I am sure is its standard of fair criticism. Suggesting the unreliability of this writer's statements, you say that of twelve authors mentioned "the correct references are given of but six"—others being either incorrect or incapable of verification. It seems to me that if Dudgeon has given references to the page and number of certain periodicals as authority, he should not be held up to editorial criticism because these authorities happen to be for the time beyond editorial reach. You say that no reference is given for Döderlein. On the contrary, reference was made to his "monograph," and monographs in Germany are as the sands of the seashore. Of Gross, Finger, and Neisser you say his "references are either incorrect or cannot be verified." No reader of your periodical would gather that Dudgeon gave precise references to each of these cases; and, personally, I wish you had stated which you had found to be innaccurate? Dudgeon's reference to Bumm you intimate is to a work "not yet published." Inasmuch as in this case reference is given to two works,—one, the twentieth volume of a cyclopedia, at page 137: the other to a book purporting to have been printed in 1890, page 451,—I should really like to know *what is the evidence* that in this case *Dudgeon referred to the very page of a work which has no existence in print?*

The Journal cannot verify Dudgeon's reference to Neisser's experiments, and yet it not only admits the substantial accuracy of the charge, but goes on to tell us that the young girls infected by Neisser with syphilis were "young prostitutes." Where is the authority for that statement? Dudgeon is held up to ridicule because he has omitted to state his authority for experiments, which, after all, you are willing to admit "were in reality performed;" and the Journal's only contribution to our knowledge has no reference whatever! I have no doubt whatever of the reliability of your statement, but credence is here given to character,—not to evidence. It seems to me that Dudgeon should have mentioned the fact that these eight young girls were prostitutes,—if he knew it; but do you really think that even the intentional omission of a circumstance—palliative of Neisser's infamy if at all, but in the very slightest degree,—was "a still more harmful and outrageous" sin than the inocu-

lation of those eight healthy girls with the serum of syphilitics? The sin of human vivisection overweighed by the sin of a literary omission?

For myself, it seems that the very careful references Dudgeon has given for most of his statements, makes all of them of sufficient probability to merit further investigation. If he has thrown any light whatever upon the practice of using women and children as subjects for experimentation, we owe gratitude rather than scorn. Your own strong and earnest words in condemnation of these crimes are most valuable, and will, I trust, find echoing response in the great majority of the medical profession.

[In our editorial it was stated that "the correct references are given of but six" of the communications referred to by Dr. Dudgeon, and that statement is correct. We are in accord with the opinion expressed by Dr. Leffingwell when he writes: "It seems to me that if Dudgeon has given references to the page and number of certain periodicals as authority, he should not be held up to editorial criticism because these authorities happen to be for the time beyond editorial reach." It is true, as stated in the editorial, that "of 4 (Döderlein, Jansen, Epstein, and Gross) no references are mentioned." As regards Döderlein, reference is made to a monograph, but the monograph has no title, page, or date of issue, and as "monographs in Germany are as the sands of the seashore," we suppose that the sands should all be o'erturned in an endeavor to find the reference. The references given for the articles of Gross, Finger, and Neisser "*are* either incorrect or cannot be verified." We are glad that no reader of the JOURNAL would gather from what we stated "that Dudgeon gave precise references to each of these cases," because he did not. There is absolutely no reference whatever for the statement that Gross communicated gonorrhea to a young man, on July 25, 1895. As for the precision that characterizes the reference to Finger's article in the *Allg. Wiener med. Zeitg.*, we will permit Dr. Leffingwell himself to be the judge. The reference is given as "Nos. 50 and 51." Inasmuch as the journal is now in its forty-fourth volume, there are 43 numbers 50 and 51;—certainly a most precise reference. We stated that the reference to Bumm's article could not be found because we had been informed that the work indicated had not yet been published. In this we erred; we should have stated that the work had not yet been received from the publishers. Our librarian was correct in assuming that it had not yet been published, as the library has a standing order for all such books immediately upon their publication. However, while the editorial was in type the twentieth volume of the third edition of the *Real-Encyclopädie der gesammten Heilkunde*, the work referred to, was received, and behold now upon looking up the matter there is on page 137, no mention whatever of the experiments mentioned by Dr. Dudgeon. If the second edition is meant (it certainly is not stated), we tender our apologies. We believe not, though, as the last volume (the twenty-second) of that edition was published in 1890. The first edition had but 15 volumes.

Dr. Leffingwell certainly comes to a most erroneous conclusion when he assumes: "The JOURNAL cannot verify Dudgeon's reference to Neisser's experiments, and yet it not only admits the substantial accuracy of the charge, but goes on to tell us that the young girls infected by Neisser with syphilis were young prostitutes." The editorial writer *did* find the article to which Dr. Dudgeon had made an incorrect reference (it was published in 1898 not in 1895), and the authority for the statement that the young girls were young prostitutes is contained in the article in question, on page 487. It could not have escaped the attention of Dr. Dudgeon if he read the article. Dr. Dudgeon is therefore not held up to editorial criticism because the authorities to which he refers were for the time beyond editorial reach. All of the works for which he gave correct references were within editorial reach, and were diligently searched through, as were also others of which incorrect reference was given. However, we have no desire of endeavoring to disprove that unjustifiable experiments have been performed upon human beings. The investigation of Dr. Dudgeon's references was undertaken, as we stated, to indicate "the looseness of the statements and the illogical and unwarranted deductions of many of the antivivisectionists." To our mind these are clearly evident. If the antivivisectionists would be a little more accurate, a little more logical, a little less bigoted, a little more attention might be paid to their vaporings. Controversy on this subject is barren of result, and so far as our JOURNAL is concerned must end. It is as impossible to make an anti recognize the value of science as it is to make him accurate in his statements.—Editor PHILADELPHIA MEDICAL JOURNAL.]

ASAFETIDA ENEMAS IN PELVIC INFLAMMATION.

BY J. M. DEAM, M.D.,
of Vandalia, Ohio.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

IN your issue of July 8, there is an abstract from a report by George Wythe Cook, in the *American Journal of Obstetrics*, on simulated peritonitis in a hysterical woman, in which an enema of 4 ounces of asafetida (mist. asafetida?) was given and relief obtained. The report calls to mind a case of traumatic peritonitis, brought to my notice several years since. The patient, a man 50 years of age, had been struck a violent blow across the lower part of the abdomen by a piece of oak timber, about two by four inches, and several feet in length, crushing in the anterior superior spinous process of the ilium, greatly bruising the adjacent structures, giving rise to great shock and prostration. The injury was followed by all the classic symptoms of general peritonitis, until the third day, when I was hurriedly summoned because the patient was thought to be dying. I found him livid, bathed in perspiration, eyes sunken, features pinched, pulseless, arms and legs cold to the body, and the abdomen enormously distended. The man gaspingly remarked, "I haven't more than an hour to live, have I, Doctor?" I fully agreed with his opinion, frankly telling him that unless the abdominal distention could be lessened, thus relieving the pressure on the heart and lungs, his time would be measured by minutes instead of hours. I at once prepared an enema of mistura asafetida, giving him a copious injection. At the end of a half-hour the abdomen was softer; within an hour pulsation and returning warmth of the extremities were manifest, color of skin was better, respiration was improved, and with an occasional repetition of the asafetida mixture the patient went on to a complete and uneventful recovery.

Here was a man with violent general peritonitis, in what certainly appeared to be the last hour of life, and without other remedial agents, promptly rendered convalescent by the use of asafetida. Bearing in mind the physiologic action of the drug, the indications for its use in most if not all cases of peritonitis, with or without tympanites, are sufficiently apparent.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Economic Zoologist.—Governor Stone has appointed Benjamin F. MacCartney, of Jefferson County, Economic Zoologist, to succeed Dr. Fernald, who has resigned to accept a professorship at Amherst College.

Careless Sale of Alcohol.—The Coroner's jury that has been investigating the cause of the death of 4 men who died at Elkland recently has given the verdict that the men's deaths were due to the drinking of alcohol that had poison in it. The jury also says that "there has been a careless and indiscreet sale of alcohol by the two drug-stores of Elkland."

Smallpox in Huntingdon County.—Dr. A. B. Brumbaugh, local member of the State Board of Health, has just returned from Shade Gap, in the extreme lower end of the county, and reports the existence of 12 cases of smallpox. The disease has shown itself in mild form, and 11 of the patients are convalescent. A rigid quarantine will be enforced.

Death from Ethyl Bromid.—It is reported that Annie Simons, a domestic, aged 22, died suddenly in a dentist's chair, August 18, while under an anesthetic. The dentist who was to do the work was not a graduate of any dental college and was not registered, as required by law. A physician is said to have administered ethyl bromid to the patient, and she collapsed 30 seconds after the anesthetic was given. At present the investigation seems to show that the anesthetic was properly administered by the doctor and all usual precautions taken.

Vital Statistics of Philadelphia for the week ended August 19, 1899:—

Total mortality 381

Diseases.	Cases.	Deaths.
Cholera infantum 34; inflammation of the stomach and bowels 23; dysentery, 3 . .		60
Tuberculosis of the lungs 39, inflammation of the lungs 15		54
Inanition 13, marasmus 29, debility 3		45
Nephritis 5, inflammation of the kidneys 14, dropsy 3. uremia 5, ...		27
Casualties 11, homicide 1, suicide 8, drowned 3		23
Heart-disease 19, inflammation of the heart 2, ...		21
Apoplexy 13, paralysis 6		19
Carcinoma		16
Congestion of the brain 2, inflammation of the brain 11		13
Old age		11
Scarlet fever	47	7
Diphtheria	86	5
Typhoid fever	46	1

Abscess 1, alcoholism 2, cirrhosis of liver 3, convulsions 7, cyanosis 3, epilepsy 2, inflammation of bladder 5, peritonitis 4, appendicitis 3, jaundice 2, measles 1, pyemia 3, teething 5, whooping-cough 8.

NEW YORK.

Precautions Against the Plague.—Dr. Alvah H. Doty, Quarantine Officer of the Port, has ordered the disinfection of all vessels arriving from Portugal, in view of the appearance of the bubonic plague.

An Epileptic on Christian Science.—While Christian science is, in essence, a grave symptom of the popular seeking after strange gods, some of its details are not without a certain spice of humor which glows through all the grimness. Last week a young man whose garb and general appearance betokened a good social position gathered a crowd at Fifth Avenue and Fortieth Street and delivered an address on that mess of faith and health. His remarks were rambling and incoherent, a fact which did not impress as at all unusual those who have pursued this delusion. A young woman, however, who stopped to listen, appreciated that the discourse was too rambling to be that of a man in the proper possession of his senses. She communicated her opinion to a policeman and begged him to take the proper steps. "He's ill," she said, "why don't you call an ambulance"? "Ill, madam," replied the lecturer; "no indeed. I am never ill. Nor are you ever ill, madam. If you think you are ill all you have to do is to pray, and you will be cured. Just pray." As between prayer and the system of care for the public health the policeman chose that which had received public endorsement. He turned in an ambulance-call and the street orator was taken to the New York Hospital. Here it was found that he was an epileptic, and was made to accept rational medical treatment despite his protests that he was not at all ill, because he did not think himself ill. The comedy of the delusion has rarely been better displayed.

The Tuberculosis Commission.—The Assembly Committee on the investigation of tuberculosis continues in session at Albany for the purpose of hearing all testimony which may enable them to report to the legislature at its next session such a measure as shall enable the authorities to cope with the disease. The State Board of Health has taken the stand, accepted also by most medical authorities, that tuberculosis in kine in dairy herds is communicable to the human subject through the medium of milk, butter and cheese, and in the flesh of store cattle. One of the first witnesses before the committee, Edward Moore, D.V.S., of Albany, impugned this position, claiming that the committee would find that where tuberculosis in cattle was common it was so rare among men as to show no relation thereto. "While you are in the thick of bovine tuberculosis," said he, "you are practically outside the consumption belt." Assistant Secretary Thomas, of the State Board of Health, testified in support of the position taken by the board, and cited a number of instances proving that bovine tuberculosis had been communicated, accidentally, yet with fatal results, to people in the State. State Commissioner of Agriculture Wieting, testified that all surrounding States have laws against the importation of tuberculous cattle, but that New York has none. The result is that all stock of this nature brought into the State is barred from exit. The Agricultural Department is empowered to deal with all animal diseases save tuberculosis, which is placed by law under the control of the State Board of Health. The number of milch cows in the State is 1,400,000.

Adulteration of Fruit-sirups.—The Legislature at its last session passed an act prohibiting the use at soda-fountains of fruit-sirups which have been adulterated in any manner. This law finds no application to reputable drug-stores and confectionery shops which are able to command the customary price for soda-water, and which have a reputation to sustain. None the less its application in this city is simply enormous. In the poorer districts one of the most conspicuous sights is the sidewalk soda-fountain. The equipment is invariably meager. A tank of charged carbonic water, a very few bottles of colored liquid, and rarely more than three glasses which may be washed before the day's business begins, but which certainly are never cleansed at any time from dawn to midnight. The price of a glass of soda-water at these establishments ranges from three cents down to one. For three cents you may have as many as two tablespoonfuls of colored fluid diluted with carbonated water,

and for one cent the amount of chromo-lithographic fluid is restricted to a teaspoonful. When business is done on this plan, it will be readily appreciated that the colored fluid must be able to add a distinct dye and a positive flavor in the ratio of one teaspoonful to a pint of water. The only way that this can be obtained is by the use of anilin dyes and ethyl flavors, for no fruit grows which has the strength to supply the requisite color and flavor. These potent synthetic chemicals are used in incalculable quantities under hygienic conditions which are deplorable in themselves and can ill stand artificial stimulus. The inspectors of the Health Department have shown themselves active during the current summer in enforcing the Fruit-sirup Act by a large number of arrests both of the small sidewalk dealers and several larger firms who supply them with what is technically known as sirup. The evil has not been completely stamped out by any means; but so much has been accomplished as to make a decided appearance in the health-statistics of the tenement-districts.

Preliminary Program, New York State Medical Association.—Sixteenth annual meeting, to be held in New York City, October 24, 25, 26, 1899.

Discussion on Typhoid Fever.—The Advance in Our Knowledge of Typhoid Fever, by HERMAN M. BIGGS, of New York County; Bacteriology of Typhoid Fever, by W. H. PARK, of New York City; Clinical Diagnosis of Typhoid Fever, by WILLIAM OSLER, of Baltimore; Statistics of Typhoid Fever at the Roosevelt Hospital for Ten Years, by W. H. THOMPSON, of New York City; Typhoid Fever in the Massachusetts General Hospital During the Past Fifty Years, by REGINALD FITZ, of Boston, Mass.; Some Phases of Typhoid Fever as seen in the Bellevue Hospital, by A. A. SMITH, of New York County; Title not yet given, by E. G. JANEWAY, of New York County; Typhoid Fever in Children, by ABRAHAM JACOBI, of New York City; The Local Non-Surgical Treatment of the Intestinal Tract in Typhoid Fever, by DELANCEY ROCHESTER, of Erie County; Treatment of Perforation of the Bowel in Typhoid Fever, by W. W. KEEN, of Philadelphia; Eye-Complications in Typhoid Fever, by A. A. HUBBELL, of Erie County.

On the evening of the 24th. at 8 P.M., there will be a Medico-Legal Symposium on Expert Testimony. The following named gentlemen have agreed to be present and take part: HON. WILLARD BARTLETT, CHARLTON T. LEWIS, ESQ., WILLIAM A. PURRINGTON, ESQ., DR. THERON A. WALES, and others.

Operative Treatment of High Myopia by Removal of the Crystalline Lens, by CHARLES STEDMAN BULL, of New York County; Abdominal Contusions, by GEORGE D. STEWART, of New York County; Animal Products Used as Medicines, Ancient and Modern, by THOMAS J. ACKER, of Westchester County; The Value of Operative Treatment of Spina Bifida, by W. B. REID, of Oneida County; A Report of a Case of Puerperal Sepsis and What it Teaches, by CHARLES H. GLIDDEN, of Herkimer County; Some Practical Experience in Asepsis and Antisepsis in Obstetrics, by DOUGLAS AYERS, of Montgomery County; Progress of the Science and Art of Obstetrics, by FLORENCE O. DONOHUE, of Onandaga County; A Brief Summary of the Indications for Operations Upon the Stomach, by MAX EINHORN, of New York County; Subnormal Temperature, by LEROY J. BROOKS, of Chenango County; Mechanics of Voice-Production, by DWIGHT L. HUBBARD, of New York County; Report on the Work of the International Gynecological Congress, Antwerp, August, 1899, by A. PALMER DUDLEY, of New York County; Nervous Influence in the Production of Liver Diseases, by JULIUS POHLMAN, of Erie County; Two Operative Cases of Large Retained Hernia, by HENRY ORLANDO MARCY, of Boston, Mass.; Alcohol as a General Stimulant and Heart Tonic: Its Use to the Animal Economy in Health and Disease, by THOMAS J. HILLIS, of New York County; Some Cutaneous Manifestations of Syphilis and Other Affections of the Skin; Illustrated by Lantern Slides, by JOHN A. FORDYCE, of New York County; Cholangiostomy with Report of Two Successful Cases, by B. MERRILL RICKETTS, of Cincinnati, Ohio; Non-Malignant Strictures of the Esophagus, their Treatment by Retrograde Dilatation, by HENRY MANN SILVER, of New York County; Curability of Epilepsy and How it May Be Accomplished, by WILLIAM P. SPRATLING, Superintendent of the Craig Colony, Sonyea, N. Y.; The Sphere of Drainage in Surgery of the Appendix, by WILLIAM STEVENSON MACLAREN, of Litchfield, Conn.; Sanitorium Treatment at Home for Patients Suffering from Pulmonary Tuberculosis, by S. A. Knopf, of New York County; The Necessity for State Aid in Pulmonary Tuberculosis, by GEORGE W. GOLER, of Monroe County; The Effects of Certain Occupations on the Pharynx, by SEYMOUR OPPENHEIMER, of New York County; The Necessity for the Exact Evidence in Treating Scientific Subjects, by WICKES WASHBURN, of New York County; Surgical Diagnosis and the Time to Operate in Appendicitis, by THOMAS H. MANLEY, of New York County; Appendicitis, its Treatment from a Medical and Surgical Standpoint, by THOMAS P. SCULLY, of Oneida County; Nose, Ear and Throat Affections and Their Relation to the General Health, by FRANCIS J. QUINLAN, of New York County; Albuminuria; Its Prognostic Value in Chronic Nephritis, by CHARLES ALLING TUTTLE, of New Haven, Conn.; Variola, by GRAY B. HOLLIDAY, of Portsmouth, Va.; Hydrorrhea and Hydrosalpinx, by FREDERIC S. COWLES, of Westbrook, Conn.; Morphinism Among Physicians, by T. D. CROTHERS, of Hartford, Conn.; Esophageal Stenosis with Surgical Treatment, by JAMES G. HUNT, of Oneida County; Brief Comments on the Materia Medica, Pharmacy and Therapeutics of the year ending October 1, 1899, by EDWARD H. SQUIBB, of Kings County.

The following have also promised to contribute papers, but as yet have not sent their titles to the committee: Dr. Henry Wandless, of New York County, Dr. John A. Wyeth, of New York County, Dr. Carlton C. Frederick, of Erie County, Dr. Reginald H. Sayre, of New York County, Dr. Thomas L. Bennett, of New York County.

On the evening of the 25th a reception will be given by the Association, at the New York Academy of Medicine, to Dr. W. W. Keen, of Philadelphia, president of the American Medical Association, Dr. Wm. Osler, of Baltimore, and Dr. Reginald Fitz, of Boston, Mass.

The Trunk Line Association has granted a reduction of one fare and a third for the round trip on the certificate plan to members and their families, visiting New York at the time of meeting, provided 100 persons produce certificates at the place of meeting that they have paid $0.75 or more for a railroad ticket, coming to New York. This plan failed last year because many fellows who attended the meeting forgot to ask their ticket-agent for a certificate of purchase when they bought their tickets.

NEW ENGLAND.

Three Weeks More on the Bay.—The Boston Floating Hospital managers hope to keep the hospital boat in commission three weeks longer. The method devised for cooling the boat for the benefit of the half-dead babies has proved a great success.

Poor Schoolhouse Plumbing.—The unusual frequency of contagious diseases in Cambridge, Mass., last spring has directed attention to the sanitary conditions of the schools. As the result of a thorough investigation, much of the plumbing has been found in an extremely defective state. It is stated that in the new English high-school, completed about 8 years ago, over 200 leaks were found in the piping.

The Bar Harbor Medical Club.—According to the *Journal of Medicine and Science*, a few of the leading physicians of Bar Harbor have recently organized the Bar Harbor Hospital Club. At the first meeting the following officers were elected: Dr. William Rogers, president; Dr. John B. Shober, secretary and treasurer; Dr. F. Fremont Smith, executive officer. The object is to organize the resident and non-resident members of the medical profession residing in Bar Harbor. The members who have already joined the club are Drs. H. D. Averill, D. Wellington Bunker, G. R. Hagerthy, Morris J. Longstreth, C. C. Morrison, E. J. Morrison, William Rogers, John B. Shober, F. Fremont Smith, J. Madison Taylor.

The West End Nursery.—During the summer there is always a heavy service at the West End Nursery and Infants' Hospital in Boston, especially in the outpatient department. During the past year 2,234 medical patients and 572 surgical patients were treated in this department, and the total number of visits of these patients amounted to 10,509. In the wards of the hospital 124 medical cases and 72 surgical cases were admitted, an increase of 72 over the previous year. An interesting summer feature of the West End Nursery work is the branch service at Rainsford Island in Boston Harbor, with which is connected a training school for nursery maids. The form of prophylactic work promoted by this school appeals at once to anxious mothers, and the graduates are in great demand.

Growth of the Boston Eye and Ear Infirmary.—In 30 years the number of new paticnts treated in the Boston Eye and Ear Infirmary has increased nearly fivefold, and the numbcr of operations over thirteenfold. The record stands: Whole number of patients in 1868, 4,448; in 1878, 9,465; in 1888, 13,140; in 1898, 20,929. Number of operations: In 1868, 283; in 1878, 379; in 1888, 3,140; in 1898, 3,718. The operations for cataract in 1868 were 68; in 1878, 76; in 1888, 129; in 1898, 140. Even the out-patient department draws almost as many patients from Massachusetts outside of Boston as from that city. Last year Boston furnished 10,709, and the other towns in the State 9,933. The ophthalmic department is much larger than the aural. In the eye wards there were 1,096 patients, and outpatients numbered 15,486. In the ear wards the number stood at 324, and outpatients were 5,443. During the year 1898, 17 donations and bequests were received, aggregating the handsome fund of $110,000.

CHICAGO AND WESTERN STATES.

The Mare Island (Cal.) Naval Hospital, which was almost destroyed by earthquake several years ago, is now being replaced by a large modern structure.

San Francisco (Cal.) Board of Health.—A delegation recently went to Sacramento to confer with the Governor as to how to regain control of the local quarantine. Funds for supporting the quarantine establishment were denied by the Board of Supervisors, and it had to be discontinued by the Board of Health. When the fact of this expedition to the Governor became known, the Chamber of Commerce called a special meeting at which a committee was appointed to address the Governor, asking that no money be granted to the Board of Health for the purpose of operating the quarantine office.

A "Faith Healer" Fined.—By a decision made August 16, by Justice Everett, of Chicago, a hard blow was dealt to the methods of faith healers. Mrs. Henrikka Blatsch, a follower of Alexander Dowie, the "Divine healer," was charged with violating the medical practice act in administering to Mrs. Annetta Flanders, who died under the faith "Divine healing" treatment of Dowie, who claims to possess the power of healing the sick by the laying on of hands. Mrs. Blatsch was found guilty, and a fine of $100 and costs was imposed. Justice Everett held that within the law the followers of the faith healer must resort only to spiritual and mental means of treating the sick. When these means are not resorted to solely, and material means are used, then the State law governing the practice of medicine has been violated.

SOUTHERN STATES.

Dr. Joseph S. Ames, professor of physics at the Johns Hopkins University, Baltimore, has been made an honorary member of the Royal Institution of Great Britain.

Consumption Among Negroes.—According to the *Montgomery Advertiser* the increase of consumption during the past 20 years among those of the negro race in Alabama, as indicated by the State penitentiary records, is surprising. Probably one-half of the pardons issued by the Governors during the last several terms have been based on the fact that the convict is suffering from consumption. In one day Governor Johnston granted 9 pardons to negroes, the recipients being reported to him by the physician-inspector as being incurably afflicted with this disease.

The Orleans Parish Medical Society.—Meeting of August 12, 1899. Dr. Gordon King read a paper on **esophagoscopy;** its application in two cases. After describing briefly the history of esophagoscopy he demonstrated Stoerck's esophagoscope, supplied with a lobster-tail extremity which flexes one way, being thereby more readily introduced than the straight tube. The instrument is about 18 inches long and ¾ of an inch in diameter. There is a smaller instrument for children under 10 years of age. He also showed the society Epstein's method of rapid dilatation of the esophagus; the principle of which consists in introducing into the strictured portion of the canal, with a special instrument for the purpose, a piece of ordinary rubber tubing stretched longitudinally so as to lessen its diameter. When the introducer is withdrawn and the tubes relaxed it naturally expands, and dilates the stricture. The tube is usually left in place for one hour or two, and then extracted by means of suitable forceps, or an attached cord.

Dr. F. A. Larue reported a case of **hematoma of the neck,** simulating common carotid aneurysm. The patient, aged 21 years, was stabbed in the right cervical region on August 23, 1898, with a penknife, the blade of which was an inch and a half in length. The bleeding was profuse, and the wound was closed; stitches being removed on the seventh day. Patient stated that he felt the lump in his neck almost immediately after he was cut.

On careful examination the diagnosis of aneurysm was made. On June 28, 1899, he operated, using a 1% solution of eucain B, about 2½ grains being injected altogether, with perfect safety and entire satisfaction. The pulsation of the tumor ceased as soon as it was freed from the intimate adhesions to the carotid.

MISCELLANY.

Triplets.—It is reported that Mrs. William G. Adams, of Smyrna, Del., gave birth to three boys August 19. The mother weighs 85 pounds, the father 112 pounds. The 3 children weigh 25 pounds and are well-developed.

Professor A. Jacobi and Howard A. Kelly were made honorary members of the Paris Society of Obstetrics, Gynecology and Pediatrics at the recent meeting. Dr. Jacobi was also elected an honorary president of the Thirteenth International Medical Congress, to be held August 2 to 9, 1900.

Yellow Fever in Mexico.—A telegram from Surgeon Cofer, of the Marine-Hospital Service, at the City of Mexico, brings the information that there has been an outbreak of yellow fever at Tuxpan, a town on the Mexican coast, between Vera Cruz and Tampico. There had been 20 deaths up to 30th of July. The disease is supposed to have been carried to that point from Vera Cruz.

Yellow Fever at Port Limon.—Surgeon-General Wyman was notified, August 18, of the appearance of a case of yellow fever at Port Limon, Costa Rica. This is one of the 8 Central and South American ports at which the Marine-Hospital Service has stationed an official whose duty it is to report the appearance of fever. This is the first case that has developed at any of the fruit ports this season.

The American Association for the Advancement of Science opened its convention at Columbus, Ohio, August 21, and continued during the week. The American Microscopical Association, the Association for the Advancement of Engineering Education, the Association of Economic Entomologists, the Association for the Promotion of Agricultural Science, and the Botanical Society of America held meetings in Columbus on August 18 and following days.

Bills of Health not Needed.—The Secretary of the Treasury has issued a letter of instructions to customs officers, which states that vessels plying between Canadian ports

and adjacent ports of the United States on the same waters; also vessels plying between Mexican ports on the Rio Grande river and adjacent ports in the United States, are exempt from the provisions of Section 2 of the act which requires vessels clearing from a foreign port for a port in the United States to obtain from the consular officer a bill of health.

Havana is Free from Fever.—The Public Health reports, issued by the Marine Hospital-Service, show that the number of cases of yellow fever in Havana and the percentage of mortality is falling. Considering the fact that Havana has been regarded as the chief point of infection for the United States since 1890, and comparing the statistics of prior years with those of to-day, it seems to be evident that the condition of Havana for healthfulness has been improved, and that the fatality of yellow fever as a scourge in that city is to be greatly reduced. The dropping off of Spanish immigration stops a feeding of material to yellow fever. The substition to an extent of Americans does not mean a change of material, but the Americans are afraid of yellow fever and take care of themselves, living in healthful parts of the town and in the best kept buildings. The Spanish immigrants enjoy no such advantages and the American troops live under better sanitary conditions than civilians in good circumstances. The better care of the indigent classes, care of sick in dispensaries, issue of medicine, and the whole system of public assistance, which is well administered, will also tend to lower the bills of mortality below the normal of former years.

The Prevention of Syphilis.—Dr. Denslow Lewis, of Chicago, in response to the request of Dr. Isadore Dyer, of New Orleans, the representative for the United States to the International Conference for the Prophylaxis of Syphilis, etc., to be held next month in Brussels, has written to the Secretary-General as follows:

> Your conference is the most important gathering of medical men the world has ever known. The matters you will discuss are of vital interest to the individual and to society in general. The tendency of your deliberations is altruistic and philanthropic. You will consider the consequences of a God-given instinct improperly and injudiciously applied. You will treat, in no illiberal manner, of practical methods best calculated to preserve the health of our youth and to protect the best interests of society.
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> In the consideration of the prostitute I beg that no inconsistent spirit of assumed superiority may prevail. I trust it will be remembered that she is the victim of man's ill-directed obedience to a dominant instinct. She is the creature of our civilization and not a criminal. She is entitled to care and not punishment. She is a citizen who should receive the protection of our laws. She is an outcast from certain grades of society only. She is still a woman and at one time she was a pure and innocent child. She is now what she is not because of innate depravity but because our sociological conditions fail to solve the problem the solution of which would make her existence impossible.
>
> She is of special interest to the hygienist and practitioner of medicine in so far as she serves as a disseminator of disease. Her care should consist in restrictive measures against the spread of disease and only to that extent should she be the object of police surveillance. Facilities for diagnosis and treatment of venereal disease should be multiplied. Measures which infringe on the personal liberty of the prostitute are inconsistent with our civilization except so far as they bear on the prophylaxis of disease.

Obituary.—DR. WILLIAM D. HARTMAN, prominent as a physician and distinguished as a natural scientist, died at West Chester, Pa., August 16, aged 81 years. He was known throughout this country and Europe as one of the most successful natural scientists of this century. He paid particular attention to conchology, entomology, geology and mineralogy, and made a collection of shells which is especially rich in the genera of partula and achinella. Of the latter class his collection exceeds that of the British Museum and the Jardin des Plantes at Paris. Dr. Hartman contributed some very valuable articles to the scientific journals of this country, and for a number of years corresponded with the leading scientists of Europe and America.—DR. WILLIAM A. JACOBS, a prominent physician of Center Co., Pa., died August 16, of pneumonia. He served in the Civil War. He graduated from the medical department of the University of Pennsylvania, and for 6 years served on the County Pension Examining Board.—DR. ANDREW K. SMITH, August 14, at Cranston's Hotel, near West Point, New York. He was born in Connecticut and was a graduate of Jefferson Medical College in 1849. He entered the army medical service in 1853 and was retired in 1890 with the title of colonel and medical inspector.—DR. EDWARD T. SHEPARD, August 15, at New Orleans, aged 55.—DR. NATHANIEL WILSON LEIGHTON, Brooklyn, N. Y., August 12, aged 66.—DR. H. STANGEWALD, born in Dresden in 1829, and a graduate of the University of Vienna, died at Nunana Valley on June 1, after practising in Hawaii about 40 years.—DR. B. T. CROMPTON, Corydon, Ky., August 10, aged 29.—DR. N. S. FREEMAN, Charleston, Ill., August 7, aged 70.—DR. JAS. L. STONE, Roanoke, Va., August 17, aged 66.—DR. JOHN T. IRELAND, Lower Marlboro, Md., August 4, aged 60.—DR. JAMES T. JOHNSON, Huntsville, Ala., August 9, aged 69.—DR. KLINE W. LYNN, Cortland Ohio, August 7, aged 29.—DR. JAMES LITTLE KORTRIGHT, of Brooklyn, at Middletown, New York, aged 40.—DR. J. PEMBROKE THOM, of Baltimore, died August 21, aged 71. He was a native of Culpeper County, Virginia, and served as an officer during the Mexican War. He graduated from the Jefferson Medical College, of Philadelphia, and entered the navy as surgeon, but later left the service. He was a trustee of the Spring Grove Asylum and a founder of the Hospital for the Women of Maryland.—DR. ALEXANDER CRAIG, at Columbia, Pa. August 16, aged 61, from apoplexy, which prostrated him August 14, while performing a surgical operation at the Columbia Hospital.

Health-Reports.—The following cases of smallpox, yellow fever, cholera and plague, have been reported to the Surgeon-General of the U. S. Marine-Hospital Service, during the week ended August 18, 1899:

SMALLPOX—UNITED STATES.

			Cases.	Deaths.
FLORIDA:	Jacksonville . .	July 29–Aug. 12,	9	
KENTUCKY:	Louisville . . .	Aug. 3–10 . . .	3	
MASSACHUSETTS:	Everett	July 29–Aug. 5 .	1	
NEW YORK:	New York . . .	Aug. 8–12 . . .	1	
OHIO:	Cleveland . . .	Aug. 5–12 . . .	4	
PENNSYSVANIA:	Altoona	Aug. 5–12 . . .	2	
WASHINGTON:	Spokane	July 29–Aug. 5 .	1	
"	Tacoma	July 29–Aug. 5 .	1	

SMALLPOX—FOREIGN.

ARABIA:	Aden	May 1–30		1
BELGIUM:	Antwerp	July 22–29 . . .	3	
BRAZIL:	Rio de Janeiro .	June 30–July 7 .	39	27
CHINA:	Hongkong . . .	June 24–July 15	2	1
GREECE:	Athens	July 22–29 . . .	11	3
INDIA:	Bombay	July 4–15 . . .		15
MEXICO:	Mexico	July 23–30 . . .	9	7
"	Progreso	July 15–22 . . .	2	1
COLOMBIA:	Panama	July 21–Aug. 1 .		1
RUSSIA:	Moscow	July 15–22 . . .	7	4
"	Odessa	July 22–29 . . .	4	1
"	Warsaw	July 8–29 . . .		3
STRAITS SETTLEMENTS:	Singapore . .	June 24–July 1 .		2
TURKEY:	Smyrna	July 15–23 . . .		1
URUGUAY:	Montevideo . .	July 8–15 . . .	1	

YELLOW FEVER—FOREIGN.

BRAZIL:	Bahia	July 16–21 . . .	9	1
"	Rio de Janeiro .	June 30–July 7 .		3
COLOMBIA:	Panama	Aug. 1–8	2	1
CUBA:	Havana	July 27–Aug. 3 .		9
"	Santiago	July 22–29 . . .	8	3

CHOLERA.

INDIA:	Bombay	July 4–18 . . .		1
"	Calcutta	July 1–8		4
JAPAN:	Yokohama . . .	July 15–22 . . .		1

PLAGUE.

			CASES.	DEATHS.
CHINA:	Amoy	July 8-15 . . .		275
"	Hongkong . . .	June 24-July 15	306	305
EGYPT:	Alexandria . . .	July 1-16 . . .		7
INDIA:	Bombay	July 4-18 . . .		115
"	Calcutta	July 1-8		7

Changes in the Medical Corps of the U. S. Army.

MCDONALD, CHARLES E., acting assistant surgeon, is relieved from duty at Fort Meade and will proceed to Fort Yates for duty, relieving Edward T. Gibson, acting assistant surgeon, who will proceed to Fort Meade for duty.

MARSH, ROBERT J., acting assistant surgeon, now at Vancouver Barracks, will proceed to Fort St. Michael, Alaska, for duty, to relieve James R. Gregory, acting assistant surgeon, who will report at Vancouver Barracks for annulment of contract.

HARTSUFF, Lieutenant Colonel ALBERT, deputy surgeon-general, is granted leave for one month.

BRADLEY, Major ALFRED E., surgeon, upon being relieved by Major Harry O. Perley, surgeon, as commanding officer, U. S. hospital ship "Relief," at San Francisco, Cal., will rejoin his proper station, Fort Yellowstone.

FITZSIMMONS, ALBERT P., acting assistant surgeon, will proceed from Tecumseh, Neb., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

HALL, ANDY, acting assistant surgeon, will proceed from Mount Vernon, Ill., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

DUVAL, First Lieutenant DOUGLAS F., assistant surgeon, the order which directs him to proceed to San Francisco, Cal., and report to the commanding general, department of California, for duty, is revoked. He will proceed to Brooklyn, N. Y., and report to Major William H. Arthur, surgeon, U. S. Army, commanding the U. S. hospital ship "Missouri," at the Morse Iron Works, for duty.

HILL, JOHN STURGEON, acting assistant surgeon, will proceed from Allegheny City, Pa., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

REILLY, JOHN J., acting assistant surgeon, is relieved from further duty on the U. S. transport "Logan," and will report to the commanding officer, U. S. hospital ship "Missouri," for duty.

WHITE, J. SAMUEL, acting assistant surgeon, will proceed to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

WILLIAMS, A. W., acting assistant surgeon, will proceed from New York City to Camp Meade and report to the commanding officer, Twenty-seventh Infantry, U. S. Volunteers, for duty, to accompany that regiment to Manila, P. I.

WILSON, COMPTON, acting assistant surgeon, will proceed from New York City to Washington, D. C., and report to the Surgeon-General of the Army for instructions.

VERANES, FELIPE, acting assistant surgeon, is relieved from duty at Santiago de Cuba, and will proceed to Holguin, Cuba, for duty.

MARROW, First Lieutenant CHARLES E., is granted leave for one month, on account of sickness, with permission to return to the United States.

STEWART, LYELL R., hospital steward, is relieved from duty at Guantanamo, and will proceed to Holguin, Cuba, for duty.

TRUBY, First Lieutenant ALBERT E., assistant surgeon, now on duty with the Eighth Infantry at the "Maestranza," is relieved from duty in the department of Havana, and is assigned to the department of the province of Havana and Pinar del Rio.

COMBELL, HENRY J., acting assistant surgeon, will proceed from Bay St. Louis, Miss., to Fort Sam Houston and report to the commanding officer, Thirty-third Infantry, U. S. Volunteers, for duty to accompany that regiment to Manila.

EVINS, THOMAS E., acting assistant surgeon, will proceed from New Brighton, Staten Island, N. Y., to Fort Crook, Neb., for temporary duty.

GROSS, HERMAN W., acting assistant surgeon, will proceed from Brookline, Mass., to Plattsburg Barracks, and report to the commanding officer, Twenty-sixth Infantry, U. S. Volunteers, for duty to accompany that regiment to Manila, P. I.

HARTINGER, D. B., acting assistant surgeon, will proceed from New York City to Middleport, Ohio, for annulment of contract.

INGRAM, THOMAS D., acting assistant surgeon, leave on account of sickness is extended two months on surgeon's certificate.

MCADORY, ROBERT J., acting assistant surgeon, is relieved from further duty in the department of California, and will report to the commanding officer, U. S. hospital ship "Relief," at San Francisco, Cal., for duty.

Changes in the Medical Corps of the U. S. Navy,

for the week ended August 19, 1899:

REGAN, F. R., assistant surgeon, detached from the "Wabash" and ordered to the "Scorpion."

COSTIGAN, G. D., assistant surgeon, promoted to the rank of lieutenant, junior grade, from July 1.

ELLIOTT, M. S., assistant surgeon, promoted to the rank of lieutenant, junior grade, from July 1.

PLEADWELL, F. L., assistant surgeon, promoted to the rank of lieutenant, junior grade, from July 1.

CARPENTER, D. N., assistant surgeon, promoted to the rank of lieutenant, junior grade, from July 1.

MORGAN, D. S, assistant surgeon, promoted to the rank of lieutenant, junior grade, from July 1.

PRYOR, J. C., assistant surgeon, promoted to the rank of lieutenant, from July 1.

BALDWIN, L. B., surgeon, ordered to be examined by the naval retiring board, Washington, D. C., September 12, and then home, to await orders.

ATLEE, L. W., detached from the "Bennington" and ordered to the "Solace."

WILSON, H. D. passed assistant surgeon, detached from the "Castine" and ordered to the "Solace."

WHEELER, W. M., assistant surgeon, detached from the "Baltimore" and ordered to the "Solace."

THOMPSON, J. C., assistant surgeon, detached from the "Baltimore" and ordered to the "Castine."

BEEBE, D. G., assistant surgeon, detached from the "Monadnock" and ordered to the "Bennington."

LIPPITT, T. M., assistant surgeon, detached from the "Solace" and ordered to the "Baltimore."

FURLONG, F. M., assistant surgeon, detached from the "Solace" and ordered to the "Oregon."

Changes in the U. S. Marine-Hospital Service,

for the week ended August 19, 1899:

IRWIN, FAIRFAX, surgeon who is on leave at Lausanne, Switzerland, received a cablegram from the Surgeon-General, August 16, directing him to proceed from that place to Marseilles, Lisbon, and Orporto, to investigate and report on the bubonic plague.

WASDIN, EUGENE, has been selected to represent the Treasury Department at the medical congress to meet at Brussels, September 4 to 9, to consider methods for the control of venereal diseases. He will sail on the American line steamer "New York" August 23.

COBB, J. O., passed assistant surgeon, reports that the tuberculosis sanitarium at Fort Stanton, N. M., is about ready to receive patients. An immense amount of work has been done under the direction of Dr. Cobb in order to put the reservation in a condition suitable to the needs of the service.

IRWIN, FAIRFAX, surgeon, to proceed to Marseilles, France, and Lisbon and Oporto, Portugal, for special temporary duty. August 16.

WASDIN, EUGENE, surgeon, to report at Washington, D. C., for special temporary duty. August 14.

GEDDINGS, H. E., passed assistant surgeon, to proceed to New York, N. Y., for special temporary duty. August 16.

SMITH, A. C., passed assistant surgeon, to proceed to Hampton, Va., and report to Surgeon J. H. White for special temporary duty. August 17.

STIMPSON, W. G., passed assistant surgeon, to report at Washington, D. C., for special temporary duty. August 17.

RICHARDSON, T. F., assistant surgeon, detailed as quarantine officer for the port of Neuvitas, Cuba. August 14.

SCHUG, F. J., acting assistant surgeon, granted leave of absence for 30 days from August 15. August 17.

Board convened to meet at the the U. S. Marine Hospital, New York, N. Y., at 10 o'clock A.M., August 16, 1899, for the physical examination of a candidate for appointment in the Revenue Cutter Service. Detail for the board: Surgeon GEORGE W. STONER, chairman: assistant surgeon W. C. HODBY; assistant surgeon W. C. BILLINGS, recorder.

Foreign News and Notes.

GREAT BRITAIN.

An International Otological Congress began its sittings on Tuesday, August 8, in London, under the presidency of Mr. Urban Pritchard. Several communications of medical and surgical significance were made by otologists and laryngologists, but the feature of the Congress was the pathological museum, a unique collection of specimens in illustration of modern progress in the two special branches of therapeutics. This formed a really interesting show.

The British National Veterinary Association, which held its annual meeting for 1899 at Plymouth during the first week in August, dealt with at least one matter of prime medical importance. An excellent paper was read by Mr. John Dunston on the Prevention of Tuberculosis in Cattle, who made it quite clear that in any organized crusade against the spread of phthisis, the medical man and the veterinary surgeon must work hand in hand.

"Nordrach" Treatment for Tuberculosis in Ireland.—According to the *Lancet*, the first sanatorium for the Nordrach method of treating tuberculosis established in Ireland was recently formally opened at Rossclare. The building is not large, but it contains ample accommodation for about 20 patients. It is situated about 7 miles from the town of Enniskillen, on a hill commanding the view over the shores of Lough Erne and of some of the loveliest scenery in Ireland. It is stated that it will be run on economical lines and not for purposes of profit, being intended for consumptive people who can pay their expenses and no more. The institution seems to have been well launched and on a sensible and popular basis. The matron is an English lady, the resident medical man (Dr. Macfie) hails from Scotland, and the consulting physician (Dr. Kidd) is an Irishman.

The New English Vaccination Act.—At one of the closing sittings of the last session of Parliament, Mr. Henry Chaplin, the President of the local Government Board, made a statement with regard to the amount of vaccination which had been performed during the first six months of this year, under the provisions of the new Act, as compared with the amount performed during the first six months of last year, when the new Act was not in force. The returns as yet in the hands of the Local Government Board show that 353,992 certificates of successful primary vaccination have been received in the first six months of 1899, as against 277,821 received in the first six months of 1898, that is to say, that an increase is shown this year of about 27%. Nor do these figures tell the whole story, as the new Act is in imperfect working as yet; there are returns still to be made, and some towns, Leicester, for example, have not yet appointed vaccination-officers. For this defiance of the law it seems possible that some prominent persons in the municipality of Leicester may have to suffer, but it will be a thousand pities if they are made martyrs of.

The fees of English medical witnesses are considered by medical men to be absurdly small, and certainly where the medical witness is a man with any practice to ask him to give up a day to a police-court for 10 s. 6 d., or to a high court for £1 1 s., is to fine him heavily for discharging a civic duty. In 1895, when Mr. Asquith was Home Secretary, a deputation of medical men holding office as police-surgeons waited upon him and pressed upon his attention the fact that many medical men lost considerable sums of money by giving their services as witnesses—a situation which was neither just to them nor safe for the country. Mr. Asquith admitted the justice of the claim that was then made for a revision of the scale of payment of medical witnesses—a scale fixed upon half a century ago—but was not prepared to introduce an amending bill in the House of Commons. This year the British Medical Association took the matter up, but the Home Office refused to receive a further deputation on the subject. At a recent meeting of the Police Surgeons' Association, held at Portsmouth during the annual congress there of the British Medical Association, it was announced that a joint committee of the British Medical Association and the Police-Surgeons' Association was to be appointed, and that another and vigorous endeavor was to be made to catch the ear of authority. For the grievance is a real one deeply felt.

Unsanitary conditions on board ship have constantly engaged the attention of British medical men, but none the less the hygiene of the British sailor is not too well cared for. It may be that the British sailor is better off in some respects than the sailor of other countries—his wages are high, his legal protection is strong, and his food is not bad—but the latest developments of ship-building do not conduce to health. Attention has recently been drawn to this subject by Mr. S. Dimond, Port Sanitary Inspector of Bristol, a city which ranks very high among the great shipping centers of England. As ships are now chiefly built of steel, he says, an unsanitary condition often arises that rarely occurs in houses to any great extent. Condensation of water from the atmosphere takes place on the iron surfaces of which the spaces for the accommodation of the crew are constructed, and often to such an extent that the tops and sides stream with water, or in frosty weather are coated with ice. Such conditions would be considered to render a dwelling-place on land unfit for habitation and must be exceedingly injurious to health. There is a regulation of the Merchant Shipping Act requiring that the iron immediately over the men's sleeping bunks shall be lined or sheathed, but the Act does not go far enough, for in this way beds are merely protected from direct dropping, but may become saturated with moisture absorbed from the dampness general to all the other parts of the vessel. In German and Norwegian ships an unlined berth, at any rate an unlined master's, officer's, or engineer's berth, is rarely met with, and the British Merchant Shipping Act might well be extended to give not only masters, officers, engineers, but all on board ship the same chance of keeping in good health. And a reform that is particularly urgent in Great Britain where so large a proportion of the population "go down to the sea in ships," is on grounds of humanity just as urgent in all other countries.

The Prevention of Syphilis.—Surgeon-Colonel Francis Welch, F.R.C.S., communicated to the surgical section of the British Medical Association, at Portsmouth, a very interesting paper upon this subject, which is of such vital importance to armies primarily and secondarily to the whole world. He threw doubt on the ancient and unpleasant doctrine that the natural course of syphilis is towards a retrogression due to an acquired immunity of the race through exhaustion of the necessary nidus by universal anterior disease; believing rather that, like other infectious diseases, syphilis has its ebb and flow seen in statistical undulations, to be explained upon the usual theories. The main aim, however, of Surgeon-Colonel Welch's paper was to answer the sentimentalists, who, by clamoring for a suspension in garrison towns, and in the Indian cantonments, of the Contagious Diseases (human) Act, and of other precautions for preventing diseased women from prostituting themselves, have, in his opinion, caused widespread misery. He ridiculed the ultra-religious view, that it was wrong to legislate against syphilis, because syphilis was a deterrent to sin; holding, that "to suppress all disease, as far as possible, by eliminating the cause and curing the results, and so to reduce the sum-total of suffering and misery in this world, is a duty inseparable from the medical profession"; while he maintained that the events of the last 35 years in England and India, as proved by figures accessible to the public and vouched for by responsible officials, have proved that "*through surveillance of prostitution and segregation of the affected we can diminish the amount of syphilis and attenuate its virulence.*" Were it not that to shout the contrary of this fact has become a political duty in Great Britain with some and a socio-religious duty with others, it would hardly seem worth while to state it. In Calcutta garrison, primary syphilis was reduced, by the cantonment rules, from 10% to 1.7%; in women, 25.6% to 3%, and secondary syphilis had ceased to exist. When the rules were withdrawn, the

garrison ratio advanced to 30.24%. In the police force the same features pertained. These are the kind of hard nuts that Surgeon-Colonel Welch put before skeptic sentimentalists to crack; and assuming their inability to do so, he concluded his paper by pleading eloquently for the establishment of hygienic rules necessitating from the votaries of prostitution proof of physical purity. We doubt if Surgeon-Colonel Welch will obtain any general subscription to his view that the whole population, under ordinary circumstances, require the protection of a Contagious Diseases (human) Act; but young British soldiers in garrison-towns, and especially in India, are peculiarly placed, and require exceptional assistance.

CONTINENTAL EUROPE.

University of Innsbruck.—Dr. Karl Ipsen has been made professor of legal medicine.

Pasteur Institute.—Dr. Jules Maringer, who died recently, bequeathed 100,000 francs to the institute.

University of Rome.—Dr. E. Rossoni, extraordinary professor of pathology, has been elected ordinary professor.

Dr. Kader, formerly assistant of Professor Mickulicz, at Breslau, has been made ordinary professor of surgery at the University of Cracow.

Women Students at Strasburg. — The University Senate has recently passed a regulation allowing privatdocents to admit to their lectures and courses women who possess sufficient preliminary education. With regulation women students are now admitted to all German universities.

University of Berlin.—Professor Fuchs has been made director for the coming year, and Professor F. Koenig has been chosen dean of the medical faculty. Dr. E. Bennecke succeeds Professor Hildebrand, who has been called to Basle, in the direction of the Polyclinic of the Charité Hospital.

Counter Prescriptions.—Since last December there has been an active movement among the physicians of Berlin to prevent the sale of tablets by druggists without a physician's prescription. This movement was crowned with success July 14, when the minister of the bureau of physicians decreed that certain drugs belonging in table B and C of the German Pharmacopeia should neither be kept in stock by apothecaries nor sold to the public.

Alcoholism in Portugal.—We read in the *British Medical Journal* that the attention of the Portuguese Government recently has been called by a member of the Chamber of Deputies, Senhor Lima Duque, to the increasing prevalence of alcoholism in Portugal. He showed that crime had increased in a corresponding ratio, and he quoted statistics showing that the number of crimes in Portugal had doubled within the last few years. He urged that a Government inquiry should be made on the subject, and measures taken to check the evil. The Minister of Finance, while admitting the magnitude of the evil, pointed out that the question of legislative interference with the drink-traffic presented greater difficulties in Portugal than in most other countries, for its wine-exports made a constant supply of good and cheap alcohol necessary for the trade.

The Plague in Oporto.—Drs. Mendoza and Vincente, who were sent officially from Spain to study the plague at Oporto, Portugal, state that the cases observed by them are undoubtedly bubonic plague. Surgeon Fairfax Irwin, of the Marine-Hospital Service, now in Europe, has been ordered by Surgeon-General Wyman to proceed to Oporto and Lisbon and make a report on the disease. A cablegram from Assistant Surgeon Heiser, of the Marine-Hospital Service, who is watching the situation at Naples, states that there had been 34 cases of the bubonic plague at Oporto, Portugal, up to August 18, and that it is increasing. It is announced that the plague was brought to Oporto by a steamer loaded with rice from India. The outlook is not encouraging, for the wretched sanitary state of Oporto is notorious, preventive medicine in Portugal is in an elementary condition, and the ignorance and superstition of the population make it improbable that suitable precautionary measures will be taken.

Changes in the Faculties.—KIEL: B. Fischer, extraordinary professor of hygiene, has been elected ordinary professor. RIO DE JANEIRO: T. V. Pecegueiro do Amaral has been made professor of organic chemistry and biology. BERLIN: Geh.-Rath Lucae and Geh.-Rath Senator have been nominated honorary ordinary professors. COPENHAGEN: Dr. O. Bloch has been promoted to the ordinary professorship of surgery. GENEVA: Dr. Albert Mayor has been appointed ordinary professor in the Medical Polyclinic and Dr. August Reverdin professor in the Surgical Polyclinic, also Dr. Alcide Jentzer has been appointed professor in the Gynecological and Obstetric Clinic. JENA: Dr. Gumprecht has been appointed extraordinary professor of forensic medicine. ROME: Dr. Eugenio Rossoni has been promoted to the ordinary professorship of medical pathology. BORDEAUX: Dr. Crannien has been elected professor of anatomy, succeeding Professor Bouchard, deceased. NANCY: Dr. Joseph Rohmer has been made professor of clinical ophthalmology.

The seventy-first annual meeting of the Deutsche Naturforscher und Aerzte will be held in Munich, September 17 to 23. In addition to the meetings of special divisions, there will be two general meetings of the entire association. The first of these occurs on Monday, the 18th, in the Königl. Hoftheater, at 11 A.M., and will include, in addition to the opening address, lectures by Prof. Fridthof Nansen, "My Scientific Expedition towards the North Pole and its Results;" Prof. Dr. von Bergmann (Berlin), "The Utility of Radiography in the Management of Surgical Diseases;" Prof. Dr. Förster (Berlin), "The Change of the Astronomical World-Picture During the Last Century." The second general meeting will be held Friday, September 22, at 9 A.M. The following will lecture: (1) Prof. Dr. Birch-Hirschfeld (Leipzig), "Science and Healing;" (2) Prof. Dr. Boltzman (Vienna), "The Latest Development in Methods of Theoretical Physics;" (3) Prof. Dr. Klemperer (Berlin), "Justus von Liebig and Medicine." The remainder of the time will be devoted to the meetings of individual sections, and to excursions, dinners, etc.

French Society of Dermatology and Syphilography.—At the recent meeting the following cases were presented and discussed: "Epithelioma of the Nape of the Neck," by Daulas, discussion by Drs. Leredde and Brocq; "Hereditary Syphilis," by Mlle. Tchernemska, discussion by Fournier; "Tuberculous Lupus with Tuberculous Plaques of the Tongue," by Du Castel; "Syphilis Rebellious to Treatment," by Fournier, discussed by Renault and Barthelemy; "Pigmentary Urticaria," by Balzer and Gaucheny; "Third Note upon Sebaceous Dermatitis Ending in Psoriasis," by Hallopeau; "Upon the Genesis of Scrofulous Lichens," by Hallopeau; "Elephantiasis of the Arm, Symptomatic of a Chronic Osteoarthritis of the Elbow,

Probably Tuberculous," by Gaston and Goguel; "Epithelial Modifications of the Inguinal Mucus in a Case of Gummatous and Mercurial Glossitis," by Gaston; "Blennorrhagic Paraplegia," by Renault, discussed by Fournier, Lacapiere, Hallopeau, and Levi; "Eczematiform Dermatitis of the Feet Provoked by Dye Colors in the Stockings," by Balzer and Gaucheny; "Abolition of the Pupillary Reflex in Relation to Syphilis," by Babinski and Charpentier; "Treatment of Leprosy by the Injection of Chaulmoogra Oil," by Tomtontis-Bey, discussion by Hallopeau, Daulos, and Du Castel.

A New Disease in Sheep.—The Australian correspondent of the *Lancet* makes a brief communication concerning an apparently new disease in sheep. He states that during the last three or four years it has been noticed that sheep killed at the Melbourne city abattoirs have the lymphatic glands affected in a peculiar manner, and the number so affected became so large that the city council asked the pathological department at the University to investigate the subject. Dr. Cherry and Dr. Bull have now furnished a report on the results so far obtained. The disease is noticed periodically, and its distribution seems to be determined by local conditions. When at its worst, enlarged glands may be found in from 15 to 70% of any given flock. On an average each affected sheep may present two or three glands so diseased. The health and general condition do not suffer. The glands most usually affected are the prescapular and superficial inguinal. Out of many thousands of sheep examined nodules of the same nature have been found once or twice in the kidney, but never in the liver or in the mesentery. The affected glands are enlarged and they feel like a sac containing fluid. On section the contents are fluid and green; the capsule is firm and thick. Investigation showed the presence of a small bacillus in the outer part of each gland. This bacillus is oval, being from 1.5 to 2 μ in length and 0.8 μ in breadth. It stains readily with aniline, but is easily decolorized; it is not decolorized by Gram's method and is nonmobile. The most suitable culture-media are agar and blood-serum at 37° C. Inoculated into guineapigs the bacilli in large doses kill in twenty-four hours with formation of extensive local edema. A smaller dose kills in from four to seven days, small caseous nodules forming in the subcutaneous tissue and in the nearest lymphatic glands and internal organs. The sheep is more susceptible than the guineapig and inoculation with the pure culture of the bacillus produces changes indistinguishable from those occurring in the natural disease, and a pure culture was obtained from the inoculated animals. Dr. Cherry and Dr. Bull can find no reference to any similar disease. A probably identical organism was isolated by Preisz in Budapest in 1891 from the kidney of a lamb. He called the disease pseudo-tuberculosis and stated that the bacillus was a new species differing from all other known pathogenic organisms.

The Ninth Meeting of the Polish Physicians and Scientists at Cracow (Austria) in 1900.—The executive committee of the Association of Polish Physicians and Scientists has finally agreed to hold the ninth meeting, beginning July 21 and ending 24 (Saturday to Tuesday including), 1900, in Cracow, Austria. This is the meeting which was to be held in Posen, Germany, last year, but the German Government, becoming suspicious that the physicians and scientists, instead of attending to professional and scientific matters, would turn it into a patriotic and political convention, has forbidden it for "reasons best known to the Government and for the welfare of the Fatherland."

One morning and an afternoon will be devoted to general sessions, and two days for sessions of the various sections. On Sunday, July 22, an excursion will be made into the environments of Cracow; after the adjournment of the meeting there will be a number of excursions to the watering places of Galicia.

The scientific sessions will be simultaneously held in 22 sections. During the meeting a "daily convention and information journal" will be published. Besides these there will be published a number of descriptive pamphlets, booklets, maps, etc. The central committee is divided into 13 subcommittees. The Galician Congress gave 1,000 florins for the meeting. The participators in the convention will pay a fee of 10 florins, and those accompanying will pay 5 florins. In connection with the meeting there will be a scientific and medical exposition. Dr. M. Sliwinski will be chairman of this important feature.

The various sections will elect their own officers on the following common basis: (*a*) The executive committee will appoint temporary officers; (*b*) each section will have several principal subjects which are to be discussed, each subject having one reader of paper and several who will discuss it; (*c*) only those papers on diverse subjects will be read and demonstrations permitted, whose title when sent to the committee will be accompanied by a brief extract, to be published in the journal; (*d*) a time-limit for sending these extracts will be made; (*e*) a committee will be appointed to consider the papers sent from out of Cracow; (*f*) the active secretaries of the sections will be appointed by the executive committee to make extracts of the papers and report discussions on the papers for the journal. Prof. Dr. A. Witkowski is chairman of the executive committee, and Dr. Stanislaus Ciechanowski is the secretary.

MISCELLANY.

Anthrax in Sweden.—It is reported from Skeefde, in Sweden, that the epidemic of anthrax which recently broke out among the cattle in West Gothland, and subsequently also attacked human beings, continues to spread, and that 40 parishes are now infected. Owing to the prevalence of the epidemic the great military maneuvers which were to be held in West Gothland have been countermanded.

Advance of the Plague.—The steady westward advance of the plague, and the conditions prevailing at its latest point of attack, in Alexandria, Egypt, are discussed in reports made to the State Department by Consul Robert C. Skinner at Marseilles. The appearance of the disease at Alexandria shows a constant movement westward, and is a menace to the great Mediterranean ports of Europe, most of which have adopted rigid quarantine measures. A letter to the commercial authorities at Marseilles, bearing date June 25, says the epidemic neither increases nor diminishes, but that about two new cases appear daily, with occasional intervals. The official return from Mauritius for the week ended August 10 shows that 36 cases of plague occurred during the week and that 29 of these proved fatal.

Pathology in the Congo State.—According to the *British Medical Journal*, some time ago a sum of £2,000 was handed to General Donny by a donor, who wishes to remain anonymous, to be applied in furtherance of the study of "colonial pathology." A committee appointed to consider the best manner of utilizing the gift decided to employ the money in equipping a scientific mission to proceed to

the Congo State and study the diseases of hot countries in that region. Dr. Van Campenhout, an army medical officer who had already been twice on duty in the Congo, and Dr. Reding were selected for the service. After long preparation they embarked on June 29. The Congo State has established at Leopoldsville a physiologic and bacteriologic laboratory, in which the work will be carried out. The same committee had previously offered two prizes, each of the value of £100, to be awarded (1) to anyone who shall considerably advance any knowledge of Laveran's hematozoon within and without the human body; and (2) to anyone who shall determine the real origin of hemoglobinuric bilious fever. Essays in competition for these prizes should be sent to the Société d'Etudes Coloniales, 11 Rue Ravenstein, Brussels, before January 1901.

The Plague in the East.—The plague continues to spread in Poona, India, to an alarming extent. During July 29 and 30, 360 cases occurred, and 317 deaths. Five Europeans are numbered among the victims. Of these, one is reported to have died. The larger number of cases have occurred in the city, but the cantonment is also seriously stricken. The dryness of the season is causing great distress, and, as the meteorological conditions indicate the close of the monsoon, the prospects are considered ominous. Plague has reappeared in epidemic form in Bangalore, and a great exodus of the inhabitants is reported.

The moollahs and the people of Bushire, Persia, telegraphed to the Shah, on July 25, demanding the abolition of the plague measures. The populace have wrecked the telegraph wires, and so threatening is their attitude that the British consul has advised his countrymen to avoid the native town.

During the week ending August 2, 6 cases of plague occurred in Alexandria. Since the beginning of the outbreak 37 cases have proved fatal, 39 have recovered, and 4 cases remain under treatment. The sanitary authorities have the work well in hand, and no effort is being spared to eradicate the disease.

A marked decrease of plague in Hong Kong is reported, during the past week only 30 cases and 30 deaths being officially reported. It is only 2 weeks ago since over 100 deaths a week were reported. The officials hope that the outbreak will soon entirely disappear.

A telegram has been received from Mauritius stating that there were 52 cases of bubonic plague there during the past week, 37 of which proved fatal.

Obituary.—Prof. Robert Wilhelm Eberhard Bunsen, the chemist, died August 16, at Heidelberg, Germany, aged 89 years. He was born March 13, 1811, at Göttingen, where his father held a professorship in the theological faculty. At the university he studied chemistry more than other things, graduating in 1830 and afterwards taking postgraduate work at Paris, Berlin and Vienna. In 1833 he was appointed professor in the Polytechnic School of Cassel, and in 1838 "Extraordinary" Professor in the University of Marburg, where he remained for 13 years. In 1851 he accepted a call from the University of Breslau, and in 1852 another from Heidelberg, at that time the *ne plus ultra* of a German professor's promotion. There he remained in spite of several offers of a professorship at Berlin. In 1877 the university held high festival in honor of his 25 years' professorate. In 1883 he was elected one of the 8 foreign associates of the French Academy of Sciences, the highest honor the scientific world can bestow. Almost from boyhood his genius was devoted to discovery and invention, and a great proportion of the products of his brain were of more than mere scientific interest, they were of general utility. His appliances of the hot blast, his method of spectroscopic gas-analysis, and his Bunsen battery-cell are but three examples taken from a long list of discoveries or inventions which brought him fame and at the same time benefited mankind. It is said of Bunsen that in all his career he never began a long research into any subject without finally concluding it with brilliant success. There is not a laboratory to-day in which there are not numerous contrivances of his, indispensable to the worker. Everywhere in the workshop and the furnace are the fruits of his genius in daily use. He gave freely of his time to his students and shared their aspirations as though they were personally his.—Dr. F. Vizioli, professor of neurology and electrotherapy at Naples.—Dr. Max Dolega, privat-docent in Orthopedics at Leipzig.—Dr. Géza Mihálkovics, professor of anatomy in the University of Budapest.—Dr. Jos. Majer, formerly professor of physiology in the University of Cracow.

The Second International Congress of Experimental and Therapeutic Hypnotism.—These congresses are not of frequent occurrence, for the first was held as far back as the year 1889, during the Universal Exhibition at Paris, according to the *Lancet*. The next is to meet under similar circumstances at Paris from August 12 to 15, next year. It is arranged by the French Society of Hypnology and Psychology which when first started was organized under the patronage of Dr. Azam, Dr. Brouardel, Dr. Brown-Séquard, Dr. Charcot, Dr. Liébeault, Dr. Lombroso, Dr. Mesnet, Dr. Charles Richet, Dr. Jules Soury, Dr. Hitzig, Dr. Enrico Ferri, and Dr. Tamburini. It now has 150 members and issues a monthly paper called the *Revue de l'Hypnotisme*. The honorary presidents of the forthcoming Congress are Professor Azam, Dr. C. Richet, Dr. Raymond, and Dr. Liébeault. The acting president will be Dr. Jules Voisin of the Salpêtrière Hospital. The vice-presidents are Dr. Grasset, professor of the faculty of medicine of Montpellier; Dr. Dansiac, of the same university; Dr. Liegeois, of Nancy; and M. Melcot, advocate-general at the Cour de Cassation. The general secretary, to whom all communications should be addressed, is Dr. Bérillon, 14, rue Taitbout, Paris. Papers on the following subjects will be read and discussed. The Bureau of the Congress will propose a vocabulary of terms describing all the phenomena in connection with hypnotism. Dr. Henry Lemesle and M. Ch. Julliot, Doctor of Law, will read a paper on Hypnotism in Relation to the French Law of November 30, 1892, on the Practice of Medicine and the Intervention of the State in Regulating the Practice of Hypnotism. Dr. Milne Bramwell, of London, will read a paper on the Application of Hypnotism in General Therapeutics. Dr. Tokarski, of Moscow, and Dr. Lloyd Tuckey, of London, will contribute a paper on the Use of Hypnotism and Suggestion in the Treatment of Mental Diseases and of Alcoholism. Dr. Bérillon will speak on the Application of Hypnotism to General Pedagogy and Mental Orthopedia. Dr. Vogt, of Berlin, Dr. Paul Farey, and Dr. F. Ragnault will treat of the Value of Hypnotism as a Means of Psychologic Investigation. Dr. Boirac will read a paper on the Special Responsibilities Attached to the Practice of Hypnotism, and Dr. Liegeois, of Nancy, and Dr. Schrenck-Notzing, of Munich, have a paper on Legal Medicine and Hypnotism. Dr. Bérillon informs us that he has only sent invitations to persons who are likely to support the Congress and who take interest in the subject, and has already received many favorable replies. But, of course, he is not acquainted with all the medical men who have studied hypnotism, especially if they reside in foreign countries. It is, therefore, for those who have not been invited and yet who desire to attend the Congress to apply to the general secretary.

The Latest Literature.

British Medical Journal.

August 5, 1899. [No. 2014.]

1. A Sketch of the Century's Progress in Medicine and Surgery. President's Address. J. WARD COUSINS.
2. Recent Advances in Practical Medicine. Address in Medicine. SIR RICHARD DOUGLAS POWELL.
3. The Medical Services of the Army and Navy. Address in Surgery. ALEXANDER OGSTON.
4. Remarks to the Section of Medicine. J. MITCHELL BRUCE.
5. Address to the Section of Surgery; the Work of the Section. H. T. BUTLIN.
6. Address to the Section of State Medicine. GEORGE WILSON.
7. The Etiology of Malarial Fever. Address to the Section of Tropical Diseases. GEORGE THIN.

[All of the above articles appeared in the PHILADELPHIA MEDICAL JOURNAL of August 5 and 12, having been abstracted or published entire from advance sheets furnished by courtesy of the editor of the *British Medical Journal.*]

Lancet.

August 5, 1899. [No. 3962.]

1. Recent Advances in Practical Medicine. Address in Medicine. RICHARD DOUGLAS POWELL.
2. The Medical Services of the Army and Navy. Address in Surgery. ALEXANDER OGSTON.
3. Some Structural Varieties of the Enlarged Prostate Relative to its Treatment. REGINALD HARRISON.
4. The Origin of Antitoxin: Is it Present in the Blood of Some Normal Animals? L. COBBETT.
5. The After-treatment and Postoperative Complications of Celiotomy for Pelvic Disease in Women. W. F. VICTOR BONNEY.
6. Chronic Suppuration of the Accessory Nasal Sinuses. BERTRAM COOPER.
7. A Case of Strangulated Right Inguinal and Scrotal Hernia; Laparotomy; Recovery. HENRY SMITH.
8. Suprapubic Drainage in Perineal Fistula. J. CROPPER.
9. A Case of Complete Anteroposterior Dislocation of Both Knees. H. E. HAYCOCK.
10. A Case of Sarcoma of the Carotid Sheath; Removal of the Growth together with Portions of the Carotid Arteries, Internal Jugular Vein, and Pneumogastric Nerve; Recovery. SCANES SPICER and H. STANSFIELD COLLIER.

1.—See PHILADELPHIA MEDICAL JOURNAL, August 19.

2.—See PHILADELPHIA MEDICAL JOURNAL, August 12.

3.—Harrison attributes failures in the treatment of **enlarged prostate** mainly to the somewhat indiscriminate application of the methods which been have suggested in the treatment of this affection. With so many varieties of pathologic conditions, it is hardly possible to find a single method of cure applicable to all. He distinguishes 3 forms of hypertrophied prostate. First, those cases in which the enlargement is due to bloody engorgement, more or less chronic in its nature. When seen in the course of suprapubic exploration of the bladder, the projecting lobe or lobes in this condition resemble congested erectile tissue. In the second form the enlargement is due to a mass of degenerated connective tissue with muscular fibers, the so-called fibrotic prostate. In this condition the symptoms are usually those of much local irritation not unlike what a stone excites. Thirdly, the enlargement of the prostate may be self-contained and may consist of an isolated mass of tissue resembling an adenoma. The great majority of prostatic cases are amenable to treatment with the catheter. Vasectomy has been successful in diminishing vesical irritability whether associated with catheter life or not, in nearly every case which Harrison has treated. In many instances it seemed to avert resort to the catheter and by diminishing the size of the prostate it frequently rendered the use of the catheter tolerable and easy, preventing irritation and hemorrhage. In case the urine is fetid, drainage by suprapubic cystotomy is a necessary part of the treatment. In several such cases the removal of a portion of fibroid prostate has been successfully accomplished. [M.B.T.]

4.—Cobbett is inclined to favor **Ehrlich's view of the origin of antitoxin,** but states that the question whether antitoxin is formed out of its corresponding toxin or is an independent product of the animal organisms is yet undecided. The results of experiments to determine if diphtheria-antitoxin was present in the serum of normal horses are given. Of 11 serums 8 were found to have a well-marked power of rendering harmless the injection of diphtheria-toxin. Further experiments were undertaken to establish the fact, if possible, that this power was really due to **antitoxin.** Filtrates of different strengths were neutralized in the same relative proportion by the serum as they were by antitoxin. Cobbett believes these experiments prove the protecting substance in the normal horse-serum to be identical with true antitoxin. He is now seeking for a test to determine before immunization which horses will produce the greatest amount of diphtheria-antitoxin for commercial purposes. [A.G.E.]

5.—Bonney discusses the **after-treatment and complications of celiotomy.** After detailing his routine treatment and attention to pulse-temperature, urine, and vomiting, he classifies the abdominal distentions after operations as epigastric, paretic, obstructive or peritonitic, and gives his method of treatment for each. Among the complications are bronchopneumonia, hematoma of the abdominal wound, urinary suppression, femoral thrombosis, pelvic effusion, and acute parotitis. [W.K.]

7.—A man, aged 20, was found to be suffering from a tightly **strangulated right inguinal scrotal hernia,** caused by heavy lifting. It was impossible to reduce it even under anesthesia. The usual operation for strangulated hernia was undertaken, but after the incision had been enlarged to the utmost limit of safety, it was found impossible to reduce the intestine. A median incision was made and, with the aid of the hand in the abdominal cavity, flatus was passed along and the bowel was partly drawn and partly pushed back into the abdomen. The patient recovered without a single bad symptom and was discharged on the thirtieth day radically cured. [M.B.T.]

8.—The case of a boy is reported who had undergone four unavailing operations for **perineal fistula.** After draining the bladder and freshening the fistula a successful result was attained. [M.B.T.]

9.—A muscular engineer, 31 years old, became entangled in the belt passing from the axle of the fly-wheel of an engine to the governors. He was dragged to the axle and there performed many revolutions in a space about 2 feet from the ground, his feet striking on the floor. He sustained a complete **anteroposterior dislocation of both knees,** which was reduced very readily. Under the use of back-splints and ice-bags the man made a fairly satisfactory recovery. [M.B.T.]

10.—A man, 59 years old, who had enjoyed previous good health and had never suffered from venereal disease, was taken with hoarseness and difficulty in breathing. A lump developed in his neck resembling a mass of enlarged matted glands. Manipulation caused instant coughing. Laryngoscopic examination showed the left cord motionless in the cadaveric condition; the right cord was normal. The left pupil was smaller but reacted to accommodation and to light. The palpebral fissure was also small and there was drooping of the upper lid. At the operation a tumor was found which appeared to be limited to the carotid sheath and surrounded the contained structures. Ligatures were placed upon the internal jugular vein and the carotid artery close to the clavicle and the vessels, together with the vagus, were divided on the thoracic side of the tumor. The growth was readily separated from the surrounding structures, the artery and vein were next ligated at the level of the hyoid bone, and the tumor, with the involved structures, was removed. Until the cephalic side of the growth was interfered with there was no respiratory disturbance, then the breathing became shallow and infrequent, and as the vagus nerve was being isolated respiration ceased. Artificial respiration was resorted to for 2 minutes. At the close of the operation the patient was much collapsed, but he rallied and made an uneventful recovery. Microscopic examination showed the growth to be a sarcoma. [M.B.T.]

New York Medical Journal.

August 19, 1899. [Vol. lxx, No. 8]

1. Localized Tuberculosis of the Intestine, with a Report of Seven Operated Cases. W. J. MAYO.
2. How Far is Retroversion of the Uterus Responsible for Some of the Functional Neuroses? MIRIAM GARDNER.
3. A Report of Four Cases of Epidemic Cerebrospinal Meningitis, with Special Reference to the Value of Lumbar Puncture as a Means of Diagnosis. JOSÉ L. HIRSH.
4. Abdominal Injuries due to Blunt Force. Report of Two Cases. RUSSELL S. FOWLER.
5. Hodgkin's Disease. With Report of Cases. E. G. WOOD.
6. Ophthalmic Clinical Contributions. DAVID WEBSTER.
7. A Case of Acute Alcohol Poisoning in a Child. MAURICE A. WALKER.

1.—A report is given of 7 operations for **tuberculosis of the intestine.** All of the patients but one recovered. The youngest was 18, the oldest 37; all but one were females; a tuberculous family history was present in only 2 cases, and was not marked in either case. In the 3 cases in which there was most extensive ulceration, there was some evening rise of temperature; in the majority of cases there was alternate constipation and diarrhea, the diarrhea predominating in the advanced form of the disease, with larger ulcerated surfaces. Colic and colicky pain were constant symptoms in all cases, and in 5 of the cases urinary irritation was an annoying feature. Rigidity of the abdominal muscles prevented accurate diagnosis by palpation in 2 cases. In 2 of the patients the ileum was affected, in 2 the sigmoid flexure, in 3 others the cecum, and with 2 of these the appendix was also involved, in one the ascending colon. Recovery was complete in 4 cases; in 2 of the others there was improvement. Occasionally the extensive area involved, or the debilitated condition of the patient, may render intestinal anastomosis above and below the obstruction the safer procedure, particularly in cases of extensive disease near the ileocecal valve. Drainage of the primary wound secretion is seldom necessary, but occasionally a suspicious point of the intestine should be isolated and connected with the surface by the formation of adhesion around a piece of gauze. Intractable tuberculous ulceration of the sigmoid has been successfully treated by temporary or permanent inguinal colostomy. Unusual ability to withstand operative interference is noted, the chronic nature of the disease seeming to furnish partial immunity to such injury. The operations in several cases were very incomplete and unsatisfactory, yet apparent cure resulted. [M.B.T.]

2.—Gardner discusses the **relation of retrodisplacements of the uterus to the functional neuroses** so often present in women. While in some cases retroversion doubtless aggravates neuroses already existing, she does not think it is the primary cause of the nervous unbalance found in so many ungoverned, selfish, self willed, hysteric women, who are unfitted for their duties as wives and mothers. In the treatment of these cases the gain is much faster away from their homes under the systematic regime as given in a sanitarium. In many cases too much stress is placed upon the pelvic condition and too little given to building up the general health. Dercum has made the following statements: "There is no necessary relation between neurasthenia and pelvic disease." "There is no relation between pelvic disease and hysteria, even where the two affections coexist in the same case." [W.K.]

3.—Hirsh reports **four cases of epidemic cerebrospinal meningitis in which lumbar puncture was employed.** Although clinical symptoms pointed clearly to the disease, absolute diagnosis could not be made without the puncture. This procedure may be of value in diagnosis by determining subarachnoidal pressure. Immediate improvement followed in the first case, and there was also some temporary benefit derived from the operation in cases 3 and 4. Hirsh believes that the procedure has no contraindications for diagnostic, if not for therapeutic purposes. [A.G.E.]

4.—Two **abdominal injuries due to blunt force** are reported. In the first case, a man, while intoxicated, was injured by a carriage wheel, the horse starting suddenly and the wheel striking the patient on the abdomen. Immediate operation was advised, but permission was not obtained till 24 hours after the injury. Rupture of the mesentery was found. The wounds were partially sutured and drainage inserted and an uneventful recovery followed. In a second case a man was kicked by a horse over the middle line below the umbilicus; operation was undertaken 24 hours after and a large mass of blood was found in the abdomen. Peritonitis was present, although intestinal adhesions had prevented general contamination of the peritoneal cavity by feces. The injured intestine was resected and a Murphy's button applied, the abdominal cavity was flushed by normal salt-solution, drainage was inserted. The patient did not rally from the operation and died 3 hours later. In discussing such injuries in general, Fowler states that the symptoms are referable to the abdominal wall and cavity, or both. Pain may be severe or slight. As an early symptom vomiting is constant, distention may be slow or rapid, rigidity develops later, shock may or may not be present. The temperature and pulse, particularly the latter, are considered of great importance. Opium, even in small doses, render the diagnosis of such injuries difficult and should never be administered early. After an abdominal injury, if there is tenderness, acceleration of the pulse tending to increase ever so slightly, together with abdominal distention and a rise in temperature, the diagnosis of a grave injury is made absolute. In most cases but a few hours of close observation are required to establish the diagnosis. In such cases exploratory laparotomy should be performed at once unless the condition is so desperate that anesthesia mean certain death. [M.B.T.]

5.—Notes of **four cases of Hodgkin's disease** are given. Cases 1 and 3 seem to support the theory of infection, the disease in one following an alveolar abscess, and in the other an attack of amygdalitis. [A.G.E.]

6.—The following cases are reported: Abscess of the frontal sinus, trachoma and ulcerative keratitis; marginal keratitis with ulcer of the left cornea, and syphilitic iritis with total synechia, posterior, and false cataract. Irridectomy was performed in the latter case without improvement of vision resulting. [M.B.T.]

7.—In a child, 6 years of age, death followed the drinking of about 3 ounces of undiluted whisky. The fatal termination occurred 20 hours after the ingestion of the whisky. [A.G.E.]

Medical Record.

August 19, 1899. [Vol. lvi, No. 8.]

1. Type of Tropical Fever. L. L. VON WEDEKIND.
2. On the Role of Primary and Secondary Osteoplastic Surgery in the Treatment of Complicated or Compound Fractures of the Extremities. THOMAS H. MANLEY.
3. Angioneurotic Edema: with a report of Four Cases. HERMAN B. BARUCH.
4. The Use of Quinin in Malarial Hemoglobinuria. S. L. J. STEGGALL.
5. Concealed Menstruation. A. BROTHERS.
6. Cutaneous Electrolysis. FRED J. LEVISEUR.
7. Facial Eruptions due to Intranasal Disease. CARL SEILER.
8. Personal Observation on an Unusual Case of Labor. P. T. O'CONNOR.

1.—The fever described is that called **calentura.** It is very common in the Philippine Islands. Prodromal symptoms are usually absent, the onset being with chill and rise of temperature to about 103°, and the temperature is likely to become still higher subsequently; there are severe muscular pains, headache, anorexia, and disturbance of the stomach with marked asthenia. The cases get well without treatment in about seven days. Wedekind has tried quinin in the treatment until he has convinced himself that it has no effect, and at Stubert's suggestion has used aconite, and found that the cases respond rapidly to a preliminary dose of calomel, followed by a saline purge, and a subsequent administration of four drops of tincture of aconite every two hours for from 3 to 5 days. [D.L.E.]

2.—In order that **osteoplastic operations** be successful, it is necessary that the patient be not too severely shocked, exsanguinated, or that there be no other very severe injury. Unless there is secondary hemorrhage or gangrene, it may be wise to wait for 24 hours before deciding upon a line of treatment. Free incision is permissible for purpose of treatment in many fractures, but for diagnosis, never, except in fractures of the skull. Secondly, osteoplasty may be called for in case nerves are cut or compressed; in case of hyper-

ostosis; crooked or deformed limbs, or in pseudoarthroses. The earlier the union and the younger the patient the more favorable the prognosis. Osteotomy with osteoclasis may be necessary in case of angular deformity. [M.B.T.]

3.—Baruch gives a general description of **angioneurotic edema,** and follows it by a report of 4 cases. The first was interesting, from the fact that the attacks came on after a cold plunge-bath, and were likely to follow cold baths or sea-bathing. Stopping the morning cold bath and the administration of strychnia, with a limitation of the meats and sweets in the diet, and giving alkaline mineral waters, controled the condition so that ultimately the man was able to indulge himself in even surf-bathing without any return of the difficulty. The second case was interesting, in that it affected chiefly the tongue, and caused great distress in breathing, speech, and swallowing. There was no definite cause found in this case, and the attacks were uninfluenced by treatment. The other two cases both showed evidence of marked intestinal fermentation. They were merely temporary instances, and both recovered after the administration of a purgative. [D.L.E.]

4.—Steggall describes three cases of **malarial hemoglobinuria** which occurred in patients who had been in the habit of taking very large doses of quinin. All of them were treated by the following general plan: First, during the occurrence of the fever and the hemoglobinuria, they were put into blankets and surrounded by hot-water bottles, given a coal-tar preparation, with caffein and brandy, and thus made to sweat. They were then given calomel followed by sodium phosphate. Quinin was given as soon as possible by hypodermic injection, administered in very large doses, and ultimately the patients were given iron, arsenic, and diuretics. Steggall thinks that quinin does irritate the kidneys and may cause hemoglobinuria or that malarial attacks in those that have marked malarial cachexia may cause the same difficulty. He insists upon the necessity of using quinin for controling the malaria. [D.L.E.]

5.—Brothers discusses the various theories of menstruation, and concedes that normal menstruation at times may involve the mucous membrane of both tubes and uterus. He reports a case of concealed menstruation, the patient was operated upon and the appendages removed. Both specimens consisted of ovarian sacs in which the parenchyma was entirely absent, and which were filled with dark, tarry, unclotted blood. The explanation offered was that for some unknown reason, at the change of life, tubal menstruation had persisted, the tubes being shut off, for pathologic reasons, from the uterine and peritoneal cavities, had discharged themselves, after agglutination and perforation, into the substance of the ovaries. [W.K.]

6.—Cutaneous electrolysis has not come into general use because its indications are not generally and clearly understood and because the instrumentarium is not simple enough. If proper instruments were used the treatment would be more popular with general practitioners. The needle should be connected with the negative pole, thrust into the skin and the current closed; when caustic alkali is developed there is little scarring, slight danger of infection, and the effect is easily controled. For ordinary purposes a galvanic battery, rheostat milliamperemeter, a pair of cords, a sponge electrode, a needle and needle-holder are the only essentials. The details of operative technic are carefully discussed. Leviseur has used electrolysis in the treatment of keloids with only moderate success. It should not be used in the treatment of portwine marks in case they occupy the upper or lower eyelids, and if they are on a level with the surrounding skin. Moles are easily removed while small, and thus prevent spreading in later years. In all malignant cutaneous affections electrolysis should not take the place of the knife. [M.B.T.]

7.—Seiler believes that the use of **cocain as a local anesthetic** applied for the temporary relief of nasal obstruction may produce hyperemia and cutaneous eruptions. The contraction of the mucous membrane by the cocain excites a corresponding hyperemia of the capillaries of the facial integument. [M.B.T.]

Medical News.

August 19, 1899. [Vol. lxxv, No. 8.]

1. The Bacillus Icteroides as the Cause of Yellow Fever. A Reply to Professor Sanarelli. GEORGE M. STERNBERG.
2. Some Fallacies in the Modern Treatment of Nose and Throat Diseases. DUNBAR ROY.
3. Importance of a Knowledge of the Phylogenetic Development of the Child in the Prevention of Children's Diseases. E. STUVER.

1.—Sternberg gives long quotations from his previous papers in order to indicate that Sanarelli is mistaken in claiming that he (Sternberg) believed that the bacillus of yellow fever was particularly an inhabitant of the gastrointestinal tract. He does not believe that either the bacillus x discovered by himself, nor the bacillus icteroides discovered by Sanarelli, is the specific cause of yellow fever, for the reason that he was unable to discover the latter in any of his researches in numerous cases, although he used the same mediums and methods employed by Sanarelli. Even portions of tissue from the organs added to the media gave negative results, and blood from various organs caused death in only a very small proportion of the animals into which it was injected. Moreover, the bacillus icteroides resembles in all respects the hog-cholera bacillus; it does not give the Widal reaction with the blood of yellow fever patients, and it is impossible to obtain an antitoxin that is efficient against yellow fever. He, therefore, regards the bacillus icteroides as a pathogenic saprophyte that occasionally and accidentally occurs in the blood and tissues of patients suffering from yellow fever. [It is interesting to compare this article of Sternberg's with the report of the commission of the medical officers of the Marine-Hospital Service, printed in our issue for August 19. In this report, as reference will show, two conclusions with a very important bearing upon the present discussion are enunciated. First, that the bacillus icteroides is the cause of yellow fever, and second, that the bacillus x of Sternberg is not. J.S.]

2—Among the forms of treatment for the **diseases of the nose and throat** to which Roy objects are: (1) The indiscriminate use of the spray. The patient feels better temporarily after spraying the nose, and thus the spray-habit is easily acquired. Various oily materials have been used for sprays, but their use is considered illogical from the fact that the discharges from the mucous membrane of the nose and throat are watery or mucoid and will not mix with oil. Oily sprays are useful, however, in acute inflammatory conditions after cleansing. (2) The electrocautery has also been much abused. Hypertrophy of the turbinate, which disappears under the influence of cocain is not hypertrophy, but only passive congestion or stasis, and in such conditions the cautery should not be used. Such a phenomenon may be reflex, due to anemia, chlorosis, torpid liver, ovarian, or uterine disease, heart-lesions, diseases of the kidneys or constitutional dyscrasias. (3) Roy also considers it an error to remove enchondromata or cartilaginous spur, and exostosis as frequently as is often done from the nasal septum. After the spur has been removed scar-tissue is left where scabs will form, and in many cases give more annoyance than the former slight obstruction itself. [M.B.T.]

3.—Stuver contributes an article in which he claims that in the early years of existence, more attention should be paid to the development of the skeleton, muscles, etc., and less to the development of the mind, because the former have reached a higher degree of perfection. He argues that the present methods of education are false and injurious, and are really less efficient than less severe and more scientific methods would be; thus, for example, he would substitute mental arithmetic for the written form until the fifteenth year has been passed, and he would endeavor to instruct the child in subjects that attract his interest and not fill his mind with a mere routine of useless and conventional information. [J.S.]

Boston Medical and Surgical Journal.

August 17, 1899. [Vol. cxli, No. 7.]

1. Address in Surgery. ALEXANDER OGSTON.
2. The Value of the Pulse in Diagnosis and Prognosis. HENRY JACKSON.
3. Philosophy of Sickness. THOMAS F. HARRINGTON.
4. Improvements in Army Medical Service, Suggested by Experience in the Late War. WILLIAM H. DEVINE.
5. Unusual Diastolic Murmur, with Autopsy. RICHARD E. EDES and RICHARD M. PEARCE.

1.—See Philadelphia Medical Journal, August 12.

2.—The author rightly insists on the **value of the pulse in diagnosis and prognosis.** In **typhoid fever** the pulse in uncomplicated cases of moderate severity is between 90 and 100; in acute tuberculosis it is over 120. In **cerebrospinal** and **tuberculous meningitis** the pulse is almost pathognomonic—in the early stages it is slow in proportion to the general condition of the patient. If the slowness is accompanied by occasional intermittency, it is still more suggestive of meningitis. If not continuously slow, the rate varies much without any corresponding change in the condition of the patient. In the later stages of meningitis the pulse becomes extremely rapid. The pulse is of value in distinguishing between cerebral hemorrhage and alcoholism—it is slow in the former, rapid in the latter. In the early diagnosis of **follicular tonsillitis** and **diphtheria,** the pulse is of value—the first is usually associated with high fever and rapid pulse; the other in the beginning gives rise only to slight fever, with a pulse not much quickened unless the toxemia be great. In typhoid fever the pulse in addition to being of diagnostic value, is of great aid in prognosis. The danger-line in typhoid fever is reached when the pulse registers 120. While many cases recover when the pulse is rapid, they do so only after a severe struggle for life. A sudden rise of the pulse without apparent cause suggests hemorrhage, especially if accompanied by a fall in temperature. The pulse may be rapid in typhoid fever in other complications, as otitis media and phlebitis, without rendering the prognosis unfavorable; whereas in acute inflammation of the parotid region the prognosis is grave. In convalescence the pulse is often rapid, and then is of no serious import. Jackson also calls attention to the occasional discrepancy between the rate of the heart and the pulse felt at the wrist, which is due to the fact owing to the great weakness of the heart not every beat reaches the wrist. [We have seen this condition several times—principally in chronic myocardial affections, but also in Bright's disease, probably from complication with disease of the heart-muscle. D.R.]

Journal of the American Medical Association.

August 19, 1899. [Vol. xxxiii, No. 8.]

1. The Pneumonia Question. Edward F. Wells.
2. The Blood in Pneumonia. Alfred Stengel.
3. Pneumonia of the Aged. Robert H. Babcock.
4. Pneumonia. R. B. Preble.
5. Asepsis of Hands of the Surgeon and Skin of the Patient. Carl Beck.
6. Postpuerperal Sepsis. John B. Deaver.
7. Uterine Fibroids. Thos. Fitzgibbon.
8. Some Radical Changes in the After-Treatment of Celiotomy Cases. Emil Ries.
9. The Progress of Surgery. Herman E. Pearse.
10. Professional Secrecy. William C. Tait.
11. Medicine. J. Bruyere.

1.—See this Journal, Vol. III., p. 1269.
2.— " " " " " " "
4.— " " " " " " 1270.,
6.— " " " " " " 1276.
7.— " " " " " " 1275.

8.—During the past 4 years Ries has introduced certain changes with the object of freeing his patients from many irksome and disagreeable features of **after-treatment,** at the same time promoting rapid recovery. He has found that by doing **intraabdominal operations** by the vaginal route, with subsequent complete closure of the peritoneum and vagina by sutures, the patients can be fed like perfectly healthy persons and can be allowed to be up and walking about in a remarkably short time. The period for which patients are confined to bed may be counted by hours instead of days. In the preparation of the patient for operation the customary efforts toward getting the bowel as empty as possible have been omitted with entirely satisfactory results. Patients are allowed every reasonable kind of food in liberal quantities so early as 24 hours after the operation, with the result that their strength is kept up and the digestive tract is kept in physiologic condition. It is believed that hernia after ventral celiotomy depends entirely on the accuracy of the suture in layers and the absence of infection, while all other factors, including the wearing of a binder, are of secondary importance. Acting upon this belief *many patients with ventral or inguinal or lumbar incisions have set up as early as 3 days after their operations;* others have been kept in bed until after the removal of the stitches on the sixth to the eighth day. The patients do not wear a binder of any kind. Up to this date no hernias have been observed. In case it is necessary to pack an abdominal wound, however, the patients are kept in bed longer. [M.B.T.]

9.—Progress in modern surgery may be measured along 3 lines of improvement; that in ligatures and sutures, in anesthetics, and in aseptic technic. Silk, as a suture-material is being superseded by catgut prepared by the cumol or the formalin process, and by kangaroo tendon, and other absorbable animal sutures. Pearse believes that the most noteworthy progress in the art of anesthesia rests in the application of nitrous oxid for prolonged and general narcosis. It may also be used to induce anesthesia which is prolonged by ether. Asepsis in contradistinction to antisepsis is advocated. Normal salt-solution should supplant mercuric chlorid or phenol-solutions as a material for irrigation or for cleansing the hands during operations, steam sterilization renders it unnecessary to soak towels and instruments in antiseptic fluids, and the use of rubber gloves eliminates the danger of infection from the hands. [M.B.T.]

11.—A historical sketch of the progress of medicine is given. [M.B.T]

Münchener medicinische Wochenschrift.

May 16, 1899. [46. Jahrg., No. 20.]

1. Concerning Changes in the Pulse as a Result of Aortic Aneurysm. Steudel.
2. Upon the Usefulness of Orexin Tannate in Combating Anorexia in Young Children. Siegert.
3. Treatment of Deafness by Air-Pressure. v. Liebig.
4. Pemphigus Vegetans. Mayr.
5. Report of Case of Minor Surgery. Wetzel.
6. Autotransfusion and Prophylaxis in Tuberculosis of the Lungs. (Conclusion.) Jakoby.

1.—Steudel reports a case of **aneurysm of the arch of the aorta,** in which the chief point of interest had been **retardation** and **enfeeblement of the pulse** on the left side. The generally accepted theory of the cause of this pulse-phenomenon is that the aneurysmal sac acts like the air-chamber in the hydraulic ram. Other possible causes are narrowing of the vessels arising from the sac through traction on their orifices, kinking or compression of the orifices, and obstruction of the orifices by thrombi. In his own case the author believes that the phenomenon was due, not so much to the elasticity of the sac as to changes in the orifice of the left subclavian artery. The orifice was narrowed to a slip by traction and thrombi apparently occluded it, in valve-like fashion, during systole. As the subclavian coursed directly over the sac it also suffered compression during the systolic filling of the latter. [D.R.]

2.—Orexin tannate has proved itself very useful in combating the **anorexia** of children. It is given in doses of 0.25 to 0.5 grams ($3\frac{3}{4}$ to $7\frac{1}{2}$ grains) one to two hours before meals for a period of from five to ten days. The powder is preferable to chocolate tablets. [D.R.]

3.—It has long been noticed that the hearing of laborers working in iron shafts is favorably influenced by the increased atmospheric pressure, and similar observations have been made on persons receiving treatment in the pneumatic cabinet. Hovent secured with the cabinet cure of deafness in 35% of his cases. The author has seen good effect on the hearing in three persons who had used the cabinet for other purposes. Regarding the **mode of action of compressed air,** he believes it is connected with a better emptying of the veins and capillaries of the ear under the increased pressure. A special chamber, permitting the use of higher pressures than are obtainable in the ordinary cabinet, has been constructed at Reichenhall. [D.R.]

4.—Mayr reports a case of **pemphigus vegetans** in a man of 36 years, whose photograph is reproduced in the original article. Cure was achieved by means of baths,

irrigation, white precipitate ointment, and strengthening diet. (D R.)

5.—Wetzel reports a case of **hygroma of the bursa iliaca.** The patient was a boy 12 years old. There was no pain and no wasting of the muscles. The tumor reached from Poupart's ligament to half way down the thigh, extending outward so far as the trochanter major. Internally no sharp border limited it, but distinct fluctuation could be obtained when the leg was straightened. On incision ½ to ¾ liter of a clear yellowish serous fluid escaped. There was no communication with the hip-joint. Suppuration of the sac ensued after incision, and healing took place very slowly, taking ½ year before the wounds were completely closed. [G.B.W.]

6.—According to Detweiler there exist at all times in Germany 1,200,000 persons suffering from pulmonary tuberculosis. As these cannot all find accommodation in sanatoria, every hospital should make provision for such cases by constructing isolation pavilions with reclining halls, and should also procure reclining chairs. For the **prophylaxis of tuberculosis** the author suggests that the entire population should submit to a periodic, obligatory examination of the lungs, as has for years been the practice in the army. These periodic health-inspections would probably also reveal quite often the existence of other diseases. The author formulates the following **postulates for the battle against consumption:** (1) pulmonary tuberculosis is notifiable; (2) The people are to be instructed, through the gratuitous distribution of tracts, in the nature, danger, and dissemination of consumption; further, concerning the heredity of the disease, the contagiousness through sputum, the dangers of consuming unboiled milk, the harmfulness of certain occupations, the value of abundant air, and the curability of the disease; (3) spitting on the floor in public places is punishable; (4) the entire population is to be periodically examined regarding the state of the lungs; (5) the erection of people's sanatoria is to be fostered by private and public organizations; (6) in every civil and military hospital a sanatorium for pulmonary tuberculosis is to be constructed, special attention being given to reclining halls and reclining chairs. [D.R.]

May 23, 1899. [46. Jahrg., No 21.]

1. The Relation between Pulse-frequency and the Period of the Puerperium. TORGGLER.
2. The Indication of Vaginal Myomotomy. FUNKE.
3. A Suggestion Upon Determining the Value of Operation-methods, especially in Myoma. v. HERFF.
4. The Therapy of Operable Carcinoma of the Uterus at the Ending of Pregnancy. THORN.
5. The Hygiene of the First Day of Life. FUCHS.
6. The Histology and Histogenesis of Ovarian Papillary Cysts. UFFENHEIMER.
7. The Course of the Advanced Stage of Extrauterine Pregnancy. v. GUÉRARD.

1.—As material for this article, Torggler used 286 births, and considers 38° C. as the border between the normal temperature and fever in the puerperium. He divides the pulse-beats into 4 classes: Subnormal, under 60; normal, 61 to 80; subfebrile, 81 to 100; and febrile, over 100. According to temperature he had 91.3% cases without fever, but according to **frequency of pulse** only 62.6%. In general, he thinks that one can judge of the condition of the puerperium practically as well from the pulse as from the temperature, although, of course, both should be taken into account. [W.K.]

2.—Funke considers it wrong to make the size of the tumor an absolute condition. The diameters of the tumor should be such that they are not too great for the normal planes of the pelvis. The two chief diameters are, of course, those of breadth and thickness. These conditions serve only for a single tumor. Morcellement changes the conditions. Torggler prefers first removing the large tumor by enucleation or morcellement, and the remaining smaller ones by total extirpation of the uterus. Besides the size of the tumors, the condition of the ligaments, especially the infundibular ligaments of the pelvis, is important. The most favorable forms for **vaginal myomotomy** are the submucous, the solitary submucous of the fundus with closed cervix, the solitary subserous of the anterior and posterior walls of the uterus, the myomatosis uteri, and the small subserous myomata of the fundus. Excessive anemia and weakness are contraindications to myotomy. A submucous myoma, as an ovarian tumor, should be extirpated as soon as diagnosed. [W.K.]

3.—Herff divides the **causes of death following operation** into constant, or those depending on methods; and inconstant, or those depending on special circumstances rather than methods used. Some of the latter are the result of narcosis, ileus, peritonitis following perforation of intestinal ulcers, thrombosis, and embolism; also injuries resulting from abnormally situated intestines, bladder, and ureters. Cases of death from shock, after an unnecessarily long operation, if the time be over two hours, should be considered as due to method; but postoperative hemorrhages should not always be ascribed to the method. Injuries to organs normally situated, however, should be considered as due to defective method or technic. [W.K.]

4.—Thorn cites the cases of Olshausen, Fritsch, and Seiffart, and draws the conclusion that the **extirpation of the pregnant carcinomatous uterus by the vagina,** is possible in any stage of pregnancy, if the pelvis is normal. He believes that the operation in 2 stages, first abdominal and then vaginal, to be merely an emergency method which should be replaced by something better. Since at the end of pregnancy carcinomata are found almost exclusively at the cervix, he thinks that the purely abdominal extirpation is an anomaly in such cases, and advises the operation per vaginam in all cases where possible, except in some instances after the second half of the eighth month. Thorn reports the first case of carcinoma of the cervix, with the cervix closed, which has been operated upon at the end of pregnancy with good results for both mother and child. The diseased anterior lip was removed by thermocautery after circumcision of the vagina. The bladder was loosened from the cervix and pushed upward, the anterior walls of the cervix and corpus were split in the median line, the membranes ruptured, and the child extracted with forceps. Immediately the uterus was drawn down, the circumcision of the posterior vagina completed, and the extirpation of the uterus carried out without regard to the placenta. As the placenta began to loosen it was expressed according to Credé's method. There was no recurrence. The circumcision of the vagina was only partially performed in the first stage, for the reason that it offered a large enough passage for the child and at the same time avoided excessive bleeding, removed the necessity of ligating the uterine arteries, and prevented the flowing of the amniotic fluid into the peritoneal cavity. In carcinoma of the posterior lip this could not be done. [W.K.]

5.—Fuchs does not agree with Gessner's theory that **icterus neonatorum** is caused by tiny multiple hemorrhages in the cutis and subcutis as the result of too hard rubbing in cleansing the child. He thinks that Hoffmeier's and Quincke's theories are more plausible; the former believes that on account of the increased death of the red corpuscles the liver takes on a polycholic action; the latter, that the condition is due to the failure of immediate closure of the ductus venosus Arantii. The results of Fuchs' two sets of experiments on newborn children utterly disprove Gessner's theory. [W.K.]

7.—v. Guérard reports 4 cases of **extrauterine pregnancy** operated upon by him, 3 of which recovered. In the first 2 cases, being unable to remove the sac entirely, he packed the cavity through a large opening in the vagina instead of through the abdominal incision, considering it the best method under the circumstances. He found that the moral impression on the patient was better than in those cases in which the sac was sewed into the abdominal wound, and the secretion continued for weeks. Also the abdominal wound could be closed in the regular way, avoiding the danger of hernia. [W.K.]

Deutsche medicinische Wochenschrift.

June 1, 1899. [25. Jahrg., No. 22.]

1. The Technic of Osteoplasty in Leg-amputation below the Knee According to Bier. R. BUNGE.
2. Further Observations upon Physiologic Closing of the PUPILS. C. HAMBURGER.
3. Bottini's Operation in the Treatment of Prostatic Hypertrophy. F. STOCKMANN.
4. Concerning Suprascapular Paralysis. STEINHAUSER.

2.—Hamburger has studied by means of an ingeniously contrived microsyringe made from a hypodermic needle having as its plunger a close-fitting wire, the process of osmosis between the anterior and the chamber of the vitreous which he finds to be influenced by the excursion of the iris. Frozen sections of an eye removed immediately after the injection show the distribution of the coloring-matter in the posterior chamber, but not through the entire vitreous. The osmosis is shown to depend on the size of the pupil. It is more rapid when the pupil is closed. He also notes the fact that the iris is not situated in a plane, but is curved anteriorly and glides over the lens. [C.L.L.]

3.—The **Bottini operation** is preferred by Stockmann in the treatment of prostatic hypertrophy. He has employed it in seven cases with marked success and no relapse. Its advantages are the ease with which it can be done, without narcosis, sometimes local anesthesia is necessary, the time required to keep the patient in bed is shortened, the operation can be repeated till the desired end is attained. [C.L.L.]

4.—An interesting case of **palsy of the suprascapularis nerve** is reported with photographs showing the peculiar position of the scapula that results. [C.L.L.]

June 8, 1899. [25. Jahrg., No. 23.]

1. The Injection of Poison Into the Brain. J. BRUNO.
2. The Restoration of the Arm-functions in Paralysis of the Deltoid Muscle Following Acute Articular Rheumatism. M. ROTHMANN.
3. The Technic of Osteoplasty in Amputation of the Leg (Below the Knee) According to Bier. (Conclusion.) R. BUNGE.
4. Bottini's Operation in the Treatment of Prostatic Hypertrophy. (Conclusion.) F. STOCKMANN.

1.—Bruno found that **injections into the brain-substance** of salt-solution, and of a number of other substances, such as urea, sugar, and Glauber salts, were entirely without effect, while the injection of even minute quantities of morphin (1 to 6 mg.) caused clonic, followed by tonic convulsions, which appeared soon after the injection. These lasted for 1 to 3 hours, and death followed, from paralysis of the vital centers in the medulla; similar symptoms were caused by an otherwise indifferent substance, ferrocyanid of soda; and by subsequently carrying out the Berlin-blue reaction it was found that the ferrocyanid was present in the free fluids, and was especially noted in the whole system of ventricles. Methylene-blue was also found to kill rabbits when injected into the brain in minute quantities. The results of the color-reaction showed that the poison acted chiefly in the ventricles and along the base of the brain, where it had an immediate effect upon the important centers. Bruno believes that this demonstrates that direct intracerebral injections is a faulty method of investigating any such question as cholemia, as was done by Biedl and Kraus. (See abstract in PHILADELPHIA MEDICAL JOURNAL from *Centralbl. f. innere Med.*) The poisons that get into the circulation scarcely lodge in the brain in such quantities as to cause the symptoms that would be produced by the direct injection of even these small amounts. [D.L.E.]

2.—Rothmann reports a case in which **rheumatism was followed by practically complete atrophy of the deltoid** and inability to raise the shoulder. By proper instruction, however, the man became so adept in the use of the neighboring muscles that he reacquired the power of lifting the arm in abduction, and also in this way some exercise for the deltoid was provided and the muscle became useful once more. The exercises consisted in elevating the shoulder and adducting it to fix the humerus in the joint; this is accomplished largely through the action of the pectoralis major aided by the coracobrachialis. The shoulderblade is elevated at the lower angle by this means and susequently turned in such a manner as to bring into action the serratus anticus major. The supraspinatus finally is brought into play to elevate the arm away from the body, the arm being held in marked pronation. [D.L.E.]

3.—(Conclusion.) Bunge says that **Bier's osteoplastic method of amputating** through the lower leg is much to be preferred over that of Brun, because the stump after Bier's method is better able to withstand pressure. The end of the stump is insensitive against both pressure and blows, and therefore is well adapted for carrying the weight of the body. In cases where the amputation is done because of long-standing suppuration, Bier's method is less adapted, because of the greater possibility of the crosspiece of bone not becoming united to the cut-ends of the tibia and fibula. But even here the Bier operation is not contraindicated, because the stump is equal to any of the older methods of amputating, even when the crosspiece has not attached itself. [G.B.W.]

4.—(Conclusion.) From a review of 229 cases of **Bottini's operation for enlarged prostate,** it appeared that 51.5% were cured, 26.2% benefited, 13.9% unbenefited, and 8.2% died, *i. e.*, in 77.7% of the cases thus treated good results were obtained. As regards an absolute cure, these statistics show a decided improvement over either palliative treatment, double castration or resection of a portion of vas deferens, but in cases which have only been benefited the Bottini method suffers by comparison. If we take the cured and benefited cases together we find that there is practically the same percentage of good results in all the different methods of treatment. Among the complications which may follow Bottini's operation may be mentioned: Hemorrhage, of first and greatest importance; urethral fever, dribbling of urine; epididymitis, orchitis, prostatic abscess, phlebitis and thrombosis of the periprostatic plexus of veins, pyelitis, pyelonephritis, etc. Bottini's operation gives best results in cases of chronic complete retention, when there is still good muscular activity left in the bladder walls, and it is contraindicated in pyelitis, pyelonephritis, suppurative cystitis, calculi and atony of the depressor. [G.B W.]

Centralblatt für innere Medicin.

July 15, 1899. [20. Jahrg., No. 28.]

Where and From What is Aceton Made? WALDVOGEL.

This brief communication gives the results of a series of investigations. The albumins of the food or of the body seem to cause no acetonuria, since entire abstinence from food and subsequent administration of 100 grams of albumin caused no increase in acetonuria, but rather decreased it. The amount of nitrogen in the urine and the amount of aceton have no relation to each other. The use of thyroid increases the uric acid and the aceton in the urine. The carbohydrates decrease acetonuria, but only when they are taken by the mouth. In 2 cases with diabetes, he determined that the lessened power of assimilating carbohydrates did not prevent the carbohydrates from decreasing the acetonuria. Fat is the only remaining substance in the food, and this must be the source of aceton. To one patient who was being starved, to 2 who took only albumin, and to diabetic patients, Waldvogel has given fat, and has seen a decided increase in the aceton. This did not occur when the fat was given subcutaneously, and he believes that the changes in fats produced in the digestive tract are of great importance in the production of aceton. [D.L.E.]

July 22, 1899. [20. Jahrg., No. 29.]

1. Concerning the Importance of High Temperature for the Animal Organism. ERNST V. CZYHLARZ.
2. Concerning the Demonstration of Tubercle-bacilli in the Feces. J. M. ROSENBLATT.

1.—The experiments briefly reported consisted in **causing high temperature** in 10 rabbits by the Aronsohn-Sachs method of **puncture of the medulla.** Czyhlarz then studied the kidneys, the hearts, the body-muscles, and the livers of the animals so experimented upon, particularly to see whether fatty degeneration had occurred. In no case was this seen, and he was quite unable to find even parenchymatous degeneration. The blood showed no changes from the normal. The specific gravity in particular was investigated because of the teaching by some of the occurrence of water-retention in fever. It was found entirely normal, however, and there was therefore no evidence of hydremia. [D.L.E.]

2.—The method which is recommended here is the giving of laudanum until the stools become hard and sausage-like. Rosenblatt then examines the surface of the stools, particularly any mucopurulent areas, and he states that when bacilli are present, he usually finds tubercle-bacilli in the first preparation. He believes that the hard scybala in passing

over the ulcerated surfaces brush off bacilli and carry them along with them, while they disappear in ordinary diarrheal stools. [D.L.E.]

July 29, 1899. [20. Jahrg., No. 30.]

A New Form of Elementary Granules in the Blood, Sputum, and Tissues of Man; a Preliminary Communication. L. GRÜNWALD.

Grünwald discovered more than a year ago that the greater number of the round cells of the sputum of seropurulent exudates, of pus from the tissues, and of inflammatory growths, contain very minute granules which are colored with eosin, but with acids and alkalies the greater part are decolorized again. In the triacid mixture they appear fuchsin red. He calls these granules hypeosinophilic. They occur in both polynuclear and mononuclear cells, and he has seen various intermediate stages between neutrophile, basophile, eosinophile, and hypeosinophile granules. He notes especially that the preparations must be dried only by exposure to air and not by heat. They must not be fixed by alcohol and ether, corrosive sublimate, or heat, as in this case the granules appear merely as eosinophile granules. The best method of staining is first in alcoholic eosin and then very careful counterstaining with methylene-blue. A number of cases are reported in which these granules were found. He seems to have fixed the preparations most satisfactorily in 1% formolalcohol. [D.L.E.]

August 5, 1899. [20. Jahrg., No. 31.]

On the Use of Naftalan. FRIEDEBERG.

A number of cases of various kinds were treated with naftalan, and the results expressed in brief are: it proved valuable in the treatment of skin-diseases of certain kinds, chiefly of eczema and of similar conditions; it also had good effects with epididymitis; it seemed useless, however, in the treatment of acne and in articular rheumatism; psoriasis and leg ulcers were somewhat improved under its use, and some improvement was observed in cases of dry pleurisy. [D.L.E.]

Centralblatt für Chirurgie.

July 1, 1899. [26. Jahrg., No. 26.]

1. Delayed Sutures. H. KÖPPEN.

1.—Köppen does not believe that it is good surgery to introduce sutures during an operation that cannot be tied until packing has been removed. If infection of the wound, or a suspicion of poor asepsis, requires the employment of packing, the sutures should be put in at a later date under local anesthesia. This local anesthesia with an eucain-solution permits it to be done painlessly, while rapid union may be secured by removing the granulations that have formed with a curet. When stitches are allowed to remain in the wound their tracks become dilated, and generally septic, while the tissue is liable to cut through, or the sutures to become weakened. [C.L.L.]

July 8, 1899. [26. Jahrg., No. 27.]

1. The Employment of the Tobacco-Pouch Suture. F. DE QUÉRVAIN.

1.—This form of suture has been employed by various surgeons at different times, but was first recommended by Doyen for general employment in abdominal surgery. De Quérvain has further developed its technic, and has employed it successfully in a number of cases in closing the peritoneal wound after exploratory laparotomies, ovarian operations, and appendicitis cases *au froid*, in fact, wherever a small incision through the peritoneum is required. Its advantage is that it reduces to a minimum the danger of infection that arises when the intestines have become dry, and prevents them from contact with the suture material, while reducing the scar in the peritoneum to a point, thus preventing the formation of adhesions between the intestines, the mesentery, and the line of incision. He has also used it with success in closing wounds in the intestine and hollow viscera, as the gallbladder, or the resected end of the gut, or the appendiceal stump. There are two forms of the suture, one in which the tissues are turned inward and protrude into the lumen of the gut or viscus; the other in which the protrusion is into the wound, as in the closure of the abdominal peritoneal wounds. Care should always be exercised to draw the suture only sufficiently tight to close the opening, and not tight enough to strangulate the included tissue. [C.L.L.]

July 15, 1899. [26. Jahrg., No. 28.]

A New Operation for Varicose Ulcers of the Leg. N. BARDESCU.

The operation which the author originated and published in December, 1897, has recently been rediscovered and published by Chipault. Bardescu reports two chronic cases of varicose ulcer with indurated edges. One had persisted for 8 years, the other for 6, with an accompanying eczema. In both the operative procedure was successful, resulting in complete and permanent healing in 17 and 26 days respectively. The operation consists in the resection of the long saphenous vein and the stretching of the nerve supplying the affected area. In these two cases it was the common peroneal nerve. [C.L.L.]

July 22, 1899. [26. Jahrg., No. 29]

1. The Ventricular Closure of the Biliary Passages by Calculi, and its Results. CARL LAUENSTEIN.

1.—Numerous authors have described this as one of the conditions that may be present in the biliary passages. Lauenstein has found it among the 80 cases which he has operated upon. The calculus becomes impacted in the cystic duct, and we find two conditions that may be present as the result: the gallbladder may be entirely empty, as the result of the valve preventing the ingress of bile but allowing the discharge of the excretions from within that viscus, or the calculus may act in exactly an opposite manner, permitting the passage of bile into the gallbladder but preventing its egress, thus producing a hyperdistention, in contrast to the complete emptying, or the absence of bile among calculi that fill the bladder in the other instance. [C.L.L.]

Neurologisches Centralblatt.

July 15, 1899. [18. Jahrg., No. 14.]

1. The Theory of the Golgi Method. SCHMIDT.
2. The Morphological Changes in the Cells of the Anterior Cornua of the Spinal Cord during Activity. LUXENBERG.

1.—Schmidt, having convinced himself that the **staining reaction of the neurosomes** depends not upon chemic but upon galvanic activity, the different staining or impregnating substances collecting at the cathode, believes that this fact renders it possible to study the primitive nerve-fibrils by the Golgi method. He has been able to impregnate the nerve-cells of snails and other mollusks by this method in such a manner as to show rows of fine granules passing through the cells and losing themselves in the neuropil. In the central nervous system of vertebrates, however, the structure is so complex that it is impossible to demonstrate clearly the existence and nature of these elements. [J.S.]

2.—Luxenberg, after a brief review of the previous work that has been done in reference to the **changes that occur in irritated nerve-cells,** reports the results of a number of experiments upon dogs. The technic was as follows: Under narcosis, the vertebral canal was opened, and section made through the spinal cord above the centers of the lower extremities, and another section made through the lower part in a saggital direction for the purpose of separating the two halves. One of the crural nerves was then exposed and irritated for about an hour with a faradic stream of such strength that marked contractures were caused in the muscles. The sections were stained with methylene-blue and thionin. Certain changes were found in the spinal cord that were unilateral, particularly a loss in the chromatin substance of the cells, which became more finely granular than before. The protoplasm in some of the altered cells appeared as if torn or broken, and finally the nucleus became surrounded and filled with small granules. In all cases, the protoplasmic processes showed considerable alteration, and in some cases seemed to disappear. He concludes, therefore, that the chromatin substance constitutes a supply of potential energy, and that the activity of the motor-cells is associated with certain changes that are manifested in its destruction. In the course of these changes, neither the cells nor the nucleus are altered in size nor does the nucleus change its position. The nucleolus, however, becomes somewhat enlarged. The protoplasmic processes as well as the chromatic and achromatic substances partake of these changes. [J.S.]

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.

Hen's Eggs in Infant-feeding.—A. C. Cotton (*Journal of the American Medical Association*, June 3, 1899) in discussing the artificial feeding of sucklings, states, that with all due appreciation for our advance in hygienic dairies and milk laboratories, he, with many others, has frequently found cases in which no modification of cow's milk whatever met the requirements of the case. It has not been difficult to prepare synthetically an emulsion which contained all the elements of nutrition found in mother's milk. The greatest difficulty is found in the inability of the infant to digest the albuminoid containing so large a percentage of cow-casein. While the employment of egg-albumen to supply the necessary proteid in infant food is by no means a new idea, he believes that too little attention has been given to egg as a substitute for the indigestible proteid of cow's milk. Physiologists are in general agreed as to the food-value of eggs, and the desiccated egg of commerce is now a well-known staple. Long before the writer began his observations in this line of feeding, many contributions were made to the literature on the subject. In many cases, however, the egg-albumin mixed with water was resorted to only in cases of extreme gastrointestinal intolerance of other forms of nourishment, and was discontinued upon the subsidence of acute symptoms. By others, standard preparations containing egg were recommended, and, in some instances, patented as the best food for babies. The incompleteness of the food in the former class of cases and the inadaptability of the arbitrary formula to the varying requirements of different patients in the latter account for the limited adoption of this article of diet.

In discussing this subject he has met with the following objections to the use of egg: (1) scarcity; (2) unsoundness or instability; (3) coagulability, and (4) expense.

No one will deny that the geographic distribution of available ovipara is more widespread than that of mammalia whose milk is suitable for infants. As to unsoundness, does any one suspect that the newly laid egg harbors the infection which is so frequently found in fresh milk? Handle the egg with but half the hygienic precautions which now attend the manipulation of milk, and it will prove much superior in its soundness and freedom from germs of infection and decomposition.

To the objection to the egg because of its ready coagulability at a somewhat low temperature, he replies that high temperature is not more essential in the use of aseptic egg in baby food than in that of sterile milk. It has been sufficiently demonstrated, he believes, that when the milk-supply is properly guarded by sanitary precautions, sterilization, or even pasteurization, is worse than useless, because it lessens the food-value. But for those who still prefer pasteurization, he states that a solution of egg-white in milk, properly strained and alkalinized, can be pasteurized without coagulation.

The objection as to expense is wholly without foundation in fact. Furthermore, as to the relative expense of securing immunity from contact-infection in eggs and milk, the showing is overwhelmingly in favor of the former.

He does not wish it understood from the foregoing that he prefers egg to milk as a food in its entirety, or that he would drive the cows away from the babies with a flock of hens. He believes a good nutrition may be maintained in nurslings by a proper combination of ingredients, such as olive-oil, grape-sugar and egg-white, with the requisite proportions of sodic, potassic and phosphatic salts in aqueous solution; or that some of these essentials may be obtained from starch; from cereals by a proper action upon their starch and a proper solution of their gluten and salts; or from meats rich in proteids properly abstracted. Many of these efforts at substitute-feeding—peptonization, pancreatization and partial predigestion have proved successful in certain especial cases. It is not his purpose, however, to inveigh against the use of milk. On the contrary, he considers cow's milk as the most accessible source of most of the constituents of baby food, and believes it should be made the basis from which, by proper modification, we may prepare an emulsion to meet the requirements of any particular case. It is to the use of the easily assimilated albumin obtained from the hen's egg in place of the indigestible cow-casein that he desires especially to call attention.

Having for a number of years experimented with egg combination in infant-feeding, he encourages the advent of the milk laboratory as the best means of carrying out the idea of substituting egg-white for the indigestible curds of milk-casein. His case-records, he states, both in hospital and private practice, afford increasing encouragement, and he finds that the objectionable features raised by some observers, namely, flatulency and bad odor of stools, subside when the quantity of egg is modified to meet the requirements of the particular case.

[We heartily endorse Dr. Cotton's views. This subject certainly merits more attention than it has received.]

Climacteric Melancholia.—J. Handfield Haslett (*Treatment*, June 3, 1899) says: "With regard to treatment the first principle is change of scene and environment. Take the patient out of her old groove and away from her friends, but don't send her to travel, because it is now well established that movement from place to place is not only useless but positively harmful to an unstable brain. Send her to the seaside, or, if she lives in town, into the country with one or two cheerful companions, for preference not relatives. Let her be in the open air a great deal, but short of physical exhaustion. The great point is to prevent morbid thoughts to become organized into delusions, and this is done by discouraging introspection and self-examination, and fixing the patient's interest on something outside her own personal condition. This can be accomplished in an early case by gentle distractions, pleasant companionship, and promotion of her physical health. For insomnia try the open-air treatment, or a warm bath at night, but avoid all hypnotics as long as possible. If you are obliged to use drugs from persistent helplessness, try paraldehyd, beginning with ½-dram doses and going up to 3 drams if necessary. It is the least harmful, and perhaps the most efficacious. The nutrition of the patient is of the utmost importance. Often, owing to menstrual flooding, or insufficient food, or from extraneous causes, the patient is wasted and anemic. Again, the delusion that the food is poisoned, or that the patient is unworthy of it, will prevent a woman from taking it, and when this is the case nothing short of artificial feeding will give her a chance of recovery. On examination the tongue will be found flabby and thickly coated, and there will be acid eructations, and perhaps vomiting, and you may think that the patient has some gastric disorder, and requires delicate dieting; this is not so. The condition is due to defective innervation of the alimentary tract. After giving the patient 10 eggs a day, with 2 quarts of good milk, a couple of pints of strong soup made with vegetables, and perhaps a little brandy if the heart is weak, and an occasional dose of epsom salts, in a week or two the tongue will become perfectly clean, the patient will begin to put on weight, and as there can be no mental improvement while the general condition is bad, it will be found that the depression and insomnia are becoming less. In nine out of ten climacteric patients the general nutrition is unsatisfactory, and if this steadily improves and no mental progress is made, the prognosis is bad; whereas until the general health is reestablished and the menstrual irregularity ceases, no improvement is to be expected.

"The diet should be plentiful and fattening. Restrictions are only to be placed upon meat, which may be taken in small quantities, but a diet in which meat largely preponderates is distinctly harmful. Of tonics, nux vomica and ammonio-citrate of iron are the best. Often the patient is anemic through profuse menstruation, and then if there is no excitement iron should be given, but when a patient is maniacal iron is strongly contraindicated.

"Frequently symptoms of impaired nutrition are very prominent, such as a greasy, sallow, pigmented skin, a tendency for scratches to become sores, obstinate constipation, with foul breath, and a desire on the part of the patient to pull out hairs or pick or rub her skin. Massage and the Weir-Mitchell treatment are very useful in these cases, and if there is much stupor, faradic electricity often does good.

"When the patient is very restless and agitated by day,

walking up and down, and wringing her hands, and especially when the skin is dry and harsh and the pulse hard, nepenthe is by far the best sedative.

"If the conduct of the patient appears to be dominated by her delusions or hallucinations, and there is any fear of suicide, it is wise to advise the friends to have her certified, but let *them* take the responsibility for the care and safety of the patient. It is easy enough for the doctor to give strict instructions regarding the patient's treatment, but he has no guarantee that they will be carried out, and if things go wrong the blame is sure to be thrown on him; this is perhaps the greatest difference between treatment in an institution and in a private house. When a woman is suffering from severe depression or remorse, is deeply self-engrossed, thinks she has committed some great sin and is unworthy to live, when there is great impulsiveness, and the will-power is absolutely *non est*, as in alcoholics, certification should be advised.

"If the physician is fortunate enough to be consulted before the above serious condition is reached, let him try removal from friends in the charge of one or two level-headed, even-tempered nurses of bright disposition, with plenty of fresh air and careful dieting. If this has failed and certification is decided upon, let it be done in a candid and straightforward manner. It is the greatest mistake to practise deception on this class of patient for the purpose of getting her to leave her home quietly, because when she finds out the truth, as always happens sooner or later, doubts and suspicions concerning her friends and doctor inevitably arise and help to delay her recovery."

General and Local Bloodletting in Children.—Baginsky (*Berliner klinische Wochenschrift*, No. 35, 1898), states that there are only two conditions in childhood in which local bloodletting is indicated, and these are simple convulsions, and uremic convulsions. When simple convulsions do not yield to ordinary remedies—warm bath, bromids, chloral, ice, chloroform—local bloodletting may be employed. Baginsky states that he feels justified in recommending this treatment, since he has repeatedly found in fatal cases of this kind marked cerebral congestion. In uremic convulsions local bleeding is especially indicated on account of the high arterial pressure and the toxic and hydremic condition of the blood. In uremic eclampsia leeches to the head are often productive of strikingly beneficial results. General bloodletting he has found useful in croupous pneumonia, attended by marked dyspepsia and cyanosis, and in heart-disease, when suffocative asthma and cyanosis are present. The writer reports a case of lobar pneumonia in a girl of 7 years, who was cyanotic and pulseless, in whom he opened the left radial artery and abstracted 80 cc. of blood. The patient subsequently made a complete recovery.

The Treatment of Retropharyngeal Abscess.—The *Annals of Gynecology and Pediatry*, for May, 1899, contains an excellent article by Bokay, of Budapest, on retropharyngeal abscess, which has been translated by Dr. Edward M. Plummer. As to the treatment of this affection the author remarks that immediately after the appearance of the first signs of retropharyngeal lymphadenitis, a bladder of ice, or cold compresses should be applied to the submaxillary region or the side occupied by the adenitis. If the tumefaction does not diminish under this treatment, and if soft places, indicating that suppuration is inevitable, are found, the ice should be replaced by Preissnitz's compresses, since by the use of warm poultices, which hasten suppuration, the abscess may be opened sooner. Painting the uvula and pharynx with iodin is no longer in use. From 1854 until the present time incision through the oral cavity has been in use at the Stephanie Children's Hospital of Budapest. For incising these abscesses the author recommends Schmitz's pharyngotome. The child is seated, with the head straight, on the knees of the nurse or mother, in such a way that its head and back are well supported against the chest of the person who holds it, and who, with her arms, encloses the body and arms of the little patient, thus rendering enveloping in a cloth unnecessary. An assistant, placed behind, holds the child's head, and exercises a moderate pressure with his fingers on the submaxillary and postmaxillary region, in order to immobilize the abscess as much as possible, and render its incision less difficult. After opening the mouth the index-finger of the left hand is inserted in the pharynx, to serve as a guide for the introduction of the pharyngotome or concealed bistoury held in the right hand. After carrying the instrument the length of the finger as far as the collection, it is forced into the most dependent part of the abscess. As soon as the incision is made the child's head is bent against its chest in order to facilitate the flowing of the pus through the pharynx and the mouth. To obtain a still more complete evacuation of the collection the index-finger is again introduced into the pharynx and a soft pressure from below upwards is made upon the deepest part of the abscess, the assistant at the same time pressing on the corresponding part of the neck. This little operation, very simple in itself, must be executed with a certain rapidity. If, by chance, the first attempt at incision miscarries, a second attempt should not be made until after a few seconds have elapsed.

In 1888 Burckhardt proposed to handle retropharyngeal abscess by an external incision, made opposite the pharyngeal cavity on the internal edge of the sternomastoid, even with the larynx. The principal objections that Burckhardt made to the oral cavity is that when the abscess is evacuated through the mouth it is difficult to keep the incision open, that postoperative treatment cannot be conducted antiseptically, and that the treatment of these abscesses does not correspond to the modern ideal of the treatment of abscesses in general. While admitting the justice of these remarks, Bokay adds that the objections made to the oral cavity have not, really, very great importance. As to the treatment of the abscess after operation, it hardly admits of anything else than washing the throat from time to time with water or a weak solution of boric acid, and the systematic expulsion of the contents of the abscess with the finger. He admits that Burckhardt's procedure seems destined to have a great future in the operative treatment of retropharyngeal abscesses of traumatic origin or consecutive upon an inflammation of the cervical vertebra.

Influenza.—Smith (*Lancet*) recommends the following mixture containing acetanilid and sodium salicylate:

℞.—Acetanilid	30 grains.
Spt. chloroform	2 drams.
Spt. camphor	1 dram.
Sodium salicylate	90 grains.

Water to make 6 ounces. One ounce to be taken every 4 hours until relieved.

The spirits should be added first, and then water by degrees. The mixture must be well shaken each time of taking.

Soluble Argonin in Gonorrhea.—Jellink (*Wien. med. Woch.*, No. 5, 1899, and *British Medical Journal*) describes a new preparation of argonin called "Argonin L." The disadvantages of the older argonin recommended by Jadassohn were its difficulty of solution and the ease with which it decomposed. The new argonin is easily soluble in cold water, and can be kept in solution for several months without decomposing. Also it contains 10% of silver instead of 4.2%. The writer uses a 1% for cases of both anterior and posterior urethritis. Cases of anterior urethritis were treated by injections thrice daily and retained for 5 minutes. Posterior urethritis was treated by instillation with Ultzmann's syringe. After disappearance of the gonococci, astringent injections of zinc sulfate were used, but the patients had also 3 injections weekly of the argonin. Frequent examinations of the urine were made, and the absence of gonococci and threads demonstrated. Other patients were treated with the old argonin, and the results showed the superiority of the new preparation.

Aspidium Spinulosum in the Treatment of Tapeworm.—Lauren (*Therapeut. Monat.*, April, 1899) states that in Finland, where tapeworm is common, aspidium spinulosum is preferred to felix mas. The author, being a sufferer from tapeworm himself, took a dram of the extract of aspidium spinulosum, and followed it 2 hours later with castor-oil. In an hour and a half he passed a worm (bothriocephalus latus) with its head, measuring 8 meters in length. There were no untoward effects. Schumann also administered the extract to 5 patients; in 4 the bothriocephalus latus was passed, the entire worm, including the head, coming away. In one case, segments of the mediocanellata were discharged. The extract of aspidium spinulosum can be obtained from E. Merck.

Original Articles.

NEPHRECTOMY vs. NEPHROTOMY.*

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of Cincinnati, Ohio.

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Renal surgery is essentially the product of the past 20 years. The occasional operations on the kidney performed before that, paved the way for a clearer appreciation of the conditions demanding operative relief. Betterments in the modes of examination, and the consequently greater accuracy in diagnosis, the recognition of the early gross changes wrought by disease as seen by operation rather than by autopsy, and the comparative safety of incisions through healthy kidney-tissue have brought to the fore the element of safe conservatism in the domain of renal surgery. Indiscriminate removal of the kidney has given way, in properly selected cases, to sparing measures, as amputation has been largely supplanted by less mutilating operations on the extremities.

When your committee honored me with the request to present the subject, "Nephrectomy *vs.* Nephrotomy," they wisely limited its scope. Seemingly the entire class of renal neoplasms is *a priori* excluded from consideration. Nevertheless, I desire to present the following case, for its rarity, and the lesson it preaches for early interference.

R. M. A., aged 47, admitted to Jewish Hospital, October 14, 1898. Family history negative. Has had the ordinary diseases of childhood. For the past 15 years has suffered occasionally from pains in the right side, which often continued 2 or 3 days. During the past 15 years, his urine has for the most time been very cloudy. Has never had any blood in the urine. Seven years ago the patient had what was called a bilious fever, associated with severe pain in the region of the gallbladder. About 3 years ago had a similar attack, which lasted about 9 months. With the exception of passing very cloudy urine, the patient seemed well until last July, when the present illness began with very severe pain in the right side and the development of fever. He has gradually grown worse since, notwithstanding internal medication. Has lost about 30 pounds in weight. The pain is now continuous, heavy, and dull.

Physical Examination.—General emaciation; heart and lungs normal; liver and spleen normal. In the right side of the abdomen is found a large swelling, distinct fluctuation in the loin and dulness as far forward as the right semilunar line. Downward the swelling extends to near the crest of the ilium. The tumor presents no distinct nodules and is firmly fixed. There is edema of the skin in the costoiliac interval.

Temperature in the evening 103°. Pulse varies from 108 to 120. Urine passed in 24 hours 480 cc.; color light; reaction acid; large amount; albumin present; sediment profuse; pus-cells numerous; few red discs; no tubercle-bacilli found.

Diagnosis—Calculous pyonephrosis and perinephritic abscess. Operation, October 18, under chloroform-anesthesia, an oblique incision 4 inches long being made over the most prominent part of the swelling posteriorly. Before the kidney was reached a large abscess was opened and vent given to nearly a pint of very fetid pus. An incision into the kidney was made, but owing to the condition of the patient an extensive exploration was not deemed advisable. The sacculated condition of the organ was established. Drainage by large tube. During the first 24 hours after the operation the patient passed 480 cc. containing blood and pus-cells.

From this operation the case seemingly progressed towards recovery for 6 or 8 weeks. The tumor subsided considerably. The temperature had returned to normal and the pain had entirely disappeared. On December 28, 1898, the patient reentered the hospital with a return of symptoms. His emaciation had progressed and vomiting was added to the other symptoms. The temperature was 101.5° in the evening, with pulse varying from 100 to 120. The tumor in the loin now presented in distinct nodules which aroused strong suspicions of a secondary neoplasm. Dr. C. A. L. Reed saw the case in consultation. Fully appreciating the gravity of the condition, the patient submitted to a second operation, January 2, 1899. Incision along the line of the old scar prolonged toward the iliac cyst. After exposure of the kidney and the fistulous opening remaining at the first operation, the finger inserted through this opening detected a very large stone filling the pelvis. About it were large soft masses of a malignant tumor. On exposing the kidney the involvement of the pararenal tissues by the malignant process was established. The adhesions of the growth to contiguous parts were so dense that in the condition of the patient an extirpation would have been immediately fatal. With drainage established, the wound was closed. This operation was an incomplete one, and the patient succumbed 48 hours after the operation to shock and hemorrhage.

While the diagnosis of pyonephrosis was made and its calculous origin suspected, the presence of neoplasm was not seriously considered until shortly before the second operation. The size of the stone confirmed the view that nephrolithiasis and pyelitis had been present many years. When the malignant disease supervened it is impossible to state. From the rapid failure in health during the past 12 months it is reasonable to infer that its growth did not antedate that period. While enough cases of renal calculus associated with carcinoma have been recorded to establish an etiological relationship, I have found only few other cases in which pyelonephrosis was operated for and carcinoma with calculus found.

Hydronephrosis.

Of the purely mechanic distentions of the kidney with aseptic contents, three cases have come under my observation for operation.

Mrs. A. L., referred by Dr. Adams, admitted to the Jewish Hospital, October 2, 1891, aged 42 years, mother of 4 children. Since her second confinement has had pain in the right loin, often of a colicky nature. Tumor discovered in the abdomen about a year ago. Patient states that it varies in size and some in position. With decrease of tumor blood has been found in the urine on three occasions.

Present Condition.—Well-nourished woman; menstruates regularly; lungs and heart normal; urine normal in amount, but contains a few leukocytes and epithelial cells. In the right lumbar region a tumor the size of a fetal head can readily be made out. It can readily be displaced into the loin. Ballottement very marked.

Diagnosis.—Movable hydronephrotic kidney with suspicion of stone. Operation was had October 14, 1891, performing a lumbar nephropexy by oblique incision. When the kidney was exposed it was aspirated and a little over ½ pint of clear, very light-colored fluid was removed. Suspecting a stone, an incision was made into the sac. No stone was found. Flattening of the pyramids was quite marked. An effort to catheterize the ureter failed. The nephrotomy-wound was left open but not drained. The kidney was anchored by its capsule to the muscles and fascia. The wound was closed except over the wound in the kidney where it was drained. The recovery of this patient was uneventful except for a

* Read before the American Surgical Association, Chicago, June 2, 1899.

urinary fistula which discharged less and less for about two months, when permanent closure took place.

Of traumatic hydronephrosis I have seen but one case, with Dr. W. F. Taylor. It occurred in a robust man of 35, who sustained a severe fall, producing fracture of the left lower ribs. During 48 hours after the injury the urine contained considerable blood, often clotted. Within three weeks a fluctuating swelling developed, with all the physical signs of hydronephrosis. I saw the patient 2 months after the injury. Aspiration had already been performed twice. These aspirations were repeated at gradually lengthening intervals, and eventuated, I have been informed, in a permanent cure. Quite recently I saw, with Dr. H. W. Bettman, a case of hydronephrosis without discernible cause. Thirteen aspirations had been done, mostly transperitoneal. As much as four quarts of fluid were often removed at a time. The patient was able to follow his vocation, and, therefore, refused any more medical interference.

If it should come to a question of nephrectomy, the difficulty would be obviously enhanced by the transperitoneal tappings which had been performed. In all the cases when transperitoneal nephrotomy has been done the secondary nephrectomies were most difficult. In the treatment of hydronephrosis by lumbar nephrotomy, I have had but one experience. It was in a woman of 43. The cause for the condition could not be detected. A fistula continued to discharge during a number of years without influencing the patient's health. An effort to look her up recently failed.

In only one case of hydronephrosis have I had occasion to perform nephrectomy. The case was that of a man, 27 years of age, referred to me by Dr. Stewart. The tumor had developed 15 years, and probably was of congenital origin. It had been aspirated many times. On several occasions syncope supervened while the fluid was being drawn off. It was not unusual for a gallon to be drawn off at a tapping.

The operation was at the Jewish Hospital, November 3, 1889. Nephrectomy was done by incision in Langenbuch's line. From numerous punctures the fascia surrounding the sac was densely adherent. The dissection was most tedious and difficult. Very free oozing attended the operation throughout. After the exposure of the anterolateral surface of the cyst it was tapped and the sac brought into the wound. To save time the pedicle was clamped. As it was, the operation lasted two hours. Exitus from shock and hemorrhage occurred 36 hours after operation.

Hydronephrosis is a condition due to the obstruction of the outflow of the renal excretion. Therefore, since Kuester, in 1891, showed his first successful operation on the ureter for the relief of hydronephrosis, efforts have been made whenever feasible to remove the cause. Noteworthy in this connection is the work of Fenger, presented to the Association in 1894.[1] Twelve operations have been performed, with two deaths—one from intestinal obstruction (Trendelenburg) and one from anuria due to bilateral disease. In two of the cases (Van Hook and Morris) nephrectomy had finally to be practised.

When an operation is indicated for hydronephrosis, choice must usually be made between incision and extirpation of the sac. Considering the tendency to involvement of both kidneys, nephrotomy should, I think, be considered the normal procedure until some simple and safe aid shall be devised to assure us of the sanity of the other kidney. According to Morris's statistics of acquired hydronephrosis, 36 cases were unilateral and 106 were bilateral. According to the larger tabulation of Newman of 665 cases of acquired disease it was unilateral in 217, bilateral in 448. In the congenital cases the proportion of bilateral involvement is about the same. Nephrotomy is not a dangerous operation. According to White,[2] of 18 nephrotomies done for hydronephrosis by different operators, none proved fatal. According to Freitag,[3] recovery follows incision in 30% of the cases without fistula. When considerable renal parenchyma is preserved tentative nephrotomy is indicated, to be followed after a short time by secondary nephrectomy for the relief of the fistula if a plastic operation on the pelvis or ureter is not feasible or has failed. For the relief of very large hydronephrotic sacs, in which the remnant of kidney-tissue has lost its function, primary nephrectomy should be made, provided the other kidney is normal. This is almost always the case when there is a hydronephrosis of large size and many years' duration. The nephrectomy is here reduced to the enucleation of a thin fibrous sac.

Acute suppuration of the kidney.—The kidneys being among the emunctories for the elimination of septic material from the blood, it is remarkable that suppurative processes in them are not oftener found in the wake of acute infections. When they do occur, they are often masked by other manifestations of a grave infection. This is generally bilateral, although unilateral involvement is far from rare. The abscesses are multiple and in the cortex. The cases which would be proper for operation are necessarily few, yet 4 have come under my care.

CASE I.—Joseph L., aged 19, seen with Dr. Eichberg. Patient had gone through a typical typhoid fever of 3 weeks' duration without complication. Remained without fever during 3 weeks, when a chill supervened, and was followed by a continuous fever with morning remissions. Severe pain in the left loin. No symptoms on part of urine. I saw the patient 2 weeks later, when a marked enlargement of the kidney could be made out. The urine was free from pus throughout. Operation June 14, 1892, under chloroform-anesthesia The left kidney was exposed by lumbar incision. The perirenal fat was markedly edematous When the kidney was exposed 2 fluctuating areas were felt in the convexity, one near the upper pole, the other near the center of the gland. Both were incised. The abscesses did not communicate with the pelvis. This patient recovered rapidly, although for a year a uropurulent fistula continued to discharge

slightly. There has been no relapse, and the patient continues in perfect health.

Case II.—Mr. M. F., aged 39, clerk. History of gonorrhea 4 years ago. Acute course without complications. Was well until 4 weeks before admission to the hospital, when the present illness began with severe pains in the back and left side of abdomen, dysuria and fever. Has had one severe chill. He never had a similar attack.

Present State.—Well-nourished male. Thoracic viscera normal. On the left side an enlargement of the kidney can readily be made out. Indistinct fluctuation elicited by bimanual examination. Tumor seems to descend on deep inspiration.

Urinanalysis —Urine always acid, contains pus, no red blood-cells, tubercle-bacilli absent. Operation at Jewish Hospital, Aug. 3, 1890, nephrotomy by oblique lumbar incision. About ½ pint of very fetid pus was evacuated. The kidney was very much lobulated. No stone was found. Drainage with rubber tube. During 3 weeks most of the urine was discharged through the drain. In a change of dressing the tube was accidentally removed and could not be replaced. Recurrence of fever. September 3, wound was partly opened and metallic tube inserted. November 11, 1890, patient discharged from the hospital with a uropurulent fistula. I have since learned that a part of the tube had to be removed after the patient left the hospital. A few years ago, I heard from the patient; he continues well without a fistula.

Case III.—Mrs. F. J., aged 29, seen with Dr. Palmer, in October, 1886. Mother of 2 children. Has suffered much from the bladder since her last confinement. Was about her work until a month ago, when she began to have severe abdominal pains, and observed a swelling in the lower abdomen to the right of the umbilicus. During 3 weeks has had more or less continuous fever and several chills.

Present Condition.—General condition profoundly septic. Dysuria very marked. Urine loaded with pus. Quantity could not be measured. In the right side of the abdomen, extending from below lower border of the liver to the crest of the ilium, there is a fluctuating tumor, very sensitive to touch. It was the size of a double fist. Tumor fixed in position. Vaginal examination negative.

Operation.—Incision in linea semilunaris. Tumor when exposed proved to be a malplaced suppurating kidney. Transperitoneal nephrotomy was therefore done. The operation did not relieve the septic condition, to which the patient succumbed 9 days after the operation.

A fourth case of acute suppuration which involved both kidneys has been elsewhere reported. On one side a small calculus was removed by nephrotomy from a suppurating kidney. The symptoms were of three weeks' duration. Four weeks later the other kidney developed an abscess, in consequence of which total anuria supervened. Nephrotomy was performed and vent given to an ounce of very fetid pus. This patient has recovered, except for a bilateral renal fistula. Practically no urine has entered the bladder in five years. The patient is in excellent health and has persistently refused all operative measures for the relief of his fistula. The right kidney secretes less than one-fourth of the total amount of urine.

I have here presented four cases of acute suppuration of the kidney which were saved by nephrotomy. In the last case a nephrectomy on the side first operated upon would certainly have been followed by death. Although it contained a stone, this kidney excretes twice as much as its fellow that was secondarily involved. In the one case in which nephrectomy was performed no other procedure was practicable, owing to the fixed position of the gland in an abnormal position. The general sepsis was so marked that a nephrotomy, if it had been feasible, would not have averted death. In acute abscess and pyelonephritis, nephrotomy should, I think, be considered as a routine procedure. The frequency with which these acute processes are bilateral militates against nephrectomy.

The case above reported is not unique. Lilienthal recently saved a patient by nephrectomy on each kidney, multiple abscesses being opened by the operation. The condition of these patients is usually such that the necessary examinations, cystoscopic or otherwise, to determine the condition of the other kidney cannot be made. This applies equally to the true pyelonephritis or surgical kidney. Here nephrotomy appears to me likewise to be a procedure preferable to excision as originally advocated by Weir in 1894.[4] In Weir's case the kidney contained many miliary abscesses and hemorrhages, and was beyond salvation at the time of operation.

The cases cited appear to me to plead forcibly for the early operation in suppurative diseases of the kidney. Besides giving vent to pus the nephrotomy, by relieving tension, limits the disease and insures as far as possible the salvation of the viscus. It is applying to the kidney the surgical principles that guide our treatment in other inflammatory processes confined within unyielding membranes, like the periosteum or the fasciae of the neck. In this connection it may not be amiss to refer to the admirable suggestion of Reginald Harrison, of extending the field of nephrotomy to nonsuppurative cases. In three cases of acute albuminuria the operation was followed by success.

In a recent contribution Oscar Bloch,[5] of Copenhagen, advocates nephrotomy for diagnostic purposes in diseases of the kidney that are not strictly surgical. He removes a small portion of the organ for microscopic examination. In three of his cases he demonstrated that there was not a neoplasm, but a parenchymatous nephritis. When a nephrotomy is indicated, the excision of a portion of the gland for examination cannot add to the danger of the operation. Except in this regard, the operation ought not in my judgment to be advocated.

Chronic Pyonephrosis.

In contrast with the acute suppurations of the kidney-tissue and pelvis, hitherto considered, are those which from the beginning display a tendency to a more or less chronic course. Whether the result of a renal calculus, of an ascending infection from the bladder, or from causes beyond our knowledge, many months and often years are allowed to pass before surgical relief is sought. In the consideration of the subject "Nephrectomy vs. Nephrotomy," I have deemed it wise to consider these cases as distinct from those of acute type. These cases, as a rule, do not present emergencies for immediate relief, and they can therefore be better studied in regard to the functional equivalent of the

other kidney preliminary to nephrectomy. Furthermore, the more chronic the disease demanding an operation, the more favorable is the prognosis, since under these circumstances the sister gland has probably developed a double functional capacity. Of chronic pyonephrosis I have had but two cases, both of calculous origin.

CASE I.—Good Samaritan Hospital, September 20, 1894. Mrs. W., aged 43, married. About 7 years ago the patient was sick with acute renal pains, followed by discharge of pus and blood with the urine. Since the first these attacks were invariably limited to the left side. The present attack, like previous ones, began suddenly with the sense of weight and fulness, and the detection of a swelling.

Present Condition.—Fairly nourished woman. Temperature in the morning normal; in the evening 100°; pulse varying between 80 and 100. On the left side, the kidney enlarged to the size of a doubled fist, can be clearly outlined in its lower segment. It presents itself as a rather movable tumor in the costoiliac interval, not reaching the iliac crest.

Urinanalysis.—Urine, often examined, turbid, light in color, and containing a sediment rich in pus-cells and crystals of oxalate of lime; a few red blood-discs in every specimen. Very many examinations failed to reveal the bacillus of tuberculosis.

Diagnosis.—Movable kidney, with recurring pyonephrosis, probably of calculous origin. Right kidney determined to be normal by cystoscopic examination.

Operation September 28. Chloroform-morphia narcosis. Incision parallel to last rib. Exposure and fixation of kidney. Removal, by incision, of about a pint of fetid pus. Kidney sacculated. In lower portion an adherent calculus was found and removed with some difficulty. Irrigation and drainage. The patient's temperature varied from 101° to 102.5° from the third day for a week. Profuse discharge necessitated daily dressing. November 27, patient was discharged in good condition, with renal fistula and drainage-tube. During 2½ years following nephrotomy, the patient continued in fair health. Occasionally she suffered severely with a closure of the fistula until drainage was reestablished. On May 6, 1896, she reentered the Good Samaritan Hospital, and a secondary nephrectomy was made. Oblique lumbar incision, kidney small and contracted. Perirenal adhesions very firm. Enucleation difficult. Left hospital May 30, with slight fistula, which closed after a few months. She is now in perfect health.

CASE II.—P. J. P., male, aged 42, entered Good Samaritan Hospital October 31, 1898, having been referred by Dr. Whittaker. Family history negative. Since his eighteenth year, when he was injured in region of kidney, he had occasional attacks of pain of colicky character, followed by vesical irritation and frequent urination with bloody urine. Passed two small calculi a year ago. Urine has contained pus for 3 years. Has gradually become weak, having lost 20 pounds.

Present State.—Patient is weak and emaciated. Lies in bed most of the time. Voice feeble and husky. Temperature ranges from 99.5° in the morning to 102° in the evening. Passes urine 20 times or more a day. Pain complained of over kidney and ureter. Urine is normal in quantity, turbid and muddy. Reaction neutral or faintly acid. Microscopic examination showed pus-cells in large numbers; pus-casts; small granular casts, tailed cells; no crystals. Examination as to tubercle-bacilli negative. X-ray examination negative.

Diagnosis.—Pyonephrosis of calculous origin. Nephrectomy, by oblique lumbar incision, November 14, 1898. Kidney found converted into thin-walled pus-sac. Little kidney-tissue left. Two smooth urate stones varying in size were found. One weighed 129, the other 32 grains. Patient made slow recovery, and left hospital with a fistula, which required dressing every few days. Has since regained his best weight. From the time of operation the quantity of urine approached the normal, the remaining kidney having doubtless long performed double duty.

There are few problems in surgery, concerning which, when there are only two solutions possible, opinions have varied so much as to the choice between nephrectomy and nephrotomy in pyonephrosis.

Nephrotomy *per se* is doubtless an operation nearly devoid of danger. When performed on a healthy kidney, as for stone, the mortality decreases more than 5%; when performed for suppurative diseases, the mortality rises. I have tabulated records of 78 nephrotomies for pyonephrosis, exclusive of tuberculosis, published within the last 3 years from various clinics; from Lotheissen, Morris, Thornton, White, Israel, Wagner, Hildebrandt, Johnston, and a few contributions of individual case-reports. Of these 78 nephrotomies, 17 were followed by death; mortality, 21.8%. In the hands of some surgeons the mortality has been very large. Four out of 5 cases were fatal in the Vienna clinic. Out of 6 cases of nephrotomies at the Roosevelt Hospital 3 died. On the other hand, Israel lost only 1 out of 8, and Thornton 1 out of 12. From the same sources I have tabulated 37 primary nephrectomies with 9 deaths, giving a mortality of 24.3%, and 17 secondary nephrectomies, with 7 recoveries and 10 deaths, a mortality of 58.8%. Here, again, the admirable results of Israel of 14 nephrectomies, with 1 death, head the list of successes.

A cursory glance at these statistics would indicate that the champions of conservatism in the treatment of pyonephrosis, among whom Wagner and Kuester deserve prominent mention, had the advantage of statistics. The mortality of 21%, however, is the immediate postoperative mortality. There is no way by which the latter death-rate can be established. In regard to the end-results after nephrectomy, the doubt does not obtain to the same extent, although in a number of cases recorded, nephrotomy on the remaining kidney had to be performed.

The most striking feature of these statistics is the very high mortality of the secondary nephrectomies. In hands so skilled as those of Israel,[6] the mortality reached 60%. Statistics appear to prove the falseness of the belief hitherto entertained, that secondary nephrectomy is a less dangerous procedure than the primary operation. According to Gross,[7] the mortality of removal of the kidney for suppurative disease is nearly twice as great as after nephrotomy, and a preliminary nephrotomy diminishes the risk of nephrectomy by more than 40%. The change that has been wrought in favor of the latter is, in a large measure, due to improvements in the operative technic and the increasing readiness on the part of the patients for earlier interference.

The advantages of nephrotomy for pyonephrosis are obvious: (1) it is an operation readily tolerated, even in patients greatly reduced by fever; (2) it permits one to determine the condition of the opposite kidney; (3) by it the saving of even a small amount of functionating kidney-tissue may throw the balance in favor of recovery. The second advantage is of least value.

Unless there is occlusion of the ureter, the nephrotomy will rarely prevent the flow of some of the excretion of the kidney into the bladder, so that the auxiliary means of establishing the condition of the other kidney must still be resorted to. Pinner[8] has recently made the suggestion of tamponing the upper end of the ureter through the nephrotomy-wound with a catheter for a few days, thus gaining, for the time being, the secretion alone of the opposite kidney.

Nephrotomy often fails to relieve the septic absorption except temporarily, because of the inadequacy of the incision as it is ordinarily made. In moderate distention of the kidney the loculation retains the original form of the common pelvis with distended pouches for the upper and lower poles. Drainage of one cavity cannot be long maintained through an opening in the other. Two separate incisions through the cortex are required or one long one. To this extensive incision, with fixation of the two halves of the renal tissue to the anterior and posterior lips of the parietal wound, Guyon and Albarran[9] have recently applied the term nephrostomy. If by its use the importance of a free incision and ample drainage were emphasized, the term would merit a place in the nomenclature of operations.

In dealing surgically with a pyonephrotic kidney, statistics can guide the operator only in a general way in the choice between nephrectomy and nephrotomy. A routine recourse to one or other operation is thoroughly unsurgical. It is here that each individual case must be treated on its merits. Above all things, it is unsurgical to make the nephrotomy the normal operation, with the view that if it fails, a secondary nephrectomy may at any time be done. The patient with a uropurulent fistula, feeling fairly comfortable or declining slowly in health, cannot easily be persuaded to a second operation until too late for it to be successfully accomplished. The presence of an imperfectly-drained suppurating kidney is of itself a menace to its congener, either by way of the circulation or by an ascending infection. While it is impossible to lay down positive indications for the one or other operations, I feel warranted in submitting the following propositions from my experience in renal surgery, and more from a fairly extensive study of the pertinent literature.

Nephrotomy is indicated in pyonephrosis (1) when the condition of the opposite kidney cannot be ascertained; (2) when the reduced condition of the patient will not permit the major operation if this is indicated; the nephrotomy is then but the preliminary step to be followed by nephrectomy as speedily as possible; (3) when the operation reveals the presence of considerable kidney-tissue, and an approach to the normal on the part of the pelvis and proximal portion of the ureter. Here a later ureteroplasty may assist the need of nephrotomy; (4) when there is evidence or suspicion of disease in the other kidney.

Primary nephrectomy is indicated (1) when there is a sound second kidney; (2) when inspection of the exposed kidney shows many or large pouches that cannot be successfully drained; (3) when there is little kidney-tissue left; (4) when an examination of the pelvis and proximal portion of the ureter makes it reasonably certain that a return to the normal cannot take place; (5) in paranephric and perinephric suppurations when the kidney acts as a valve, impeding successful drainage. (Israel.)

Renal Tuberculosis.

Of tuberculosis of the kidney, 7 cases have come under my observation. With one exception, I believe them to have been of the primarily renal origin.

Case I.—Mrs. P., aged 57, married. Referred by Dr. Ravogli. Admitted to Good Samaritan Hospital June 15, 1893. Patient states that she has had pain in the left kidney for 2 years. Micturition has long been more frequent than normal. Urine has frequently contained blood. She has had many attaeks of nausea and vomiting. Prior to admission to the hospital 5 ounces of pus was removed by aspiration. She has had some cough.

Present State.—Patient hectic and greatly emaciated. Urine turbid and flocculent, acid reaction when passed. Pale in color. Specific gravity 1010. Tubercle-bacilli found by sedimentation. Slight dulness over left apex. Expectoration. Left kidney palpably enlarged and moderately painful.

Diagnosis.—Renal tuberculosis. Operation June 17, 1893. Oblique lumbar incision. About 6 ounces of floeculent pus was removed from kidney by long incision. No stone found. Drainage by large rubber tube. External wound partly closed.

Subsequent History.—Patient recovered from operation, and after 10 days was enabled to leave her bed. A uropurulent fistula continued to discharge up to the time of her death, 4 months after the operation. Her end was hastened by intestinal tuberculosis.

Case II.—R. R. S, male, aged 46. Jamestown, Ohio. Admitted to Jewish Hospital October 24, 1893. Father died of old age; mother living. Some history of tuberculosis on father's side. He had no illness except typhoid fever 10 years ago. Present illness began in January, 1892, with pain in back and frequency of micturition. Has had a number of colicky attaeks, but none severe enough to confine him to bed. During the last 6 months he has emaciated rapidly. Urine always contains copious sediment. Has had 4 or 5 severe chills.

Present State.—Very much emaciated. Confined to bed most of the time. Temperature observed during 4 days before operation ranged between 99° in the morning and 102° in the evening. The urine varies from 32 to 48 ounces, is light in color, acid, and always contained abundant sediment. Tubercle-bacilli found by Dr. Evans. Cystoscopy showed bladder normal exeept for abnormal injeetion of the bas-fond. Ureteral orifices could not be clearly seen. But one examination was made, the condition of the patient not permitting further exploration. Lower pole of left kidney readily palpable through thin abdominal wall. It is very tender and enlarged. Right kidney not sensitive.

Diagnosis.—Renal tuberculosis. Consent was given for nephrotomy only. Operation October 29, 1893. Oblique lumbar incision. Kidney exposed and incised. Vent given to about three ounces of floeculent non-fetid pus. With the finger a number of locules were emptied of their cheesy contents. No stone was found. Fixation of kidney in wound and drainage. Subsequent history: Patient recovered from operation and was discharged from hospital December 22, with active discharging fistula. Death 7 months after operation from unknown cause.

Case III.—Mrs B., aged 28, seen with Drs. Johnstone and Dunham. Family history negative. In childhood had tuberculous arthritis of the knee. Ankylosis in faulty position. Nine months after confinement began to complain of great dysuria. During three months the symptoms indi-

cated disease of the bladder, for which irrigation had been practised by her first physician. About three months after inception of symptoms pain began in the region of left kidney. Associated therewith was a temperature never falling below 102°, and often rising to 103° or over in the evening. Urinanalysis by Dr. Dunham revealed a great variety of pus-formers and tubercle bacilli in large numbers. Left kidney palpably enlarged. Fluctuation very distinct.

Diagnosis.—Pyonephrosis of tuberculous origin. Operation by Dr. Johnstone. Oblique incision. Vent given to 6 or 8 ounces of cheesy pus. Kidney very much sacculated. Patient not in condition to bear nephrectomy. Tubular drainage.

Subsequent History.—Patient recovered slowly from operation with a fistula, which still requires two or three dressings daily. Has since developed pulmonary tuberculosis. Exitus a question of short time.

CASE IV.—B A, aged 27. Admitted to Jewish Hospital May 30, 1897. Family history negative. Patient had grip 4 years ago. About a year before admission had a severe attack of pain in region of right kidney that radiated towards inner aspect of thigh. Morphia necessary to relieve pain. Attack followed by nausea and vomiting. Had had many similar attacks since, the intervals becoming shorter. He is now rarely free from pain in the back. Has never passed any gravel. Has lost 13 pounds since illness began.

Physical Examination.—Poorly developed male, with facial expression of great suffering. Chest normal. Pressure on left kidney always very painful. Pain most marked just below center of last rib. No swelling perceptible. Urinanalysis indicated pyuria of renal origin. Never any crystals. Always a few red blood-cells. Negative as to tuberculosis. Two cystoscopic examinations were made, but were negative as to everything except the condition of the bladder. This was normal.

Diagnosis.—Nephrolithiasis.

Operation.—April 30, 1897. Chloroform-anesthesia. Oblique incision. Perirenal fat scant but dense. Kidney, when brought into wound, showed a depressed indurated area, seemingly cicatricial over posterior surface. When this was incised a cheesy fatty debris escaped and a cavity large as a hickory-nut exposed. This was thoroughly cleaned out with gauze. The walls of the cavity were quite rough and bled profusely. The connection with the infundibulum could not be demonstrated. So sure was I of the existence of a stone that the kidney was split along the convexity for exploration of pelvis and ureter. A stone was not found. The kidney was sutured and anchored in position. The abscess-cavity was packed with iodoform gauze. The patient recovered slowly, but was discharged from the hospital without fistula, June 6, 1897. He was still having occasional attacks of pain. When preparing this paper, I wrote to the patient as to his present condition. He is perfectly well, but passed a small "gravel" eight months after leaving the hospital. This was certainly overlooked at the operation. The cheesy deposit in the kidney was quiescent and accidentally discovered. I believe it to have been a quiescent tuberculous process.

CASE V.—F. N., aged 32, male, referred by Dr. Greiwe. Family history of tuberculosis well marked. Has been well until about 7 months ago, when he began to feel pain in the lower dorsal region, most marked on right side. Began steadily to lose flesh, until he is now about 30 pounds below his normal weight. Has in the past 2 months suffered from frequency of micturition and indistinct pain about the lower abdomen. Urine has been turbid for many months. After an exposure to a drenching rain began to have exacerbation of symptoms. Fever likewise developed.

Present Condition.—Poorly nourished man of hectic appearance. Temperature ranging between 101° and 103.5°. Confined to bed most of the time. Thoracic viscera normal, except for slight dulness in left apex. Right kidney distinctly enlarged and very painful to pressure. No evidence of genital tuberculosis. Urinanalysis by Dr. Greiwe. Urine turbid and flocculent, of pale color and acid. Specific gravity usually about 1012. Quantity passed within 24 hours slightly above the normal. Tubercle-bacilli found in almost every specimen.

Diagnosis.—Primary tuberculosis of the right kidney.

Operation 19,696.—Patient's condition precluded the use of the cystoscope. A preliminary nephrotomy was advised. Oblique lumbar incision. Kidney incised along convexity Vent given to 3 or 4 ounces of thick flocculent pus. Irrigation of cavity with salt-solution and drainage.

Subsequent History.—Patient rallied from operation, and was about the house within a week. Urine thereafter was at many times clear. Consent for nephrectomy could not be obtained. Patient died 8 months after, from exhaustion. The pulmonary tuberculosis became active and was the immediate cause of the fatal issue.

CASE VI.—Mrs. L. W., aged 33, Hamilton, Ohio. Admitted to Jewish Hospital November 24, 1896. Married 7 years. Has never been pregnant. Began menstruating at 18. Has menstruated regularly until 4 months ago, since which time there has been no flow. Two years ago noticed increased desire to urinate, particularly at night. No pain nor cloudiness of urine. Gradually became weaker and at times was hardly able to walk. Pain began a little over a year ago, most marked at end of urinating. Urine contained large sediment in which shreds were noticed. Pain in the back particularly at this time became severe. Has never passed blood. During two months has been treated by vesical irrigation without much relief.

Present State.—Patient much reduced. Temperature ranging from 101° to 103°, very irregular in course. Great tenderness in left kidney. Easily felt to be enlarged. Average daily quantity of urine for 4 days 1,460 cc. Urinanalysis shows pale urine, sp. gr. 1012, acid. Abundant powder-like sediment, contains some shreds, few epitheldal and red blood-cells and a profusion of pus-cells. Repeated search for tubercle-bacilli negative. Examination with Kelly cystoscope made twice. Bladder normal except for marked redness and abrasions about left ureteral orifice. No attempt made to catheterize the ureters.

Diagnosis.—Pyonephrosis, probably tuberculous. Operation December 15, 1898. Nephrotomy and drainage. Kidney enlarged to twice its size. Three or four ounces of flocculent pus escaped. No stone. Cavity sacculated with cheesy debris adherent to walls. Patient recovered well from operation, but after 3 weeks began to fail.

Nephrectomy January 17, 1897. Operation through line of old wound. Adhesions firm. Pedicle difficult to reach, and therefore clamped with forceps. Wound drained with iodoform gauze. The patient recovered rapidly from the operation and was discharged from the hospital with fistula, February 12. The fistula has since closed. After the lapse of two years the patient continues in perfect health.

CASE VII.—P. R. C., male, aged 42, married. First examination June 12, 1897. Family history negative. No history of gonorrhea. Eighteen months ago had a severe attack of cystitis, which had continued since in subacute form. During acute stage some hematuria. None since. Still urinates every hour or two. Since beginning of illness urine has been cloudy. Has had temperatures varying from 99° in the morning to 101° in the evening. No rigor; pain in the back has been quite severe at times, but never very sharp or radiating.

Present State.—Man of slight frame, rather emaciated. Slight dulness over right apex. Left kidney quite tender to pressure and decidedly enlarged. Right kidney not tender nor distinctly palpable. Bimanual examination easily made through relaxed abdomen. Examination for stone negative. Examination with cystoscope shows bladder normal except for great vascularization of trigonum. No ulceration discernible. Prolonged examination causes such bleeding that the ureteral openings could not be definitely made out. Urinanalysis, acid, very pale, sp. gr. 1,014. Pus-cells in abundance, some red discs in every field. Tubercle-bacilli found in considerable numbers in every slide. Patient entered Christ's Hospital June 26. Further examination as to quantity and quality of urine led to the diagnosis of primary renal tuberculosis of the left kidney with competence of right gland. Primary nephrectomy by oblique lumbar incision. The kidney when removed was quite twice its normal size. Eight or ten cavities, mostly within the parenchyma, and some of them not communicating with the infundibula, were found.

Subsequent History.—The patient recovered from the operation and the quantity of urine passed being 11, 23 and 36 ounces respectively. It was nearly clear. On the third day there developed an acute pleuritic effusion hemorrhagic in character, on the left side. This was aspirated on the second day. The chest refilled rapidly and death followed on

the ninth day after the operation. An autopsy could not be obtained.

Cohnheim, in 1882, first promulgated the view that tuberculosis of the kidney is of hematogenous nature, that the kidney is an eliminator for the tubercle-bacillus, and that their localization within it is the cause of the disease. Two forms have always been recognized, namely, miliary tuberculosis, which is always bilateral and only occurs as part of the general tuberculosis. It ordinarily is not recognized during life. The second form is that in which a greater or less number of tuberculous nodules are developed within the renal parenchyma and undergo the necrotic and secondary infectious changes common to tubercles elsewhere. Until Steinthal,[10] in 1885, demonstrated from autopsy-records that in one-half of 24 cases the process began in the kidney, renal tuberculosis was generally considered as a fatal sequel to disease of the testicle vas, prostate, or bladder. That it often is simply a factor of urogenital tuberculosis is shown by the investigations of Heiberg,[11] who found the proportion to be 29 of primary to 55 of secondary urogenital origin. The separation of the genital and urinary tracts eliminates in women the latter form altogether. Yet from a study of the operations of Morris[12] for tuberculosis of the kidney, 19 were in females and only 6 in males. Of Facklam's[13] table of 103 cases, 73 occurred in women. Of Bangs'[14] table of 133 cases, where sex is given, 73, or 55 %, occurred in women. Of my own 6 cases, 3 occurred in women. This is a potent argument in favor of the primary nature of renal tuberculosis, and that in most cases it follows a descending rather than an ascending course. In this fact alone lies sufficient justification for operative intervention in properly selected cases of unilateral disease. The fear of involvement of the other kidney, however well founded, should not defer from operation. Postmortem investigation anent renal tuberculosis has shown that when this is the case one kidney is more diseased than the other, and that when one may show the primary type, the other often presents the ascending form of disease. While it must be conceded that disease in the other kidney is only too often the cause of death after operation, this cause may be averted by earlier and probably even more so by radical intervention.

There is another signal argument in favor of operation. Tuberculosis of the kidney, like that of other organs, rarely if ever remains long unattended by infection with the ordinary pus-formers. That infection as a rule occurs early, is manifested by the varied bacteriologic aggregation seen in the urine. Indeed, in the old-standing cases, a pyonephrosis may altogether mask the true nature of the first pathologic condition. The ordinarily chronic course of a localized tuberculosis changes its base and becomes rapidly fatal from septic absorption. It is for this that intervention may become compulsory.

If operation is indicated what shall be done—nephrectomy, nephrotomy, or partial excision? However unsatisfactory statistics may be, they must be consulted whenever the individual experience is limited. The first extensive tabulation of operations for renal tuberculosis after the paper presented to this Association by Gross in 1885, was that of Facklam. Of 20 nephrotomies 5 patients died from the operation, 7 died within 3 weeks to one year, thus giving a mortality of 60%. The general mortality of nephrectomy is 28%, of secondary nephrectomies, 37.5%. According to Vigneron[15] the operative mortality of nephrotomy in 54 cases is 12%, the general mortality 38.18%. Albarran[16] reports on 12 nephrotomies with 1 immediate death; 7 died in from 3 to 7 months; 2 are living respectively 4 months and 10 days after operation, and only 1 has survived 2 years. A year ago Bolton Bangs tabulated 135 cases of renal tuberculosis which had been operated upon during the previous 10 years. In looking over his cases I find that the nature of the operation is stated in 127. Nephrotomy was performed in 36 cases, with 5 deaths. In 22 of the cases surviving, secondary nephrectomy resulted, with 14 temporary recoveries and 8 deaths; postoperative mortality of secondary nephrectomy 36.3%. In contrast herewith are the immediate results of primary nephrectomy; 91 cases with 71 deaths, mortality 18.7%. Albarran reports 8 nephrectomies with 7 recoveries, 5 ranging from $1\frac{1}{4}$ to $2\frac{1}{2}$ years. In his last report Israel[17] reports a total of 12 nephrectomies, including one partial resection. Eleven were primary. One died after operation. In only one-fourth of the cases did the nephrectomy remove all disease. In the remaining cases the bladder, ureter, or opposite kidney were involved. Nevertheless, a material improvement resulted. In at least 3 cases a complete recovery could be recorded. The very limited experience I have had with renal tuberculosis corroborates the teaching of these statistics. Of 3 nephrotomies 2 patients died and the surviving patient has but a short tenure of life. In the nephrectomy that recovered the prognosis is good. More than two years have passed and she is in excellent health. The partial resection may be likewise considered on the way to a permanent cure.

In renal tuberculosis, when operation is indicated, the following thesis may therefore be promulgated: (1) When the operation reveals a strictly localized lesion a partial excision or curetage should be done; (2) nephrotomy is indicated when uncertainty exists as to the condition of the opposite kidney or for the temporary relief of an acute sepsis and when the condition of the patient will not permit the major operation. It is then to be followed as speedily as possible by nephrectomy; (3) unless unusual conditions call for nephrotomy, it is not to be advocated for renal tuberculosis, it may even do harm by autoinfection; (4) primary nephrectomy should be considered the normal

procedure for renal tuberculosis when an operation is at all indicated.

Here it may be proper to direct attention to the latest triumph of conservatism in renal surgery, namely, the partial excision or resection of the kidney. Based on experimental research and on a few but demonstrative clinical cases, the removal of a portion of a kidney must be advocated under favorable circumstances. First performed by Czerny in 1887, it was through Kümmel[18] that the procedure was made more extensively known by a report of 3 cases. Cases have since been recorded by Waitz, Bardenheuer, Tuffier, Morris, and Nash. In these case-reports a distinction is not made between erasion and resection, for in some of the reports the incision and scraping of a tuberculous cavity, as in one of my cases, is considered as a partial nephrectomy. In addition to the 11 cases collected by Bloch[19] in 1896, I have been enabled to find records of 5 other cases. All recovered from the operation. So far as primary tuberculosis of the kidney is concerned, it seems certain that when consent for operation can be earlier obtained, cases will multiply in which a measure less radical than nephrectomy will be applicable. With few and well-localized lesions, erasion or partial excision may avert the need for a nephrectomy.

NEPHROLITHIASIS.

Four years ago[20] I published a series of 7 cases operated on for stone in the kidney. Since then I have had 1 additional operation for stone and 3 exploratory incisions, 2 of which proved negative and 1 showed a local tuberculosis. The success which has followed early operations for kidney-stone in the hands of many operators condemns the expectant plan of treatment, when the diagnosis is reasonably established, until suppurative pyelitis or pyonephrosis compels operations as a life-saving measure. The confidence of the profession at large cannot as yet be said to have been gained for operation for renal calculus. This is due to the frequency with which operations negative as to the finding of a stone have been made. In the paper above referred to allusion is made to 44 cases operated, with failure to find a stone. Were it in the line of the inquiry, that is, within the purpose of this paper, the number could doubtless be doubled by including case-reports of the last 5 years. It is noteworthy that in each of the 44 cases recovery followed the operation, and in many a permanent cure was effected. The operation, though it may fail to reveal a stone, often leads to the discovery of other pathologic conditions which simulate kidney-stone and are remediable by operation. It must, I think, be conceded that an absolute diagnosis of stone cannot be made unless by radiography. Even by the x-rays, although in a number of cases the stone has been discovered by oft-repeated exposures, it has failed in many. In a case I recently operated on, two uric-acid stones, weighing 89 and 4 grains respectively, were not shown in the negative. The increasing frequency with which stones are being located by fluoroscopy makes it probable that in time certainty will be obtainable in the diagnosis of renal calculus. This has not yet been accomplished. We are therefore compelled in large measure to rely on the classic clinical phenomena as indications for explorations, although no case ought to be operated on until one or more exposures to the Röntgen-rays have been made. The suggestion of Fenwick[21] to apply fluoroscopy to the exposed kidney will probably long remain little more than a suggestion by reason of technical difficulties.

It is certain that explorations of the kidney are practically devoid of danger. I have made 5 operations with results negative as to the finding of a stone. In 1 case I explored the kidney twice. I have personal knowledge of 2 other cases in the hands of my colleagues. In 1 of my cases a fistula caused some annoyance for 3 months. The patient continues well, although the operation was done some 6 years ago. An exploration with autopsy incision is less harmful than the continuance of a stone. Among surgeons, at least, it is fast becoming an axiom that the presence of a renal calculus is an indication for operation. Although it is usually attended with less suffering than stone in the bladder, it is fraught with greater danger to life. Here the source of destructive changes are already within the kidney, while in vesical calculus many years may pass before by an ascending process the kidneys are involved.

In the surgical treatment of renal calculus choice must be made between nephrolithotomy, nephrotomy, and nephrectomy. Nephrolithotomy should be the routine operation for stone in the kidney. By this procedure the stone is removed through an incision in the substance or pelvis of the kidney, and the wound of the kidney as well as of the overlying parts closed by sutures with primary union to view. Morris[22] has recently presented 33 such cases with one death; Tuffier[23] 8 cases without a death. Of my own patients but one died, and this as a result of intestinal obstruction due to pressure-paralysis from excessive packing of the wound with gauze. This was the second case of this nature to be recorded. The other occurred in the hands of Israel. The reason for the remarkably low mortality of nephrolithotomy must be sought in the natural tendency of clean kidney-wounds to heal by immediate union. Drainage is not desirable. This ideal operation is terminated by closely suturing the wound in the kidney with alternate deep and superficial sutures, traction on which should only be sufficient to keep the edges in apposition. Experimentally and clinically such sutures have been shown to be innocuous and the resulting scar-tissue involves only the immediate vicinity of the line of incision, provided larger vessels are not included.

How and where shall the kidney be incised in

nephrolithotomy? In answering this question two considerations must guide us: hemorrhage and the final result as to a cure without a renal fistula. Hyrtl,[24] so long ago as 1869, demonstrated by corrosive preparations that the kidney is naturally divisible into anterior and posterior segments, the blood-supply of each being independent of that of the other, after the vessels supplying them have been given off from the main trunk of the renal artery. Along the convexity of the gland, therefore, the longitudinal section made as in an autopsy would be least likely to wound a larger vessel. In 12 operations in which I have resorted to this sectional incision the hemorrhage, while free, was parenchymatous in all. To reduce even this to a minimum, the incision should not be made longer than is needful for the introduction of the exploring finger, until the kidney has been brought far enough into the wound to make feasible the compression of its pedicle by padded clamp, or preferably by the fingers of an assistant. This makes the hemorrhage nil, while the search for the stone progresses. Such compression has been experimentally maintained for half an hour (Tuffier) in animals without other effect than a transitory albuminuria. In an operation for stone, compression would rarely be needed during more than 5 minutes. The length of the incision must vary with the difficulties encountered in searching for and removing the stone. With a finger introduced into the kidney through a small incision in the center of its convexity, or two incisions nearer the poles, the separate calices can be as methodically explored as are the fingers of a glove. Only after failure of this method to find a stone does the complete division of the kidney from end to end, for ocular inspection as in a postmortem examination, seem justifiable. Incisions into the renal pelvis for exploration alone are to be avoided because of the obviously greater danger of hemorrhage and the dread of lacerating the pelvic wall beyond repair.

Renal fistulas are seen oftener after incisions into the pelvis than after nephrotomy proper, the ratio being as 20 to 3. Therefore, stones found in the pelvis of the kidney should, wherever possible, be removed through an incision in the cortex. In one of my cases a stone was found embedded near the posterior surface. In such a case a radial incision on to the stone, passing between the bloodvessels, is ample for its removal and not attended by severe hemorrhage.

While I believe that not a little importance attaches to the site of the incision in a kidney in every other way sound, Morris, who speaks from an experience of nearly 100 operations for stone, considers it quite immaterial whether a calculus be removed through the parenchyma or infundibulum. He writes, "I was formerly of the opinion that there was less chance of urine escaping and quicker healing of the wound when the incision involved the parenchyma only, but since employing sutures, I do not find that wounds in the renal pelvis or ureter heal any less readily." From a study of the tables of Morris, I can come to no conclusion as to the frequency of fistula after his operations.

So long as the kidney containing a stone remains aseptic nephrolithotomy should be the operation. In not a few cases, however, in which a marked pyelitis is present, suturing of the kidney is justifiable if the ureter is competent to act as a natural drain. When in consequence of irritation from and secondary infection due to a stone the kidney is enlarged and sacculated, nephrotomy and drainage are the procedures to be adopted. Four years ago I found the mortality of nephrotomy for calculous pyelitis and pyonephrosis to be 21%. Morris, out of 43 cases, had 10 deaths, a mortality of 23%. In view of the well-known great frequency with which the second kidney is involved in calculous disease (according to Legeu 38 times in 76 fatal cases), operative intervention in pyonephrosis of calculous origin should usually be limited to incision and drainage. Neither the branched form nor the size of the stone should weigh against conservatism. Stones weighing 2 ounces and more have repeatedly been removed by nephrotomy. Rovsing[25] has recently reported a case in which the kidney was saved after removing a stone weighing 148 grams. A fistula remained for a short time. It has happened in a few cases that the removal of very large stones was followed by such profuse hemorrhage as to demand nephrectomy to avert death by loss of blood.

Primary nephrectomy was the routine for suppuration of the kidney from stone until the memorable case of Morris was published in 1881. It is now reserved for the extreme cases of sacculated pyonephrosis when it is evident that the disorganization of the kidney is such that it cannot be recovered from, and where there is a minimum of renal parenchyma left. What was observed regarding primary nephrectomy for pyonephrosis finds practical application here. Other things being equal, however, a greater effort at conservatism should be made when the pyonephrosis is of calculous origin. Urinanalysis as to the excretion of urea ought certainly to help in determining the functional capacity of the other kidney. The prognosis of nephrectomy for calculous pyonephrosis has hitherto been bad. The statistics of Bardenheuer, Tuffier, and Legen making it about 40%. Out of 17 cases Morris lost 5, mortality 29%. With a better selection of cases and a greater regard to the condition of the opposite kidney, this mortality will doubtless be reduced.

A further reason for conservatism in the operations for renal calculus lies in the fact that with the removal of the stone the tendency to recurrence in the same or opposite kidney still continues. I need but refer to the many cases in which both kidneys have been operated upon at intervals varying in length from a few weeks to 4 or 5 years.

THE OTHER KIDNEY.

In the foregoing considerations, ample allusion has been made to the importance of the other kidney, if indeed there are two, before nephrectomy is undertaken. Uremia in some form or other is the cause of death in almost 50% of fatal nephrectomies. The statistics of Madelung in this regard I have had an opportunity to verify in the study of statistics and individual case reports of nephrectomies. The immediate mortality of the operation has been very greatly reduced in the hands of most operators within the past decade, and in part this reduction is ascribable to the greater attention given to the other kidney. Without some definite knowledge as to the functional capacity of the other gland, a diseased kidney ought not to be removed. It has been abundantly shown, however, that an absolutely sound remaining kidney is not a *sine qua non* of success in nephrectomy. By timely operation beginning disease in the sound gland has been known to be recovered from.

The sources through which knowledge is to be obtained in regard to the remaining kidney are many. To discuss them individually and at length is beyond the scope of this paper and of my ability, for with some I have had no experience. Within the last decade there have been devised special methods of examinations which tend towards the differentiation of the urine. They have made towards belittling the value of the older clinical methods of careful analysis of symptoms and oft-repeated examination as to quantity and quality of the urine as a whole. I think it right to insist, however, that with patient and careful attention to the history and symptom-complex, and diligent study of the urine, an approximation as to the functional capacity of the other kidney is possible. With an approach to the normal of the urine in specific gravity, in quantity and percentage of urea, it is reasonably certain that with one kidney badly disorganized the other must be in fair condition. With patience and care in the study of the urine a catastrophe is not likely to follow nephrectomy where there are two kidneys. Palpation is doubtless in this connection a valuable aid to diagnosis. In persons of spare habit, or those emaciated by disease, as is often the case in chronic renal suppurations, the kidney can at times be felt by bimanual examination after the method of Israel. In the great majority of cases, however, it leaves the surgeon entirely in the dark.

It is too early yet to conclude anything as to the positive value of radiography, although very much is to be hoped for from it in this field. In repeated exposures of three subjects the kidney left no shadow in the hands of Mr. Taylor, who has done this work for me. With improved methods and greater experience it can be predicted that skiagraphy will be of inestimable value in kidney surgery. Of the special methods of examination cystoscopy, either direct or by reflected light, should in my judgment be first considered because of the positive knowledge gained by it. Fenwick[26] has recently attempted to show how by its use the mortality of nephrectomy has been directly reduced. From the study of the cases I have reported, it will be evident that in a number of them it established the healthy condition of the bladder and the unilateral nature of the disease of the kidney. In a few of my cases it was of no avail. A few drops of blood in the bladder at times sufficed to obscure the field, which in my hands could not be cleared with the irrigating cystoscope. In this regard the examination with the instrument of Kelly is very much more profitable.

But under most favorable conditions cystoscopy can only satisfy us of the existence of two ureteral openings and, therefore, presumably of two kidneys, and from which there issue currents of urine, either normal or abnormal. While this is very much, it is not as much as is desirable. For this reason, efforts have been made of late to differentiate the urines either by catheterization of the ureters, after the methods of Nitze, Casper, Albarran, or Kelly, or by the ingenious segregator of Harris. Of catheterization of the ureters I have had no experience. In the hands of experts, even in women, it is often impossible of accomplishment. Furthermore, it is far from being devoid of danger. According to Hollander,[27] hemorrhage follows in 50% of the cases. The danger of infecting a thereunto sound kidney is consequently not remote. It is stated that Albarran has catheterized the ureters 700 times, and Casper[28] has a record of nearly as many operations. The latter claims not to have had any infections from the catheter, but Israel demonstrated that in one of his cases a renal neoplasm, removed 11 days after catheterization by Casper himself, showed miliary abscesses, the direct result of infection. Furthermore, Casper himself states that ureteral catheterization is contraindicated in renal suppuration attended by fever, and in tuberculosis. It does not seem probable, therefore, that ureteral catheterization for diagnostic or therapeutic purposes will long enjoy even a limited field.

More can be hoped for from the segregator of Harris.[29] By means of a double metallic catheter in the bladder, and a lever in the rectum or vagina, a water-shed is formed in the bladder between the two ureteral orifices from which the urines of the two kidneys are allowed to flow into separate vials.

My experience with it in two cases has been too limited to warrant an expression of opinion. Harris has used it in over 40 cases, and in a large proportion the demonstration of the functional capacity of the two kidneys was perfect. As the author himself states, the use of the instrument is limited to permitting a separate analysis of the urines, and that under many conditions, like distortion of the bladder, great hypertrophy of the prostate, or extensive ulceration, the instrument fails of its purpose.

It is not often that, with all or most of these methods of examination at our command, doubt will still be entertained as to the condition of the other kidney. Unhappily, in many cases in which delay would be fatal, or in which, from the reduced condition of the patient, repeated cystoscopic examinations, possible under anesthesia, would not be practicable, we must take refuge in the last recourse for obtaining a knowledge of the functional value of the kidney to remain. This consists in direct ocular and manual examination through an incision. The idea doubtless originated with Knowsley Thornton,[30] who, with others, claimed as one of the chief advantages of abdominal over lumbar nephrectomy, the opportunity it afforded for exploration of both kidneys.

On November 27, 1890, Fenger[31] first made a preliminary lumbar exploration of one kidney before resorting to nephrectomy for malignant disease of the other. In 1898 Edebohls[32] reported 3 cases in which this practice was followed. He believed this method of exploring the other kidney preliminary to nephrectomy original with himself. It doubtless is; but Fenger has the advantage of priority.

As between transperitoneal and lumbar exploration of the kidney alone, there can be no question as to the advantage of the latter in point of lesser gravity and greater facility of inspection of the kidney. In the Cincinnati Hospital, I recently had an excellent demonstration of the case with which in thin subjects both kidneys and ureters can be palpated by the transperitoneal operation. In fleshy subjects this procedure is of limited value. The signal advantage of this method is the information obtainable about the ureters. When nephrectomy is contemplated this is *per se* of less importance than a full knowledge of the kidney. This can doubtless be better obtained by the lumbar incision. Therefore, for exploratory operations to determine the presence and condition of a kidney the lumbar incision should be selected.

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CHRONIC EMPYEMA OF THE ACCESSORY NASAL CAVITIES, WITH REPORT OF 7 CASES.[1]

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Case 1.—Empyema of frontal sinus and antrum of Highmore. Operated upon externally.

In July, 1895, H. W. A., male, aged 63 years, a farmer, was referred to me with the following history:

He had a foul-smelling discharge from the left side of his nose for 15 years past. His head felt dull and at times pained him; during the last year these symptoms had gradually increased in intensity. For about a year a swelling would appear periodically on the left upper eyelid, beginning just above the inner canthus as a small nodule, and increasing to the size of a shellbark, when it would open and discharge pus. After pouting for some time the swelling would disappear, only to recur in a short time and repeat the cycle.

A probe introduced into the discharging sinus in the eyelid disclosed bare bone, with a bone-sinus in the anterior portion of the orbital process of the frontal, at a point half way between the supraorbital notch and the internal angular process. There was tenderness over the left frontal region. Pressure upon the tumor did not force pus through the infundibulum. He had a hypertrophic rhinitis, the turbinates were enlarged, especially the left, anteriorly. An electric light in the mouth showed greater opacity of the left superior maxilla than of the right, and it was thought that there was an empyema of the antrum of Highmore as well as of the frontal sinus.

Operation:—August 1, the frontal sinus and antrum were opened at the patient's home. The left brow was shaved and asepticised and the patient etherized. An incision was made from a point slightly posterior to the sinus, through it and across the supraorbital arch, inclining slightly upward over the glabella. The periosteum was laid back and the bone-sinus was enlarged with a large hand-gouge, toward the supraorbital arch, and continued across it, so that an opening was made through the angle of the arch into the sinus, 1 centimeter in diameter. A dram of foul smelling pus was liberated and the sinus was washed out with a saturated solution of boric acid, and packed with dry bichlorid gauze, 1 to 2000.

The antrum of Highmore was next opened through the canine fossa. The upper lip was forcibly drawn upward, and a horizontal incision was made extending from the center of the canine to the center of the first molar root about ½ inch above the margin of the gums. The periosteum was dissected loose above this line and the canine fossa bared. An opening, 1 centimeter in diameter, was then made through the fossa into the antrum with the hand-gouge. A dram of thick, foul-smelling pus was liberated.

No polyps, bare bone, nor other probable etiologic factors could be found in the antrum. The cavity was washed out with a saturated solution of boric acid and packed with dry bichlorid gauze 1 to 2000.

The anterior end of the left middle turbinate was then removed with the cold-wire snare, thus establishing communication between the frontal sinus and the nasal fossa. The headache and dull feeling in the head disappeared in a few days. The *treatment subsequent* to the operation was at the hands of the patient's family physician, and was as follows:

The gauze was removed 4 days after the operation, the cavities washed out and repacked. Subsequently the cavities were cleansed and repacked at intervals varying from 2 to 5 days for 5 weeks. At this time the discharge from the antrum had nearly ceased, and it was sweet and clean. It was not deemed safe, however, to allow the artificial openings to close; silver tubes were therefore introduced into the contracting openings.

September 12 there was very little discharge from frontal with very slight odor; antrum nearly clean; packing no longer used in the antrum, and but a small amount in frontal.

[1] Read before Section of Laryngology and Otology, College of Physicians, Philadelphia, March 22, 1899.

October 1, both cavities were dry and clean, and communication was established between frontal sinus and nose. Three years after the operation there had been no recurrence of any of the symptoms, although, as was discovered by chance, the patient continued to wear the silver tubes for many months after their usefulness had ended.

CASE 2.—Frontral and antral empyema. Intranasal radical operation. Mrs. B., aged 58, referred to me February, 1898. She complained of an excessive discharge of thick yellowish secretion from her right naris, which she had had for 20 years past. Recently the naris became stopped up most of the time and the condition was aggravated. No pain was complained of and there were no external signs of antral or frontal trouble. The nasal mucous membranes were hypertrophied and the right naris was filled with myxomatous polyps. The polyps were removed, but the discharge continued.

At a subsequent visit the antrum was aspirated through the inferior meatus by thrusting a Krause canula $\frac{3}{16}$ of an inch in diameter through the base of the antrum just above the floor of the nose (to clear the thicker base) and at a point about $\frac{1}{2}$ inch back of the anterior extremity of the inferior turbinate. The antrum was freed of a quantity of very offensive pus and washed as in Case 1. The bulbous anterior extremity of the middle turbinate was snared off under cocain.

Ethmoiditis was found to exist, the caries extending from the anterior extremity of the middle turbinate down the external wall of the meatus.

This region was thoroughly cureted, part of the unciform process being included in the curetment. An opening was thus made which communicated with the antrum on the one hand and the frontal sinus on the other. This opening was about a centimeter in diameter.

Subsequent treatment in this case consisted in syringing out the antrum and the frontal sinus with various mild antiseptic solutions (hydrogen dioxid or boric acid, or at times creolin solution) every other day for a week, then twice weekly for three weeks, then once a week until the discharge had apparently ceased two months after the first treatment. There has been no recurrence to date.

CASE 3.—Paracentesis of frontal sinus. J. L., male, aged 21, watchmaker, referred to me by Dr. P., complained of swelling on the inner part of the right upper eyelid and of water running freely out of this eye and over the cheek, together with a constant pain in the head. He said he had had "catarrh" for 4 years and the eye trouble for two years. There was a tumor above the inner canthus of the right eye, which began under the supraorbital ridge and extended along the anterior border of the os planum causing some exophthalmos. He had an hypertrophic rhinitis, and the septum was markedly deflected into the right naris, although it had been operated upon.

Operation.—January 17, under cocain (4%) anesthesia. A straight canula the size of a goose-quill was thrust through the anterior extremity of the middle turbinate and into the frontal sinus or the anterior ethmoidal cells which connected freely with the frontal sinus—care was taken not to go above the nasion with the tip of the trocar, which was directed as nearly forward as possible. A dram and a half of foul-smelling pus was aspirated from the frontal. The swelling in the lid was reduced by pressure, the pus passing from it through the frontal sinus and the artificial opening into the nose. After aspirating, a warm solution of boric acid was gently injected into the sinus, which was again aspirated and reinjected with a solution of hydrogen dioxid and water 1 to 3, which was in turn washed out by a warm solution of boric acid. The anterior extremity of the middle turbinate was snared off, and a few strands of silk were tucked into the opening made by the canula

There was slight discharge of pus through the opening from the middle turbinate for about three weeks after the operation. The sinus was aspirated and syringed with boric-acid solution daily for 4 days, then every second or third day for about two weeks when the pus ceased to appear.

February 3, the septum was straightened and two weeks later the patient was discharged cured. There had been no pain and no epiphora since the operation and the swelling in the eyelid has not recurred.

CASE 4.—Empyema of the posterior ethmoidal cells; removal of posterior extremity of ethmoid. Cure. Mr. X., referred to me from Dr. Cleveland's clinic during his absence in the summer of 1897, complained of foul discharge from left naris which had lasted for some months. He had intense pain over the right side of the head and face. He had hypertrophic rhinitis, the left naris was closed up tight by the swollen turbinate and a whitish, curdling discharge. The left middle turbinate was especially swollen posteriorly, and it was from this region that the discharge came.

After cleansing aseptically, Dr. Cleveland removed the posterior extremity of the middle turbinate with a cold-wire snare. The patient thereafter made a rapid recovery.

CASE 5.—Internal paracentesis of antrum followed by operation through canine fossa. Slow recovery. Mr. B., a naval officer, came to me August 1, 1894, complaining of periodical malodorous, whitish discharge from the right naris, of 20 months' standing. Right-sided antral empyema was diagnosed. Paracentesis was done on the antrum as in Case 2, and a silver tube was introduced through the opening, through which the patient soon learned to thoroughly cleanse the antrum with various mild douches. This greatly ameliorated his condition, but did not stop the discharge. Two years later (August, 1896) the patient returned, and it was decided to open the antrum through the canine fossa. A large opening was made, but no caries, nor polyps, nor any other etiologic factors could be found. A carious tooth had been removed in the interval between first and second operations; the other teeth were sound.

This case, although carefully treated by the patient for nearly a year after the second operation, required constant cleansing until the end of that time. The delay in this cure was attributed to the presence of frontal sinusitis which was not diagnosed.

CASE 6.—Frontal and anterior ethmoidal empyema, removal of the anterior extremity of the middle turbinate. Cure. Mr. J. B., aged 22, came to me in the fall of 1895. Marked hypertrophic rhinitis, frontal and antral empyema in the left side, greatly enlarged left middle turbinate. The anterior extremity of the left turbinate was removed with a cold-wire snare, and found to be a large bony-walled cyst, nearly an inch long by $\frac{3}{4}$ of an inch high and over $\frac{1}{2}$ inch thick, filled with foul pus. Subsequent treatment consisted in thoroughly cleansing and maintaining the drainage established by the operation, with the resulting cure in about 6 weeks' time. This case could safely have been aspirated through the anterior extremity of the middle turbinate.

CASE 7.—Accessory cavities all opened by nature in course of tertiary syphilis. Mr. M., aged 36, came to me September 16, 1896, complaining of antral trouble of 12 years' standing. There was a discharge from both frontal sinuses, from both antrums, and from the sphenoidal sinuses. The turbinate bodies were nearly entirely destroyed and the septum narium was destroyed excepting only the columnar cartilages anteriorly. His specific history was finally admitted. The patient was put on potassium iodid and the red iodid of mercury, and being a traveling man was soon lost sight of for about one year. At this time, as he had been careless in the use of his remedies, the trouble in the accessory sinuses grew worse, but as the sinus walls which were next to the nasal cavities had practically disappeared no operative intervention was necessary in this direction. The frontal sinuses, the antrums, the sphenoidal sinuses, the two nares and the vault of his pharynx formed one large cavity with but small fragmentary partitions.

Treatment consisted of thorough cleansing of the large irregular cavity with an alkaline antiseptic spray, followed by hydrogen dioxid, after which alcohol in solutions of 50% to 95% and diluted solutions of chromic acid were applied direct to the polypoid walls of the accessory cavities with good result.

The further history of this case has little bearing upon the sinus trouble, and the case will be reported in full at another time. It is cited here as an additional case in which frontal and antral trouble were coincident. The symptoms of these troubles may be those cited in the above cases, or there may be no symptoms what-

ever; many empyemas exist unknown to patient or physician, and are diagnosed only on postmortem. (Kicer, *et al.*)

The general opinion seems to be that most cases of empyema of the accessory cavities are caused by hypertrophic conditions of the nasal mucous membrane which close up the infundibulum, ostium maxillare, and other openings. This view is held by Zuckerkandl, Bosworth, Chatellier, Krause, and Fränkel. Fränkel also attributes many cases to the heroic or ill-advised use of the galvanocautery. Dmochowski, after making 150 autopsies, holds that but few cases have a dental origin (*Archiv f. Laryng.*, Bd. iii, No. 3); Fletcher in 500 skulls, in 252 of which there were abscesses of upper molars, found only 12 molars perforating the floor of the antrum (*Jour. Laryng.*, May, 1890). Carious teeth would therefore appear to be an effect rather than a cause of antritis. (Fränkel.) I have never seen a case caused by carious teeth.

Wagner (*Trans. Am. Laryn. Assn.*, 18th Congress, 1896) gives lead-poisoning as a cause of empyema. He claims also that all cases of trifacial neuralgia which prove intractable point with suspicion to empyema of the frontal sinus, which should be examined previous to operating upon the nerve. Loubi states that 35% of chronic empyemas are accompanied by polyps (*Corresp. f. Schweizer Aerzte*, June 97), a percentage which might be placed higher rather than lower. Conversely, Alexander, in 149 cases of nasal polyps, found 90 cases in which suppuration in the accessory cavities was coexisting. (*Archiv f. Laryng.*, v, 1896.)

According to Fränkel, nasal polyps are more often a result of disease of the sinus than its cause. (*Virchow's Archiv*, Bd. cxliii, Heft 1.) On the other hand Bosworth regards polypi as one of the most frequent causes of antral inflammation, with hypertrophic rhinitis second. (*Diseases of Nose and Throat*, New York, 1889.) A supernumerary tooth has been known to cause empyema. (Wyeth, *N. Y. Med. Jour.*, Dec., 1893.) Other causes are traumatism, erysipelas (Scech, *Diseases Nose and Throat*, 1886), acute coryza, and the exanthems. The frequent empyemas following la grippe are probably due to the nasal conditions rather than to any specific germ.

Chronic antral inflammation is frequently coincident with trouble in the frontal sinus, which should be carefully looked for before operating on the antrum. This is attested to: (1) on the postmortem table; (2) by the frequent absence of any etiologic factor in the antrum, as the periosteum has even been stripped from the walls of the antrum, and the pus continued to flow from it; (3) the action of gravity would naturally cause pus from the frontal sinus to make its way into the antrum, indeed the frontal sinus and antrum are frequently freely connected, as pointed out by Cryer and others.

Probably many of the obstinate or incurable cases of antral empyema which we meet in our earlier experiences are obstinate or incurable because of the coexisting frontal trouble which has been unrecognized. The *symptoms* of these empyemas vary from none at all to those given in the cases reported at the March meeting of this section. Pain and pus in the region of nasal outlets are the more common signs.

A glance at the sectioned skull will show why inflammation in any of the accessory cavities might cause optic neuritis, diplopia, or even optic atrophy. The sphenoidal sinus is in closest relation to the optic nerve, although the anterior sphenoidal cell photographed in Dr. Gifford's article in the American Textbook may be regarded as anomalous rather than of normal occurrence.

The diagnosis is made from the symptoms and signs quoted in the cases mentioned, and may be greatly aided in many cases by the electric-light tests, which are so clearly shown in Plate XIV accompanying Dr. Myles' article in the American Textbook.

The treatment of these cases may be divided into:

1. The intranasal method { *a*. Catheterizing. *b*. Paracentesis. *c*. Removal of parts of the intranasal walls.
2. The extranasal method.

Each of these methods has its adherents, who can see no good in the other.

The *intranasal* method consists: (*a*) In frontal or anterior ethmoidal cases: (1) In probing or catherizing the infundibulum; (2) in performing a paracentesis through, or anterior to the anterior extremity of the middle turbinated body; (3) removing part of the intranasal wall of the cavity; (*b*) in the antrum cases the ostium maxillare is probed or syringed through, or a canula is thrust through the base of the antrum below the anterior extremity of the inferior turbinate, a short distance above the floor of the nose; (*c*) in sphenoidal cases catheterizing, probing, paracentesis, or removal of anterior wall; (*d*) in posterior ethmoidal cases, snaring off posterior extremity of cells.

Jurasez, Schutter and Lichtwitz successfully treated cases of frontal sinusitis by paracentesis as I did in Case II, while Hartmann and Grünwald successfully performed paracentesis for diagnostic purposes. (*Journal of Rhinology and Otology*, July, 1893.)

It must be admitted that catheterization of the sinuses is not very practicable. The frontonasal canal inclines from below upward and forward, forming rather less than a right angle with the horizon anteriorly, hence the canula should be introduced from below and back. The ostium maxillare is very tiny in hypertrophic conditions. The sphenoidal openings are usually high up and directly back of the middle turbinated bodies, and therefore inaccessible except in atrophic conditions.

The final argument of all the opponents of paracentesis seems to be the celebrated cases reported by Mermond, in which no frontal sinus existed, and in which an attempt at paracentesis caused a perforation into the

anterior cerebral fossa, in front of the intact lamina cribrosa, which procedure very naturally resulted in the death of the patient. (*Ann. des. Mal. de l'Oreille*, April 1896.)

The *adherents of the second or extranasal method* open the antrum freely through the canine fossa, or an alveolar socket. The technic of these operations has been given.

The external method of opening the frontal sinus proposed by Ogston, of Aberdeen, in 1894, and exploited by Luc in 1896 (*Archiv. Int. de Laryng.*, 1896, No. 3), consisted in making an opening below the inner third of the eyebrow, cureting, cauterizing, and inserting a drainage-tube through a large opening in the floor of the sinus into the nose, and then closing the external opening and allowing it to heal. This has the advantage of avoiding a scar. Luc later (*Ibid.*, No. 3, 1897) advised a similar operation through the canine fossa in antral disease. Botey modifies this in frontal cases by making the opening in the floor of the sinus as large as possible, and omitting the drainage-tube, substituting for it sterile gauze. This would seem a most excellent method.

Schech is opposed to treating these cases through the natural orifice and in favor of the external openings (*Arch. f. Laryng.*, Bd. iii, Heft 12); Bryon is unreservedly in favor of the external method in frontal sinusitis (*Trans. of Section on Laryng. and Otol. of Am. Med. Assn.*, June, 1897). Myles reports a case of frontal empyema in which he removed the floor of frontal sinus through nose and cured the case (*Jour. Laryng.*, May, 1889).

As opposed to all of these methods Speiss claims to cure antral disease by filling the cavity with a saline solution, then introducing the copper wire pole of a constant current into the cavity (*Archiv f. Laryng.*, Bd. v., No. 5).

Many cases of frontal sinusitis can be diagnosed and cured with safety by paracentesis, provided that the tip of the canula be not allowed to go above the nasion. The distance should be accurately measured on the canula before puncturing. Most obstinate cases of antritis are probably accompanied by frontal sinusitis, and a puncture should be made in such cases to eliminate, or prove the existence of, such trouble. The frontal sinus, if diseased, could nearly always be reached through the anterior ethmoidal cells. It would seem that there are appropriate cases for paracentesis or the removal of part of the nasal walls of the cavities, as well as for the more radical operations. Thorough drainage is the chief object sought; and an accurate knowledge of the anatomy is the chief aid to this result.

Dr. Max v. Frey, professor of physiology at the University of Zürich, has accepted the call to fill the chair at the University of Würzburg.

THE CLIMATOLOGY OF NUDITY.

Light.—Heat.—Atmosphere.

BY WILLIAM DUFFIELD ROBINSON, M.D.,
of Philadelphia.

PHYSICISTS and other scientists are getting too far in advance of the medical climatologist in the study of light. By the latter, air receives much the greater attention, both in regard to its purity and to its use in health and disease, while it is probably not more important than light. It is only here and there that physicians are beginning to look seriously on that form of energy known as light, and to apply, therapeutically, its proven enormous powers.

Although the use of direct sunlight on the diseased human body is certainly advancing, yet some of the otherwise best papers on the treatment of tuberculosis are defective in not giving any special accent to sunlight, while pure air and altitude are largely dwelt upon. These, without light, fail, while with light, they succeed in curing this disease in its earlier stages. Without light, cultures of tuberculous bacilli and many other pathogenic microorganisms are not unfavorably affected, while with light they speedily die.

Light can cause chemic decomposition and combination with even explosive violence at times, where with its absence no reaction occurs. The higher grade—the more stable compounds—are formed when the action of the energy called light is a factor.

It may be advisable to enumerate briefly some of the more important physical and chemic properties of light. A universal ether extending through and from the heavenly bodies into the most minute imaginable spaces in all matter, whether solid, liquid, or gaseous, is accepted as existing. Light is a wave-motion of this ether. From about 70 so-called elements all forms of matter are constructed. An atom is the smallest particle into which an element can be divided, and it is in such sized particles, in which it is related and acts towards the atoms and molecules of all other elements. A molecule is the smallest particle into which matter in combination can be divided without separating the atoms. These are held in some kind of physical apposition by an energy called chemical affinity. Atoms have either negative or positive electric qualities which are balanced in their union in molecules. The atoms on entering into a molecule are not destroyed, but can be reclaimed from the combination in exactly the same state as that in which they entered it.

Atoms of the same element may unite to form molecules just as with atoms of other elements, the mass of molecules resulting being either solid, fluid, or gaseous, according to the ease with which the molecules move about among each other. In gases they repel each other, in liquids they are slightly attracted toward each other, but can move about more or less

freely. In solids the holding together is so strong that mechanical force is required to change the physical shape of the mass.

Heat largely controls, whether matter be solid, liquid or gaseous in form, as it can change one state of aggregation into another in the order named, without changing the composition of the molecules.

Light is an undulation or wave-motion of ether. Sound is a like motion of molecules in ether. Heat is the motion of molecules of matter in close apposition. Undulations are named waves, as they closely resemble the waves of the sea. In light the vibrations are at right angles to the direction of transmission. The length of a wave of light is measured from the crest of one wave to the crest of the next. Each color of light has a constant wave-length. The combination of the waves of all colors makes the so-called common or white light, that is light free from color. There is much light named dark light to which the human eye is not sensitive, its wave-lengths being too long or too short for the range of the retina. Light-waves are sent out from their source in trains of from 50,000 far upwards. Rapidity of travel is constant, making no change for the different colors. Light travels 186,000 miles in one second. This is 1,000,000 times as fast as sound. The average length of a wave of light is one five-hundred-thousandth of an inch. The various colors of light may be separated by passing it through a prism. The longest waves produce red light, and the shortest violet and ultra-violet. These appear at the respective ends of the spectrum. A prism separates waves, not producing visible light, beyond the red end, as far as fifty times the length of the entire spectrum. The length of these waves grows constantly according to their distance from the visible red. Some have been measured which are thirty times as long as red waves. Beyond the violet end, waves of greatly diminished length have been studied. The ultra-violet are about one-third as long as the red waves.

The bombardment which we receive from this form of energy is almost inconceivable. The retina of the eye is struck each second by nearly eight hundred (789) millions of millions of waves. The waves are so small, particularly the violet waves, that they pass between and through molecules of matter. The short, the violet and the beyond invisible waves are called actinic or chemic waves, on account of the chemic reaction caused by them. The invisible waves beyond the violet are the most powerful, chemically. It is by breaking up, by their diselectrifying power, the electric balance existing in molecules, that waves of light decompose them. Light-waves, visible and invisible, have the distinguishing characteristic of being reflected, refracted, absorbed and polarized. A theory of light now generally accepted by the most advanced scientific scholars is that it is identical with electricity. The velocity of the propagation of electricity-waves is the same as that of light-waves, namely 186,000 miles each second. It has been proved that electric waves, although invisible, can be reflected, refracted and absorbed, just as the waves of ordinary light are. By every test, and in every physical property, they are the same, but our eyes are not sensitive to waves the length of electricity-waves. Electricity is light, or light is electricity, as you choose to put it. Maxwell has proved that light is electric vibration in space. This position is supported by Hertz and most, if not all, of the most advanced students of light and electricity.

Knowing what we do of the longer waves called electricity, and accepting that light is the same form of energy, we can more readily comprehend and theorize as to the probable action of light on our bodies in health and disease. The absorption and later emission of waves of light by many substances has been mentioned and excites lively interest as to its possible effects on our bodies. Light may be emitted in the same color as that in which it was absorbed, or reduced to greater wave-length, and emitted in lower colors, calling violet high.

Red and infra-red waves may, after absorption, be given out so lengthened as to be in the lowest form of energy, called heat. Absorbed waves may be retained by some substances a long time—weeks or months—and then emitted as absorbed, when brought into sufficient nearness to susceptible molecules, causing their chemic change.

Just here in our study the following picture may be theoretically painted: A human subject, having a deposit of tuberculous bacilli in his lungs, has his skin freely exposed to direct sunlight, his skin permitting the light to pass through into the fluids beneath and into the blood of the skin-capillaries. The light is absorbed, and is carried along through every minute particle of the body. It is emitted when brought into contact with molecules, the atoms of whose composition are but loosely held together, the destruction of the molecules and of the toxins of the tubercle-bacilli, if not the bacilli themselves, results, the susceptibility to this process being the greater by reason of the instability of the molecules of the tubercula and its toxins. Further, the influence of light on the oxygen in the blood and other fluids creates that more powerfully chemically active form—ozone—which is of great bactericidal power. Also, the oxidizing of the toxins of the tubercle-bacilli leads to the thought of the future giving us a new method of selecting and applying drugs and other remedial agents. The chemical stability of the disease-causing agents is dependent on the electric cohesion of the atoms of their molecules. These agents being isolated, as now seems probable, the refinement of matured science may be able to classify and show the most accurate means and methods of electrically rearranging the molecules so as to be possessed of benign instead of pathogenic powers.

Light being electricity, and granted that various cells

of our bodies absorb it, store it, we so become a massive congregation of minute storage batteries, charged from the sun with that wave-length electricity named light. Metabolism may receive its energy from these, the build-up and break-down adjustment in health and disease being maintained by what we name Nature, the sum of all energies. Then we think of immunity and susceptibility being really controled by firmness and completeness of atomic electric satisfaction.

The penetration of light may be seen by holding the hand between the eye and bright light like Welsbach or arc lamp. I have elsewhere shown the penetrability of light through various fabrics.

This line of thought could readily be amplified, and as well studied with the disease-processes of almost any of the other germ-diseases. A couple of such may be hurriedly noted. Can it not be that the rash—the blood-engorgement of the skin, in measles, and scarlet fever, and erysipelas—is Nature's effort toward securing light-energy and effective oxygen-compounds in the blood in the greatest quantities? They would thus be brought into closest apposition in largest volume, and so better combat the organisms and their products.

A possible action of quinin in malaria is interesting. Quinin in solution, as it must be in the blood, absorbs ultra-violet and violet waves of light and speedily emits them in colors. This is called fluorescence. Can quinin, carrying light, thus bring death to the malarial plasmodium and destruction to its toxins? May we not say, carry electrocuting batteries, so named, from light's chemically destructive power, due to its diselectrifying qualities, which extends to action on atoms and molecules? These molecules in the bodies and products of microorganisms are held in very feeble affinity. Quinin must act by reason of its presence, being a medium or carrier of some other energy than that produced by its own destruction, as the salt can be fully recovered from the urine of a subject who has ingested it.

No prominent attention has been called to the fact that light is probably a most important factor in controling typhoid-fever epidemics. Under its influence pathogenic germs are checked in reproduction and attenuated in virulence. In the recent epidemic of this disease in Philadelphia the cases increased with the continued cloudy weather, but to be reduced to half, and rapidly to less, by a few days of sunshine. The relative death-rate was correspondingly reduced, showing decreased virulence. A new potent therapeutic agent had been added to the treatment.

A few well-proved results of the action of energy in the form of light-waves may be profitable. Carbonic acid in the leaves of vegetation is decomposed, liberating oxygen. The cloudy seasons of spring and fall are the seasons of germ-diseases in the South and North. Actinic waves, bombarding into a glass globe containing mixed hydrogen and chlorin gases, cause their chemical union with explosive violence. If the actinic or violet waves are cut off by the interposition of red glass no explosion occurs, but only slow, quiet union. It would seem as though shorter violet waves could possibly pass between the atoms of the respective molecules, composed of hydrogen to hydrogen, and chlorin to chlorin, freeing the atoms, to form new molecules, of hydrogen to chlorin. The energy of these short waves so adjusts the atomic electrical relationship that they loosen their former hold, and form the new union with explosion. As bearing on the power of the nude human skin to absorb all kinds of light-waves, I would note that the successful photographing has been reported, in absolute darkness, of a nude subject just after he had been very freely exposed to a copious bath of strong sunlight. Others have reported like result on specially sensitized plates.

Photographic plate manufacturers find that it is necessary to keep opaque glass, intended to be coated with sensitized silver emulsion, in absolute darkness for prolonged periods, to assure the escape of absorbed actinic waves, or else this light will speedily spoil the plates by reducing the silver to black oxid. The short and poor-keeping qualities of celluloid films photographically sensitized is probably due to absorbed light later emitted. Photographic paper keeps badly, not unlikely from the same cause.

A number of cases of lupus have been cured by concentrating sunlight-waves on the affected part. Abrams reports success in treatment of laryngeal tuberculosis, in absorbing furuncles, in treating pityriasis versicolor, cervical lymphadenitis. Time prevents many more possible citations.

An abundance of oxygen, if it could be brought into the electric state for vigorous action, is likely present in the air of almost any of our cities—even in the dwelling-houses—to meet all the requirements for successfully combating tuberculous disease. It is an established fact that the successes in the treatment of this disease in sanatoria varies in accordance with the volume of sunlight to which the patients have been subjected. In high altitudes light is more actinic because the chemical waves have not been reduced to longer ones by coming in contact with, and being absorbed by, the myriads of particles of matter infesting the air at lower altitudes. The possibilities of light as a factor in the health and disease metabolism of our bodies may be far beyond that which we have accredited it. The excessive clothing worn and the other environments of civilization have deprived man of much of the beneficial effect of light.

Accepting light as electricity, only in shorter wave-length than electricity as we are accustomed to know it, it will be seen that but a start has been made in a field in which the future may develop much.

I would now ask attention to that form of energy

known as Röntgen or x-rays. It is quite possible that these rays are not any form of light. They cannot be reflected, refracted, absorbed, or polarized. Sunlight and the light of an arc-lamp contain none of these x-rays. Sunlight will diselectrify a negatively electrified polished metal surface, but not a positive electrified one, while x-rays will diselectrify either negative or positive.

Glass is opaque to x-rays, not so to sunlight. There is no proof that x-rays exist as transverse waves in ether, as is the case with light-waves, both visible and invisible. Of metals and their compounds, those having the greatest atomic weight are most opaque to x-rays, not so with light.

There is no proof that burns can be produced by x-rays, the cases reported as such being intense electrification of the surface. Investigations by Prof. I. Trowbridge, of Cambridge, seem to conclusively prove this. With over 2,000 exposures at the German Hospital, Philadelphia, by avoiding this electrification, no burn has occurred. It has not been proven that x-rays are bactericidal.

My paper being longer than was intended, I will say but little as to clothing and surface-aeration of the body.

It is a law of evolution that any organ will degenerate structurally and in functional power if, by artificial means, substitution is made for whole or part of the natural functions. We have innumerable verifying examples of this law. The present condition of our skins is one. By almost constant overcovering, day and night, for successive generations, the skin has, by degeneration, adapted itself to its reduced requirements. From birth to senile death we are much overcovered. That a full and vigorously-developed skin is a desideratum will be generally conceded. The tendency is for ours to degenerate to a tissue-paper consistency. The exquisite structure of the skin at once indicates its importance as one of the organs of the body.

A homely showing of that functional power which can be developed in the skin is indicated by the story of the Indian. Being almost naked, and yet apparently quite comfortable in inclement weather, he was asked why he did not seem to suffer and be made ill by the exposure; he replied: "White man's face no pain no sick. Indian all face." By this excessive covering our peripheral nerves are too intensely impressed by caloric changes, our capillary blood-system too feebly and incompletely developed to battle most successfully with heat, disease, and traumatic impressions. Its muscular, fat, and connective-tissue substance are all too deficient and defective for our greatest comfort and welfare. All its functional powers have been reduced. Yet seldom is heard a cry to develop the skin. On the contrary, the trend is toward substitutes which supplant it in function.

ORIGINAL X-RAY WORK AND ITS VALUE TO STOMACH-DIAGNOSIS.[1]

By WALTER B. METCALF, M.D.,

of Chicago, Ill.

Professor of Diseases of the Stomach and Intestines, Jenner Medical College, Chicago.

December 4, 1895, Prof. Röntgen presented to the Medicophysical Society of Würzburg his discovery of a hitherto unknown manifestation of force or energy, the existence of which has been verified throughout the scientific world. This manifestation is the result of the action of the static current or the secondary electric or induction current upon highly exhausted vacuum-tubes.

The most noteworthy quality of the Röntgen-rays, or, as he termed them, the x-rays, is their ability to penetrate considerable thicknesses of substances hitherto considered opaque to all forms of light. They are also capable, either before or after such penetration, of acting actinically upon ordinary photographic plates and of producing fluorescence in certain chemical compounds. The permeability or the transparency of various substances to these rays depends largely, although not altogether, upon their respective density. It is therefore possible to make upon sensitive photographic plates outlines or shadow-pictures of objects hidden from normal sight, or to render these hidden objects visible by interposing a fluorescent screen between them and the human eye. This is made possible providing the substance, matter, organ or object hidden from normal sight is more dense or opaque to the rays than the surmarrow tissues.

The only practical work done since Röntgen presented his discovery to the world has been its application by the medical profession, and I believe that I am within the bounds when I say that the prevailing idea with the general practitioner has been that it is only of value to the surgeon. With it he can look at his fracture both before and after reduction, see the extent of a dislocation, and locate foreign bodies, such as bullets, pins, needles, etc. However, the following suggestions have been made, and they deserve the most careful consideration, that it is possible to recognize new growths, deformities, malformations, pseudoarthrosis, variations in the density of bone, size and location of sequestrums, etc., in at least the bones of the limbs, and even changes which take place in the density of narrow cavities.

Inasmuch as mineral matter is more impervious to the x-ray, calcareous infiltrations of various organs or tissues may cause a difference, which in some cases we are able to recognize.

The medical uses of the x-ray, until quite recently, have been limited, but the work done in the thoracic examinations should stimulate greater activity. The

[1] Read before the Chicago Medical Society.

recent article by Dr. Crane in the PHILADELPHIA MONTHLY MEDICAL JOURNAL on "Skiascopy of the Respiratory Organs" gives a good idea of the advance that has been made in that line, and I believe all that he claims is true.

It will be seen in this brief survey of the work done with the x-rays that its use is practical and broad in its scope. Some months ago I became convinced that I could make use of the x-rays in my special study of the stomach and alimentary tract, and later I made a study of the other cavities of the body. It is my pleasure to present to you the result of my experiments as to method, technic and apparatus, with a brief reference to its value in stomach-diagnosis. My claim is that the work is original, that the value of the method of examination is far in advance of any that we have heretofore used. By it the stomach can be definitely outlined, giving its size, shape and position. It is also possible to examine the transverse colon, fistulous tracts, cystic tumors, uterus or bladder.

This is accomplished by filling the stomach, cavities, or tracts with what I have termed my bismuth emulsion. Bismuth, a metal, is impervious to the x-ray as compared with animal tissue and bone, thus making it possible to see the shadow outlines of the cavities or tracts filled with the bismuth through either animal tissue or bone. Experiment showed that it was not necessary to have the dry metal, but that if it be held in suspension, its opacity is governed by the percentage of bismuth present. The bismuth emulsion is nontoxic, nonirritating, and can be made antiseptic, making it possible to fill any accessible cavity.

TECHNIC.

In preparing for a skiagraphic examination of the stomach, I have the patient come to the laboratory during the morning hours, having had no breakfast. In this way the stomach is as empty as possible. The necessary clothing is removed, care being taken that no buttons or opaque objects get within the field. The stomach-tube is then passed, preferably while the patient is sitting in a chair, as I consider this the easiest and safest position for the introduction of the stomach-tube. The stomach can now be filled with the bismuth emulsion, using enough to bring the organ to the point of complete distention. Now place the patient between the operator and the excited Crooke's tube, when, with the fluoroscope, you will be able to note the outlines of the stomach, showing the lesser curvature perfectly. The stomach can be studied from different views, and I believe one of the greatest values of the method lies in the fact that the effect of respirations upon the movements of the stomach can be noted, giving a definite idea of the normal movements of the organ and enabling us to diagnose motor insufficiency.

Radiographs, or shadow-pictures, as a rule, are unsatisfactory, their only value being an unimpeachable evidence of some displacement or deformity. Shadows have no expression and when put upon photographic plates produce only outlines. Radiographs of the stomach are unsatisfactory, because its normal movements, combined with the change in its shape and position produced by respiration, make it impossible to produce a clear outline upon photographic plates.

The best work is done with the fluoroscope. It is the most satisfactory in every case, for with it the scenes may be shifted and a conclusion arrived at from different views. With the fluoroscope, as with the microscope, one must have experience in its use, and, as with the microscope, must have good apparatus and be able to recognize what the field presents. I consider the mica-plate static current the best, most practical, and safest means of exciting the Crookes tube, for the following reasons:

1. The power of penetration is greater.
2. The light is steadier.
3. There is no danger of producing x-ray burns.
4. When not used for x-ray work, you have a valuable therapeutic agent.

Up to the present time, one of the most difficult problems in stomach-diagnosis has been the inadequate means at command for determining definitely its size, shape, and position. The method presented accomplishes this perfectly, thus giving us a geographic outline of the stomach, enabling us to note the change produced by gastrectasia, atrophy, stricture, hour-glass contractions, distortions, displacements or adhesions, produced by or as a part of malignant or nonmalignant disease.

SOME USES OF PILOCARPIN.

BY STEPHEN HARNSBERGER, M.D.,
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I SHALL confine my remarks solely to some uses of pilocarpin hydrochlorate not mentioned in the literature on the subject, at least not in recent textbooks on therapeutics, practice, or surgery. If one is to judge by the works of Hare, Wood, and others, the range of use of pilocarpin is very limited.

Two or three cases are available for illustration of the benign effects of pilocarpin in orchitis. It is true that many patients improve on the administration of opiates, poultices, leeches, rest in bed, elevation of the hips, testicles, etc., but some do not, and we are often at a loss to know what therapeutic agent will meet the requirement. Just such an experience fell to my lot in April, 1892.

I was called to attend Mr. P., in the absence of his family physician. He was about 50 years of age and married. His was the worst case of gonorrheal orchitis I have ever seen. Both testicles were involved, the left intensely inflamed and almost as large as an ordinary fist. The scrotum was black, and looked as if on the verge of becoming gangrenous. The man was in intense pain and could not bear the least movement, crying out even when approached too closely. His

general aspect denoted great physical suffering and mental disquietude. The usual remedies had been diligently applied by his attending physician, but with no relief. I reasoned, and as the result proved, happily, that it was worse than useless for me to repeat what is usual, and, indeed, what had already been done. Some quick-acting therapeutic agent was indicated. The terrible sense of weight, pain, and tension had to be relieved at once. I administered ⅛ grain of pilocarpin hydrochlorate and ordered the dose repeated, with ½-grain doses of codein (pure crystals) every 2 to 6 hours, as should be necessary to produce copious sweating and relief of pain. When I returned the next day I found him comparatively comfortable; he said the sweating began promptly after the first dose and there occurred a simultaneous diminution of the symptoms. He made a rapid and satisfactory recovery. In addition to the pilocarpin, I prescribed for the specific urethritis fluid extract of hydrangea, three parts, and spiritus aetheris nitrosi, one part, ordering from ½ to 1 teaspoonful in plenty of cold water four times a day.

In July, 1892, Col. S., a wealthy gentleman from Halifax, came to me to be treated for gastric catarrh. As he expected to remain under my care for some time, he brought his favorite setter dog with him. The day after he reached my place Col. S. spoke of having a sick dog, and I recommended a man in the neighborhood who prepared several remedies for dogs, as the best person to consult on such matters. When he came to my office on the following day, he said his dog was very ill and he thought that it would die. As he seemed to be very much disturbed, I inquired into the dog's condition and found that the testicles had been injured in traveling and that the animal was suffering from traumatic orchitis; so I gave a prescription for six ⅛-grain tablets of pilocarpin, directing them to be given three hours apart. At his next visit he reported that they "acted like a charm."

Dr. Castleman, of Martinsburg, W. Va., once came to me in a great quandary about a patient of his who had gonorrheal orchitis that would not yield to the routine treatment. I advised him to try pilocarpin, which he did, and with gratifying success.

I will not relate other cases. These should be sufficient to direct attention to pilocarpin as a remedy worthy of further trial in inflammation of the testicle and epididymis, whatever the cause.

But the great value of the drug does not rest here. It has served a good purpose in cholelithiasis. In this condition, it is the hepatic colic which most often demands therapeutic intervention. When the stone is passing through the duct to the intestine, pilocarpin as a relaxant and codein (pure crystals) or morphin as an anodyne, I feel sure will please the attending physician far better than the treatment commonly in vogue. And in that closely allied condition of nephrolithiasis, when the torturing pain from incarceration of the calculus in the ureter is the most important symptom, pilocarpin is a valuable auxiliary. In both hepatic and nephritic colic it is best administered subcutaneously. In adults it brings on complete relaxation of the system and the skin verily "exudes perspiration from every pore." When relaxation exists, usually in a very few minutes if the drug is used hypodermically, the tension in the affected parts begins to lessen and the pain to subside. In youths, however, pilocarpin is not always followed by profuse sweating.

Pilocarpin deserves a trial in tonic spasm of the diaphragm, a condition calling for instant intervention and in certain cases of hiccough, when firm pressure upon the base of the tongue fails to give relief.

I would also suggest its use in that rare and remarkable disease, arthrogryposis, which consists of persistent and refractory tonic spasms and contractures of one or more of the extremities.

There are other conditions of the system in which pilocarpin might be advantageously employed in connection with other remedies. In certain cases of stricture and obstruction of the intestines, especially when applications of iced poultices and wet compresses are ill-borne, codein (pure crystals) and pilocarpin may be used with some benefit. Should I be called to a case of tetanus, I shall use pilocarpin, acetanilid, and codein (pure crystals), for I know of no combination of remedies equal to acetanilid and codein (pure crystals) in diminishing the irritability of the nervous centers and of lowering the excitability of the peripheral motor nerves in the muscles, and pilocarpin to replace the protracted warm baths. Of course I should also employ caffein, camphor monobromate, alcohol, etc., with the aim of preserving the strength of the patient.

Probably the easiest and quickest way to remove ranula is by means of ⅙-grain doses of pilocarpin hypodermically. Safrantini[1] reports one case.

AN ANATOMIC POINT IN THE ETIOLOGY OF NASOPHARYNGEAL DISEASE.*

By LENNOX BROWNE, F.R.C.S., Eng.,
of London, Eng.
Formerly President of the British Laryngological, Rhinological, and Otological Association.

At the last annual meeting of this Association I had the honor to make a short communication on some points in the anatomy of the lingual tonsil bearing on its pathology, and on this occasion I desire to refer to an anatomic feature of the nose, which I believe to exert influence on disease in that region.

As a matter of experience I have long come to the conclusion that, while ease and completeness of postrhinal examination depend almost entirely on the amount of space at command between the uvula and the posterior pharyngeal wall, so also does this condition favor disease in the region under consideration,—that is to say, the wider the distance between the soft palate and pharynx, the more surely one may expect, on examination, to find postnasal trouble. This little fact is one of some consolation where a rhinoscopic examination is unsatisfactory on account of the contrary relation of these parts. The statement was first printed in the second edition of my systematic work published in 1887. Until now it has passed unchallenged, but a reviewer of my fifth edition, issued at the commencement of the present year, thus expresses himself: "This

[1] *Jour. de Médecine de Paris* and the Philadelphia Medical Journal, May, 27, 1899.

* Presented to the Fifteenth Congress of the American Laryngological, Rhinological, and Otological Society, at Cincinnati, O., June 2 and 3, 1899.

statement certainly demands further inquiry and observation. There is, we believe, a general impression that the case is all the other way, and that the happy possessor of a roomy nasopharynx could tolerate with impunity conditions which would otherwise be most harmful."[1]

Criticism such as this of a statement due solely to long-growing impressions should make an author pause, and induce him in the first place to ask of his colleagues whether their ordinary experience is in line with his own; and secondly, to search for any solid basis for his conclusions, which, however sound, are of purely empirical origin.

As to the first, I received on appearance of the review to which I have referred several spontaneous expressions of agreement with my view, and the answers from others whom I have questioned have all been in accord. I now respectfully invite the Fellows of this association to consider the point and to favor me with their opinion, asking them to carefully bear in mind the difference between undue patency or roominess of the vault of the pharynx as a result of developmental causes, and that necessary freedom of nasopharyngeal breathway, which, becoming impaired by disease, hypertrophies or neoplasms, can be restored only by surgical treatment.

I must confess that until my mind was directed to this question I had given no consideration to there being any anatomic basis for my clinical observation, nor although I find ample reason why there should be some developmental arrest or abnormality to account for the variation in capacity of the nasopharynx, have I endeavored hitherto to analyze it.

However, in the *British Journal of Laryngology* for March of the present year, I came across an abstract of the report of Dr. Gerber's Poliklinik for Nose, Throat and Ear Diseases in Königsberg for the five years ended 1896. I have not had an opportunity to refer to the original article (*Monatsschrift f. Ohrenheilkunde*, July, 1898), but in the abstract I find these words with regard to the etiology of ozena: "The nasal cavity is broader and shallower, the septum is shorter from before backward, and the depth of the nasopharynx is increased. Measurements in 100 cases showed that in ozena the septum was shorter from before backwards by 3 millimeters, while the diameter of the nasopharynx in the same direction was correspondingly increased."

These few words are pregnant with importance, and go far to confirm another of my contentions, that in the very large proportion of cases of so-called atrophic rhinitis, especially such as may be due to hereditary syphilis, scrofula or struma, it is a misnomer to apply the term atrophy to a structure which has never been satisfactorily developed. I have explained this condition as due to a want of correlation between the growth of the child and of the ethnoid structures, and to it Wyatt Wingrave offers the alternative term "dystrophic." I have also alluded to the converse circumstance, "that we have a so-called hypertrophy of the nasal structures of children occurring before puberty, in which the growth of the turbinal is in excess of the growth of the child."

Gerber's figures and facts would appear to show that what I have suggested as the result of postnatal irregularity of growth has really begun as an incident of embryonic life, and I accept and desire to adopt the correction. Gerber's information is further interesting to me, as affording confirmation of the view, that what I have described as the facial type in atrophic rhinitis is equally due to embryologic vice, seeing that both are, in all probability, equally dependent on imperfect development of various and allied rudimentary processes, each, in fact, springing from one and the same source. The type consists of an abnormal patency of the anterior nares, with an upturned condition of the nose. This excessive patency and "tip-tilting" of the nostril is not dependent on any (postnatal) morbid process in the septum, as is seen in ulcerative syphilitic diseases, but is a congenital feature, which presents an aberrant type in the frontonasal plate. Thus, the anterior aperture of the nostril, instead of looking almost directly downward looks more or less forward, and so allows the air-current to pass directly into the inferior meatus. In my opinion, the pathologic effect of this perverted arrangement is accounted for by the circumstance that this direct intake of the breath is favored by the greater width of the nostrils and by the absence of the vibrissæ, which, in itself, constitutes an early evidence of the atrophic process. The air, therefore, passes straight through the inferior meatus to the pharynx instead of traversing the middle and inferior parts of the nasal cavities; and, as a consequence, there is insufficient diffusion with the warmed and moistened air of the nasal fossae and of the accessory sinuses—the nasal reservoirs, etc.

To summarize: Atrophic rhinitis, which, be it noted, is essentially both a nasal and a nasopharyngeal disease, is associated with undue patency of nasal orifice, nasal vestibule, nasal fossae, and of nasopharyngeal vault. It may be taken, therefore, as a type of what is to be looked for by the happy possessor of a roomy nasopharynx.*

Plague at Naples.—The Rome correspondent of the London *Daily Mail* asserts that there have been several cases of bubonic plague recently at Palermo and Naples, 3 or 4 ending fatally. All possible precautions are being taken, but the newspapers do not mention the presence of the disease in order to prevent public alarm.

[1] *British Medical Journal*, April 15, 1899, p. 914.

* This communication, in consequence of late arrival, was only read by title and therefore no discussion was possible, but opinions are invited.

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The Infectiousness of Acute Anterior Poliomyelitis.—There are a number of reasons for believing acute anterior poliomyelitis to be an infectious disease, more especially its sudden onset, its febrile course, its prevalence particularly in the spring, and occasionally its apparently epidemic character. An illustration of this last peculiarity may be found in a report of the occurrence recently of a considerable number of cases of spinal paralysis among the children of Poughkeepsie, N. Y., although it is stated that not more than one case has occurred in any single family. Of the bacteriology of the disease definite knowledge is yet wanting, and it may be that more than one microorganism is capable of giving rise to its lesions and symptoms.

The extraction of teeth for trifacial neuralgia is a sin for which both dentists and physicians are responsible, and in about the same degree—the physician for sending the patient to the dentist, and the dentist for extracting teeth under such conditions. Members of both professions should have sufficient common sense, if not professional education, to recognize the fact that the extraction of sound teeth not only gives no relief, but that it is a most useless mutilation, which the patient is sure to regret deeply because of the injury to personal appearance and the interference with digestion, and for which his professional adviser is certain to be severely censured. This mistake might be more common; but it is common enough, as is evidenced by the statement of a prominent surgeon that he has been consulted during the past two years by not less than six patients who had had the teeth in both jaws uselessly extracted for tic douloureux. The medical treatment of this condition is not encouraging in its results, it is true; nevertheless, it should be given a thorough trial, and, if persevered in, will sometimes give permanent results. In obstinate cases, nerve-resection gives relief in many cases, and if all else fails, resection of the Gasserian ganglion may be tried, with every prospect of permanent cure. In any case, extraction of the teeth can have no possible permanent value.

"Persecuting a Cult."—The Christian Scientists must be getting close to the end of their tether when they are compelled to take refuge behind the persecution cry. Objection is being raised by the C. S. disciples to the movement that has been instituted for the proper regulation of the "Science." Medicine has no difference with religion, but it cannot stand passively by while life is permitted to ebb in consequence of a delusion, under whatever garb it is masked. The efficacy of suggestion, whether in the form of prayer, of faith, of command, or other ministration, in the management of certain functional disturbances is not denied, but it were crime to attempt the treatment of organic disease by such means. Fortunately disease often undergoes spontaneous recovery, and, unfortunately, to be perfectly frank, we are not yet in possession of specifics for all diseases; but, while any form of suggestion that may please the mutual fancy of the patient and his professional adviser is incapable of harm *per se*, the failure, for instance, to use digitalis for failing circulation, or antitoxin for diphtheria, or quinin for malaria, or mercury and iodin for syphilis, may culminate in nothing less than murder. No, medicine has no quarrel with religion or religious science; but, as the former does not venture to trespass upon the domain of the latter, it will insist that the latter shall not undertake, with whatever expressions of good motives, functions of which it has no proper knowledge.

Tuberculosis Among the Animals of "the Zoo."—Not only do the vital statistics of caged animals show how closely are the animal and the human worlds brought into mutual interdependence, but they teach us important lessons as to the best methods for preventing and curing the disease among ourselves. The London Zoological Gardens, according to the *Evening Post*, have lately published facts that afford interesting confirmation of the growing medical belief that open-air life and a meat-diet are the best protection against pulmonary tuberculosis. Nearly one-fourth of the deaths among the animals in the Zoo, last winter, were due to tuberculosis. This is nearly double the human average, and is attributed to the fact that animals suffer shockingly from overcrowding. The differences in the distribution of the disease between various classes of animals are marked. Reptiles of all sorts are almost exempt, probably because the tubercle-bacillus cannot live at the low temperature of their bodies, although two or three suspicious cases have been found among the tortoises and pythons. Animals suffer nearly 50% more severely than birds, but the most striking difference is between the meat-eaters and the vegetable-

feeders. Among the vegetarians—monkeys, antelopes, deer, and kangaroos—the disease causes 26% of all deaths; among the meat-eaters—lions, wolves, small cats and civets—barely 3%. Among grain-eating birds—pheasants, peafowl, grouse, and ostriches—tubercle is responsible for 30% of all deaths; among the flesh-eaters—eagles, vultures, owls, and crows, only 11%.

Some features of medical missionary work are well illustrated in the report of the Ponasang Missionary Hospital at Foochow, China, for the year 1898, as made by Dr. Hardman N. Kinnear, the physician in charge. The amount of work done is really large and its quality is most creditable, and the good accomplished has scarcely less a moral than a physical value. During the year there were treated in the dispensary not less than 5,785 cases, with 12,607 return visits, and 4,919 surgical dressings were made for in-patients.

Fistula in ano is a common affection among the Chinese and is sometimes of long-standing and complex arrangement. It is attributed to the habit of bolting immense mouthfuls of rice in which are embedded unknown numbers of fishbones.

Leg-ulcer also appears to be a common disorder, in the treatment of which good results were obtained from applications of pure liquefied carbolic acid, after careful cleansing, and followed by application of alcohol, adhesive plaster, and an absorbent dressing.

As an illustration of medical superstition a case of wound of the heel by a rusty nail is cited in which the outer opening was filled with bedbugs. Another patient, suffering from syphilis, had been using a powder consisting of equal parts of dried snakes, lizards, swifts, spiders, and centipedes, finely powdered. An opium-smoker was punished by his relatives for insisting on his claim to certain property by having lime put in his eyes while intoxicated.

An interesting case is reported and pictured presenting congenital hypertrophy of the first and second toes of the right foot, including the metatarsus, with diminutiveness and distortion of the remaining toes.

A fallacy in statistics has been brought to our notice in regard to a news-item concerning the Pennsylvania State Board of Medical Examiners. Jefferson Medical College is charged with three applicants who failed, thus lowering the Jefferson average to 78.24%. The three applicants that failed were all graduates of former years, who had been rejected on one or more occasions before by the Examining Board; while the graduates of this year all passed successful examinations. The impression that one gets from reading such a report is that the educational institutions whose graduates fail before State Boards are not giving up-to-date thorough instruction, whereas this may be far from the truth; the "flunks" are those just on the border, who just managed to squeeze through at a time when the standards were everywhere low, when we were just waking up to the need of more thorough medical education, when State Boards were just coming into existence. The new methods are here and are meeting the new demands, but colleges are getting credit for poor averages because of the failures of men educated under the old standards. This is no doubt a fallacy in statistics which is doing an injustice to many colleges and universities, and to avoid this, the year of graduation should be mentioned with the notice of failure in the Examining Board's reports. It is desirable to make the statistics show at their best, both for its influence at home and abroad. There are a goodly number of thoroughly scientific medical schools in our country where any earnest student may get as complete and certainly as practical a medical education as anywhere in the world. But it will be years before we all really appreciate this as the average American student who has studied abroad does, and still longer years before this is appreciated by foreigners, even if the statistics are made to tell the real truth, for the rapid advances of the past ten years are hardly realized even by those in closest touch with medical education at home.

Another Manifestation of Hospitalism.—Having exhausted the resources of dispensary and hospital, the applicant for and recipient of the gratuitous services of the long-suffering and uncomplaining physician sometimes utilizes his morbid state to gain a livelihood by giving exhibitions of himself. There is at present traveling about the United States a man who presents a loud heart-murmur attributed to a stab-wound received some years previously. The man has managed to get himself in the newspapers generously, where, under the sensational heading of a "musical heart," his case is described at length. He has also made a collection of certificates from physicians, all of whom agree in the uniqueness of the condition, but none of whom has seemed willing to risk his reputation with a diagnosis. Altogether this interesting itinerant has made nearly 20 scrapbooks from newspaper cuttings and testimonials. He makes a business of permitting himself to be demonstrated before medical classes, having received the suggestion from an enterprising Western physician. On auscultation a loud blowing and a high-pitched musical murmur are heard with the systole over a large portion of the precordium and with greatest intensity at the ensiform cartilage. The pericardium appears adherent at the site of traumatism at the apex of the heart, the organ itself is somewhat enlarged, and the abnormal sounds would appear to be due to insufficiency of the mitral leaflets and to the presence of an abnormal band passing across the cavity of the left ventricle.

There have been other wandering, exhibiting, clinical cases, such as the man who could speak although his larynx had been extirpated.

Perhaps the most interesting example of the cases under consideration was the woman who submitted herself to the manipulations of post-graduate students in the laryngological department of the University of Vienna, and who was competent to give instruction therein.

The exposures by Mr. Ernest Hart a few years ago showed that a number of attendants upon the French clinics in nervous diseases were "professionals," who submitted to hypnosis and accepted suggestions in a manner that appeared truly marvelous.

Lombroso up to Date.—The mutual influence of religion and crime is the topic that has just engaged the pen of the distinguished Italian anthropologist. Lombroso actually says that he has observed that among the attendants at church the criminals and honest folk are in about equal numbers, and often the former predominate! The tenor of his paper is to show that the religious and the ethical instincts are distinct—not identical, as many persons erroneously believe. He quotes du Camp, who watched 33 prisoners in their cells during mass and observed that 6 of them were devout. Of 700 criminals examined by Ferri only one was a skeptic, while a far larger number were devout. Statistics, says Lombroso, seem to prove that where skeptics abound there are fewer criminals than in orthodox communities. This apparent fact he explains by the higher culture that prevails among the former class, and the predominance of the ethical rather than the religious sense. As an amusing instance, he relates how a fight was once brewing among some men in the market-place; the combatants had already raised their clubs, when suddenly the Angelus sounded. Instantly, the clubs were lowered, and all the belligerents recited the Angelus; but no sooner were their prayers finished than the men fell to, and the fight went on. This, Lombroso thinks, illustrates how little restraining influence the mere religious instinct exerts on the ethical sense.

The most important conclusion drawn by Lombroso is that the younger a religion is, and the more nascent, the greater is its moralizing power. In other words, its religious instincts are then more closely allied to the ethical instincts of the race. To prove this, Lombroso cites the instances of Savonarola and the Vaudois in Italy, and the Quakers in England. The latter sect, it may interest Philadelphians to know, in his opinion, was founded by "absolute paranoiacs." The older a church grows the more it advances and stimulates the religious instincts above and beyond the mere ethical ones.

Much of this last essay of Lombroso is not original, although it is presented with so many novel facts and in such a crisp and attractive way, that it will hardly be trite to any one, and will be novel to many readers. The distinction between the religious and the ethical instincts has long been noted and insisted upon by acute observers. It was well brought out by Buckle, in his great work; as was also the distinction between the moral and the intellectual progress of mankind. He showed, for instance, that the moral, or ethical, ideas are more nearly stationary than the intellectual ones, and that mankind owe their progress to the advance of the latter. In this whole sphere of thought, however, it is easy to fall under the spell of glittering generalities, a fault from which neither Buckle nor Lombroso is entirely free.

The Etiology of Yellow Fever.—The publication of the report of the Presidential Commission for the study of yellow fever marks an important epoch in the history of that disease. No one who reads with an unbiased mind the abstract of this report, which we published August 19, can escape the conviction that the Bacillus icteroides is the cause of yellow fever. Upon those who deny the etiologic relationship of this germ to the disease rests now the burden of proving its non-specificity. The original researches of Sanarelli, although sufficiently thorough to win high respect and bring conviction to many, lacked completeness and could not be considered conclusive. In the first place, he found the bacillus only in 58% of the cases examined, a number which is too small to establish by itself the specificity of the microorganism.

The bacillus, furthermore, possesses certain characteristics that seem to ally it with the Bacillus x of Surgeon-General Sternberg, which the latter had found in yellow-fever cadavers at Havana. Bacillus x did not occur with sufficient frequency or in sufficient numbers to warrant Sternberg claiming it as the cause of the disease, and he had refrained from doing so. However, when Sanarelli's observations became public, Sternberg made the effort to identify his bacillus with the Bacillus icteroides, and thus establish his claim to priority of discovery. He had once before the discomfiting experience of seeing the fruits of his labors snatched away by others; he had discovered the pneumococcus early in 1880, and had isolated it from the rusty sputum of croupous pneumonia in 1885, yet despite these incontrovertible facts, the world gave the glory to Fränkel, whose results did not appear in print until 13 days after the publication of Sternberg's discovery.

Regarding the identity of Bacillus x and Bacillus icteroides, Sanarelli promptly showed that it could not be maintained, and this opinion is shared generally. Almost synchronously with the appearance of Sanarelli's original article, another bacteriologist, Havelburg, entered the arena of discoverers, and announced that he, too, had found a special microorganism in yellow fever. Havelburg's bacillus is different from that of Sanarelli, and is probably, as Novy has shown, nothing more than a colon-bacillus.

In the New Orleans outbreak of 1897, P. E. Archinard, Woodson, and J. Archinard were more fortunate than even Sanarelli; they found a microorganism similar to

and probably identical with Bacillus icteroides in 32 out of 39 cases, or in 82%. Moreover, they obtained, as Sanarelli had done previously, Widal's phenomenon of agglutination by treating the bacilli with serum from yellow-fever patients or from those who had had the disease even as long ago as in 1878.

In April of this year Reed and Carroll made the announcement that the Bacillus icteroides resembled the hog-cholera bacillus in that, apart from morphologic and cultural similarities, it produced similar lesions in young hogs, and that the serum of animals immunized to the former agglutinated the latter. These facts and the resistance of Bacillus icteroides to cold—yellow fever itself being checked by the first frost—led them to conclude that Sanarelli's bacillus was not the cause of yellow fever, and that its presence in the tissues was due to a secondary infection.

At this point the subject rested until the just published report of Wasdin and Geddings, of the Marine-Hospital Service. In this we have the isolation of Sanarelli's bacillus in every one of the 14 cases examined, and the absence of the microorganism from the bodies of persons (31) dead of other diseases.

Wasdin and Geddings also show that so far as the action of its toxin is concerned the Bacillus icteroides does not differ in kind from Bacillus x, Havelburg's bacillus, or the colon-bacillus; it is, however, the most toxic of the four. This similarity in toxic action under artificial inoculation is a strong argument against the specificity of Sanarelli's bacillus. But it completely loses its force if the theory of the Commission as to the natural mode of infection is sustained. The Commission is of the opinion that infection in yellow fever occurs by way of the respiratory tract. That this was possible had been maintained before, but experimental proof had been lacking. The Commission, however, seems to have succeeded in infecting animals with the Bacillus icteroides by imitating the natural conditions, while infection under the same circumstances with the colon-bacillus, Bacillus x, and Havelburg's bacillus was not possible. A greater similarity was shown in this respect to the typhoid and the hog-cholera bacillus.

Summing up the facts we find (1) the presence of the Bacillus icteroides in every case of yellow fever; (2) the absence of the organism from the bodies of persons dead of diseases other than yellow fever; (3) the production of the disease in certain animals; (4) the agglutination of pure cultures by the blood-serum of yellow-fever patients; (5) the probable immunization of human beings against the disease by the injection of serum from animals rendered immune to the Bacillus icteroides; (6) the cure of the disease in human beings by the injection of such antitoxic serum. The possibility of this, as well as of prophylactic immunization, was demonstrated last year in the St. Sebastian Hospital at Rio de Janeiro and during an outbreak in an insanitary prison.

Thus we may conclude that the credit of discovering the long-sought cause of yellow fever belongs undoubtedly to Sanarelli, and that the future will probably arm us with as powerful a weapon against the disease as Behring gave us against diphtheria.

Suggestions to Writers, No. 33. Hyphenated Compounds, or Separated Words?—The use of any sign or mark in printing must be to express meaning, and consequently the hyphen in compound words should be used only when it is necessary to prevent misunderstanding or confusion of thought. When no such confusion is likely or possible we should not uselessly pepper our pages with it. Some writers (as *e.g.*, Herbert Spencer with his "literally-descriptive" "apparently-artificial," "increasingly-important," etc.) are overfond of the hyphen; this may be due to the self-flattery of supposed accuracy, when omission would not in the least change the meaning of the words. Sometimes the insertion of the hyphen may increase confusion, and, often also, a comma is preferable or does exactly as well. The trend of good English usage is to abolish the hyphen except when it is positively needed to make meaning clear. *Alligator forceps,* as Teall contends, naturally suggests "forceps to be used on alligators." Medical writers are much given to turning a noun into an adjective and atoning for the sin by means of a scapegoat hyphen,—as *e.g.*, *head-injury*, *heart-disease*, and all the rest. Perhaps we shall in time have *gut-cut*, *face-smash*, *gastro-intestino-omentum-perforation*, *belly-opening*, etc.). But, as a rule, the hyphen does not atone, it only doubles the blunder, for *foot injury* can confuse no reader and is just as definite in significance as *foot-injury*. Brevity and conciseness are excellent qualities in medical writing, and within certain limitations are to be commended, but life is not yet so short that we cannot take time to say *wound of the foot*, *cardiac murmur*, *renal stone*, *vesical disease*, etc., instead of the barbaric bunching together of two nouns.

It is impossible to make lists of terms in which the hyphen is needlessly or is rightfully used, and we wish only to emphasize the principle involved. Let us decide to use or not to use the hyphen by attention in each special case, asking only the question: "Is it necessary in this instance to clarify understanding or to prevent confusion on the part of the reader?" The famous advertisement, "Mrs. Smithers has left off clothing and invites inspection," is, of course, in dire need of a hyphen; and to facilitate clearness, or to avoid misunderstanding, it must occasionally be inserted between words printed without it, as in the notice we have seen, "We have for adoption a dark skinned baby."

The working of the child's mind on the subject is shown by the story told by Mr. Augustus C. Hare, of a little girl who, on being asked to illustrate a certain hymn, brought a sketch representing a little bear, under which were written the lines:— .

"Can a woman's tender cares
Cease towards the child she-bears?"

Generally, however, the hyphen is used without any sufficient reason. Those who wish more help than is to be got from the foregoing, may consult Teall's excellent *The Compounding of English Words.*

Correspondence.

CANCER STATISTICS.

By LAURENCE IRWELL, M.A., B.C.L.,
of Buffalo, N. Y.

To the Editor of The Philadelphia Medical Journal:—

The London *Practitioner* and the New York *Medical News*, on April 1 last, contained an article on cancer by Dr. Roswell Park, of this city. So far as the United States are concerned the facts and figures have been dealt with by Dr. John Pryor in the *Medical News* of May 27. He has shown, beyond doubt, that in a number of instances Dr. Park's figures are wrong, and that the conclusions which he drew from what evidence he possessed were illogical and of a very limited value. These facts will not surprise anybody who remembers Dr. Park's former cancer figures, which were carefully scrutinized in the *Michigan Monthly Bulletin of Vital Statistics* for May, 1898, and were proved to be erroneous and misleading.

Dr. Park's recent excursion into the field of English statistics has not been a success, as I purpose to demonstrate. "In England and Wales," he wrote, "the cancer death-rate has risen from 1 in every 5,646 of the population in 1840 to 1 in every 1,306 of the population in 1896; that is, in 50 years the proportion has increased nearly five times."

Having expressed my inability (*Medical News*, April 15) to believe that Dr. Park's figures were accurate, I communicated with the Registrar-General, whose reply to my request for the cancer death-rate from 1840 to 1897 is as follows:

"The Registrar-General regrets that he is unable to furnish you with the number of deaths from this disease for years previous to 1858." How an American surgeon succeeded in obtaining English statistics which the British Government statistician cannot supply is a mystery that I am unable to to explain.

In the belief that my experience with figures has enabled me to use them with some discretion, I have studied the English figures—and Dr. Newsholme's able article in the April *Practitioner*—as thoroughly as possible, and I feel convinced that a considerable part of the apparent increase of deaths from cancer is explained by the reduction in the number of deaths registered as due to "old age" and to "unknown causes." Further, the method of collecting information in 1840 was such that a comparison between the deaths known to have occurred in that year cannot reasonably be made, so far as numbers are involved, with those which were registered in 1896.

That both carcinoma and sarcoma are increasing, I do not doubt, but so are diabetes mellitus and albuminuria. These increases are, of course, the result of our efforts to counteract the process of natural selection. But I deny *in toto* that carcinoma is making any such inroads either in Great Britain or in the State of New York, as Dr. Park asserts, and the figures which I gave in the *Medical News* of April 15, show the general accuracy of my denial.

It appears that a Cancer Society has recently been formed in London with Sir Charles Cameron as its president. According to a Buffalo newspaper, he repeated to the Society Dr. Park's remarkable prophecy, viz: "If during the next ten years the relative death-rates are maintained, we shall find that ten years from now—viz., in 1909—there will be more deaths in New York State from cancer than from consumption, smallpox, and typhoid fever combined." I have done my best to investigate this prophecy, but I have failed to find any basis for it. Moreover, for one whose education has been legal, and not medical, the role of the prophet has no attraction.

Deaths from smallpox are quite uncommon in this State (one death last year), where the typhoid mortality-rate varies considerably from year to year. The popular belief (evidently shared by some medical men) that phthisis is rapidly declining is not sustained by any evidence that I can discover. According to Dr. Pryor (*Medical News*, May 27), "If the relative death-rates are maintained, cancer will destroy as many as consumption and typhoid fever in from 40 to 50 years." My own conclusion is that the former number is the more accurate, but the variations in the typhoid death-rate make such prognostications worthless, as Dr. Pryor admits.

Dr. Park's prophecy has been widely copied in the daily newspapers, and a species of "cancer scare" seems to have arisen both here and in England. If Sir Charles Cameron did repeat it, the fact is much to be deplored, for its circulation could not fail to cause alarm, and some authorities (Dr. Herbert Snow, for example) believe that a connection exists between worry and a predisposition to cancer.

I am not a physician, much less a pathologist. The reasons for this letter, however, are too obvious to demand any explanation.

A NEW CLASSIFICATION OF STIMULANTS.

By THOMAS J. MAYS, M.D.,
of Philadelphia.

To the Editor of The Philadelphia Medical Journal:—

One of the greatest drawbacks to the advancement of therapeutics is the chronic attempt to classify and reclassify the action of medicines. Classification is of course essential to utility and simplification, but it should only be undertaken when sharp and well-defined lines of demarcation between the action of one class of drugs and that of another demand it—otherwise it becomes a snare and a stumbling-block. I am moved to make these antereflections on account of a recent effort of Dr. Hobart A. Hare, professor of therapeutics in the Jefferson Medical College, to partition the action of stimulants into 4 subdivisions. He proceeds to do this in the following manner:[1] "Stimulants are of 4 classes: either they act by providing the system with material which in its combustion adds force to the body, as does alcohol, or they supply the parts called upon by their action with increased quantities of blood, as does digitalis; they liberate reserve force and enable the individual to put forth greater strength for a time, as does coca; and finally, they may act as whips or irritants to the nervous system, as does strychnin. Strychnin is, therefore, the only one of these which simply goads the system to increased endeavor and does not aid it simultaneously."

Here stimulants are made to undergo oxidation, to supply increased quantities of blood, to liberate reserve force, and to irritate the nervous system; a multifarious list of duties

[1] *Therapeutic Gazette*, July 15, 1899, page 447.

to be performed by a class of drugs which, with the exception of the first one, were hitherto thought to have a similar action. Even a superficial study of the question of stimulation will convince one, however, that the above elastic definition of the action of stimulants is not in accord with observed facts. For on general principles it may be stated that all stimulant drugs are also depressants or irritants—the difference being dependent on the dose—small doses producing the former and large doses the latter effects. The stimulant effects are physiologic, while the depressant or irritant effects are pathologic. In other words, stimulants tone up and invigorate, while depressants and irritants injure the part on which they act. Take strychnin, the drug referred to by Dr. Hare, as an example. In small doses this drug has a stimulant action—elevates the strength of the body to the highest possible point; while in large doses it depresses and irritates the nervous system to such a degree that it induces tremor and tetanus.

So far as I am aware there is no pharmacologic evidence to show that stimulants undergo combustion in the body and yield up their force, as Dr. Hare says is the case with alcohol. If alcohol oxidizes in the body, as I believe it does in small quantities, it falls on the other side of the line which divides stimulants from foods, and hence is not a stimulant but a food. Dr. Hare's first class of stimulants has, therefore, no basis in fact.

In reference to that class of stimulants which furnish an increased quantity of blood, and of which Dr. Hare cites digitalis as an instance, it may be said that no stimulant is endowed with the special power of supplying blood to the part on which it acts except as an indirect effect of its action on the muscles and nerves of the circulatory organs—a property which is shared more or less by all our active stimulants.

Why Dr. Hare should single out strychnin (the type of his fourth class) and charge it with being the only one which simply goads the system to increased endeavor without aiding it simultaneously, and why he should attribute to coca (the example of his third class) the power of liberating reserve force and developing greater strength in the body than strychnin is not readily comprehended. For goading is no more characteristic of the action of strychnin than it is of that of coca, or of any other stimulant. Nor is there any reason for believing that coca liberates any more reserve force and gives greater vigor to the body than strychnin. The experimental evidence certainly indicates that strychnin aids vital action over and above that which it obtains from the food-supply. In my work[2] on the influence of drugs on the frog's heart it is clearly demonstated that strychnin adds more force to the ventricular contraction than that which is obtained from blood alone, and I believe that this fact is also confirmed by clinical experience.

From the above observations it seems clear that Dr. Hare's four classes of stimulants have more of a fanciful than a real existence, and that the principle which lies at the bottom of all stimulation is, after all, not so complex as he would have us believe, but is one of goading or of urging, and not of irritating, an organ beyond that rate of function which it is enabled to carry on through the influence of its food-supply alone. And, moreover, the functional improvement which follows the use of stimulants is not the exclusive benefit which they confer, but there is good reason for the opinion that indirectly they have the power of modifying and of improving the nutrition of an organ to a very marked degree, if given for a protracted period.

[2] *Therapeutic Gazette*, March, 1885.

Special Article.

MEDICAL BRICABRACOLOGY.

No. 3.—Office Adornments.

ONCE there was a man who went to see the doctor on professional and strictly personal business, but the doctor was out and the man improved the opportunity to look about. While so doing he came across a skeleton nicely bleached and finely articulated.

Now this man was not squeamish, but he was a philosopher; moreover, he was great on drawing inferences. He said to himself: "Did the doctor buy this skeleton or did he prepare it himself?"

"If he fixed it himself where did he get the bones? At the medical school? Or—"

"Oh! horror!" said he to himself, "could it have been one of his patients?"

Thereupon, as everyone is always impressed most profoundly by the worst inference, the man took his hat and set out to seek another physician, who had a better recommendation than a skeleton in his closet.

Of course every physician, like everyone else, has one or more skeletons in the closet, but it is well to keep them under lock and key, for fear of scandal, for a skeleton is not a good advertisement.

Few can boast and few would want the record of the medical student who promised the landlady that he would bring no bones into the house. Nevertheless the landlady, while looking around, as landladies will do, found a complete skeleton in the closet.

"You faithfully promised that you would bring no bones into the house," said the landlady in remonstrance.

"I did and I haven't," said the student. "She was alive when she came in with me."

For the benefit of the laity who may hear or read this story and add murder to the already long list of crimes, tacitly and sometimes openly credited to students in medicine and physicians, it is well to add that this skeleton was that of a monkey.

As a rule, all anatomic specimens are horrible failures, as bric-a-brac, in a physician's office, although they may serve the charlatan as horrible examples, to adorn "Know Thyself" museums, which tend to harrow up the soul and disturb the feelings of the patients who regale themselves on such a feast, while waiting the advent of the man who diagnoses disease without asking questions and guarantees a cure, if the patient will guarantee to pay; the length of the treatment depending upon the length of the patient's purse.

These "preserves" may lead to unpleasant denouements and embarrassing explanations in some cases.

A student who pursued his studies and other things as well in the Quartier Latin, at Paris, sowed his wild oats so well that a female friend sent him a three-months' fetus as a part of the crop. With a grim taste for eccentricity, or perhaps as a vivid reminder of the evil of his ways, the student decided to preserve this portion of the crop of wild-oat-sown seed, but while he was preparing the jar a cat gobbled up the embryo man at a mouthful. Not to be balked in his intent the student killed the cat and preserved her in alcohol. Of course when questions were asked the student about the cat the student told another story, but the truth leaked out and as the alcohol leaked out too, about the same time, the student threw the whole thing away.

Worse disasters than that may happen. A surgeon interested in polypi had a fine collection of these adventitious appendages which mysteriously disappeared. A few days later his man of all work was very sick and told the doctor he thought it was the brandied pears that the cook gave him. These unhealthy pears turned out to be the polypi which had been pilfered by the man who was looking for something spicy.

One naturally expects a man's heart to be bitten by the tooth of time, but when a rat or a man gnaws a heart that is different, yet such things have happend.

The 6th of May, 1821, Dr. Antomarchi, assisted by Thomas Carswell, made an autopsy of Napoleon I. Night came on and work was suspended, but in the morning it was discovered that the rats had eaten the heart during the hours of darkness. It was consequently necessary to replace it, and if Ch. Flor O'Squar tells the truth, a sheep's heart has done duty ever since for the heart of Napoleon, lying under the dome of the Invalides, in the chest of the conqueror of Austerlitz.

According to Labouchere the heart of Louis XIV ought to be in Westminster Abbey, and so it is, in a way. When this heart was brought to England it looked like a bit of shrivelled leather. When it was shown to Dr. Buckland, who did not know what it was, he looked at it curiously, felt of it, and, *horresco referens*, tried it with his teeth and swallowed it. This, however, proved a short road to glory, for Dr. Buckland's remains repose in Westminster Abbey.

Neither should anatomic pictures decorate the walls of the doctor's office. They may be awe-inspiring, but they are of the gruesome order, neither nerve-soothing nor confidence-begetting. The well known and classic Andreas Vesalius is a favorite subject, but while it may be highly appreciated by the physician it is not so pleasing to the patient, suggesting as it does nameless horrors to him or her.

There is a mystery, too, about the latter-day history of Vesalius. Tradition says that in 1554 he made an autopsy on a supposed-to-be defunct Spanish gentleman, but while the assistants were dissecting the body it was discovered that the heart was still beating. Like many other professional secrets this fact became public, and Vesalius was brought before the Inquisition, at the complaint of the gentleman's relatives, and was condemned to make a pilgrimage to Jerusalem. On his return he was shipwrecked and thrown on the shores of the island of Zante, where he died from hunger and exposure.

That's a bitter end of a noble life, and the hic-fabula-docet man can draw some very good parallels and morals from it; how the man of sterling integrity and honest endeavor spends his life in doing good, to the best of his ability, and is finally stranded and left to die after making daily and hourly pilgrimages to the homes of suffering.

On the other hand "A Good Story" and such like jolly pictures are perhaps too suggestive of frivolity for the doctor's office. For a smoking-parlor or a Dutch Room they are all right, but they are rather too suggestive of conviviality and jovial good-company for the doctor, no matter how good a fellow he may be ex officio.

But then, pictures of the hark-from-the-tombs style, doleful of subject and somber in tone, are not so desirable. Neither is a certain class of religious pictures in keeping with the environment of a physician's office. For example, the "Descent from the Cross" and "The Last Supper," both masterpieces, and imbued with the most sacred sentiments, are incongruous in the company of pills and powders. The one speaks of death to the patient, the other suggests an approaching end, the last meal as it were, a sort of see-the-doctor-and-die sentiment.

If religious pictures are selected, get the "Raising of Jairus' Daughter," or "Christ in the Manger," or a Madonna. These suggest the good physician giving health and life, and beget feelings of hope and confidence.

Don't display Magdalenes in all their glorified reincarnation and unusual scarcity of clothing, for back of them is a scene of wanton abandon and licentiousness which is an insult to the feminine element of one's clientele.

If a doctor hob-nobs with actresses, and wants their exclusive patronage, let him display theatrical photographs, autographic, if possible, as that proves more intimate relations with the fair face and form. On the other hand, if the physician desire to rise above the demi-monde, to be counsellor and healer of the "better class," let him eschew such high art as is portrayed in photographs of high-kickers who do the split and other things, and if he has a fancy for such artistic anatomy or anatomic art, let him enjoy it like the oft-mentioned stolen fruit,—in secret.

Needless to say, whatever pictures are selected should be restful in tone and quiet in subject, yet masterly in execution. Cheap chromos, veritable abortions of art, suggest to the patient that the doctor is as well able to judge of and treat disease as he is to select his pictures. Humorous pictures may serve to enliven the patient, to make the environment more cheerful, but the so-called humorous lithographs and chromos, out of place even in the lowest and vilest bar-room, should never appear on the office walls, not even in that little office around the corner where every one goes regularly, everyday, to consult nature. They are not even fit for the barn, and a self-respecting doctor's horse would kick them out in disgust.

There is another so-called ornament that has been seen in a country doctor's office; it is that awful reminder of death that adorns the grim and somber, dank and chilly country-parlor or best room too good for daily use. It consists of a black glazed frame in which the coffin-plate of some deceased relative is conspicuously displayed on a black ground surrounded with stiff wax flowers. The very thought of it suggests wailing and gnashing of teeth, and it's too funereal an object for the doctor's use. One might just as well go the whole figure and set up a coffin, Chinese-like, in the corner, or keep a stock of coffins on hand, to be thrown in as a premium, to soothe the feelings of the afflicted, in case the doctor isn't successful in snatching a victim from the grasp of death. Besides, a coffin-plate is a sort of card of introduction to whom it may concern, in the hereafter, and to take it from the coffin, is, in a sense, a sacrilege, a deprivation of rights.

Grotesque cocoanut heads, suggestive of capital operations, death masks, vases which suggest funeral urns and the ashes of one's ancestors, and such like articles of vertu, are all right in their place, but their place is not the doctor's office.

Let it be as tastily decorated as good sense can dictate, let it be as richly furnished as the purse can afford, but let it be in keeping with the occasion, quiet in tone, cheerful in aspect, suggesting restful ease, soothing the edge-set nerves, and begetting content and philosophic acquiescence in the inevitable.

Time was when the environment of the doctor's office and person suggested the charlatan dealing in mystery. Uncanny stuffed animals stared and glared with glassy eyes at

the patient, while reptiles hung from the ceiling, fit companions for the witches' caldron and deeds of darkness and mystery.

To-day all these things are changed. Articles that savor of the shop are banished from sight or concealed as much as possible. The surgeon may be proud of his armamentarium chirurgicum, but he does not display the tools of his trade as does the carpenter or machinist. He is a student of human nature, and hides from view all things which may strike terror into the hearts of his patients. He strives to reassure the timid, to encourage the fearful, to allay terror, and in the suffering that he must inflict, to cure, he takes the gentlest manner and means.

The good physician is not an arrogant exhibitor or a mystifying prestidigitateur gloating in the open-mouthed wonder of those who think him more than human. On the contrary, it is his humanity which brings him into closer communion with his fellow-beings, and makes him a very god in his heartfelt sympathy and gentle care of the suffering. He strives to make his patients love him, as a ministering angel, with no desire to inspire awe as a wonder-worker or a priest of occult science, or an ally of the prince of darkness. He does not claim to be equal with God or to possess unnatural and superhuman powers; even if he is the seventh son of a seventh son, or was born veiled with a caul. He is a simple man, to whom much study and close observation, long experience and deep investigation have given skill in medical matters.

Natural talent is of course desirable, just as it is for the miller to have the right kind of a thumb, but genius is always erratic and often spasmodic in its character, while the slow plodding, but conscientious student and progressive physician is always a student and may surpass and eclipse the efforts of his more brilliant but less applicative brother just because he has the dogged determination to persevere and succeed. The genius may have forgotten more than his more laborious friend ever knew, for easy comes easy goes, but the very fact that he has forgotten what he learned so easily handicaps him in his career.

A part of the physician's *savoir faire*, be it natural or acquired, is gentleness. The day of the brusque surgeon, who treated his patients roughly and even cruelly, thinking to gain thereby in their esteem by ignoring their feelings, is past. He gained the epithet of the butcher and the reputation of a man who took pleasure in inflicting suffering. Of such an one they said: "He really loves to cut a man up," and they believed it.

No longer does the surgeon set up a horrifying array of blocks and tackle and reduce dislocations by main force; no longer does he heat his cauteries in the kitchen fire; neither does he strap his patients into a chair, thanks to the discovery of ether which renders the patient insensible and therefore incapable of struggling against the cruel knife. He does not flourish his lancet or scalpel as if he was about to kill a deadly enemy or was trying to scare him to death. He rather conceals his glittering instruments and does the deed gently as if he was inflicting a wound on a friend.

In the display of medicines there is more latitude. Display does no doubt to a certain extent have a desirable effect upon the patient and acts upon him or her in a favorable way. To most people disease is an entity, a foe to life, a thief of time, a destroyer of strength, the assassin of happiness and the murderer of health. To the laity, medicine is the ammunition against this foe, powder, shot, bullet and shell which lays low the enemy of life. The physician who shows himself well prepared with such ammunition against this foe of mankind seems to be a trusty watchman, a sturdy safeguard of the welfare of those who enlist his services. Hence a display of medicine seems to be a rational and appropriate exhibition of the ability to cope with disease.

The great advance in pharmaceutic art has rendered it possible for the physician to avail himself of many means to safely, quickly and surely relieve disease. Tablet triturates, coated pills, compressed powders, and other elegant products prepared by the chemist and druggist render it possible for the physician to give immediate relief, to his own reputation and to the gratification of the patient. There is a limit, however, to the display advisable. A man does not need enough drugs to set up a drug store. A few well-selected remedies, well understood, are better than a thousand about which one knows but little beyond that told on the label.

Above all don't try the false front or bottom plan to make a small stock go a long way. Such a plan may do for grocers and the like, but if the patient finds such a trick is being worked by the doctor he will be likely to jump at the conclusion that the doctor is false in all things, for a false front leads to the thought that the man's skill and knowledge is false pretence as well.

Books, like medicine, are essentially utility articles. Their use as ornaments is of secondary consideration, but there is no question but that a well-filled bookcase is a valuable accessory to the physician's office. Let these be books of reference, works of merit and intrinsic value. Put seven-day's wonder books out of sight with ephemeral novels, tales of passion unrestrained and romances of unholy sentiment and degenerate subjects. Have a good bookcase; a reputable author is worthy of a stately house, but don't fill it with books bought by the hundredweight or boards bound as books by the yard.

Let your books be arranged decently and in order. Don't let a treatise on surgery hob-nob with a guide to carving; don't set up how to mix drinks beside the pharmacopeia; neither should one have a book on massage next to one on prize-fighting, nor a treatise on venereal disease in company with the sportsman's guide or hints for gunners. "Sappho" and "Manon Lescaut" and that ilk don't look well in juxtaposition to the "Ethics of Marriage," and a treatise on urinary disease is not in good company with a treatise on sewage and drainage, even though the aforesaid system is a sort of sewer with its canals and catch-basin.

Keep your bookcase locked. The laity have an itching predilection to read doctors' books, and if they cannot borrow them they will improve the first opportune moment to appropriate them without permission. If you have a microscope you can put that in the bookcase too, for that is a legitimate display; but beware of the temptation so sweetly put, "let me look through the microscope;" it takes time and the patient gets as much satisfaction from looking at a piece of striated muscle, for example, as he would in looking at a picket fence.

Above all keep the office, no matter how humble it may be, scrupulously clean. In these days the slovenly doctor might as well take down his sign and turn gravedigger, for everyone appreciates the theories and facts about antiseptics, and they want an antiseptic doctor or none. Time was when one or two spiders and a score of webs festooned over the ceiling were supposed to be a sign of genius; learned men were supposed to study the spiders' habits and even to commune with them as with a familiar spirit, just as they were supposed to consult with the black cat, which figured so ex-

tensively as the witches' spiritual adviser and the deputy or proxy of the devil. Possibly it was a sign of kindness to animals, or rather insects, but the humane man of today has no spiders lurking in the corners, for in the present development of nerves, a big, black spider would scare an hysteric woman into fits, and that is certainly not humane on the part of the physician, unless he is like the oft-quoted doctor who was death on fits, and for that reason always tried to scare his patients into fits when he didn't know what else to do for them.

When you brush out the spiders' webs don't leave any filaments to cloud your mental vision or ensnare your reason. The French say of a man who is not exceedingly bright and rather eccentric, a little bit off, in fact, "he has a spider's web on the ceiling." So when you clean up shop give a little attention to the little room where all the energy is produced, the power-house, so to speak. Keep your ceilings well brushed, as well as your hair, and people will think you are a nice man.

LEON NOEL.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Dr. John F. Mentzer, of Lancaster, has been appointed a Trustee of the Harrisburg State Insane Hospital, vice Dr. Alexander Craig, of Columbia, deceased.

Formaldehyd in Milk.—Meat-Inspector George, of Camden, N. J., reports that he has made examination of milk procured from certain dairies, and out of 43 such tests he found in several instances unmistakable evidences of formaldehyd. The Board of Health decided to call the attention of the State Chemist and the Dairy Commissioner to the cases, and they will be requested to make a test of the milk arriving at the Federal Street Station.

Vital Statistics of Philadelphia for the week ended August 26, 1899:—

Total mortality		406
Diseases.	Cases.	Deaths.
Marasmus 30, inanition 11, debility 4		45
Cholera infantum 33, dysentery, 4		37
Pulmonary tuberculosis 36		36
Heart-disease 20, inflammation of the heart 2		22
Nephritis 21, uremia 8		29
Apoplexy 9, paralysis 8, softening of the brain 3		20
Pneumonia 16, congestion of the lungs 2		18
Convulsions		15
Senility		12
Diphtheria	79	22
Carcinoma		10
Inflammation of the brain 15, congestion of the brain 4		19
Typhoid fever	85	6
Scarlet fever	47	3
Casualties 7, drowned 6, septicemia 3, abscess 1, cirrhosis of the liver 5, peritonitis 4, bronchitis 1, pertussis 6, diabetes 4, dropsy 1, appendicitis 5, epilepsy 1, inflammation of the spine 2, teething 2, homicide 1, suicide 4, shock 2, pyemia 3.		

Medical Emergency Corps.—There was a general meeting at City Hall, August 28, of physicians who intend to act in conjunction with the Philadelphia Emergency Corps during the G. A. R. reunion and festivities. There will be about 125 physicians all told in the service, along with 8 members of the committee of the Medical Emergency Corps. Each member will wear a G. A. R. cap and will be supplied, while in service, with an emergency box and paraphernalia. It is intended to establish posts all along the line of parade, at which a surgeon will be stationed, and a telephone and signal corps will be at hand to call ambulances and perform other duty. The main medical quarters will be at Juniper and Market Streets. Chief Surgeon T. H. Andrews, of the Bureaus of Fire and Police, will be medical director, assisted by Dr. A. H. Hulshizer.

Drs. Hendricks and VanBuren will be in charge of the Medical Emergency Corps of 8 physicians at Camp Sexton.

NEW YORK.

Death from Hiccoughs.—Barton Fitzsimmons is reported to have died in the General Hospital at Fishkill Landing, August 24, of hiccoughs. The attack began August 20, and, despite the efforts of several physicians, continued until he died of exhaustion.

Contagious Diseases in the State.—A warning circular has been issued by the State Board of Health calling attention to the spread of smallpox in the country districts, and calling for extreme vigilance on the part of the authorities and medical men in general. Scarlet fever and diphtheria have broken out in the Rochester Orphan Asylum, and more than a quarter of the inmates have had one or the other of these diseases.

Aphasia of an Orator.—The Chairman of the Dewey Reception Committee, Gen. Daniel Butterfield, was stricken last week with aphasia, as a result, probably, of overwork in preparing for the naval celebration scheduled for the end of September. Although still active and of vigorous appearance, General Butterfield is nearly 70 years of age, and his condition caused much alarm. The enforced rest gave him time to recuperate his forces, and the difficulty has gradually worn off. The stroke is all the more to be deplored, since General Butterfield has a national reputation as an after-dinner speaker.

Bogus Health-Inspector Dies.—Attention has been called in these columns to the operations of persons pretending that they were officials of the Health Department, and using the entrance to houses which they thus obtained either for purposes of blackmail or as a means to petty robbery. One of the frauds was recently arrested in Newark for playing the same trick, and was about to be extradited to New York on charges made here, where the law allows a more severe punishment. While the extradition papers were taking their usual course the man died from natural causes. The charges against him in this city were many.

The Space-sense Deranged.—The Harlem Hospital has a patient who came voluntarily to be treated for alcoholism. His wife had been away in the country for several weeks, and he had been, according to an expression which has become popular this summer, "spending his wife's vacation" in overstimulation. The peculiar phase of his trouble was that while he was all right on the street he lost control of himself as soon as he passed into a park or other open space. He is aware of his difficulty, and reported to the hospital physicians that he has been affected that way for several years since he was a witness to a fatal accident while climbing a Swiss glacier.

Opposition to Vaccination.—There are indications that the old trouble over compulsory vaccination in the public schools will break out in Brooklyn, Queens, and Richmond, as soon as the vacation-time ends. President Murphy, of the Board of Health, states that, unless the borough boards cooperate with the city boards, drastic measures will

have to be taken and the schools ordered closed. Many persons think that vaccination does not amount to anything until their friends or relatives are stricken down with smallpox, and then they proclaim that the public officials are neglecting their duty in not preventing the disease from spreading.

Compound Fracture in a Plank.—A laborer on a roofed pier in the eastern district of Brooklyn has presented an additional detail to the records of bone-fracture. He was accidentally swept off his high perch by a canting piece of timber, and fell a distance of 18 feet, striking on his hands and knees on the floor of soft pine. The injuries which he sustained were a fracture in each leg above the knee, a broken kneecap, and grave internal injuries. The jagged end of the bone in the left thigh pierced the flesh and skin, and was forced a distance of an inch and a quarter into the plank. As the man rolled over, a two-inch section of the bone was snapped off and remained fast in the piece of timber. It yet remains uncertain what shall be done for the patient in the way of restoring the missing bone. It was necessary to use a chisel in removing the bone from the plank.

Rabies Communicated by a Deer.—The State Board of Health has had its hands full this summer with rabies among domestic animals, but wild animals have had to look after themselves. Recently the curator of the Zoological Garden at Buffalo was brought to New York for examination and treatment on suspicion of rabies obtained from a wild animal under his care. One of the deer in the garden died early in August, with symptoms of hydrophobia. The curator performed a necropsy and met with the mishap that his knife slipped, pierced his rubber dissecting glove and penetrated his thumb. The city bacteriologist of Buffalo, Dr. William G. Bissell, made a culture from the blood of the deer and injected it into a guineapig, which soon displayed the marks of rabies. For precaution Curator Crandall, who might have been inoculated through his accident, was brought to New York for precautionary treatment, and is now at a sanatorium on the Hudson River. He has not as yet given any sign that he has been infected.

Comptroller Coler's Inspection.—President John W. Keller, of the City Department of Charities, piloted Comptroller Coler last week on a tour of inspection of the charitable institutions of the city, beginning at Bellevue Hospital and thence going to Blackwell's and Randall's islands. Both Comptroller Coler and President Keller are anxious to put a stop to the present system of appropriating public funds to private institutions for the performance of work which the municipality has a sufficient equipment to perform. When the budget for 1900 is made up showing the amount of estimates for such appropriations Mr. Coler is planning to make a vigorous campaign against what he regards as misuse of public funds, and Mr. Keller is in accord with his views. One of the things which they propose to cut off is the sending of the indigent sick at public cost to private hospitals when the Department of Charities has room for them in the hospitals which it controls and administers. This department has fully equipped modern wards and pavilions for the treatment of every kind of disease. For considerable periods these wards are often comparatively empty, but the maintenance charge is just the same whether they have one patient or a score, and it is only in the food-allowance that any reduction is found. While this failure to make full use of the city institutions exists the city is paying large sums to private hospitals for the care and treatment of patients who should be in city institutions. It is to be expected that the private hospitals will oppose action by the officials. One reason is that the city pays for its patients a dollar a day, amounting in the course of the year to no inconsiderable sum for institutions which have to keep running any way. Another reason is that almost all these hospitals are attached to medical schools, and the clinics on the city patients are regarded as a valuable part of the educational assets of those schools.

Summer Work of Hebrew Charity.—During the month of July the work of the well-organized United Hebrew Charities was more considerable than is common during this season of the year. The total number of applications received and dealt with amounted to more than 1,600, a figure which represents about 5,500 individuals. Of these, 350 applications to the Bureau of Relief were made for the first time, and cases which had been previously investigated numbered 1,274. Relief was refused for sufficient cause in only 501 cases, thus showing the honesty of the appeals. There were 394 cases of regular monthly pensions not included in the foregoing totals. Transportation to different parts of this country and to Europe was given to 88 persons. Among the items of relief were 1,587 garments, 185 pairs of shoes, and 88 articles of bedding and furniture. Homeless men and women received 83 nights lodgings and 249 meals. There were 45 free interments, and four bundles of clothing were given to mothers and infants. The physicians of the charity attended to 547 house and office calls, and trained nurses paid 698 daily visits to 52 patients. Nourishing food was supplied to each of these patients regularly; and in addition 84 bottles of wine and liquor were distributed, 3 bottles of codliver oil, 13 orders for surgical appliances and 288 prescriptions compounded. The Employment Bureau registered 878 applications, work was found for 395, of which 44 refused to work and 179 failed to call after being registered. In the Industrial school 169 girls were taught dressmaking, and 259 garments were made. The disbursements for all this service amounted to $11,085.58 and the receipts from all sources were $8,640.55. Plans have lately been filed with the Building Commissioner for a new six-story hospital at Cherry and Jefferson streets to cost $100,000 and to be owned by the Beth Israel Hospital Association.

NEW ENGLAND.

Youthful Degeneracy.—There seems to be no reason to doubt that the two fires which have broken out at the Ramsford Island reformatory for boys, were set by the inmates. The first fire was extinguished with small loss, but the second destroyed an entire L on the main structure. During the fire several boat-loads of boys escaped, and it is thought the fire was set to assist their plans for flight.

Public Pauperism.—The trustees of the pauper institutions of Boston have completed their second annual report, and it gives some facts of significance and value. Of the men 79% admitted and 36.6% of the women were addicted to drink, 46.7% of the men and 22.3% of the women had been in penal institutions; 36% were incapacitated for steady work on account of chronic illness or old age; 12% were disabled, and 13% mentally impaired. Under the general title of chronic illness were found 112 cases of consumption, 62 cases of specific disease, and 45 persons paralyzed or bed-ridden. Thirteen percent had a history of public aid for several generations, and apropos of this last fact the report says: "We must face the fact that for a part of our population

their only prospect is life in the almshouse." It touches a great question when it says that it is as important to regenerate inmates morally and mentally, as to recuperate them physically, otherwise they only leave the institution "more able than before to be an injury to society."

Some Financial Statistics of Interest.—The relative value of the work a hospital does for its free patients as compared with the service it gives those who are able to pay for it, is often a matter of dispute and speculation even among those whose hospital connections would give them access to facts that would decide the question if they chose to look for them. The Massachusetts General Hospital is an institution which combines service to a large number of paying patients with a correspondingly large amount of purely charity work. During its last fiscal year the number of paying patients was 1,778, the number paying part of the time was 175, and the number entirely free, 2,854. The paying patients represented 5,322 weeks' service, and the free patients 7,879 weeks. The value of the free work of the institution was $103,734.64, while that of the paying patients contributed $66,774.19. Turning to the McLean Hospital, at Waverley, Mass., the returns for the same year show that the income from patients was $186,769.92; that 155 were treated, and that the average cost per week per patient was $26.84. The amount expended at the hospital for those who paid less than cost was $167,723.16, and the amount received from such patients was $93,735.00. The charity work of the institution was, therefore, $73,988.16, out of a total annual expenditure of $218,673.60.

Emergency Service in Boston.—President Shuman, of the Board of Trustees of the Boston City Hospital, this week promulgated a plan for establishing emergency branch-hospitals in various parts of Boston. He emphasizes the fact that the trustees, since 1892, have repeatedly asked the city government for funds to add to the Boston City Hospital service the system of emergency help in vogue in Philadelphia and New York. One of the reasons why the City Council was apathetic on the subject was the fact that a private institution superintended by a physician whose family have strong political influence used their efforts to give the Boston Emergency Hospital—for that was its name—a clear field. A week ago this hospital closed its doors for lack of funds. The corporation owed $25,000 and had assets valued at $5,000. It had been treating about 20,000 patients annually in its outpatient department, and its 20 beds were kept well filled. It claims to have answered 1,500 ambulance calls last year. The sudden suspension of this work has called out anew the demand of the City Hospital trustees for down-town emergency stations.

In the meantime the old Emergency Hospital people are not idle. The superintendent holds a personal lease of the premises which does not expire until December 15. If in the interval money can be raised to go on, the doors of the institution will be reopened. A plan is on foot to enlist the Boston Central Labor Union in the enterprise, and by assessing the members $1 a year provide a fund of some $50,000 to found what they hope to call "The Wage-Earners' Emergency and General Hospital." Conservative people wish to see the City Hospital provide for the needs of a down-town emergency service.

CHICAGO AND WESTERN STATES.

Daniel Roberts Brower, M.D., LL.D.—We learn from the Georgetown, D.C., *College Journal* that Dr. Brower, professor of nervous diseases at the Woman's Medical College and of mental diseases at the Rush Medical College, Chicago, received his doctorate of laws at the eighty-second commencement of Georgetown University, where he graduated in 1864.

University of Chicago.—Dr. Clarence Webster, of Montreal, has accepted the important post of professor of obstetrics and gynecology. Everything in the way of hospital appointments, teaching equipment, selection of staff, and emoluments was offered by the Chicago authorities. As a teacher and a writer, Webster has rapidly made his influence felt in Montreal.

Fined for Not Reporting Tuberculosis.—Dr. E. S. Shurly, a physician of Detroit, Mich., was recently fined $50 and costs by a justice of the peace for failing to report a case of tuberculosis of the lungs to the Board of Health. It was a test-case, brought to determine the right of the State Board of Health to include pulmonary tuberculosis in the list of dangerous communicable diseases.

Marriage of Syphilitics Forbidden.—The Michigan Legislature has recently passed a law forbidding the marriage of any person suffering from gonorrhea or syphilis. The law states that any one so diseased who may marry shall be guilty of felony punishable by a fine of not less than $500 or more than $1,000, or imprisonment for a term not exceeding 5 years, or by both fine and imprisonment.

Ptomain-poisoning has occurred at a number of places in Tazewell Co., Ill., recently. Near Deer Creek, 16 threshers were poisoned, several of them so severely that their lives were in danger. At Carlock, 18 threshers and 3 women were poisoned; and near Yuton, 10 threshers were poisoned, several of them seriously. In all these cases the poisoning is attributed to eating pressed chicken. Peculiar atmospheric conditions are supposed to have affected the food.

Proceedings Against Chicago "Healers."—The Illinois Society for the Prevention of Malpractice in spiritual healing is carrying on a legal contest against John Alexander Dowie, proprietor of the "healing" institution on Michigan Avenue. Joseph Skalla, was fined $100 and costs for violating the medical practice act. The prosecution charged Skalla with making and selling medicinal remedies, treating the sick in violation of the State law, and showed that Skalla was not a regularly licensed physician.

School for the Backward.—A new training school for nervous and backward children will be established in Chicago November 1. It will be called the Chicago Physiologic School, and its purpose will be to provide a home and school for boys and girls who, owing to illness or infirmity, are unable to cope with normal children. Miss Mary R. Campbell, formerly in charge of the Girls' Department of the Wisconsin Institution for Feeble-Minded Children and the author of a number of treatises on psychology, will be in charge. The institution will be affiliated with the University of Chicago. The Board of Trustees will include Dr. W. R. Harper and Professor George H. Mead. Only children under 15 years of age will be taken.

SOUTHERN STATES.

Memphis (Tenn.) City Hospital.—Dr. S. E. Rice has been elected gynecologist to succeed Dr. R. B. Maury, who recently resigned.

The Presbyterian Eye and Throat Charity Hospital, Baltimore, has been undergoing extensive improve-

ments which are nearly completed, and the Hospital will be opened again about September 1. It has been closed since July 1.

Smallpox in Texas.—An epidemic of smallpox has broken out in the Brazos valley as a result of the bad sanitary condition following the recent disastrous floods. The State Board of Health is taking measures to prevent the spread of the disease.

Dr. William F. Smith, professor of anatomy of the College of Physicians and Surgeons, Baltimore, Md., has resigned his chair on account of ill-health. He has been in delicate health for some time, and felt unable to undertake his duties at the college for the coming year. The faculty has elected Dr. I. R. Trimble to succeed him. Dr. Trimble is one of the surgeons of the Baltimore and Ohio Railroad, is surgeon for the United Railways and Electric Company, and was formerly connected with the Maryland University School of Medicine, was professor in the Woman's Medical College, and was formerly assistant surgeon of the Fifth Regiment.

MISCELLANY.

Bequests to Quebec Hospitals.—Mr. Zephirin Chapleau, who died recently at Quebec, made the following bequests: Notre Dame Hospital, $10,000, the Hotel Dieu, $3,864, and the Sisters of Providence, $6,304.

San Francisco Woman's Hospital, Havana.—An American firm has offered to buy the land on which the hospital is located, and will build a new model hospital in another part of the town and pay $10,000 cash in exchange.

School for Nurses at Havana.—A training-school for female nurses was opened August 25 at Havana. Major-General Ludlow, Governor of the Department of Havana, and Mrs. Ludlow were present at the exercises. Ten young Cuban ladies are the first applicants for positions in the school.

Dr. Bedloe's Suspension.—The State Department is very reticent about the real causes for the suspension of Dr. Edward Bedloe from his consulate at Canton, China, but Assistant Secretary Cridler says distinctly that the suspension is not connected in any way with the granting of an American register to the filibuster Abbey, and that the real trouble does not reflect at all upon Dr. Bedloe's character.

Scientists for South Pacific.—The United States steamer *Albatross* sailed from San Francisco, August 23, with a party of scientists, under the direction of Professor Agassiz, of Harvard. The expedition will make exhaustive researches of the islands in the Southern Pacific, and it is expected that much will be discovered that is new and of great interest to the scientific world. The voyage is expected to last at least six months.

American Association for the Advancement of Science.—The next meeting will be held at New York, June 25–30, 1900. The officers elected were: President and treasurer, Professor Robert Simpson Woodward, dean of the School of Applied Science of Columbia University, New York; permanent secretary, Leland O. Howard, of Washington, Government entomologist; general secretary, Charles Baskerville, Chapel Hill, N. C.; secretary of the council, William Hallock, New York.

A Significant Request.—Surgeon-General Sternberg has received a cablegram from the director-general of the army medical service of Great Britain, asking him for 300 copies of "Sanitary Lessons of the War," published in this JOURNAL, issue of June 10. If this number could not be obtained the director-general asked authority to reprint the publication for distribution among the medical officers of the British army. The significance of the request by cable is in the preparation that is now being made for a possible war in South Africa.

Leper Sent Back to Hawaii.—A case of unusual interest has recently been settled by Commissioner of Immigration Powderly. Mrs. L. M. Todd, a British subject, who is now in the San Francisco pesthouse suffering from leprosy, took passage at Honolulu on the steamship *City of Rio de Janeiro*, destined to some point in Japan. From Japan she shipped by the Canadian steamship line to Victoria, B. C., thence coming across the border of the United States, reaching San Francisco on December 22, avoiding the Marine-Hospital examination at that point. Her condition was discovered by the immigrant inspector at San Francisco and a specialist made an examination, finding her badly diseased. Commissioner Powderly has ordered that Mrs. Todd, who is a widow, be sent back to the Hawaiian Islands and confined in the leper-colony there.

The Eucalyptus for Cuba.—Owing to frequent recommendations to Governor-General Brooke of the eucalyptus tree as an antimalarial agent, investigations into the subject are being carried on under his orders. Attention has been called to the success obtained in cultivating the tree in the campagna of Italy, where eucalyptus is now recognized as rendering the territory much less unhealthful. The City of Mexico is another instance, where malarial districts are now well stocked with young trees, with the result that places which were once marshy and unhealthful have been rendered dry and innocuous. The camp of the British troops in Jamaica, which was formerly malarial, has been planted with eucalyptus, the result already being a steady disappearance of marshy spots. The tree department at Santiago recently made a request for several thousand eucalyptus slips, the requisition being strongly indorsed by General Leonard Wood. Several years ago experiments with the eucalyptus tree were tried in Cuba, the result being satisfactory for the first four years, after which, it is said, the trees died.

Obituary.—DR. SAMUEL B. W. MCLEOD, one of the best-known physicians of New York, died on August 22, aged 68 years. He graduated in 1849 at the University of Pennsylvania, of which his grandfather, the Rev. Dr. Samuel Brown Wylie, was at that time provost and professor of languages. He served one term as vice-president and five successive terms as president of the New York County Medical Society, and was vice-president and president of the New York State Medical Association. He was consulting physician to the New York Lying-in Asylum and to the Northern Dispensary, and was formerly a surgeon of police. He was one of the original members of the New York Academy of Medicine.—DR. JOHN J. LINSON, at Tarrytown, N. Y., August 27, aged 72 years. He graduated from New York Medical College in 1856. In 1862 he offered his services to the Government and was attached as assistant surgeon to the Sixth New York Heavy Artillery. He is well known as the surgeon who originated the plan of marking recruits with silver nitrate to prevent them from jumping their bounty. He was for three years president of the Westchester County Medical Society, and was also a member of the State Society.—DR. WILLIAM A. JACOBS, at Centre Hall, Pa., August 16. He was a gradu-

ate of the University of Pennsylvania in 1875, and had served in the Civil War as second lieutenant of Company G, 148th Pennsylvania Volunteers.—DR. MAX THORNER, at Cincinnati, August 27, aged 40 years, a graduate of the Royal University of Munich, Germany, and a member of the Cincinnati Hospital Staff.—DR. JOHN WILLIAM DEDERICK, at St. Francisville, La., August 16, aged 80 years.—DR. GEORGE H. TRUMBO, at Linden, Warren County, Va., August 27, aged 59 years.—DR. WILLIAM POMEROY, of Washington, D. C., died August 27, at Cheswold, Del., the result of taking an overdose of chloral. He had been suffering from insomnia, and took the chloral to aid him to sleep.

Yellow Fever.—Suspicious cases of fever have occurred at Orizaba, Mexico, which are believed to be yellow fever, and the matter is being thoroughly investigated by the Superior Board of Health. Orizaba has been placed under quarantine. The steamer *Santiago*, of the Pacific Steam Navigation Company, which sailed from Central American ports on August 18, bound south, was refused practique at Guayaquil, Ecuador. She is quarantined off Puna, about 40 miles from Guayaquil, on account of yellow-fever cases on board. The steamer *Arequipa*, which left a week before, has also been refused admittance to the port, and continued her voyage south, carrying with her mails and passengers bound for Guayaquil. The Marine-Hospital Service's weekly report shows that 9 cases of yellow fever were reported to the sanitary inspector at Havana during the week ended August 12. Only 2 of these were among soldiers. From Mexico City Surgeon Cooper reports 5 deaths from yellow fever at Jalapa, all the cases coming from Vera Cruz. Two new cases of yellow fever at Sancti Spiritus, Cuba, were reported to the Marine-Hospital Service August 25.

Examinations for Marine-Hospital Service.—A board of officers will be convened at the Service Building, 378 Washington Street, New York City, Wednesday, October 4, 1899, for the purpose of examining candidates for admission to the grade of Assistant Surgeon in the U. S. Marine-Hospital Service.

Candidates must be between 21 and 30 years of age, graduates of a respectable medical college, and must furnish testimonials from responsible persons as to character.

In addition to the physical examination candidates are required to certify that they believe themselves free from any ailment which would disqualify for service in any climate. The examinations are chiefly in writing, and begin with a short autobiography of the candidate. The remainder of the written exercise consists in examination on the various branches of medicine, surgery, and hygiene. The oral examination includes subjects of preliminary education, history, literature, and natural sciences. The clinical examination is conducted at a hospital, and, when practicable, candidates are required to perform surgical operations on the cadaver.

Successful candidates will be numbered according to their attainments on examination, and will be commissioned in the same order as vacancies occur. Upon appointment the young officers are as a rule first assigned to duty at one of the large marine hospitals, as at Boston, New York, New Orleans, Chicago, or San Francisco. After five years' service, Assistant Surgeons are entitled to examinations for promotion to the grade of Passed Assistant Surgeon. Promotion to the grade of Surgeon is made according to seniority, and after due examination as vacancies occur in that grade. Assistant Surgeons receive $1,600, Passed Assistant Surgeons $2,000, and Surgeons $2,500 a year. When quarters are not provided commutation at the rate of $30, $40, or $50 a month, according to grade, is allowed.

All grades above that of Assistant Surgeon receive longevity pay, 10% in addition to the regular salary for every 5 years' service up to 40% after 20 years' service.

The tenure of office is permanent. Officers traveling under orders are allowed actual expenses.

Health-Reports.—The following cases of smallpox, yellow fever, cholera, and plague have been reported to the Surgeon-General of the U. S. Marine-Hospital Service, during the week ended August 25, 1899:

SMALLPOX—UNITED STATES.

			Cases.	Deaths.
FLORIDA:	Jacksonville . .	Aug. 12-29 . . .	1	
LOUISIANA:	New Orleans . .	Aug. 12-19 . . .	1	
MASSACHUSETTS:	Boston	Aug. 12-19 . . .	2	
OHIO:	Cincinnati . . .	Aug. 12-19 . . .	2	
PENNSYLVANIA:	Allegheny . . .	Aug. 12-19 . . .	5	
VIRGINIA:	Portsmouth . .	Aug. 12-19 . . .	3	

SMALLPOX—FOREIGN.

BRAZIL:	Rio de Janeiro .	July 7-14 . . .		11
COLOMBIA:	Panama	Aug. 1-8	2	1
EGYPT:	Cairo	July 15-22 . . .	4	
ENGLAND:	London	July 29-Aug. 5 .	1	
GREECE:	Athens	July 29-Aug. 5 .	73	
INDIA:	Bombay	July 11-18 . . .		5
"	"	July 18-25 . . .		9
"	Madras	July 1-8		2
MEXICO:	Chihuahua . . .	Aug. 7-14 . . .		1
"	Mexico	July 30-Aug.6 .	4	3
"	Nuevo Laredo .	July 5-Aug. 12 .		1
RUSSIA:	Odessa	July 29-Aug. 4 .	4	1
"	St. Petersburg .	July 22-29 . . .	8	

YELLOW FEVER—FOREIGN.

BRAZIL:	Rio de Janeiro .	July 7-14 . . .		6
COSTA RICA:	Port Limon . .	Aug. 18	1	
CUBA:	Havana	Aug. 3-17 . . .	26	5
"	Sancti Spiritus .	Aug. 24	2	
"	Santiago	July 30-Aug. 12	10	5
MEXICO.	Tuxpam	July 31-Aug. 8 .		5
"	Vera Cruz . . .	July 27-Aug. 3 .		16
"	" " . . .	Aug. 3-10 . . .		16

CHOLERA.

INDIA:	Bombay	July 18-25 . . .		2
"	Calcutta	July 8-15 . . .	7	

PLAGUE.

INDIA:	Bombay	July 12-18 . . .		53
"	"	Aug. 18-25 . . .		68
"	Calcutta	July 8-15 . . .		3
PORTUGAL:	Oporto	Aug. 16	39	13
TURKEY:	Smyrna	July 30	4	3

Changes in the Medical Corps of the U. S. Army, for the week ended August 26, 1899:

GANBY, LUTHER B., acting assistant surgeon, will report to the commanding officer, Fourteenth Infantry, for duty with that regiment.

EDIE, Major GUY L., brigade-surgeon, is relieved from duty with the Second Division, Eighth Army Corps, and will report to the Provost Marshal General, Manila, P. I., for duty with the board of health.

SWIFT, Captain EUGENE L., assistant surgeon, is relieved from temporary duty at the U. S. General Hospital, Presidio, and will report to the commanding officer, U. S. troops, on board the transport "Morgan City," for duty during the voyage to the Philippine Islands. Upon arrival at Manila, Captain Swift will report to the commanding general, department of the Pacific, for instructions.

BRADLEY, HENRY H., acting assistant surgeon, is assigned to duty at the U. S. General Hospital, Presidio.

MITCHELL, JAMES, acting assistant surgeon, is assigned to temporary duty at the General Hospital, Presidio, awaiting transportation to the Philippine Islands.

CALDWELL, Major HERBERT W., chief surgeon, and SANDALL, L. B., acting assistant surgeon, will report on the transport "Senator," for duty during the voyage of that vessel to the Philippine Islands, and upon arrival in Manila, report to the commanding general, department of the Pacific, for instructions.

CALKINS, GEO. H., acting assistant surgeon, is relieved from temporary duty at the U. S. General Hospital, Presidio, and will report on the transport "Siam," for duty during the voyage of

that vessel to the Philippine Islands. Upon arrival in Manila, he will report to the commanding general, department of the Pacific, for instructions.

TUKEY, WILLIAM H., acting assistant surgeon, now at the U. S. General Hospital, Presidio, is detailed on temporary duty in connection with the medical examination of officers and enlisted men of volunteer troops recruiting from the Philippine Islands, in place of Joseph L. Bell, acting assistant surgeon, relieved on account of sickness.

SIMS, GEORGE W., acting assistant surgeon, will report on the transport "Morgan City," for duty during the voyage of that vessel to the Philippine Islands, and upon arrival in Manila report to the commanding general, department of the Pacific, for instructions.

TETAMORE, FRANK, L. R., acting assistant surgeon. is relieved from temporary duty at the U. S. General Hospital, Presidio, and will report on the transport "Leelanaw," for duty during the voyage of that vessel to the Philippine Islands, and upon arrival in Manila, report to the commanding general, department of the Pacific, for instructions.

GILMAN, LOUIS L., acting assistant surgeon, will proceed from Fort Ethan Allen, to Fort Slocum, for temporary duty.

STARK, Captain ALEXANDER N., assistant surgeon, will turn over the U. S. hospital ship "Terry" to the quartermaster's department, and report to the commanding general, division of Cuba, for assignment to duty.

STILES, Captain HARRY R., assistant surgeon, is relieved from further duty on the U. S. hospital ship "Relief," at San Francisco, Cal., and from station at Fort Preble, and will proceed to Benicia Barracks, for duty.

BAKER, CHARLES L., acting assistant surgeon, will proceed from Leetown, W. Va., to Washington, D. C., and report to the Surgeon-General of the Army, for instructions.

BONAR, R. M., acting assistant surgeon, will proceed from Hebron, Ohio, to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

FOWLER, E. W., acting assistant surgeon, is relieved from further duty on the U. S. hospital ship "Terry," and will report to the commanding general, division of Cuba, for assignment to duty.

KNEEDLER, Captain WILLIAM L., assistant surgeon, ordinary leave granted for 7 days, August 12, is changed to leave on surgeon's certificate, and as such is extended 23 days.

KNEEDLER, Captain WILLIAM L., assistant surgeon, will proceed from West Point to Brooklyn, N. Y., and report to Major William H. Arthur, surgeon, U. S. Army, commanding officer, U. S. hospital ship "Missouri," for duty.

WILSON, First Lieutenant JAMES S., assistant surgeon, is relieved from further duty on the U. S. hospital ship "Missouri," to take effect upon the arrival of that ship at Manila, P. I., and will report to the commanding general, department of the Pacific and Eighth Army Corps, for assignment to duty.

GORHAM, GEORGE H., hospital steward, now at Fort Warren, will be sent to Fort Banks for duty.

GIBSON, Major ROBERT J., surgeon, the order which directs him to proceed to Manila, P. I., and report to the commanding general, department of Pacific and Eighth Army Corps, for assignment to duty is revoked.

The following changes in the stations and duties of officers are ordered: Captain EDWARD L. MUNSON, assistant surgeon, is relieved from further duty in the office of the Surgeon-General of the Army, and will report at Washington Barracks for duty; First Lieutenant FRANKLIN M. KEMP, assistant surgeon, is relieved from further duty at Fort Hamilton, and will proceed to West Point for duty; Captain DEANE C. HOWARD, assistant surgeon, upon the arrival at West Point of First Lieutenant Kemp, is relieved from temporary duty at that post, and from further duty at Fort Columbus, and will proceed to Fort Hancock for duty; Major ROBERT J. GIBSON, surgeon, will proceed to San Francisco, Cal., for assignment to duty as attending surgeon at San Francisco, Cal, and as medical superintendent of transportation at that place.

WHITE, GEORGE REEVES, acting assistant surgeon, will proceed from New York City to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

BROWN, Major IRA C., surgeon, is relieved from further duty in the division of Cuba, and on the expiration of his present sick-leave will proceed to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

WAKEMAN, Captain WILLIAM J., assistant surgeon, will proceed to Camp Meade, Pa., and examine certain recruits for the Twenty-seventh Infantry, U. S. Volunteers, who have been reported as unfit for service.

RICHARDS, First Lieutenant WILLIAM E., assistant surgeon, granted leave on surgeon's certificate, is extended 3 months on surgeon's certificate.

CABLE, GEORGE L., acting assistant surgeon, is relieved from further duty at Matanzas, Cuba, and will proceed to New York City, and report by telegraph to the Adjutant-General of the Army for further orders.

FRY, CHARLES W., acting assistant surgeon, will proceed from Huntingdon, Ind., to Vancouver Barracks, and report to the commanding officer, Thirty-fifth Infantry, U. S. Volunteers, for duty with that regiment.

JOHNSON, D. J., acting assistant surgeon, is relieved from further duty at Fort Terry, and will proceed to Camp Meade, Pa., and report to the commanding officer, Forty-seventh Infantry, U. S. Volunteers for duty with that regiment.

JONES, GEORGE H., acting assistant surgeon, will proceed from Toledo, Ohio, to Jefferson Barracks, and report to the commanding officer, Thirty-eighth Infantry, U. S. Volunteers, for duty.

MOSELEY, Major EDWARD B., surgeon, is relieved from further duty at the Presidio, and will proceed to Manila, P. I., and report to the commanding general, department of the Pacific and Eighth Army Corps, for assignment to duty.

COTTRELL, SAMUEL P., acting assistant surgeon, is relieved from further duty at Camp Meade, Pa., and will report to the commanding officer, Twenty-eighth Infantry, U. S. Volunteers, for duty, to accompany that regiment to Manila, P. I.

LORD, MORRIS S., acting assistant surgeon, now at Sacketts Harbor, N. Y., will report at Madison Barracks for duty.

Changes in the Medical Corps of the U. S. Navy,

for the week ended August 26, 1899:

GRAVATT, C. H., medical inspector, ordered to duty at the New York Navy Yard, as a member of board of medical examiners. September 5.

STOKES, C. F., passed assistant surgeon, detached from duty as member and recorder of board of medical examiners at the New York Navy Yard, September 5, and ordered to continue on duty at the Naval Hospital, New York.

GUEST, M. S., passed assistant surgeon, ordered to the Boston Navy Yard.

ENGLANDER, S., pharmacist, detached from the Mare Island Navy Yard, and ordered to the New York Navy Yard.

LEWIS, L. R. G., pharmacist, detached from the New York Navy Yard and ordered home to wait orders.

Changes in the U. S. Marine-Hospital Service,

for the seven days ended August 24, 1899:

CARMICHAEL, D. A., surgeon, granted leave of absence for 30 days. August 23.

WASDIN, EUGENE, surgeon, to proceed to Marshall, Va., on special temporary duty. August 18. Detailed as delegate to the International Medical Congress to meet at Brussels, Belgium, September 4, 1899. August 21.

PETTUS, W. J., surgeon, granted leave of absence for one day. August 19.

STIMPSON, W. G., passed assistant surgeon, granted leave of absence for 30 days from August 19. August 18.

OAKLEY, J. H., passed assistant surgeon, to proceed to Paducah, Ky., on special temporary duty. August 21.

WICKES, H. W., passed assistant surgeon, granted leave of absence for 10 days. August 23.

FRICKS, L. D., assistant surgeon, detailed as inspector of unserviceable property at Norfolk, Va. August 21.

CANINERO, H. S., acting assistant surgeon, detailed as quarantine officer for the port of Guantanamo, Cuba. August 22.

Foreign News and Notes.

GREAT BRITAIN.

The Queen has bestowed the decoration of the Royal Red Cross on Miss Leonora Maxwell-Muller, late Superintendent in the Indian Army Nursing Service, in recognition of her devotion to duty and of the care given in training the Army Hospital Corps attendants in their nursing duties.

The Crisis in the Transvaal seems to be acute. Sixty men of all ranks of the Army Medical Corps have now been despatched to South Africa, and it is estimated that the army able to take the field against the Boers, should necessity arise, will amount to about 1,200 officers and 30,000 men. The war will not be a popular one in England.

Under the will of the late Mr. Thomas Lockwood, who recently died at Harrogate at the patriarchal age of 92, the Bradford Infirmary, the Harrogate Royal Bath Hospital, the Royal Albert Asylum for Idiots, and the West Riding Charitable Society each receive £2,000; the Bradford Eye and Ear Hospital, the Huddersfield Infirmary, the Bradford Orphan Institution, the Yorkshire School for the Blind, and the Harrogate Cottage Hospital each receive £1,000. The rest of Mr. Lockwood's large fortune is mainly left to charities, especially charities under religious control.

Mr. Victor Horsley, who has certainly been a very indefatigable if not a very temperate or modest representative of the medical profession at large upon the General Medical Council, has issued in the *Lancet* and *British Medical Journal* a report to his constituency upon the business transacted by the Council at their last sitting. He considers that the work of the session was characterized by a much greater output of effective business than the previous sessions, because "all questions on the program received proper attention and were not hurriedly and injuriously dismissed at the last days of the session as has been the invariable and objectionable custom of previous years." The weak point in his argument is obvious. Who says that all the most important questions were on the program at all?

Friendly Societies and Their Medical Officers.—As has already been mentioned in the PHILADELPHIA MEDICAL JOURNAL, the Friendly Societies have signified their wish to come to an understanding with their medical officers, whom they tacitly admit to have been underpaying. The representatives of the societies have met a committee of the General Medical Council, and as a result it was agreed that a Board of Conciliation should be formed consisting of delegates of the societies and of the medical profession. Inasmuch as the main grievance of the medical men against the societies is that persons belong to these societies in order to secure professional attendance for a few pence who can well afford to pay proper fees, while the Friendly Societies will not consider as a possible reform the institution of a wage-limit whereby persons possessing over a certain income should *ipso facto* be excluded from the benefits of the societies, it appears to many who have given the whole situation anxious thought that no Board of Conciliation can ever arrive at a satisfactory compromise. The British Medical Association has now expressed its views. While approving in the abstract of the institution of a Conciliation Board, the British Medical Association urges that delay is advisable before a final settlement as to the constitution of such a Board and its terms of reference are decided upon. The Council of the British Medical Association, therefore, proposes the formation of a joint committee of members of their own body and of the Friendly Societies to settle preliminaries. Such a conference, it is hoped, may lead to some scheme which on the face of it will be acceptable to both parties concerned.

The Annual Holidays.—There is no maxim more regularly insisted upon by the modern physician than the one that says that the autumn holiday is a necessity for all. In the autumn the town dwellers want country air, the country dwellers want sea air, the residents on altitudes should relax in the valleys, the inhabitants of the plains should be braced on the mountains; and in the main the altered mode of life proves advantageous. But an English correspondent throws doubt upon the aggregate of advantage that is gained to the health of the nation by the universal practice among all who can possibly afford it of going to live somewhere away from home for a certain portion of the autumn. "Great Britain is overpopulated," he pointed out, "and as a consequence the demand for seaside lodgings during August and September exceeds the supply. The popular resorts become overfull, and the prices drive the less wealthy to seek their change of air wherever they can get it. All sorts of terrible little shanties, undrained, ill ventilated and dirty, thus come to fetch substantial prices as temporary homes for holiday purposes, and the unfortunate persons who spend their periods of relaxation in these quarters are heard afterwards sadly wondering why their change of air has done them no good. Again the habit of bringing the Southern children North, and the Western children East is a fruitful cause of the spreading of zymotics." Our correspondent concludes by saying that the persons who really require a change of air, namely, the poor in large cities, where an overcrowded and insanitary environment enforces an unhealthy atmosphere, are exactly the persons who never get a change of air at all; that the rich Englishman is the only man who is able to get his autumn holiday free from the serious risks of bad feeding and worse accommodations; and that the middle-classes were vastly better off when they did not make a long autumn holiday, which they cannot afford to take in comfort, an annual institution in their lives. They spent their money then in making their own homes more healthy and attractive.

The Responsibility for Insanitary Premises.—A somewhat curious point of law having distinct interest for medical men arose recently in Ipswich, one of the largest towns in the East of England and the selected *venue* for the meeting of the British Medical Association. A fifteen months' old child died in premises which were notoriously insanitary and the coroner consequently held an inquest. At the inquest it was elicited that the owner of the property was in America and that the local agent had represented to him the necessity of putting his property into decent sanitary repair, but had received no answer. The owner, it transpired, however, had a representative in England. In July the Inspector of Nuisances, the official whose duty it is under the Public-Health Act to see that property is not allowed to become a source of danger to the community, served the agent with a notice requiring him immediately to reconstruct the drainage. The agent received authority from the owner's representative to do certain improvements up to the estimated figure of £20, which sum would not nearly have covered the cost of the necessary alterations. He consequently set to work in a leisurely manner to do something. Five or six weeks later the child, whose death was the subject of the inquest, perished of diarrhea, and the jury was asked to decide if any one was to blame, and, if so, who. The owner could hardly be blamed for not having given any definite instructions considering the distance that he was from his property, and the agent did his best without proper authority. The jury found that the Inspector of Nuisances ought not to have contented himself ordering an abatement of the nuisances, but ought to have made an inspection to see if his order was being attended to with due promptitude; while the coroner pointed out that the parents of the child had not been over-careful of the child's health, as they stayed for so long a time in the premises which were known to be insanitary. This little local case is of considerable importance to English medical men, for it illustrates the necessity that exists for a prompt and drastic administration of the Public Health Act, while as a matter of fact in many places—especially in rural districts—local considerations are allowed to override the Act, the medical man alone protesting against the breaches of the spirit (and very often of the letter) of the law. Ipswich, by the way, is an old town full of insanitary buildings, and the magnificent river, the Orwell, has suffered terribly from the sewage thrown into it.

Dr. Heinrich Adler, editor of the *Wiener medicinische Wochenschrift*, has just received the Knight's Cross of the Franz Joseph order.

CONTINENTAL EUROPE.

The Société Gynécologique de Paris has disbanded.

University of Bern.—A station has been established at the Bacteriologic Institute for the treatment of rabies.

Celebration at Leipsic.—The surgical clinic at Leipsic will hold a centennial celebration in October, when a bust of Professor Thiersch will be unveiled.

Professor Gruber, though retired from active teaching, is still chief of the Ear Dispensary in the Allgemeine Krankenhaus in Vienna. He celebrated his 72d birthday on August 3, 1899.

Privat-Docents in the University of Vienna.—The following have just been appointed: Dr. Leopold von Dittel, in gynecology and obstetrics; Dr. Wilhelm Figdor, in anatomy and physiology of plants; Dr. Egon von Schweidler, in physics.

Report of Plague in Naples Contradicted.—In reply to a cabled inquiry from Surgeon-General Wyman, Assistant Surgeon Heiser, at Naples, has cabled the Marine-Hospital Bureau that there is absolutely no truth in the report that the plague had appeared at Naples and Palermo.

The New Pathologic Museum at Berlin.—The completion of the magnificent new museum of pathologic anatomy in connection with the Royal Charité Hospital may be regarded as one more triumph of its illustrious director, Professor Rudolph Virchow, and as significant of the wonderful strides that have been made in this branch of medical science at Berlin in the past as well as of the brilliant promise of the future.

Italian Society of Internal Medicine.—The tenth annual meeting will be held in Rome, October 23 to 26, under the presidency of Dr. Guido Baccelli. Discussions have been arranged for on chlorosis and the pathology of the pancreas. There will be reports by Drs. Boeri and Riva Rocci on the progress of therapeutics and diagnosis during the year. Applications for associates' tickets may be addressed to Professor L. Lucatello, 5 Via Università, Padua.

Changes in the Faculties.—MOSCOW: Dr. Gulewitsch has been elected professor of medical chemistry at the University. WARSAW: Dr. Kostenicz, clinical professor at the Ujasdow Military Hospital, has been made professor of ophthalmology. ATHENS: Dr. Kalliowzis has been made professor of operative surgery and topographical anatomy, replacing Professor Jean Paul, deceased. MARSEILLES: Dr. Cousin, professor at Lille, has been made professor of operative medicine, succeeding Professor Chaplain, who has been elected honorary professor. RENNES: Dr. Follet has been elected professor of clinical medicine; Dr. Le Moniet, professor of clinical surgery; Professor Lenormand, of Tours, has been called to the chair of pharmacy. ANGERS: Dr. Thibault has been made professor of pathology; Dr. Boquel, professor of clinical obstetrics. BASEL: Dr. Friederich Müller, of the University of Marburg, has been elected professor of clinical medicine, replacing Professor Immermann, deceased.

Congress of Charity at Paris.—The Department of State at Washington, D. C., has received a note from Ambassador Cambon to the effect that an international congress of public assistance and private beneficence is to meet in Paris from July 30 to August 5, 1900. The French Government is to be officially represented, and foreign governments are requested to send delegates to the congress.

The congress comprises four sections: (1) childhood; (2) the sick, the infirm, the incurables, the aged; (3) the able-bodied poor, other relief than that of assistance by furnishing work, general questions; (4) works of assistance by furnishing work. Other subjects to be considered are: The working and efficacy of relief at the home; compromise between public and private assistance; treatment and education of children in reform schools, schools of correction, etc.; character of works of relief by furnishing work; should these not be considered works of private beneficence? Assistance to indigent consumptives (measures of relief, whatever the medical treatment may be).

MISCELLANY.

Obituary.—DR. M. BALBIANI, professor of embryology, in Paris, aged 75.

Famine and Smallpox in East Africa.—The ravages caused by famine and smallpox are said to have become so appalling that it has been decided to appeal to the Lord Mayor of London to open a Mansion House Fund for the relief of the stricken British subjects in East Africa.

According to the Marine-Hospital Reports there have been 2,463 cases and 1,866 deaths from the plague in Japan since the outbreak there; there have been 1,649 deaths from it at Amoy and Hong Kong since April; 32 deaths since May at Alexandria, Egypt; 200 cases existed at Grand Bassam, French Ivory Coast Colony, June 7; 516 deaths in India since May; 40 deaths in Persia since May; 1 death in Turkey, and 36 deaths in the Straits Settlements.

The Plague:—IN PORTUGAL:—Several additional cases of the bubonic plague have been reported at Oporto. The streets of that city are now patrolled, and the town is completely isolated. It is stated that the merchants are making a demonstration against the isolation rules, and riots are feared there. The demonstrations which the police were called upon to break up on August 21 were caused by the strong popular feeling against Dr. Jorge, the Director of the Bacteriological Institute. The police also dispersed a crowd which had collected owing to a member of the Chamber of Deputies attacking Dr. Jorge. The Prefect of Police has issued an order closing the public schools. King Charles of Portugal has signed a decree establishing a sanitary cordon around Oporto during the continuance of the plague. Dr. Heppenez is now on his way to the city with 2,000 phials of antiplague serum, at the request of Princess Eugenie of Oldenburg, president of the Russian society for combating the plague. Up to August 26, 51 cases had been reported, of which 18 had proved fatal.

IN RUSSIA:—Many evidences point to the fact that the outbreak at Astrakhan, capital of the Government of the same name, is really bubonic plague. Many of the cases there have terminated fatally. The Duke of Oldenburg, who is president of a committee formed for combating the plague, has been sent to Astrakhan, accompanied by some distinguished doctors.

IN THE EAST:—It is announced that the number of cases of bubonic plague at New Chwang is slightly increasing, and that 73 deaths from the disease have occurred there in 4 days. The authorities of Shanghai are taking special precautions to prevent an outbreak of the plague there. They are examining all ships and junks from the north. Hitherto junks had not been inspected.

The Latest Literature.

British Medical Journal.

August 12, 1899. [No. 2015.]

1. On the Prevention of Eye-Accidents Occurring in Trades. Address to the Section of Ophthalmology. SIMEON SNELL.
2. Recent Advances in Physiology. Address to the Section of Anatomy and Physiology. J. J. CHARLES.
3. A Plea for Conservative Gynecology. Address to the Section of Obstetrics and Gynecology. G. GRANVILLE BANTOCK.
4. Thirty Years' Progress in Rhinology. Address to the Section of Laryngology and Otology. E. CRESSWELL BABER.
5. The Place of Pharmacology in the Medical Curriculum. Remarks to the Section of Pharmacology and Therapeutics. J. B. BRADBURY.

[Abstracts and entire reproductions of the above, from advance-sheets by courtesy of the Editor of the *British Medical Journal*, appeared in the issue of this JOURNAL of August 12, both under the heading of Original Articles and of Society Reports.]

Lancet.

August 12, 1899. [No. 3963.]

1. Some Ancient Methods of Treating Fevers. J. LEMARE BUNCH.
2. The Arrest of Pulmonary Tuberculosis. J. KINGSTON FOWLER.
3. The Prevention of Syphilis. FRANCIS H. WELCH.
4. Ten Cases of Vaginal Hysterectomy. ARNOLD W. W. LEA.
5. Unilateral Castration for Prostatic Enlargement in a Man Aged 87 Years; Atrophy of the Prostate. H. W. WEBBER and H. A. DUFFETT.
6. A Case of Septicemia Treated with Anti-Streptococcic Serum. OLIVER CALLEY MAURICE.
7. Syphilitic Disease of the Stomach. J. W. DALGLIESH.
8. Note on Twelve Cases of Epileptic Insanity Treated by Means of Strontium Bromid. J. G. SMITH.
9. A Fatal Case of Poisoning by Crystals of Potassium Permanganate. CHARLES R. BOX.
10. Two Cases of Subconjunctival Rupture of the Sclera, with Retroflection of the Iris without Dislocation of the Lens and with the Subsequent Retention of Practically Normal Vision in Each Case. HENRY EALES and WOOD WHITE.

1.—Bunch gives a sketch of **the treatment of fevers** up to the end of the seventeenth century. [A.G.E.]

2.—Three varieties of **obsolete lesions in arrested pulmonary tuberculosis** may be recognized: (1) pigmented tubercles which have undergone fibrosis; (2) a caseous mass surrounded by a fibrous capsule; (3) arrest after formation of a cavity. Methods which secure arrest of the disease are such as increase the resisting power of the individual. Fowler insists that sanatoria should be built only in favorable climates. Cases should go to a general hospital first to render diagnosis clear and to exclude unsuitable ones. Charts are given showing the difference in the oral and rectal temperatures. At Nordrach patients take their own rectal temperatures 4 times daily. [A.G.E.]

4.—Lea reports 10 cases of **vaginal hysterectomy** performed for various conditions. One death occurred due to intestinal obstruction nine days after operation; all the other cases made rapid recoveries. In all these cases the uterus was removed by the ligature method, and the ends of all ligatures left long, so that they can be removed later. If the appendages are high up and a ligature cannot safely be passed a pair of pressure forceps is used to control the ovarian vessels at the outer border of the broad ligament and these removed in 24 hours. In removal of uterus for fibroids or chronic inflammation the ligatures may be cut short and the peritoneal cavity almost closed, leaving only a small opening for the introduction of a gauze drain. [W.K.]

5.—A man, 87 years old, who had **difficulty in urination** for some months, and had been using a catheter, became so weakened that it was evident that unless relieved he would soon succumb to cystitis and bedsores. Under local anesthesia with cocain and ethyl chlorid **castration** was performed on the left side. His condition improved at once; two weeks later a soft catheter was passed without difficulty; a month later rectal examination showed the left lobe of the prostate to be completely atrophied. [M.B.T.]

6.—A shepherd, 75 years of age, injured his little finger and a small sore resulted. Following this the infection traveled up the arm, involving the axillary glands, which became swollen, painful, and tender, his temperature was elevated, his pulse rapid and feeble, and his general condition bad. An abscess developed in the axilla and was opened; the discharge was profuse and a general septicemic condition followed. At intervals, 10 cc. of **antistreptococcic serum** was injected 3 times, and the man's general condition became much improved. [M.B.T.]

7.—Three cases of **syphilitic disease of the stomach** are reported. The first patient, a married woman, 55 years old, suffered with pain in the epigastrium after taking food; she had lost much flesh and strength. There was slight improvement under dieting and the use of bismuth and Dover's powder, but after a short time she had profuse hematemesis, which left her powerless and which recurred on several occasions. Remembering that she had been treated 4 years previously for undoubted syphilitic ulceration, iodids were prescribed in large doses, she improved rapidly and for some time has had no gastric symptoms. It is believed that the case was one of ulcerating gummata of the pylorus. The second patient, 32 years of age, had had pain in the epigastrium and hypochondrium after taking food. There was great weakness, depression, sleeplessness, and acidity. Nothing could be detected on examination of the abdomen. Treatment with bismuth, opium, aperients, and tonics gave but temporary relief; large doses of mercury and potassium iodid were then prescribed with the result that the patient immediately rapidly improved and within a month was perfectly well. A third case is reported in which a woman was believed by several physicians to be suffering from a malignant growth obstructing the pylorus; another physician prescribed the iodids, which dispersed the growth within a month. [M.B.T.]

8.—Potassium bromid and strontium bromid were used at different periods in the treatment of 12 cases of **epilepsy.** The following conclusions were reached: (1) The slight difference in the effects of the two drugs was clearly in favor of strontium bromid as regards the absolute number of fits; (2) a larger dose of strontium bromid was required to control the attacks; (3) the potassium bromid seemed to exercise its action more quickly; (4) the effect of potassium bromid was more lasting, and it is considered the more generally useful drug in the treatment of epilepsy. [A.G.E.]

9.—The **death** of a woman of 47 occurred 35 minutes after drinking a cup of beer into which she had thrown a "handful" of **potassium permanganate** crystals. The gastric mucosa was found to be coated with a black granular powder, closely adherent. This was very superficial, the mucous membrane beneath being intensely hyperemic. From the condition of the coats of the stomach it was judged that no damage would have been inflicted by the use of a soft stomach-tube. [A.G.E.]

New York Medical Journal.

August 26, 1899. [Vol. lxx, No. 9]

1. The Anthemion. WALLACE WOOD.
2. Subcutaneous Tenotomy; Biographical Notes. A. B. JUDSON.
3. Gunshot Wounds of the Chest in the Spanish-American War. HENRY S. GREENLEAF.
4. The Use of Parotid-Gland Extract in the Treatment of Ovarian Disease. E. PIERRE MALLETT.
5. Extradural Spinal Meningeal Hemorrhage. With Report of a Case. S. D. HOPKINS.
6. The Puerperal State and Puerperal Hemorrhage. Derivation and Classification. WALKER BOURNE GOSSETT.
7. The Etiology of Yellow Fever. Abstract of the Report of the Commission of Medical Officers, Marine-Hospital

Service, Detailed by Authority of the President to Investigate the Cause of Yellow Fever.
8. Report of Six Cases of Pneumonia Treated with Anti-Pneumonic Serum. ANTONIO FANONI.
9. A Review of the Several Operations for Hemorrhoids; The Best Operation. J. COPLIN STINSON.

1.—Wood noticed **the form of half the anthemion,** the Greek design, on the under surface of a female human brain and afterward observed it on the brains of animals. He considers its urogenital significance. [A.G.E.]

3.—From the records sent to the office of the Surgeon-General, Greenleaf has collected 24 cases of **gunshot wounds of the chest.** Of these, 15 recovered without complications, 3 had hemothorax without going on to empyema, 6 developed hemothorax which became purulent and required operation. Brief histories are given of 17 of these cases. It may be seen that hemothorax or empyema developed in nearly 37% of the cases. It may be that many more patients who had various complications recovered. We can clearly infer that if the patients had been treated under other conditions, in time of peace, the results might have been more favorable. The indications for treatment are to guard against infection by promptly cleansing the wound and applying the first-aid sterile dressing. The second indication is to check hemorrhage. This indication is met by making it thoroughly understood among the soldiers that chest-wounds are serious and that patients must be kept absolutely quiet and passive, avoid talking, and be transferred with the gentlest care. The injured side is put at rest by strapping, and internally opium astringents are administered; local cold may also be used. [M.B.T.]

4.—Mallett discusses the use of **parotid-gland extract in the treatment of ovarian disease** and has observed the following effects: (1) It has seemed to relieve the pains of dysmenorrhea in all cases, without regard to the supposed cause or pathologic condition present, to a greater extent than any of the so-called uterine sedatives, all of which he has used; (2) it relieves those dull, aching pains referred to the back and ovarian regions, usually designated by those familiar though vague and unsatisfying terms, reflex pains, ovarian neuralgia, etc.; (3) menstruation, when deranged, seems to become more regular as to periodicity, less in amount, and shorter in duration; (4) during its exhibition, pelvic exudate seems to soften and become absorbed more rapidly under abdomino-pelvic massage; (5) the general health, strength, and spirits seem to improve during its use, and those dull headaches which constitute such a persistent and annoying symptom, in these cases, are almost invariablv relieved, and, in some, disappear entirely; (6) the only counterindication thus far met to its use has been in cases of the artificial climacteric (following double salpingo-oophorectomies), in which cases the flashes of heat and cold were made distinctly more frequent and severe. [W.K.]

5.—Notes of a case of **spinal meningeal hemorrhage** are given. The lesion was in the lumbar region and the only cause ascertainable was severe muscular strain. [A.G.E.]

6.—Gossett discusses the **origin and exact meaning of the term "puerperal"** and criticises the various classifications of puerperal hemorrhage in vogue. He argues that the term "puerperal" is not to be restricted to a particular period of woman's pregnancy, and that the puerperal state begins as soon as labor-pains begin for the emptying of the pregnant uterus, and lasts until the uterus is emptied and the woman recovers from that pregnancy, whether it be at first, second, third or ninth month of pregnancy. [W.K.]

7.—See PHILADELPHIA MEDICAL JOURNAL, August 19.

8.—Fanoni gives the **technic of administering anti-pneumonic serum,** and reports 6 successful cases. The injection of 10 cc. is given twice a day, preferably in the posterior axillary line. He considers it a specific treatment. [A.G.E.]

9.—Stimson recommends the following procedure in the treatment of **internal hemorrhoids.** A broad ligament forceps is clamped to the base of the pile with the blades in the long axis of the bowel; the pile is cut off, leaving enough tissue, so that the open mouths of vessels can be located and ligated, and the cut edges accurately stitched with continuous sutures of medium-sized catgut. He has treated 6 cases in this manner with satisfaction. [M.B.T.]

Medical Record.

August 26, 1899. [Vol. 56, No. 9.]

1. The Report of a Case Treated with Yellow-Fever Serum. ALVAH H. DOTY.
2. Bright's Disease, or Nephritis. WALTER SANDS MILLS.
3. Mucocele of the Maxillary Sinus. W. SCHEPPEGRELL.
4. The Evils of the Ritual Practice of Circumcision. ALBERT MILLER.
5. Hernia of the Vermiform Appendix. L. L. HILL.

1.—Two cases of **yellow fever** arrived in New York harbor on July 26, on the transport *McClellan*. One was mild, and required practically no treatment. The other, a man, was taken ill on July 3 with headache, fever, and albuminuria. His fever was running about 104°, he had severe albuminuria, and seemed moderately ill. He was therefore given an injection of **serum** prepared by Fitzpatrick; 3 doses of 25 cc. being administered between 11.30 P.M., July 6, and 7.20 A.M., July 7. No other medicinal agent beside the serum was used, with the exception of whisky and rectal enemas of salt-solution. The fever dropped after the injections; it came down rapidly on the 8th, and, with the exception of a rise on the 10th, continued to decline until, on the 13th, it had reached the normal. It is believed to have had an extremely good effect, but the result in this case is not considered sufficient to establish the value of the serum. [D.L.E.]

2.—The article is a general one, discussing chiefly the views that have been expressed by others. The albuminuria of **acute nephritis** is accepted to be due to change in the epithelium of the glomeruli which allows the albumin to pass through. The dropsy is attributed to change in the bloodvessels which allows abnormal exudation. [There is strong recent testimony to show that the dropsy is in large part at least due to alterations in the tissues themselves.] The author wisely limits his treatment of acute nephritis chiefly to milk diet, drinking large quantities of water, and protection from exposure, with rest in bed, any tendency to marked decrease in the amount of urine being met at first by wrapping in hot blankets, giving hot drinks, followed, if necessary, by hot-air baths, or hot packs. Pain over the kidneys he relieves by cupping. In uremic delirium he has found hyoscyamus very successful, and uremic headache has been well controled by small doses of nitroglycerin. Among the early signs of chronic nephritis he mentions a peculiar sensation of numbness which was the first complaint in one of his cases. [This is most probably due to the accompanying arterial sclerosis.] In dieting the cases of **chronic Bright's disease,** he inclines to a liberal diet, eliminating chiefly fatty and greasy foods, and rich and heavy pastries. He considers mercuric chlorid one of the most valuable remedies. For the sleeplessness, he prefers codein to morphia. [D.L.E.]

3.—A man, 42 years old, had had pain in the region of the left cheek and pressure on the eyeball for several days; for 24 hours it had been so severe that the patient was unable to sleep or lie down. The symptoms indicated pressure from the left antrum of Highmore. Under cocain-anesthesia a small trephine was passed through the alveolar process at the site of the left second bicuspid tooth which had been previously extracted. Viscid, non-fetid secretion was evacuated and there was immediate relief. The next day a larger opening was made in the canine fossa and the cyst membrane of the **mucocele** was removed with a curet and the cavity was packed with gauze. One month later the patient was practically well. [M.B.T.]

4.—Miller points out the dangers from hemorrhage and infection when **circumcision** is performed after the usual manner of the Jews. The operation is a surgical one and the operator should be required to possess a medical license as much as for vaccination. [M.B.T.]

5.—Two cases of **hernia of the appendix** are reported. A negro laborer, 60 years old, had had an apparently irreducible scrotal hernia of the right side for 25 years. After violent coughing he was seized with severe pain. Taxis was tried without avail, and after 8 hours' suffering, with continuous itching and vomiting, herniotomy was undertaken. On opening the sac, the cecum and vermiform appendix were found firmly adherent to it, accounting for the irreducibility. The appendix was 8 to 10 inches in length. The operation was completed by Bassini's method, and the patient made a good

recovery. In a second case a woman, 48 years old, had for 3 years observed an enlargement under Poupart's ligament, which disappeared on manipulation. This tumor gradually increased to the size of a hen's egg, and suddenly became tender to touch. She complained of considerable pain, and vomited occasionally. An operation was undertaken, and a strangulated vermiform appendix was found at the crural ring. The constriction was so great and the adhesion so extensive that it was necessary to incise Gimbernat's ligament before freeing the appendix. The patient made an uninterrupted recovery. [M.B.T.]

Medical News.

August 26, 1899. [Vol. lxxv, No. 9.]

1. Certain Clinical Observations upon Heart Disease. EDWARD G. JANEWAY.
2. The Class Method of Gymnastic Treatment of Lateral Curvature of the Spine. WALTER TRUSLOW.
3. The Etiology of Yellow Fever.—Report of the Commission of Medical Officers, Marine-Hospital Service.
4. Subcutaneous Emphysema Occurring During the Act of Vomiting. A. W. DUNNING.

1.—Janeway gives a rather rambling discussion of **certain forms of cardiac disease.** He first describes 2 cases of mitral regurgitation in which, in the course of time, in the first a period of 18 years, in the second, of 10 years, not only was perfect compensation established, but the murmur disappeared. The third case occurred in a young woman whose heart was reported by the pathologist who examined it postmortem to be perfectly normal. He then discusses the disappearance of the cardiac murmur, which he apparently believes is organic, or at least due to muscular weakness, in exophthalmic goiter, and reports 2 cases. He believes that this disease is usually curable in private practice if properly treated with iron, strophanthus, etc., but rarely recovers in hospitals on account of the unfavorable surroundings. Mitral stenosis, he regards as a lesion that frequently escapes observation, and may only develop when the patient attempts some unusually vigorous exercise, especially at high altitudes. In conclusion, he discusses some cases with malignant endocarditis, a disease that he believes is increasing in frequency. He separates the cases into those with heart-murmur that may be either hemorrhagic or with embolism, or febrile with or without hemorrhage, and second, cases without heart-murmur, which may be characterized by continued, remittent, intermittent, or chronic mild hectic fever. Nowadays, the disease is apt to be more chronic in type than it was formerly. Janeway regards a petechial eruption upon the palms of the hands and soles of the feet that is nodular in character as being especially significant of malignant endocarditis. He reports an interesting case in which after an attack of gonorrhea the patient developed an intermittent fever, and subsequently a murmur at the pulmonic cartilage. He was sent to the hospital with a diagnosis of malignant endocarditis, but, nevertheless, recovered. There was leukocytosis and plasmodia were never found. This is the only recovery that Janeway has observed in his career. It was one of 8 cases in the last year. [J S.]

2.—Truslow believes that the varying conditions among patients suffering with **lateral curvature of the spine** are not sufficiently great to prevent them from taking curative gymnastic excercises in classes. The class method insures the treatment of more patients than would otherwise be possible, but the number of patients must not be too great (15 to 25). The treatment is given on 3 afternoons a week, the Swedish educational gymnastics being considered best adapted for this work. The children are divided into three classes: those just past puberty, who are beginning treatment; those who still require further treatment after they have gained ability and strength sufficient to enable them to work with older patients who are beginning treatment; and a third class made up of patients suffering from specially marked deformity. Nearly all those who faithfully follow the treatment show improvement. Of 155 cases thus treated 30 have been discharged, 15 as cured and 14 as much improved; 52 have discontinued coming after improvement was shown, and 73 are still under treatment. [M.B.T.]

3.—See PHILADELPHIA MEDICAL JOURNAL, August 19.

4.—Dunning reports the case of a woman who, during an attack of vomiting, felt a sharp pain in the left side of the neck. Immediately thereafter an enormous swelling appeared that was **emphysematous** in character. This became more diffuse, and was from time to time relieved by eructations. The condition ultimately disappeared. [J.S.]

Boston Medical and Surgical Journal.

August 24, 1899. [Vol. cxli, No. 8.]

1. Address in Surgery. ALEXANDER OGSTON.
2. Pott's Paraplegia as Affected by the Correction of the Spinal Deformity: A Report of Cases. JOEL E. GOLDTHWAIT.
3. A Hospital Clearing House. CLARENCE J. BLAKE.
4. Volunteer Aid Work in Foreign Territory. ELLIOTT G. BRACKETT.
5. The Report of a Case of Puerperal Eclampsia with Complications. EDMUND E. HILL.

1.—See this JOURNAL, Volume IV, page 297.

2.—In treating **Pott's paraplegia,** whatever the etiologic factor may be, correction of the spinal deformity has been followed by very rapid and, at times, instant relief from paralysis. This result has been so universal of late that the correction of deformity has come to be of secondary importance to the relief of the paralysis accomplished in this way. Goldthwait has treated 11 cases in this way and all have shown a marked improvement in the motor control of the legs within a few days of the time of treatment. In some cases, either because of the location of the disease and the inability to hold the spine in the corrected position, or because of inability to control the after-treatment, it has not been possible to make the improvement permanent. Of 11 cases 3 were in children; in one case of disease of the lumbar region there was no return of paralysis. In two other cases affecting the dorsal vertebra, improvement was not permanent. In one of the adult cases in a man who had lain for 4 years previous to the treatment, the favorable result is particularly interesting as it demonstrates that the function of the spinal cord can be arrested for 4 years and still retain a portion at least of its power of transmitting impulses. In another case in which paralysis had been present about 18 months and the disease for 4 years, the patient was instantly relieved from paralysis; in one month she was walking about, and since then she has been an out-patient, reporting to the hospital only to have plaster jackets reapplied. Brief histories are given of the cases which Goldthwait has thus far treated by this method. [M.B.T.]

3.—Blake discusses the **elimination of the pecuniarily unfit from the hospital dispensary.** At the Massachusetts Charitable Eye and Ear Infirmary, all suspicious cases are referred by the physicians to the executive office, and it has been proposed to have a special clerk in the dispensary for the purpose of questioning those who seem able to pay. All suspected patients are required to sign a paper in which they state that they require charity. Blake calls attention to the fact that so many different methods are employed that there is no uniformity or regularity in hospital procedure, and, therefore, suggests that a bureau or clearing house be established in each large city by all the hospitals acting together, where suspected cases could be thoroughly investigated. [J.S.]

4.—Brackett suggests that such **volunteer medical aid to armies distributed in foreign countries** should be performed in accordance with the ideas and judgment of the regular officers, and should seek only to supply deficiencies in the regular equipment, and should not make demands upon the regular service for aid in transportation or distribution. [J.S.]

5.—Hill reports a case of **puerperal eclampsia,** complicated by cystitis, gonorrhea and phlegmasia alba dolens. [W.K.]

Journal of the American Medical Association.

August 26, 1899. [Vol. xxxiii, No. 9.]

1. Hydrotherapy. A. C. HAVEN.
2. Pneumonia. (*Concluded.*) R. B. PREBLE.
3. After-Treatment of Abdominal Sections. C. L. BONIFIELD.

4. The Study and Teaching of Obstetrics. ELIZA H. ROOT.
5. Early Ovariotomy: Its Practical Necessity. MARCUS ROSENWASSER.
6. The Neurotic's Diet. HENRY C. EYMAN.
7. Inhibitory Action of the Cerebrum. J. F. PEAVY.
8. Fractures of the Femoral Neck. C. E. RUTH.
9. Pachymeningitis Spinalis Externa. F. W. LANGDON and ALBERT H. FREIBERG.
10. Medicine. (*Continued.*) J. BRUYERE.

1.—See this JOURNAL, Vol. III, p. 1328.
2.—" " " " " 1720.
3.—" " " " " 1336.
4.—" " " " " 1335.
5.—" " " " " 1334.

8.—The following method is recommended in treating **fractures of the neck of the femur.** Adjustment of the fragment is accomplished by flexing the thigh upon the abdomen to relax the iliopsoas; this position also relaxes nearly all the internal rotators. Vertical traction is then made on the shaft of the femur at right angles to the trunk, while moderate eversion is being maintained. Next abduct to the normal line and make extension in the long axis of the trunk while an assistant makes traction ½ to ⅔ as strong outward, slightly upward and forward from the upper end of the femoral shaft. This traction is made continuous by the application of Buck's extension apparatus with a weight of from 10 to 20 pounds. Binder's board or other splint material is then molded to the upper inner aspect of the thigh and retained in place with a muslin bandage over which a band passes outward and slightly upward and sufficiently forward so that the weight from the pulley shall overcome the internal pull of all the rotators and abductors and at the same time raise the lower fragment to its normal level; the weight on this lateral pulley should be from 5 to 15 pounds. Patients treated in this way have no pain, as spasmodic muscular action is entirely overcome. Of 17 cases of unquestionable fracture of the femoral neck, 15 have obtained union with useful limbs. The ages ranged from 25 to the extreme limits of old age; the shortening was not more than an inch in any. The only failures to secure union were in two cases in which the patient refused to have the treatment carried out. [M.B.T.]

9.—A case of **pachymeningitis spinalis externa** is reported occurring in a clerk aged 19. He had had loss of power in the arms and legs of six weeks' duration, and developed fever and general illness, which led him to enter the hospital. One month after entrance he was unable to stand or walk; tactile sensibility was diminished at the finger-tips, elsewhere normal; the kneejerks were exaggerated, but equal, and ankle-clonus was present on both sides; tactile sensibility was diminished and there was loss of heat and cold sensation. Potassium iodid was administered in 20-grain doses for about a month, and codliver oil and hypophosphites were also given. It was then decided to try extension of the entire vertebral column in the hope of relieving the pressure which was presumed to exist on the upper cervical cord. The effect was marked: 12 days after the application of extension the only remaining defects were loss of temperature-sense over the right hand and the dorsal surface of the left hand. The extension was continued for 4 months, the patient was then allowed to go about, and since leaving the hospital remains in good health, and attends to his regular duties. [M.B.T.]

Annals of Surgery.

July, 1899. [Vol. xxx, No. 1.]

1. The Technic of Laryngectomy. WILLIAM WILLIAMS KEEN.
2. On the Surgical Anatomy of the Bile-Ducts and a New Incision for their Exposure. ARTHUR DEAN BEVAN.
3. A Comparison of the Merits of Suprapubic and Perineal Cystotomy. NATHANIEL PENDLETON DANDRIDGE.
4. Observations upon Volvulus, with Report of 3 Cases Submitted to Operation. ELLSWORTH ELIOT, JR.
5. Inflammation of the Bursa Gastrocnemio-Semimembranosa, with a Report of 4 Cases of Enlargement and Distention of this Bursa Treated by Excision. FORBES HAWKES.
6. The Importance of Blood-Examinations in Reference to General Anesthetization and Operative Procedures. HAMILTON FISH.

1.—See PHILADELPHIA MEDICAL JOURNAL June 10, 1899.

2.—Bevan has found by clinical experience that the incisions generally employed in **operations on the bile-ducts** do not give room for extensive work unless they are made very long. When they are made very long they carry with them the danger of hernia. In making a study of the anatomy of this region from an operative standpoint he developed the following incision, which clinical work has demonstrated to be as efficient as his theoretic study and research seemed to indicate. The primary part, which can be employed for exploration or simple cholecystotomy, is an italic-letter-*f*-shaped incision along or through the outer border of the rectus muscle, 3 to 4 inches in length. When required the *f* is completed by carrying the upper extremity in a curve nearly across the rectus muscle, and at the lower extremity it is carried to within ¾ of an inch of the costal arch, if it is required. This incision can be readily separated so that easy access is had to all portions of the bile-ducts and manipulations can be rapidly carried out. It has the advantage of injuring few nerves, and lies so close to the costal arch as to make the liability to hernia very slight. [C.L.L.]

3.—Dandridge in comparing the merits of **suprapubic and perineal cystotomy** with reference to drainage of the bladder where this is essential to treatment, draws the following conclusions in favor of the perineal route: (1) because it drains more effectively while the patient is in bed, and subjects him to less discomfort; (2) the perineal wound heals more promptly and with less leakage than the suprapubic, if the tube can be withdrawn; (3) it is less likely to offer difficulty, and its performance takes less time; (4) it affords a better opportunity for permanently removing the obstruction, and so securing a permant relief without in any way increasing the danger. It is less likely to interfere with the restoration of normal contraction, and is in itself a less dangerous way of opening the bladder. In cancer of the bladder, tuberculosis, and hemorrhage, suprapubic cystotomy affords the greater advantage.

The operation of choice for the great majority of cases of stone in the bladder in adults is the crushing operation, no form of cutting operation can compare with it in safety and efficiency. Perineal lithotrity has made it possible to remove very large stones by this method. He would confine the high operation to stones of most unusual size, to encysted stone, and to stones complicating tumors, and to cases of some deformity, such as ankylosis of the hip, and says that hypertrophy of the prostate should only occasionally demand it. In operations for removal of the hypertrophied prostate the author believes that the combined suprapubic and perineal incisions are the most efficient, and that in spite of other methods of treatment some form of operative interference by these routes will frequently be demanded. He holds that in such cases the perineal route possesses some decided advantages. It affords the best drainage, it secures an easy introduction of the catheter, if further needed, even when it was most difficult before. It has the great advantage that it may be resorted to in extreme cases when drainage is urgently demanded, and is so rapidly completed that prolonged anesthesia is avoided—the greatest danger these cases have to encounter. For the removal of tumors a suprapubic cystotomy is always indicated. The exploration of the bladder is facilitated and the opening is so placed that the removal of pedunculated tumors is usually easy, and resection of more or less of the wall, if necessary, within reach. [C.L.L.]

4.—Eliot reports 3 interesting cases of **volvulus of the sigmoid**; in one case there were three consecutive attacks within three years; the patient was operated upon each time and recovered. He would make the etiologic factor peristaltic movements in contrary directions or some anomalous development in the intestinal wall. The pathologic changes are dependent upon the amount of contraction and strangulation that has taken place. Ulceration may commence internally and not be visible, but may finally result in perforation and peritonitis. The serous coat may look all right at the time of operation, and yet a perforation result after the intestine has been returned to the abdominal cavity. In addition to these changes, that portion of the mesentery distal to the twist, may present areas of ulceration or actual necro-

sis from the cutting off of its blood-supply. The diagnosis is not always easy in the enteric variety, the ordinary symptoms of obstruction develop rapidly; in the sigmoid, symptoms somewhat similar appear slowly. If the sigmoid variety is suspected, enemas should be introduced and the capacity of the intestine estimated. It will be decreased if a volvulus exists in the sigmoid. Palpation combined with auscultation yields good results. Palliative treatment consists in inverting the patient, which aids by gravity in producing spontaneous reduction. Operation is, however, indicated without much delay. The intestine should be untwisted by manipulation; sometimes this is facilitated by incising the gut and emptying it, the incision being subsequently closed by a Lembert suture. The restoration of the circulation should be aided by the application of hot cloths and by flushing out the colon by warm water through a flexible tube. To prevent recurrence the author advises the suture of the intestine to the anterior parietal peritoneum. He does not believe in primary anastomosis if the gut is not viable, but that this should be done at a later operation after the patient has recovered, a temporary artificial anus being established at the primary operation. [C.L.L.]

5.—Hawkes reports four cases of **inflammation of the bursa.** Excision was employed in each case and effected a cure. [C L.L.]

6.—Fish, after a careful study of the **blood in operative procedures and its relation to anesthesia,** says preliminary examinations of the blood should be made in all cases before operation, and that safety in anesthesia and operative procedures is dependent upon, first, a hemoglobin percentage over and above that required for the performance of its normal duties; and, second, a normal or increased number of polynuclear neutrophiles. Under these conditions anesthesia may be produced, and operative procedures conducted with assurances of perfect safety. [C.L.L.]

The Practitioner.

July, 1899. [Vol. lxxiii, No. 1.]

1. What is to be Expected from the Open-air Treatment of Pulmonary Tuberculosis? R. W. PHILIP.
2. Observations on the Open-air Treatment of Phthisis in the North of Ireland. WILLIAM CALWELL.
3. Further Experiences of the Open-air Treatment of Consumption. F. W. BURTON-FANNING.
4. Open-air Treatment of Consumption: Seven Years' Experience in England. JANE WALKER.
5. First Results of Nordrach Treatment in England. ROWLAND THURNAM.

1.—Philip, the pioneer of the **open-air treatment of pulmonary tuberculosis** in England, in the present paper deals with two questions: (1) Whether the consumptive can be exposed with safety to the open-air treatment during winter and spring in England, and, if so, to what extent; and (2) as to what results may be attributed to the treatment. The answer to the first is that the patient can be out of doors during the larger part of daylight, even when actual sunshine is small in amount. On many days when the robust citizen preferred "to warm himself before a good roaring fire," Philip's patients were reclining or walking out of doors. If for any reason the patient can be treated less conveniently outside, the bed is drawn close to the widely opened window, so that the patient lies as nearly as possible outside. In addition to the strictly out-of-door life, the **fresh-air treatment is maintained indoors** day and night by means of most freely opened windows. As to the second question, the answer is that the treatment never resulted in untoward consequences in the slightest degree. The color and appearance, the appetite and digestion and the weight improve. The cough and expectoration are lessened; night-sweats disappear. On the temperature the effect is striking—the normal is soon reached and then the temperature falls below normal. The author believes that the mean temperature of the tuberculous patient whose lung is proceeding favorably towards cicatrization and cure is a slightly subnormal one. The state of the temperature affords explicit indication of improvement or otherwise. [D.R.]

2.—Belfast has an evil reputation as regards its high mortality from all forms of tuberculosis, more especially from pulmonary phthisis. No drug or combination of drugs seemed to the author to have the slightest effect in really arresting the disease. In the Throne Consumptive Hospital the experience is similar. The patients in hospital during 1895–96 were put on simple iron and tonic treatment; another year creosote was tried; then a petroleum emulsion for some months; finally, until the summer of 1898, guaiacol in codliver oil was given. In comparing results, no difference in result was noticeable. During the last year the **open-air treatment** has been adopted, and the impression left on Calwell's mind is somewhat the same as that on administering iron in anemia, or mercury or potassium iodid in syphilis. Of 10 cases that have undergone the treatment, only 3 had really any chance, and 3 were doubtful. Of these 6, 5 improved considerably. Calwell thinks that the peculiar and essential properties of fresh air are but half known or appreciated. [D.R.]

3.—Burton-Fanning, who was instrumental in the introduction of the open-air treatment into Great Britain, in a previous paper reported on 24 cases of phthisis submitted to the treatment. Of these 6 were cured or relatively cured. During the last 12 months about 50 patients were under treatment, some in a general hospital, some in lodgings, and some in their own homes. Interesting details concerning a few of the cases are given. One patient spent 9 hours every day out of doors in all weathers. Recent cases did better than those of long standing. Consumptives with atonic dyspepsia were much benefited by the open-air treatment. Patients with utter distaste for food, nausea and vomiting, and a thickly "plastered" tongue, gained but little. Another patient, a woman of 21 years, with acute phthisis with cavity-formation, was at first confined to bed; at the end of a week 5 hours each day were spent out of doors, and this was gradually extended until 9 hours were spent in a shelter, regardless of weather, except in the matter of wind, efficient protection from which is of vital importance. The windows of the bedroom were kept open constantly, except when the patient was dressing and undressing. She remained free from colds when all the other members of the household suffered. The diet was liberal. The patient gained rapidly, but owing to an exposure to a sharp wind contracted a plastic pleurisy, from which she also recovered. There are now no symptoms of disease, and the physical signs originally present are disappearing. The reaction of patients to the various factors of the open-air treatment is so delicate that the closest scrutiny on the part of the attendant is necessary in order that the patient may derive the fullest advantages. Medical supervision, rest and exercise, perpetual exposure to the open air, and overfeeding are the essentials. [D.R.]

4.—Of 78 patients treated by Dr. Jane Walker 26 recovered, 6 are improving, 4 died. [D.R.]

5.—Thurnam and his colleague, Gwynn, had been sufferers from phthisis, and had found recovery at **Nordrach,** in the Black Forest. This satisfactory personal experience led them to establish a sanatorium in England on the lines of the Nordrach institution. The sanatorium is situated in an isolated spot on the Mendif Hills, eight miles from a town. The temperature-chart is the guide in deciding the order of the day for each case, each patient taking his own temperature in the rectum four times daily. He is visited before 8 A.M. in his bedroom, the windows of which are kept open in every kind of weather. Provided that his temperature has not exceeded 38° C. (98.4° F.), the patient is told to take a walk in a certain direction, after breakfast, and to return by 12 o'clock. The walk is regulated by the direction and force of the wind, and the length of it and the amount af ascent and the solitude or companionship of the promenade are arranged to suit the individual case, the intention being that the temperature taken immediately on returning shall not be above 37° C. The walk is followed by an hour's rest, and dinner at 1 P.M. A short visit from the doctor between 12 and 1 decides where the patient shall go in the afternoon—usually a short walk and a long rest in the woods are prescribed. At 9 or 9.30 all the patients go to bed. The meals are taken under supervision, and no plate is removed until it has been cleared to the satisfaction of the doctor. Elevation of temperature, general feebleness, hemorrhage, and, in some cases, restlessness and excitability of the patient are causes determining rest in bed. Both by those in bed and by the others, about half a liter of milk is drunk at each of the three meals. Of 24 cases, 22 were either cured or ameliorated. [D.R.]

Journal of Experimental Medicine.

May, 1898. [Vol. iii, No. 3.]

1. Teratoma of the Abdominal Cavity. DOUGLASS W. MONTGOMERY.
2. Note on Dr. D. W. Montgomery's Case of Teratoma. LEWELLYS F. BARKER.
3. An Experimental Study of Fat-Starvation, with Especial Reference to the Production of Serous Atrophy of Fat. C. A. HERTER.
4. Studies on Trichinosis, with Especial Reference to the Increase of the Eosinophilic Cells in the Blood and Muscles, the Origin of these Cells, and their Diagnostic Importance. THOMAS R. BROWN.
5. On the Presence of the Typhoid Bacillus in the Urine. MARK WYMAN RICHARDSON.
6. The Branched Form of the Bacillus Tuberculosis in Sputum. CHARLES F. CRAIG.
7. The Effects upon the Blood of the Tufnell Method, and the Calcium Salts in the Treatment of Aortic Aneurysm. ALONZO ENGLEBERT TAYLOR.
8. Experiments on the Application of the Röntgen Rays to the Study of Anatomy. ERNEST AMORY CODMAN.

1.—Montgomery reports a **teratoma** unusual, both because of its location in the abdominal cavity, in the region of the cecum and ascending colon, and on account of its malignant nature, a recurrent tumor presenting itself within a month after the first operation at which a complete removal was thought to have been effected. In the original tumor, in the recurrent tumor, removed at a second operation, and in the mass removed at the autopsy, tissues derived from each of the three embryonal layers were identified. Barker reports the discovery in the tumor of nervous tissue in large masses, and, with Montgomery, discusses the theories advanced to explain the origin of teratoid tumors. This case is undoubtedly one of **fetus in fetu.** [F.K.]

3.—Fat-starvation of pigs is shown by experiment to produce pathologic conditions in no way resembling those of rickets. It does, however, lead to atrophy of the adipose tissue, with serous degeneration of a large proportion of the fat-cells, the latter change being, however, prevented by the addition of large quantities of carbohydrates to the diet. The salts of P_2O_5 are very imperfectly absorbed from the intestine in fat-starvation. [F.K.]

4.—In a case of **trichinosis** in the wards of the Johns Hopkins Hospital, the study of the blood demonstrated a most remarkable relative and absolute increase in the eosinophilic leukocytes. Their number varied during the course of the disease from 8.3% to 68.2% of the white corpuscles, and was in inverse proportion to the number of polymorphonuclear neutrophiles. This fact, together with the presence of esinophiles in large numbers in the muscles, the number increasing at the expense of the outwandered basophiles as the muscle-changes became more advanced, leads to the natural supposition that the esinophile cells are derived from the basophiles as a result of changes produced in the muscles by the presence of the trichina. The value of the blood-examination as an aid to the diagnosis of doubtful cases is evident. Undoubtedly, many mild cases escape detection, as would probably have happened in the two other cases reported in which the diagnosis was suggested by the character of the blood-specimens. Unexplained muscular or articular symptoms should always call for examination of the blood.

5.—In the urine of 36 typhoid patients, Richardson demonstrated **the presence of typhoid bacilli** in large numbers, and in practically pure culture. The bacteria appeared in the urine late in the course of the disease, and in several cases were still present when the patient was well enough to be discharged from the hospital. Undoubtedly, the urine of persons who have recovered from typhoid may for a considerable time remain a dangerous source of infection; it, no less than the stools, requires careful disinfection. The irrigation of the bladder with weak bichlorid solution was sufficient in one case so treated to render the urine free from bacilli. [F.K.]

7.—The blood of two patients under treatment by venesection, dry diet, and the administration of potassium iodid and calcium chlorid, showed no increase in fibrin (estimated by the method of Kossler and Pfeiffer), no evidence of oligohydremia, and in only one of the cases was there a diminution in the time of coagulation. Clinically, both cases improved very markedly. [F.K.]

Deutsche medicinische Wochenschrift.

June 15, 1899. [25. Jahrg., No. 24]

1. Alcohol Soap as a Medium for Disinfection of Skin and Hands. MIKULICZ.
2. Concerning the Surgical Treatment of Mild Stomach-Diseases. W. PETERSON.
3. The Diagnosis of Motility Disturbances and Stomach Ulceration-Processes. A. TUCHENDLER.
4. The Diagnosis and Therapy of Primary Ulcus Ventriculi Tuberculosum. J. PETRUSCHKY.

1.—The **alcoholic solution of soap** suggested and used by Mikulicz for cleansing and disinfecting both the operator's hands and the field of operations is the German official spiritus saponatus. It consists of potash soap 10.2%, pure olive oil 0.8%, glycerin 1%, alcohol 43.0%, and water 45.0%. In this solution the staphylococcus aureus was killed in a half minute, and staphylococcus albus in 1 minute. In using spiritus saponatus it is essential that it be not diluted, the method of use being scrubbing for 5 minutes with the pure solution and without previous washing of the hands with water. The advantages of this soap-solution are: it does not hurt the skin, saves time, it is not poisonous and is odorless, it affects the deeper parts of the skin, and finally, it is cheap. Its one disadvantage is that it leaves the hands slippery. [G.B.W.]

2.—The most frequent cause for **operation in benign diseases of the stomach** is ulcus ventriculi; next after this comes cholelithiasis, which may cause a pyloric or duodenal constriction, gastralgia, and other severe symptoms. Third in frequency of operative causes is corrosion stenosis developing after the ingestion of acids and other chemicals. There were 8 deaths out of the 76 operations, giving a mortality of 11%. Two died from peritonitis, 1 from secondary hemorrhage, and 5 from pneumonia. In cases of pyloric stenosis, 32 were successfully treated, while 21 either died or had a return of the trouble. [G.B.W.]

3.—Tuchendler emphasizes the importance of using more than one method to determine the degree of **motor power of the stomach.** He thinks that one should always note the amount of contents obtained from the stomach, and should use Strauss' fermentation test and Strauss' currant-seed test. [He is a student of Strauss.] In the series of cases which he reports, he found that the majority of cases that showed more than 150 cc. of contents one hour after a test-breakfast were cases of hyperacidity or ulcer. Most of the cases which showed relatively small amounts of contents, but still showed remnants of currant-seeds or some evidences of fermentation, were cases in which some unevenness of the inner surface of the stomach could be diagnosed, chiefly ulcer or carcinoma. He thinks, therefore, that the positive result of the currant-seed or fermentation-test associated with but slight retention of contents, indicates irregularities on the inner surface of the stomach. [D.L.E.]

4.—Petruschky reports two cases in which there were persistent symptoms of **ulcer of the stomach** that did not give way to ordinary treatment, and in which he suspected that the ulcer was probably tuberculous. He therefore injected tuberculin and got definite reaction in both cases, although there were no other signs of tuberculosis in any other portion of the body. In one case HCl was absent from the stomach-contents. In the other this question was not investigated. Both cases were treated subsequently with tuberculin. In both the action gradually became less marked and both improved very decidedly; Petruschky believes that it is probable that other cases of the same kind will soon be discovered, and that we may be repeatedly in a position to make a diagnosis and provide a cure in very obstinate cases. [D.L.E.]

June 22, 1899. [25. Jahrg., No. 25.]

1. Chylothorax. E. HAHN.
2. The Surgical Treatment of Mild Stomach Diseases. W. PETERSON.
3. Gummatous Formations in the Larynx. G. CORDES.
4. Unusual Form of Diphtheric Disease Transmitted through a Midwife. W. HASSENSTEIN.

5. Concerning the Nature of Pupillary Appearances and their Diagnostic Significance. LIEBRECHT.

1.—Hahn records the case of a man of 32, who was run over by a wagon, and was admitted to the hospital on the same day. He was somewhat pale when admitted, but did not seem distinctly shocked. There were no external evidences of injury. There was some pain in the loins, and tenderness upon pressure. The spinal column was not tender; upon movement, however, he had marked pain in the dorsal portion of the spinal column. There was neither albumin nor sugar in the urine. The ninth and tenth ribs were broken, and there was dulness on the right side below the mammary line. There was no fever. The pain in the legs continued and the patellar reflexes disappeared. The dulness on the right side increased markedly, and was accompanied by severe dyspnea. The patient was tapped, and somewhat bloody-looking fluid was withdrawn; the same process was repeated several times, but finally, about two weeks after the first tapping, a fluid which resembled milk was drawn from the pleura. These tappings were repeated until altogether, within about 16 days, in the neighborhood of 30,000 cc. of a chylous fluid was emptied from the pleura. The postmortem showed that about seven liters more of a similar fluid was in the right pleura, while the left pleura was in a normal condition. The ninth and tenth ribs were found broken, and the tenth vertebra of the right side showed callus exactly opposite a point where there was a rupture in the thoracic duct which communicated directly with a cavity, which in turn communicated with the right pleura. Hahn draws attention to the fact that **injury to the thoracic duct** so far as the level of the fourth dorsal vertebra is almost impossible without fracture of the vertebras, or other very severe injury, since the course of the duct is so protected. The injuries to the ducts may be divided into two classes, according as the main trunk itself or a smaller branch is injured. In the latter case, the prognosis is good; in the former it is necessarily a fatal injury, and no treatment except expectant can do good. The cause of death in this was evidently inanition. The man lost from the time of his injury on January 12 to his death on February 23 about 36,600 cc. of chyle through the rupture. [D.L.E.]

2.—(Conclusion.) **Operation for gastralgia** generally gave very good results, 5 out of 7 cases remained cured. In a case of severe hematemesis due to an ulcer of the stomach, complete stoppage of the bleeding was obtained by gastro-enterostomy. The indications for **operating in benign diseases of the stomach** may be summed up as follows: I. Absolute indications are pyloric stenosis with mechanical insufficiency of a high degree (continual sinking in the quantity of the urine and of the body-weight). II. Relative indications are: (1) atonic mechanical insufficiency of a high degree; (2) dangerous hemorrhage; (3) severe gastralgia and uncontrolable vomiting caused by a fresh ulcer, an ulcer cicatrix, a perigastritis and adhesions. [G.B.W.]

3.—Cordes reports a case of **gumma of the larynx,** which finally was completely cured by potassium iodid. The patient was a woman, 55 years of age, who denied all earlier infection of syphilis, and presented no other specific symptoms. The appearances of the larynx were as follows: epiglottis normal; the entire left half of the larynx was greatly reddened and infiltrated, especially was this marked on the ary-epiglottic ligament, the arytenoid cartilage, and the false cord; the surface of the mucous membrane was smooth; in the place of the vocal cords, a tumor of considerable size, and the shape of a half bullet, projected into the larynx, narrowing the lumen by two-thirds; the surface of this tumor was smooth and of a reddish-yellow color. By attempts at phonation, it was seen that the entire left half of the larynx was motionless, and that the arytenoids were fixed. The rest of the larynx was practically normal. [G.B.W.]

4.—The article deals with a **diphtheria epidemic** which occurred in the family of a midwife. The most interesting cases were in a mother and child who had been attended by the midwife, the mother showing a vulvar pseudomembrane, and the child a membrane on the stump of the umbilicus. There are serious questions, however, as to whether either of these was diphtherial, as no cultures were made. The most important point in the paper is that midwives with large families are practically always unsuited to their occupation, since they are nearly always unable to keep servants, and, therefore, have to attend to the bodily needs of their own children, and are constantly liable to contagious diseases. At best, the care of young children is not an occupation compatible with the strictest asepsis. Hassenstein makes a plea for an attempt to develop a more intelligent class of midwives that will appreciate the necessity of asepsis. [D.L.E.]

June 29, 1899. [25. Jahrg., No. 26.]

1. Two Unusual Eye-Operations. J. HIRSCHBERG.
2. Contribution upon Pfeiffer's Glandular Fevers. J. HAINEBACH.
3. Cases in Hospital Practice. B. GOLDENBERG.
4. The Question of Operative Treatment of Ascites in Liver-Cirrhosis. A. E. NEUMANN.
5. Concerning Cataleptic Effects of the Galvanic Current Through Circulation Obstruction. TH. BÜDINGER.
6. Concerning the Nature of Papillary Appearances and Their Diagnostic Significance. (*Conclusion.*) LIEBRECHT.

2.—The case reported occurred in a boy of 8 years who had the usual swelling of the glands observed in **glandular fever,** but without any redness or other abnormity of the throat. Later the case was complicated by hemorrhagic nephritis. The point made concerning the etiology was based upon the fact that a few days afterward a sister, and shortly after this a brother, were attacked with typical follicular tonsillitis which followed the usual course. Hainebach believes that the illness in each of these three cases was probably due to the same infection which in one case manifested itself as a follicular tonsillitis; in the other gave the picture of glandular fever which became complicated with hemorrhagic nephritis. The child that had glandular fever had repeatedly had angina. [D.L.E.]

3.—The **aneurysm** in this case was so large as to press the left lung downward and backward, and the only part of the lung capable of respiring air was the apex and a little of the posterior border. The right lung was pushed towards the right, but was normally capable of respiration. [G.B.W.]

This case of **maculosus werlhafii** presented all the typical symptoms, beginning with signs of dyspepsia, followed by rheumatoid pains in the muscles and swelling of the joints, petechiae of the skin, and hemorrhages from the bowel. The patient also developed an acute nephritis, which, in spite of apparent recovery from the other conditions, remained when he left the hospital. [G.B.W.]

4.—Neumann reports a case of **cirrhosis of the liver** on which he tried Talma's method of establishing a collateral circulation, so that the congestion of the abdominal veins might be relieved and the ascites prevented. The operation was carried out on a cachectic woman, 45 years of age, who was suffering from alcoholic cirrhosis. A small incision was made just above the umbilicus and the ascitic fluid allowed to escape. A half-sharp curet was introduced and the peritoneum around the incision was deprived of its endothelium. The omentum was fastened to this bared surface and the abdominal incision closed. Six months after the operation the patient felt well, the body-weight had increased, appetite was good, abdomen soft, liver still hard, and the ascites had disappeared. There was a distinct network of veins around the umbilicus, and a few veins were traceable to the intercostal spaces. [G.B.W.]

6.—Liebrecht notes the use of **cocain as a means of diagnosis.** It causes a dilatation of the pupil without acting upon the sphincter. With paralysis of the sympathetic, introduction of cocain leaves the pupil just as much contracted as before, while atropin soon causes dilation. **Hippus** is, in Liebrecht's belief, due to excessive sensitiveness of the dilation-center to sensory and psychic irritation. To emphasize this view, he records the case of a man who had complete paralysis of the oculomotor of the right eye. The pupil was inactive to light and convergence, but there was, nevertheless, lively hippus. He has frequently noted unilateral insensitiveness of the pupil to light in conditions other than tabes. In a total of 2,600 patients he has found 16 instances of inactivity of the pupil to light, and 6 times this was unilateral. These were discovered accidentally. Absolute immobility of the pupil occurs quite frequently in tabes, but is much more frequently a symptom of cerebral lues. In general paralysis, the condition of the pupil is likely to be

similar, though commonly myosis is absent, and the pupils are often of irregular form. This he is inclined to attribute to the fact that the disease of the cortex is irregularly distributed over the entire cortex, some portions being much more affected than others, and this leads to varying degrees of involvement of the fibers of the dilator-nerves, and hence to irregularity of the pupil. He usually finds the pupils uninvolved in multiple sclerosis and hysteria. In polioencephalitis-superior the pupillary movements are usually intact, while the external ocular muscles are likely to be paralyzed. When the pupil is involved, it is usually dilated and immobile, and the globe itself is usually motionless. [D.L.E.]

Centralblatt für innere Medicin.

August 12, 1899. [20. Jahrg., No. 32.]

On the Three-tone Rhythm of Mitral Stenosis, caused by the Appearance of a Second Diastolic Tone at the Mitral Valve. L. LUIGI FERRANNINI.

The cause of this third tone has been a matter of considerable discussion. Ferrannini has studied 9 cases which have come under his observation—all of them presenting evidences of mitral stenosis in mild degree. At the apex there was a strong rough first sound, followed by a somewhat irregular second sound, and immediately after this a short, higher-pitched, pure third sound. The presystolic murmur varied in strength—sometimes very loud; sometimes absent. The third tone could not be heard at the base at all, while the normal second sound was much accentuated. His method of studying these cases was to observe the effect of various drugs and mechanical measures. The slightest muscular movement caused the third sound to disappear, and to be replaced by a loud presystolic murmur. Compression of the crural arteries with an Esbach bandage also caused the sound to vanish. Blowing up the stomach with gas caused some increase in the strength of the tone. Alcohol, strophanthus, and digitalis all caused a disappearance of the tone, together with the appearance of an increase in the presystolic murmur, accompanying the increase in bloodpressure. Spartein also increased the strength of the tone, while atropin and amyl nitrite caused this third sound to vanish. It is, therefore, evident that those influences that cause increase in the bloodpressure cause the sound to disappear. This is attributed to more violent opening of the mitral valves and the consequent pressure of the leaflets against the walls of the ventricle, so that there is no possibility of their being thrown into vibration. Lessening of the bloodpressure increases the tone because it gives opportunity for more marked projection of the mitral valves in the course of the blood-flow, and, therefore, draws them into vibration. The tone, therefore, is considered to be dependent first upon the bloodpressure, in the second place, upon the frequency of the pulse. It is characteristic of mitral stenosis, but it indicates a mild degree of stenosis, because in severe cases with a much contracted opening, the valve leaflets are so deformed and adherent that it is impossible to cause their vibration through any amount of force. [D.L.E.]

Sundry French Journals.

1. Intratracheal Injections of Carbonate of Creasote. BAYER. (*Heb. de Laryngol., d'Otol. et de Rhinol.*, March 4, 1899. 20me Année, No. 9.)
2. New Sign for the Early Diagnosis of Pulmonary Tuberculosis. MURAT. (*Gaz. Heb. de Méd. et de Chirur.*, March 5, 1899. 46me Année, No. 18.
3. Contribution to the Study of Theobromin and its Diuretic Power. BARRIER. (Paris Thesis, 1898-99, No. 296. *Gaz. Heb. de Méd. et de Chirur.*, March 5, 1899. 46me Année, No. 19.)
4. Painful Paralysis in Infants. L. BERTRAND. (*Gaz. Heb. de Méd. et de Chirur.*, March 12, 1899. 46me Année, No. 21.)
5. Indicanuria: Particularly That Seen in Pregnancy and the Puerperium. OLIVE. (*Paris Thesis*, 1898-99, No. 217. (*Gaz. Heb. de Méd. et de Chirur.*, March 19, 1899. 46me Année, No. 23.)

1.—Bayer has called attention to the intratracheal injections of carbonate of creasote that he has employed in a series of patients who have been suffering from chronic bronchial catarrh, and from pulmonary tuberculosis with abundant expectoration. He formerly used a mixture of vasogen, creasote and mentholated oil; but although this mixture had given good results, he thinks that the carbonate of creasote is better for intratracheal administration. The preparation has a very feeble odor that hardly suggests the odor of creasote; it does not produce irritation of the mucous membranes. He injects from ½ to 1½ cc. of warmed fluid into the trachea. It produces no irritation and is easily borne by the most sensitive patients. The patient is then required to breathe deeply in order to facilitate the passage of the remedy through the bronchi. [J.M S]

2.—Murat advances a **new sign for the early diagnosis of pulmonary tuberculosis** that he classes among the subjective symptoms. When a patient suffering from incipient pulmonary tuberculosis talks loudly the voice is felt to vibrate to an appreciable degree in the tuberculous lung. It is necessary to look for this sign because it develops insidiously and is not painful, and, therefore, does not attract the attention of the patient. If the physician inquires concerning the appearance of this phenomenon, and requires the patient to study himself upon this point, making a humming noise, he will find that the vibrations of the voice are transmitted to the diseased lung, while no sensation will be perceived upon the healthy side. [J.M.S]

3.—According to Barrier, theobromin is the surest and most consistent diuretic. The mechanism of its action is difficult to determine, but it is thought to be a renal stimulant. The diuresis that it produces is rapid, intense, and of variable duration. It may be administered alone or in combination with digitalis or digitalin. It does not present the cumulative phenomena of digitalis nor the cerebral excitation of caffein; it does not cause irritation of the kidney. Neither headaches nor digestive troubles have been noted following its administration. The dose varies betweea 1.5 gm. and 6 gm. a day, the medium dose being from 2 to 3 gm. [J.M S.]

4.—Painful paralysis of young children is characterized by the complete loss of power of a limb with painful phenomena accompanying provoked movements. The disease is seen only in infants. The disease begins suddenly, following a slight traumatism, and, in little children who are not able to tell of their feelings and to whose movements little attention is paid, the paralysis is seen only after it has existed several days. In a great majority of cases, the first manifestations of pain and paralysis follow a sharp pull to raise the child or to prevent him from falling. The abolition of motion is far from being always complete, although following the accident there is usually a sudden and complete loss of movement that lasts for 24 or 48 hours. At the end of that time some obscure motion may be seen if the skin is irritated or if an attempt at examination is made. During the following days motion returns progressively, and at the same time the pain diminishes, so that the condition finally disappears at the end of 4 or 5 days. There is no deformity, and all sign of anatomic change is wanting. The mechanism observed most frequently in the production of this paralysis is traction applied to the arms of the child. The condition may be explained by the inhibiting or paralyzing action of the traumatism upon the nerve-fibers. [J M S]

5.—According to Olive, **indican in the urine** is in relation with the production of indol in the digestive tract, and consequently its increase is due to the excess of putrefaction of nitrogenous substances, or to insufficiency of the hepatic function that renders the liver incapable of carrying out its antitoxic role. Independently of the disorders of the digestive system indicanuria is frequently a symptom of those grave diseases, acute or chronic, with fever or without, that produce marked changes in the blood. It may appear in and under the influence of nervous diseases. It is frequently met with in **pregnant women,** 20%, and in them seems to be due to disordered digestion. It may disappear suddenly and it may increase very much in the first days of **puerperium.** The symptoms that accompany it may be insignificant or quite severe. Instances of the latter kind have been observed in cases of general autointoxication. [J M S]

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.

The Treatment of Hyperchlorhydria.—Lemoine (*Le Nord Médical*, February 15, 1899, and *Treatment*, June 8, 1899) states that there are three clinical types of hyperchlorhydria: (1) The paroxysmal form. (2) The ordinary or classical form. (3) The continuous severe form, or Reichmann's disease. Each requires special treatment.

1. The paroxysmal type of hyperchlorhydria is characterized by sudden severe burning pain in the pit of the stomach, lasting from half an hour to an hour. The cause of the attack is hepatic congestion, set up by the absorption of acid products from the stomach and the entrance of toxic substances into the portal circulation. It is some time before a repetition of the attack occurs. For the relief of the intense pain hypodermic injections of morphia are necessary. At the end of the paroxysm of pain, or before, if the stomach will tolerate it, 15 grams of bicarbonate of soda should be given in a little water. With this treatment the relief of pain is rapid. A tumblerful of warm Vichy water should be taken every day for the next fortnight, to which may be added, if necessary, a little bicarbonate of soda. This treatment should be repeated every month for about ten days.

2. In the ordinary form of hyperchlorhydria, in which pain occurs at about 11 A.M., between 4 and 5 P.M., and at night towards 1 or 2 A.M., we must endeavor to

(*a*) Neutralize the excessive acidity of the gastric juice.

(*b*) Prevent fermentation, and combat the tendency to gastric dilatation and intestinal troubles.

(*c*) Improve the general condition.

(*a*) To fulfil the first indication, soda bicarbonate is usually given in big doses, about half an hour before the time at which pain is generally felt, 4 grams of soda bicarbonate with a glass of Vichy water three times a day.

If this medication is insufficient, and pain is still experienced, the morning and afternoon doses may be doubled. Although this treatment produces immediately good results, it must not be too long continued, because though it affords relief at the time, it ultimately aggravates the very condition for which it is given, and produces more intense hyperchlorhydria. It is therefore advisable to substitute other treatment.

Mathieu, Hayem, and especially Debove, commend the use of inert powders, such as talc or prepared chalk. These substances undergo no chemical modification, and, acting only like sponges, imbibe the gastric juice, and prevent it causing the usual troubles. If, however, one employs this medication to the exclusion of all others, it is necessary to give large quantities of these powders—15 to 40 grams—with the result that constipation is produced. It is preferable, says Professor Lemoine, to have recourse to other and more active alkalies than soda bicarbonate, and which have not its disadvantage. These are especially magnesia and bismuth salicylate. The first of these products is laxative in its effect, the second constipating. One may associate them together in varying doses, according to the special susceptibility of the patient.

For example, one may prescribe:

Magnesia	5 grains
Bismuth salicylate	8 grains
Sodium bicarbonate	8 grains

in cachets, a cachet at 10 A.M., and 11 A.M., at 4 P.M. and 6 P.M., and at bedtime. A little belladonna or atropin may sometimes be added with advantage.

(*b*) If there is gastric fermentation, the stomach must be washed out.

(*c*) To fulfil the third indication we must strengthen the nervous system by means of hydrotherapy and rest, In the hyperchlorhydria associated with gastric crises in locomotor ataxia, the latter disease must, of course, receive the treatment proper to it.

3. In Reichmann's disease, in which secretion of hydrochloric acid occurs continuously, soda bicarbonate must be avoided, and cachets of magnesia and bismuth salicylate. The only satisfactory way of dealing with the condition, however, is to wash out the stomach daily with alkaline water. Doyen, of Rheims, has advocated gastroenterostomy, so that the gastric secretion retained in the stomach by pyloric spasm, excited by the excessively acid gastric contents, may pass directly into the duodenum. We do not know if the operation has been done for the relief of this condition, but it would certainly be interesting to study the subsequent intestinal trouble. With regard to dietetics, Professor Lemoine remarks that milk is generally badly digested, and should be avoided in ordinary cases of hyperchlorhydria. For the rest, plenty of food, with the object of giving the too active stomach something to do, seems to be the guiding principle in the dieting of these patients. In Reichmann's disease, Professor Lemoine gives 3 or 4 liters of milk a day, and as much meat as the patient can eat.

Scarlet Fever.—J. Lewis Smith recommends the following "diaphoretic, diuretic and laxative" mixture for scarlatinal nephritis:—

℞.—Potassii acetatis	2 drams.
Potassii bicarbonatis	2 drams.
Potassii citratis	2 drams.
Infus. tritici repentis	add 8 ounces.

A teaspoonful every 3 or 4 hours for a child of 5 years.

Whitla gives the following diaphoretic mixture in the early stage of scarlet fever:—

℞.—Spirit. etheris nitrosi	2 drams.
Potassii citratis	1 dram.
Liq. ammon. acet	1½ ounces.
Syrupi simplicis	1 ounce.
Aquæ camphoræ	add 4 ounces.

Mix.—A teaspoonful every 3 hours.

Widerhofer recommends the following for scarlet fever with diphtheric throat affection:—

℞.—Potassii chloratis	20 grains.
Syrupi aurantii	3 drams.
Decoct. cinchonæ	add 3 ounces.

Mix.—A teaspoonful every 2 hours.

℞.—Potassii chloratis	1 dram.
Aquæ	12 ounces.

(The diphtheric spots to be also touched with pure lactic acid.)

Whitla uses the following spray for the throat in scarlet fever:—

℞.—Glycerini boracis	4 drams.
Glycerini acid. carbolici	3 drams.
Aquæ rosæ	add 10 ounces.

J. Lewis Smith recommends the following lotion for the itching of the skin in scarlet fever:—

℞.—Acidi carbolici	1 dram.
Tinct. camphoræ	2 ounces.
Aquæ puræ	1 pint.

Mix.—Shake well, and apply over surface when needed for pruritus. —*The Practitioner.*

Treatment of Cardiac Asthenia of Pneumonia.—Elsner (*Therapeutic Gazette*, June 15, 1899), believes that we have too long limited ourselves to the consideration of the heart alone, when administering to pneumonic patients, disregarding entirely the condition of the peripheral vessels, particularly the arteries. Primarily we are dealing with a toxemia. This leads to the cardiac asthenia, in which we are likely to have not only marked changes in the right half of the heart, but far-reaching degenerative changes in the muscle, heart-clots, and vasomotor paralysis. To this must be added the obstruction in the pulmonary circuit. Fortunately the toxemia is shortlived, but its effect on heart and vessels is malignant, and when these suffer the treatment must be radical, prompt, and sustaining. He contends that all antipyretics, except cold, which suddenly depress temperature do so at the expense of vital force, and are apt to rob the patient of needed resistance, or they may cause sudden and fatal collapse. The indiscriminate use of nitroglycerin is a growing evil with the profession in this country. Why should a drug be given that serves to lower still more the arterial tension? Nitroglycerin may have its uses in overcoming peripheral obstruction where the arteries are tense,

sclerotic or narrowed, against which the heart is laboring. But in pneumonia, when we already have paralyses of the vasomotors, it would seem from the experience of the past that nitroglycerin is a dangerous drug, in spite of the fact that one or two authorities of note have recommended it in this condition to relieve the overtaxed and dilated right heart; a condition which it would be far better to relieve by venesection, if all other methods fail, than by the use of a drug which causes still further paralysis. There are two drugs which, when properly administered, meet the indications presented by the circulatory changes of pneumonia, due to paralysis of the vasomotor centers, and the dilated condition of the arteries. These are strychnin and digitalis. They should be administered hypodermically, as when given in this way the results are more certain and prompt. Strychnin may be administered in comparatively large doses while the patient is being watched by skilled attendants. Digitalin may take the place of digitalis. He has been especially impressed with the value of diffusible stimulants administered at short intervals. He recommends the administration, every 15 minutes, of 15 drops each of the compound spirits of ether, aromatic spirits of ammonia, compound spirits of lavender, and the tincture of valerian. This is kept up day and night until the pulse shows improved tone, and the heart-action is decidedly better. The valerian is added because of its quieting effect when administered in these small doses with the diffusible stimulants. When valerian is not well received, pure whisky or brandy may be substituted in corresponding doses. If the Hoffman's anodyne is distasteful, it may be omitted, and the dose of ammonia and lavender doubled. Elsner has further insisted upon the internal administration every 2, 3, or 4 hours, according to the urgency of the symptoms, of ¼ grain doses of spartein sulfate with from 4 to 6 grains of caffein. Both of these drugs must be administered in larger doses than are usually prescribed if desirable results are to be obtained. The alcoholic stimulant upon which he depends is Tokay wine. He knows of no stimulant with which he has accomplished so much, and which in his hands has saved so many patients, as this Hungarian wine. This is given in tablespoonful doses every half hour, and with the ethereal stimulant when due. Occasionally it is necessary to use high rectal injections of coffee and whisky, and hypodermic injections of ether and oil, during periods of collapse.

Strontium Bromid in Epilepsy.—Roche (*Indian Medical Record*, April 12, 1899) states that he has written on this subject before, but he finds that while some of his correspondents have tried the system he advocates with success, others have expected results which he never suggested as possible. Having obtained a clear view of the condition and surroundings of the patient, regulations regarding diet, stimulants, and mode of life must be carefully explained. In most cases Roche has found that restricting the amount of animal food has a beneficial effect. The patient should live in the open air, avoid the overstrain of modern life, but interest his mind to a healthy extent. The first consideration in prescribing the bromid is to find the dose which will control the attacks, to increase the dose until that effect is produced, and then to continue it steadily for a long period. Patients often make two mistakes with reference to the medicine: they take the bromid and find the fits recur, and conclude that it is of no use in their case, whereas the recurrence is an indication for the increase of the dose; or after taking the medicine, no recurrence takes place for a long time, and the patients think they are cured and stop the medicine, with the result that the fits return. If the fits are more frequent at any time of the day, the larger dose should be given half an hour previously, the smaller dose being taken 12 hours afterwards. The writer begins with 1 dram daily in an infusion of quassia, 40 grains at the most threatened period, and 20 grains 12 hours later. If the fits recur, 1½ drams is given, and so on until no recurrence results. The author states that he has frequently given 3 drams a day for weeks without bad results. To prevent the bromid rash Fowler's solution is useful. Besides the bottle containing the regular doses, another one is ordered, called "the intermediate," which contains 20 grains to each ½ ounce, and should the patient have an aura, he is directed to take ½ ounce every half-hour until the sensation passes off. Treatment should be continued for an indefinite period. When syphilis is responsible for the attacks, Roche recommends a combination of strontium iodid and strontium bromid, as he finds strontium iodid more efficient and less depressing than the corresponding salt of potassium.

Urotropin in Cystitis.—Schiller, of Berlin (*Merck's Archives*, June, 1899), states that he has had occasion to employ urotropin in 14 cases of cystitis in the female. In 4 cases of gonorrheal cystitis the reaction was very prompt, the troublesome tenesmus disappearing at once and the urine becoming decidedly clearer. The other 10 instances were of cystitis of varying degrees of severity arising from different causes. A mild cystitis with urethral stricture responded promptly and without any treatment of the stricture. One case presented severe cystitis accompanying uterine tumor, the uterus being retroflexed and the tumor, through backward traction, making the emptying of the bladder very difficult. The patient experienced no relief after the administration of about 1 dram of urotropin, and then withdrew from treatment. A third case, with severe vesical hemorrhage, after ineffectual treatment with uva ursi and salol, reacted promptly to the first dram and a half. The patient then discontinued the drug on account of its expense. Five lighter cases of unknown etiology all gave evidence of the antiseptic action of the urotropin. The writer lays especial emphasis on the speedy relief of the pain. He recommends urotropin in cystitis, but considers that local treatment in addition will often be found necessary. In the matter of dosage he adhered to Nicolaier's advice and gave 7½ grains three times a day. In one instance he was obliged to give only 2 doses a day, as 3 produced burning in the bladder. Complete cure through urotropin was observed after using 4 to 6 drams.

Cholera Infantum.—H. N. Potter (*American Journal of Obstetrics and Diseases of Women and Children*) says that, with a recorded mortality of over 90% in this disease, the past treatment would seem to be far from satisfactory. He recommends a treatment, in which he has great faith, but which he has not had the opportunity to thoroughly test, on account of the prejudice against new treatments: (1) take away all food for 24 hours; (2) clear out the intestinal tract with hydrargyrum chloridum mite; (3) give large quantities of an intestinal antiseptic solution, which, of course, must be weak. The quantity given should be enough to keep the stomach well filled. If it cannot be given by the mouth, that is, if the child cannot be made to swallow it in such quantities, a tube should be used, and the solution poured into the stomach. With this, the intestinal tract should be irrigated with same solution, being thrown well up. To do this, a No. 10 or 12 soft rubber catheter should be attached to a fountain syringe. The idea is to thoroughly fill the alimentary tract with the solution; (4) if the patient should need stimulants, hypodermatic injections of brandy or strychnin should be given, and if the stomach rejects the treatment, or there is persistent vomiting, the irrigation of the intestinal tract should be kept up, and the stomach allowed a rest for a short time, and then the treatment again resorted to. If there is severe pain, external applications should be used, or, if necessary, hypodermatic injections of therapeutic agents that are not constipating given. With the experience that he already has had with the removal of food, and the administration of antiseptic solutions alone and in extreme doses, which is as near as he could come to the treatment, he is of the opinion that his treatment, rigidly enforced, will show more beneficial results than any treatment used heretofore. —*Pediatrics*, June 15, 1899.

Rectal Feeding.—The following enema is suggested by Boas, when rectal alimentation becomes necessary:

Milk	8 ounces.
Yolk of two eggs	
Salt	30 grains.
Claret	½ ounce.
Prepared cereal food	1 tablespoonful.

Use one to three in 24 hours.

Flatulent Dyspepsia.—

℞—Strontium salicylate	2 drams.
Sulfate strychnin	1 grain.
Naphthol	24 grains.
Carbolic acid	18 grains.

Make into 24 capsules. Sig.: One directly after meals.
—H. C. WOOD.

Original Articles.

A YEAR OF ABDOMINAL SURGERY AT THE PENNSYLVANIA HOSPITAL, PHILADELPHIA.

BY FRANCIS T. STEWART, M.D., Chief Resident.

DURING the year terminating May 1, 1899, there have been performed in the Pennsylvania Hospital, 164 operations implicating the peritoneum. Of these, 28, or a trifle more than 17%, have succumbed. In 8 of the fatal cases a general peritonitis existed at the time of operation, in 12 a peritonitis which was localized and suppurative; 5 died of peritonitis developing after operation, 3 being traumatic cases, 1 a strangulated hernia, and 1 a case of ectopic pregnancy; 2 died of exhaustion, and 1 died of shock and hemorrhage following a gunshot-wound of the liver and vena cava. This death-rate is very low when the class of cases entering the hospital is considered, many of the patients delaying until no other resort is left to them but "the hospital." We may safely assert that the majority of the abdominal sections were life-saving procedures.

Of 31 hernias, 14 were strangulated, 2 of the latter being fatal cases. The methods employed for the non-strangulated cases were Bassini's, and a modified form of Halsted's, the veins of the cord being left intact and the floor of the artificial canal being sewed with mattress sutures of chromicized catgut. Once while passing the deep sutures the external iliac vein was punctured; a lateral ligature controled the hemorrhage and no further difficulty ensued. This accident is not set forth in textbooks, nor do clinical teachers sufficiently admonish the student regarding the propinquity of the great vessels. I have personally seen this accident twice, and know of two others happening in the practices of friends. The various layers of the abdominal wall in this region must be carefully and thoroughly separated and the finger must act as a guide for the needle.

In 3 cases there was suppuration and 2 were followed by large hematomas, both of which were opened, 1 on the tenth day, and the second at the end of 3 weeks. In each case the bleeding was, even then, difficult to control, and in each a granulating wound resulted. The appendix presented itself in the sac twice and was excised. There was 1 direct hernia, 1 enteroepiplocele, 1 congenital hernia, and 1 femoral hernia.

Of those strangulated, 1 was ventral, 2 umbilical, 5 femoral, and 6 inguinal. The ventral hernia had appeared 2 years after a median section for pelvic trouble and had existed 3 years before it became strangulated. For 8 hours before operation the gut had been irreducible. The layers of the abdominal wall were sutured separately.

One of the umbilical hernias had been irreducible for 10 years, and strangulated 24 hours. Hot stupes were so frequently applied by the attending physician as to cause gangrene of the integument of the tumor, leaving the gut exposed to the atmosphere. Nothing but a small stitch-abscess marred the convalescence. The other umbilical rupture had been strangulated 19 hours. The patient left the hospital well, at the end of 3 weeks.

Three femoral strangulations occurred in females and 2 in males; the latter were of the lateral or Littre type. The most interesting of the former cases was in a multipara, 37 years of age, who, while walking along the street, had the gut suddenly descend with a sharp pain. She delayed 2 days before coming to the hospital. During the ensuing operation the bowel was found to be gangrenous, necessitating a resection of 4 inches. La Place's forceps were utilized for making the anastomosis, and, barring the inefficiency of the clamp which is supposed to hold the forceps together, proved to be eminently satisfactory. After the sac was ligatured, Gimbernat's ligament was sewed to the fascia lata, thus obliterating the femoral canal. A small slough of fascia followed. The other cases occurring in women present no unusual features excepting the extreme ages, 65 and 72 years respectively.

Both male cases are instructive. The first, a man, aged 22 years, had suffered for 24 hours with symptoms of intestinal obstruction coming on acutely. The abdominal pain was general and no mass could be felt in the belly or at the hernial rings. A median incision below the umbilicus enabled the surgeon to pull from the right internal femoral ring a loop of small intestine half of whose lumen had been strangulated. The peritoneal coat had become so thoroughly incorporated with the sac and environing tissue as to remain behind when the gut was extracted. The wound was sutured and the patient was well in the usual celiotomy period.

The second male patient died 60 hours after operation. A man, aged 24 years, had been in good health until 4 days since, when he began to vomit. Purgatives failed to move the bowels. On admission to the hospital the belly was painful and distended, and a small round mass could be felt protruding from the right saphenous opening. The urine contained both albumin and casts. Immediate operation by a vertical incision over the mass revealed a thick gangrenous sac, but no bowel. After ligating and removing the sac the wound was closed, with a small gauze-drain in position. A second incision was then made over the caput coli, an artificial anus established by immediate colotomy, and the wound closed. No lesion but a congestion of the peritoneum presented in the few coils of intestine which escaped from the second incision. The patient's condition precluded a formal and exhaustive search for the portion of gut which had been strangulated. At the postmortem examination, a gangrenous patch of bowel about $1\frac{1}{2}$ inches long, involving about one-third of the lumen of the gut, was found some 16

inches above the ileocecal valve. In its center was a small perforation. A lateral hernia of the ileum had evidently taken place into the right femoral canal and there persisted until the nutrition of the bowel was so interfered with as to cause it to slough after it had spontaneously reduced itself, perhaps during the administration of the anesthetic.

Of the 6 strangulated inguinal hernias, one, in a child of 3 years with a lateral hernia on the left side, was fatal. On opening the sac a black protrusion looking like the finger of a glove protruded from the ring. This was a portion of the intestinal wall which had been pushed through the ring and there constricted. The gangrenous area together with the remaining healthy part of the intestinal caliber was excised. The anastomosis was made without artificial aid. Two weeks later the lad died with symptoms of peritonitis.

In one case in which the strangulation had existed only 24 hours, the gut ruptured during the operative manipulations. The rent was sutured and the bowel returned to the abdominal cavity. The patient recovered without any complications. One was a strangulated congenital hernia, and in one case the appendix appeared in the sac. The two remaining cases presented nothing noteworthy.

The average duration of strangulation in the above cases was 35 hours, the longest period existing between the onset of the symptoms and the operation was 96 hours; the longest period of strangulation from which recovery ensued was 48 hours. The oldest patient was 72, the youngest 3. In each of the two deaths the strangulation had existed 96 hours, both were Littre hernias, one femoral and one inguinal, both were males, and in both the bowel was gangrenous. The bowel was resected in two cases with one death. In one case the bowel ruptured during the operation, in one the hernia was spontaneously reduced, and in one the diagnosis was not made until the abdomen was opened, the condition being a concealed lateral hernia. There were three strangulated Littre hernias.

Taxis is faithfully tried in all cases of strangulated hernia entering the receiving ward of the hospital, the manipulations being tempered according to the length of strangulation, because of the greater danger of injuring the bowel in cases in which the strangulation is of long standing. If taxis fails, immediate operation is advised, unless the hernia be a very large one, especially if it occur in an old man, when ice and opium are given. During the past year there have been three of these cases in which the large tumor melted away after a few hours of ice and opium.

Three cases of intestinal obstruction other than strangulated hernia were admitted and operated upon during the year. The patients all perished within 24 hours of the operation. In the first case the bowels had not moved for one week, and the patient was dying when admitted. Both ovaries had been excised one year previous to present trouble. After opening the belly the small gut was found intimately adherent to, and sharply twisted around, the right uterine cornu, thus causing obstruction. In separating the adhesion the bowel ruptured and was closed with great difficulty, the sutures repeatedly tearing through the inflamed and friable tissue. The patient died before the abdomen was closed.

The second case had been obstructed four days. Peritonitis was present. The right lower abdomen resisting palpation most, an incision was made in that region. The appendix was surrounded by dense adhesions, some of which extended over the ileum, almost completely closing it. The bowel was liberated and the appendix excised. The patient died 19 hours later. At the postmortem a large piece of asparagus stalk was found obstructing the narrowed lumen of the bowel.

The third case was in a thirteen-years-old girl who had been suffering with peritonitis and obstruction for four days. A median incision revealed a suppurative peritonitis, and just opposite the umbilicus a rent in the mesentery, through which a loop of intestine had slipped, there becoming strangulated. The lymph was wiped from the intestines, the cavity flushed with saline fluid, and the belly closed, but 24 hours later the girl was dead.

The only operation for typhoidal perforation resulted in death two hours later. The perforation occurred on the eighteenth day of the fever, although for two days previous to death there had been symptoms of peritonitis. The incision was made over the ileum and the perforation easily found and sutured. The ulcer was not excised.

Six chronic, 10 recurrent, and 30 suppurative cases of appendicitis were submitted to operation; and 2 were subjected to appendectomy after the subsidence of the first attack. Five of the suppurative cases were fatal.

In 5 of the nonsuppurative cases the abdomen was opened by the McBurney muscle-splitting method, and the appendix together with a piece of the cecum excised, the breach in the cecum being closed as an ordinary intestinal wound. The remaining cases were treated by a single incision going through the entire belly-wall, and a simple ligation of the appendix with sterilization of the stump. In some a cuff of peritoneum was sutured over the stump. The surgeons who do not employ the muscle-splitting operation claim that the muscle-fibers are stretched and weakened after that procedure.

In one instance a phlebitis of the left leg developed 12 days after operation, the fever and soreness disappearing on the eighteenth day after operation. The wound was sound. One case was complicated by a fibroma of the abdominal wall which developed directly over the appendix. The tumor and appendiceal

pain were first noticed two years since. Both the fibroma and the appendix were removed, the latter by the ligature method. The wound broke down and on the eighteenth day began to discharge feces. Five weeks later the sinus had closed. No complications developed in the remaining cases.

Two of the chronic cases developed in patients who had had a previous right-sided ovariectomy, another demonstration favorable to a systematic appendectomy in all cases of section for tubal or ovarian disease of the right side. One case returned to the hospital with a small hernial protrusion of the old scar.

Of the suppurative cases, 1 returned to the hospital with hernia (the cases have not been followed), 3 were followed by fecal fistulas, 6 were discharged with a small sinus, and 5 resulted in death by peritonitis. In 15 cases the appendix was either deliberately removed or came away in the discharge. One was complicated by empyema. The oldest patient was 42 years of age, the youngest 7 years. The longest interval elapsing between the onset of the attack and the operation was 30 days, the shortest 3 days, the average interval was 11 days. The general peritoneal cavity was opened 6 times in reaching the abscess, all recovering, although in one instance the abscess ruptured before the packing had been satisfactorily placed. Once the belly-wall was incised at the McBurney point, but, on exploration, the abscess lay to the outer side of the incision. The incision was sutured and sealed with collodion, and a second, farther out and directly into the abscess-cavity, made.

General peritonitis, existing at the time of operation, complicated 4 of the cases, 3 of these were fatal. The patient that recovered was a female, 24 years of age, who had been complaining of appendiceal pain, vomiting, and constipation for 4 days. When admitted the temperature was 102.4° F., the pulse 160, and the respiration 40. The abdomen was swollen and tender. On making an incision over the appendix, large quantities of turbid serum and pus escaped. No abscess-wall could be found. After hovering for several days on the fatal brink she began to convalesce and was sent home two months later with a sinus which still discharged large quantities of pus. The fourth death occurred 17 days after operation. It was the case of a lad of 12 years, in whom the abscess was incised, the appendix removed, and the cavity drained. For 15 days he did well, when symptoms of peritonitis developed, the patient dying 3 days later. The abdomen was not reopened. The last death occurred 18 hours after operation and was due to a fulminating peritonitis. A female, 21 years of age, had been ill for 8 days with appendicitis. The abscess was outside the colon and firmly glued to the abdominal wall. An attempt was made to open the abscess by bluntly dissecting the tissues with the finger. During the manipulations the mass suddenly collapsed with a snapping sound, the sac rupturing internally. A second incision nearer the mesial line was immediately made and the pus sponged from the intestines. Gauze drains were put in position and the patient was freely stimulated. There was neither pain nor distention and the bowels moved once after operation.

The drain-material used has been gauze, rubber tubing, and quite frequently a two-way glass tube, through which the cavity may be irrigated as often as desirable. No record can be found of the presence of a foreign body in the appendix, although fecal concretions, "date stones," have been of frequent occurrence. Chills are recorded in 2 of the pus cases; both recovered.

In this hospital enteric fever has to be differentiated from appendicitis more often than any other condition. Sometimes this is impossible until several days have elapsed. Rectal examinations have on several occasions molded a suspicious into a frank case of appendicitis. All "*belly-aches*" are retained in the Receiving Wards and given salts until the bowels move, when, if they are due to indigestible ingesta, the pain is relieved; if, on the other hand, the pain persists they are sent in to the hospital.

There was one liver-abscess. A man, 27 years of age, two years previous to admission, had suffered for a brief period with pain over the liver. There had never been an attack of dysentery. Nine days before coming to the hospital he was attacked with chilly sensations, coughing, and pain in the right hypochondrium. After entering the hospital the pain became localized to a small area near the apex of the last rib. The temperature showed an evening rise of a few degrees. No mass could be detected. After one week of observation an incision was made just below the last rib, evacuating about 6 ounces of pus, in which the ameba coli were afterwards demonstrated.

One case of hydatid disease of the liver was operated upon.

A Syrian woman, 40 years of age, had suffered for three years with pain over the liver. She was able to continue her work, peddling, until two months before admission, when the pain became greater, frequently augmenting into sharp paroxysms. There had been nausea but no vomiting. The patient had not emaciated, neither had there been chills or sweats. On admission the eyes were puffy, the skin dark but not jaundiced, the pulse rapid and of poor volume. Liver-dulness extended from the sixth rib down to four inches below the costal arch. Percussion was painful. There was no crepitation over the liver. The other organs were normal, excepting the kidneys, the urine containing albumin and hyalogranular casts. The temperature was scarcely above normal. On the second day the patient passed 12 inches of a tapeworm, taenia flava punctata. On the fifth day the temperature arose from normal in the morning to 104° in the evening, thereafter assuming a septic type. On the seventh day sweating was noticed. On the eleventh day jaundice became apparent. On the fourteenth day an oblique incision was made under the right costal arch, uncovering an enlarged liver with a distended gallbladder. The gallbladder was opened and its edges stitched to the abdominal wall. A large number of gallstones together with a number of cysts, looking much like grapes, were removed from the gallbladder. These cysts were afterwards found to contain hooklets. Death from exhaustion occurred five days later. The postmortem revealed an enlarged and fatty liver, the left

lobe of which contained 8 ounces of cysts and fluid. The hepatic and common ducts were distended with similar cysts. The small intestine contained the remaining portion of the tapeworm, measuring thirteen inches. The kidneys showed evidence of parenchymatous inflammation and the left ovary was hemorrhagic. The other organs were normal.

A second cholecystotomy was made for cholelithiasis, 28 stones, one of which had lodged in the cystic duct, being found. The patient, a woman, had been in good health until eight days before admission. At that time she was attacked with pain over the liver, jaundice, and vomiting. A mass could be felt extending from the liver almost to the anterior superior spine of the ilium. During the period elapsing before the operation the tumor diminished much in size and the jaundice became less intense. The gallbladder was stitched to the abdominal wall and drained. A good recovery ensued, although the sinus still discharges bile. The stones had evidently lain dormant for a long time before giving trouble. One was probably passed before the operation, giving rise to the pain, and, during the progress along the common duct, to the jaundice. After it had reached the intestine, the tumor and the jaundice diminished, although the pain, due to the entrance of the second stone into the cystic duct, persisted.

The following case, recorded as "ruptured bile-duct," is curious and obscure.

A young farmer, who had always enjoyed good health, barring an attack of pain in the right abdomen five years since, had complained of abdominal uneasiness for one month. Two weeks before admission there had been a single chill. The bowels were loose and there was no jaundice. Twenty-four hours before entering the hospital he was seized with violent abdominal pain and vomiting. The belly became tender and rigid all over, but more markedly on the right side. An incision was made over the appendix, which was normal, allowing a large quantity of bile to escape. There were signs of beginning peritonitis. Several concretions could be felt in the gallbladder, but no opening could be found with the finger. The patient's condition forbade a second incision over the gallbladder. A glass drain tube surrounded by gauze was placed in the belly and the wound closed. Seventeen days later the patient left the hospital with a sinus discharging bile. In this case a small stone had probably passed into the cystic duct, and caused ulceration and perforation of the duct-wall.

Intraperitoneal rupture of the urinary bladder constituted one of the indications for celiotomy. A woman, 55 years of age, fell a distance of some 5 feet, landing on her feet in a squatting position. The uterus shot from the introitus, dragging the vagina and bladder with it. At the operation no tear in the bladder could be found, although blood and urine welled up through the incision. At the postmortem, 24 hours later, a small vertical slit in the *bas fond* was discovered. This communicated with the peritoneal cavity by a small tear in the parietal peritoneum.

During the year there have been 35 cases of salpingitis, 24 of which were suppurative, of the latter 5 were fatal. Four were supplemented by hysteropexy and three by appendectomy, appendicitis complicating. In 4 of the 9 cases of double pyosalpingitis hysterectomy was performed. Two ovariectomies were followed by intraabdominal hemorrhage necessitating a secondary celiotomy; one of these patients died on the third day from peritonitis, the other recovered.

The remaining 4 deaths were also due to peritonitis. They were all acute pus-cases, 3 following labor; all were treated with a view of tiding over the acute symptoms, all became worse under this treatment, and in all the entire sac was removed. Seven of the suppurative cases were drained, one for the detection of hemorrhage, should it occur.

The two dermoid cysts of the ovaries which were operated upon presented nothing unusual.

There were 10 hysterectomies for uterine fibromas, one for sarcoma, and one for carcinoma. One week after one of the hysterectomies for fibroma, signs of peritonitis developed, and for a time the prospect seemed grave. The wound was in good condition. By the end of the second week the patient had regained the usual route to convalescence.

The uterine sarcoma was found to have infiltrated the bowel in two places. An intestinal resection was contemplated, but ignored because of the desperate condition of the patient. A portion of the growth was therefore left attached to the bowel in two places, the hemorrhage being checked with sutures of catgut. The patient died of exhaustion one week later.

Besides the hysterectomy for carcinoma there was one inoperable carcinoma of the uterus which was treated by a double oophorectomy.

Of 3 ectopic gestations one case was fatal. For two months the fatal case had been treated as dysmenorrhea. After rupture the diagnosis was easy to make. A perfectly formed child and placenta were removed together with the left tube. Peritonitis carried the patient off three days later. This pregnancy had existed at least two months before causing any symptoms.

The second case gave a history of an "abortion" ten days previously. This was followed by pelvic pain and metrorrhagia. A mass could be felt to the right of the uterus. A diagnosis of salpingitis following abortion was made and the abdomen opened. A tubal rupture had taken place, but the hemorrhage was not sufficient to cause death and had ceased some time before the operation, as the blood was in dark clots.

In the third case a diagnosis was made from the pelvic examination alone, as no satisfactory history could be obtained from the patient. The uterus was enlarged and pushed forward by a large cystic mass which indented with pressure and gave a sensation of crepitus like clotted blood. At the operation a large hematoma pushing the uterus and peritoneum up before it, was found. The tube had ruptured between the layers of the broad ligament. The hemorrhage had been profuse, but had ceased several days before the operation, as the blood was in firm dark clots. The uterus and tubes were removed.

Ectopic gestation, like appendicitis, is one of the con-

ditions which has only comparatively recently been recognized and made amenable to surgical treatment. The first successful operation for ruptured tubal pregnancy was performed only 16 years ago.

Of all the results of puerperal septic infection pelvic phlebitis is perhaps the rarest and most malignant. The most frequent course for infection to travel is directly along the mucous membrane to the peritoneum, or, when inflammation has sealed the fimbriated extremity of the fallopian tube, through the walls of the tube or uterus to the peritoneum. The lymphatics are next in importance as regards the frequency and may cause a cellulitis with or without suffering inflammation of their own walls. All cases of pelvic cellulitis, however, are not due to infection by the lymphatics, as frequently the cellulitis is secondary to a peritonitis which has originated in an infection spreading either by continuity or contiguity. Inflammation of the veins of the broad ligament manifested either by thrombosis or pus in the veins is the most infrequent sequel of puerperal infection. Following a superficial search I can find but one case in which there was recovery, and that was only after a long and protracted illness. (Personal communication from Dr. J. M. Baldy.)

In the 2 cases of pelvic phlebitis observed in the hospital the patients died, one on the third day, and one 24 hours after operation. Both followed abortion and in both the symptoms appeared after the women had apparently recovered from the abortions.

The first case, a woman 29 years of age, aborted 5 weeks before admission. Nothing unusual occurred until 1 week before admission. Irregular chills, sweating, diarrhea, vomiting, and uterine pain were the objective phenomena. A vaginal examination revealed a large, soft, boggy uterus from which pus escaped. The uterine cavity was cureted and irrigated as soon as the patient reached the hospital. Nothing but the diseased endometrium was found in the uterus. Next day a chill, leaving the temperature at 106° F. and the pulse at 160, demonstrated that the curetage had been inefficient. Hysterectomy was immediately performed. The veins of the uterus and right broad ligament were enormously distended with clotted blood. Both tubes and ovaries together with the left broad ligament were normal in appearance. The temperature fell and did not rise above 101° during the remaining day of life.

The second patient, a girl 18 years of age, exhibited practically the same symptoms, excepting the chills; there had been sweats, however. Her abortion occurred 4 weeks, and the first symptoms 1 week before admission. A thickening of the right broad ligament could be palpated, and the uterus, as in the former patient, was large and boggy. This case was not cureted but was treated by a rapid hysterectomy. The ut-rine and broad ligament veins of the right side were filled with disintegrating clots and pus. The appendages and left broad ligament were normal. Some of the inflamed veins were left in the pelvic wall. The patient died of peritonitis 3 days later.

There were 3 celiotomies for large pelvic abscesses in which the sac was simply incised and drained. One patient died of peritonitis four days after operation.

Excluding the cases drained there were 7 of the gynecologic cases followed by stitch-abscesses.

One of the fecal fistulas following appendicitis was subjected to operation after an existence of 4 months. The wound suppurated and left a small sinus which persisted until the sutures which closed the intestinal wound had come away.

The abdomen was opened in 2 cases of gunshot wound, but no perforation of the intestine was found in either. Both died within 24 hours. In one case the bullet after death was traced from a perforation in the eleventh rib of the left side, through the kidney, spleen, and stomach, and found loose in the peritoneal cavity. In the second case the bullet penetrated the liver and tore through the vena cava; the wound of entrance was enlarged, the bullet removed with long forceps, and the wound tightly packed with iodoform gauze.

Of 4 stab-wounds of the abdomen 3 were cured. One patient sustained no greater injury than a severed ligamentum teres of the liver, and in one the gastroepiploic artery had been punctured. In the third case there were 3 stab-wounds, 1 nonpenetrating, 1 puncturing the lung, and a third in the ninth interspace midaxillary line on the left side; this wound, which was plugged with a piece of omentum, had been produced by a downward thrust which tore through the diaphragm and entered the belly cavity. There were symptoms of a grave internal hemorrhage. A median incision above the umbilicus disclosed a belly full of liquid blood. A piece of torn and bleeding omentum was found and ligated.

Most of the blood came from the thorax down through the diaphragmatic tear. The stab-wound in the ninth interspace was enlarged and gauze stuffed into the chest, but the blood continued to ooze through the packing. The gauze was removed and a large rubber tube passed into the thorax, coming out through the other chest-wound. A large gauze compress completed the dressing. The drain-tube was introduced to check the hemorrhage which was from the torn lung-tissue, the tube conveying air to the bleeding surfaces and so facilitating clotting. (*Annals of Surgery*, vol. xxix, p. 511.) A formidable costal resection with packing of the lung-tissue itself would have killed the patient. The tube was removed on the third day, the oozing having ceased. The patient recovered with a suppurative pleurisy, the chest-wound discharging a small quantity of pus daily.

In the fatal case death occurred 36 hours after operation. A German, with suicidal intent, plunged a knife into the abdomen just above the umbilicus. He then pulled the intestines from the cavity, stripping off the mesentery and mutilating them so badly as to necessitate a resection of 48 inches of the large gut. The ends were sewn in the abdominal incision.

It is needless to state that stimulants and large intravenous injections of salt-solution were employed in these desperate cases.

Tuberculosis of the peritoneum was treated by simple incision, irrigation, and drainage. There were 3 cases.

Two cases of peritonitis were explored, and no cause

being found, were irrigated and drained. Both perished within a few hours.

One section was made to explore a liver. The patient presented a history of recurring attacks of liver-pain with jaundice. The liver was very much enlarged and covered with small white nodules. After operation the jaundice lessened and the patient became more comfortable.

One abdominal section was started for the removal of pus-tubes. After making the incision the patient ceased breathing, and only after considerable difficulty was the respiratory function restored. The wound was closed and the patient returned to bed. Several weeks later this case was reopened and the fallopian tubes removed without difficulty.

DIFFICULT POINTS IN GYNECOLOGIC DIAGNOSIS.[1]

BY WILMER KRUSEN, M.D.,
of Philadelphia.

IT has been well said that "science knows nothing of nationality," and we rejoice in additions to our knowledge, and to our power of combating disease and death, whether they come to us from a French Pasteur, a Teuton Koch, or an Anglo-Saxon Lister; yet we as Americans can but feel a natural and pardonable thrill of pride in the fact that so many names of our compatriots are written on the page of gynecologic history. The great impulse which abdominal surgery received when it was found that ovarian cysts of a formidable character could be successfully removed by an Ephraim McDowell in the backwoods of Kentucky, marked a new era in the progress of gynecology; and the peculiar technical genius of Marion Sims, which led to the invention of the perineal retractor that bears his name and aided him in achieving success in the relief of the then almost incurable lesion, vesicovaginal fistula, brought incalculable benefit to womankind, not only in the treatment of fistula, but in the diagnosis and treatment of all diseases peculiar to women. And to this list may be added the honored names of Emmet, Battey, Goodell—the first professor of gynecology in this country—and a score of others who have aided vastly in advancing their special department of medical science, and, at the same time, added new luster to American surgery. Although much has been accomplished by these masters in surgery, yet daily we are confronting new problems and contending with new difficulties, and it is to some of these difficulties in diagnosis that I invite your attention.

"Diagnosis," says Da Costa, "is partly a science, partly an art; a science because it comprehensively takes account of facts; an art because it demands a cognizance of the means and their application to arrive at the desired result." The successful gynecologist must be a student thoroughly familiar with his science, and then, by the application of his art, strive to reach a correct conclusion. In no department of medicine are we able to depend less on the symptomatology of the case than in gynecology. As Mundé has said: "In no other part of the body is the recognition of the more complex forms of disease more difficult and confusing than in the female pelvis and abdomen, with, perhaps, the sole exception of the brain." The necessity for the *tactus eruditus*, which can only be required by repeated examinations and thorough training, is always evident. We find repeatedly similarity of symptoms with dissimilarity of cause and conditions. The case-book of the gynecologist often repeats itself, page after page. The same train of subjective symptoms, backache, dragging sensation, disturbed menstrual function, increased discharge, etc.—characteristic uterine syndromes—may be found in either uterine, tubal, or ovarian disease; so that nothing but the careful systematic abdominal, vaginal, rectal, or vesical examination will elucidate the condition and enable us to solve the mystery of etiology. The various conjoined or bimanual methods are indispensable.

One of the first difficulties is the innate delicacy of the true woman which makes her shrink from examination, regarding it as an "act that blurs the grace and blush of modesty," and causes her too often to defer the visit to the physician until driven by alarming symptoms and unbearable sufferings; and even then she hopes that the coveted relief may be secured without the ordeal of a physical examination. Certain definite rules should govern us in our gynecologic work. When the history of a case indicates clearly or possibly the presence of some pelvic lesion, local examination should be advised, the necessity for it being carefully explained to the patient. If she is not willing to permit such an investigation, then it is better for the physician to refuse to prescribe, firmly declining to be responsible, as any attempt to treat such a patient empirically will usually result in failure; both physician and patient will be disappointed, and the latter often progress into an aggravated or incurable state which will render even radical treatment imperative, ineffectual, or impossible. Then she and her friends will most certainly condemn the physician for not insisting upon the desired examination. In making this examination the administration of an anesthetic is often indispensable, and no positive diagnosis in an obscure case should be made without its employment. Following the lead of Montgomery, who has done so much to introduce the bromid of ethyl, I have found it of great service for the brief period necessary for bimanual investigation. In highly sensitive patients with rigid abdominal walls, this is the ideal anesthetic, and because of the small amount required, the rapid return to consciousness, and the very slight after-effects, it is the

[1] Read by invitation before the West Virginia State Medical Society, at Weston, W. Va., May 19, 1899.

one best adapted to office practice. The excellent paper on the "Value of Ethyl Bromid in Gynecology and Obstetrics," by F. C. Hammond, in *American Gynecological and Obstetrical Journal*, March, 1899, will prove helpful to the profession in the use of this anesthetic.

It may seem unnecessary in this connection to call attention first to pregnancy and its early recognition; but the fact remains that the uterus is sometimes explored and cureted, or the abdomen opened, in cases in which the increase in size in uterus and abdomen is due to a physiologic and not a pathologic condition. Each case must be studied without "prejudgment," and our opinion must not be biased by the social position, reputation and circumstances of the party concerned. If it is the design of the patient to deceive us, all the more carefully must we conduct our examination and consider our judgment before giving a decision. Time is the important factor in obscure cases, and will soon deny or confirm our opinion by a certain and remorseless revelation of facts. The presumptive signs of pregnancy should be carefully studied and its possibility considered in every instance.

The early recognition of carcinoma of the uterus is absolutely essential to its successful treatment. Unfortunately we have no pathognomonic signs of this dread disease. It is frightfully prevalent and the results of treatment mournfully unsatisfactory. Its onset is so insidious that eternal vigilance is the price of its diagnosis. After it is once established unmistakably, its extension by continuity of tissues, through the venous and lymphatic systems so definite and direct, that surgery is powerless to eradicate and medicine helpless to alleviate. How often, like Hippocrates, we find in these cases experience fallacious and judgment difficult. The cervix uteri in suspicious cases, subjected as it is to the "brunt of the insults of coition and parturition," should be watched with untiring assiduity; and when palliative treatment fails to alleviate speedily, corroborative microscopic examination should be employed, and if confirmatory evidence is secured, complete hysterectomy should be performed. Would that I possessed that ancient and resistless eloquence to wield men to realize the vital necessity of early recognition and treatment of uterine cancer. The dispensaries of our large cities and the offices of specialists are, over and over, the scenes of the sad astonishment of the patient and impotent commiseration of the physician as he tells the poor sufferer, or her friends, that the case is incurable. There is nothing in the early symptoms of uterine carcinoma to interfere in the slightest degree with the ordinary course of life; and even if the woman's attention is attracted to certain trifling symptoms, her fears are not excited and her physician not consulted. All cases of hemorrhage, either slight or profuse, occurring after the menopause should be regarded with suspicion, and the cause of bleeding ascertained. After the malignant disease is once established, its diagnosis is one of the easiest of case-problems to solve; but in its first stages it may be mistaken for laceration of the cervix with ectropion, ulceration or erosion; and the necrosis of a fibroid polyp with partial expulsion from the external os has repeatedly been mistaken for malignancy of the cervix or body of the uterus. Syphilitic lesions of the vaginal portions of the uterus, although one of the rarest of conditions, must be remembered. Condylomas filling the vagina resemble cauliflower excrescences and must be differentiated. The fact that a specific history may be obtained in many cases of well-defined epithelioma increases the difficulty in differentiation. Although the microscope gives valuable information in regard to these conditions, unfortunately it requires special knowledge of the methods of obtaining and preparing tissues for microscopic investigation, which the majority of us do not possess. And even if the practitioner possesses the needful knowledge the amount of time required greatly diminishes its value. What is needed most is an easily applied clinical method of diagnosis. The chief symptoms of carcinoma are hemorrhage, watery or purulent discharges, and pain; but these occur so irregularly that many cases may present only one of the trio before extensive invasion has occurred. To aid in the early diagnosis of this dread disease the following points may be of value, although all may not be applicable to every case.

1. The unusual friability and vascularity of the tissue, which, if not detected by the finger, may easily be made apparent by hooking a tenaculum into the suspected area. The tenaculum will immediately tear out and cause abundant bleeding from the carcinomatous tissue.

2. A close adhesion of the mucous membrane of the portio to the parenchyma.

3. The difficulty in cervical dilatation as evidenced by the introduction of a tent. In a cancerous process there is, as a rule, a continuance of the hardness after dilatation.

4. Bleeding is easily provoked by an examination or by any unusual exertion or manipulation.

5. The characteristic induration of the cervix is almost imperceptible at first, but increases as the disease progresses.

6. Puncture of any suspected nodules or follicles will differentiate carcinoma from cystic follicles or distended glands.

7. Ulcerated or eroded areas which are not speedily amenable to treatment should be regarded with suspicion.

8. Any enlargement of the uterus occurring after the menopause is usually due to malignant disease. (Fisher.)

9. An early diagnosis can only be made with absolute certainty by microscopic examination of either an excised wedge from the suspected cervix, or, in cancer of

the body, of portions of the endometrium removed by curetage. The value of the examination will depend upon the experience and competency of the pathologist.

Epithelioma of the vulva is less frequent than malignant disease of the uterus, and may originate in a hard, ulcerated, and fungous plate between the labia minora and majora, from which it extends to the vestibule and destroys the vulva and urethra; or it may show itself first in the region of the urethra, forming around its external orifice a hard, vegetating ulcer, giving the finger the sensation of a tube of pasteboard; and soon, with the near tissues, becoming soldered, as it were, to the adjacent bony walls; or it may begin upon the clitoris, forming there a mass and then spreading to the anterior portion of the vulva towards the mons veneris, being accompanied by sharp pains radiating through all the pelvis. Duret (*Journal des Sciences Médicales de Lille*, March 25, 1899) claims that this form of cancer is often preceded either by kraurosis or leukoplakia of the vulva. Kraurosis of the vulva is a singular malady leading to a general shrinkage of all parts of the external genitalia. In vulvar leukoplakia, whitened plates appear upon the labia, the vaginal walls, the neck of the uterus, and the interior of the urethra, being peculiar to the mucous membrane. At first, opalescent and scattered, these may increase until they entirely cover the vulva and vagina, and gradually thickening seem in places like a porcelain covering of the vulva. There is an excessive keratinization of the epidermis in certain areas in which, in fact, originates the transformation into epithelioma. These whitened, horny plates may remain without transformation 10 or 15 months, or even longer.

In regard to the diagnosis of epithelioma, it is liable to be confounded: (1) With simple vegetations; (2) with lupus of the vulva; and (3) with syphilitic affections; but the first, the simple vegetations, secrete a virulent liquid unlike the ichor of cancer, they readily yield to an energetic caustic which prevents their reproduction, and they have no hardened base, being remarkable for their softness. In the case of lupus, the vulva is red and presents scattered fungous ulcerations which are without any indurated base; while the syphilitic chancre is more limited and has a little circle of characteristic induration.

After malignant disease the recognition of ectopic gestation ranks next in importance; for the high mortality attending the intraabdominal rupture of the gestation-sac, if operation is not speedily performed, makes early diagnosis imperative. Every instance of ectopic gestation should be treated as a case of malignant disease, and operation performed as soon as recognized. The life of the patient is in jeopardy and the hazard is too great to permit dilatory treatment. The two conditions most liable to be mistaken for extrauterine gestation are incomplete abortion and disease of the appendages of one side. A pyosalpinx or hydrosalpinx closely resembles early tubal pregnancy. A study of the objective signs in conjunction with the history is important. The increased size of the uterus, the mass situated at one side of that organ, the pulsation of vessels in the lateral fornix, the expulsion of the decidual cast from the uterus and microscopic examination of it when possible, together with a history of previous sterility and unusual discomfort during this pregnancy, with cessation of menstruation, are significant of ectopic gestation. Few possess the diagnostic acumen of Spencer Wells, who made the diagnosis of simultaneous intrauterine and extrauterine pregnancy. In one case operated on by Montgomery during the past winter at Jefferson Hospital, the extrauterine pregnancy had occurred for the second time in the same woman, the remaining tube being the seat of the pregnancy, an unsuspected condition which tested the ability of the diagnostician.

Another interesting point in gynecologic diagnosis is the differentiation of appendicitis from pyosalpinx or ovarian disease. The coexistence of appendicitis with disease of the adnexa is so frequent that sometimes the accuracy of the diagnosis is interfered with, and it is impossible to say whether the symptoms are primarily due to the appendix or the appendage. In appendicitis there are three cardinal symptoms, pain, rigidity, and tenderness. The pain is most frequently referred to the umbilicus or the periumbilical region; next in order of frequency, to the epigastrium; and last of all, to the region of the appendix; and the point of greatest intensity of tenderness is directly over the inflamed appendix; while in the purulent affection of tube or ovary, there is the possible history of a vaginouterine infection, disturbance of uterine function, and the intimate relation of the inflammatory mass with the uterus demonstrable by a careful rectoabdominal or vaginoabdominal examination. The swelling of an appendicitis will not ordinarily be mistaken for a salpingitis, since the former can rarely be palpated from the vagina unless the appendix be displaced or the exudate fills the pelvis; whereas the diseased tube usually forms a conglomerate mass with the ovary and uterus and does not extend into the suprailiac region. Yet, in fact, so frequently are the two conditions associated that one is almost tempted to formulate a general rule and remove the appendix whenever celiotomy has to be performed for pelvic disease.

It has been my experience recently during the frightful epidemic of enteric fever which has disgraced the fair municipality of Philadelphia, to observe four cases of pregnancy complicated by this fever, in all of which either abortion or premature labor was the result. Although the elevation of temperature continuing after the miscarriage or labor is very liable to be attributed to sepsis, particularly in those cases in which the first call to the physician and the first recorded temperature

were at the time of the expulsion of the fetus; yet the characteristic temperature, the comparatively slow pulse, the abdominal symptoms with the relative corroborative value of the Widal test, all pointed to the diagnosis of enteric fever. An offensive vaginal discharge was present in two cases, and in a third staphylococci were found. These conditions made the cases perplexing until further study revealed their true nature.

Another frequent error made is that of mistaking ovarian cysts for ascites, although ordinarily careful palpation and percussion will distinguish between them. In the ovarian cyst, the dulness over the tumor with its surrounding area of coronal resonance, and the ascites with a tympanitic note in front and above the tumor, and dulness in the flanks, present a typical, clinical picture. One of the most difficult operations I have ever seen was for the removal of a large multilocular ovarian cyst, that had been tapped six times for the evacuation of supposed ascitic fluid. Extensive adhesions had resulted, which complicated the celiotomy exceedingly. The differentiation between fibrocystic tumors of the uterus and ovarian cysts is very difficult, and many times impossible. The discovery of other fibrous tumors in the uterine wall aids in diagnosis. About six months ago, I made this error, and operating for the removal of the supposed large ovarian cyst, was confronted with a 33-pounds fibrocystic tumor of the uterus. Retrodeviations of the uterus and small fibroids puzzle the examiner. The uterine sound has been lauded as a valuable instrument for differentiation, but its use is a practice "more honored in the breach than the observance." No knowledge can be gained by it that cannot be more safely obtained through bimanual examination.

Time will not permit a detailed account of more of the knotty problems which tax our diagnostic acumen; suffice it to say, that many mistakes are due, not to the ignorance of the physician, but to the fact that sufficient time and thought are not given, nor all available clinical methods and instruments employed in studying the individual case. Osler, in his admirable lectures on the diagnosis of abdominal tumors, has observed that "Bishop Butler's maxim, that 'probability is the rule of life,' is particularly true, and the cocksureness of the clinical physician, who formerly had to dread only the mortifying disclosures of the postmortem room, is now wisely tempered, when the surgeon can so promptly and safely decide upon the nature of an obscure case." It is only by a frank confession and careful record of our mistakes that we may prevent our professional brothers from making similar errors, and by patient effort and constant observation that we may diminish human suffering and add to the grand sum total of useful medical knowledge. Work is the key which will unlock many mysteries of diagnosis, and give the solution of many perplexing and intricate problems. Voltaire's motto was "Always at work;" and surely we may exclaim, with Lowell:

"There is always work,
And tools to work withal, for those who will."

SUBCUTANEOUS RUPTURE OF THE INTESTINE.*

By HENRY C. KEENAN, M.D.,
of Brooklyn, N. Y.

COMPLETE symptomatology as an aid to diagnosis can only be attained after the examination of a large number of cases. Gradually the pathognomonic signs and principal symptoms begin to assert themselves by frequent repetition. Thus a complete symptomatology is built up from the mass of complex details, and the exceptions stand out more clearly by contrast. When, therefore, we find the profession groping in the dark in certain conditions, no experience, however small, can fail to be appreciated. It is therefore with no apology that I offer my modicum of experience in these cases.

Curtis[1] has shown in a series of experiments on dogs that the so-called rupture of the intestine is in the large majority of cases really not a rupture at all, but a contused lacerated wound. This observer found that if a weight were dropped from a height on the abdomen no tear occurred unless the bowel was caught between the force transmitted through the abdominal wall and the bony spine or pelvis in the rear. Blows at the side in which the intestine was not so caught, produced no laceration, and in most cases no injury. Furthermore, a moderate distention of the bowel favored its escape from injury. However, if an isolated knuckle of intestine were largely distended, a real rupture might take place, but Curtis in his conclusions believes that this latter condition occurs very rarely if ever in the living body. It was always produced artificially in the experiments. Anatomically the human body is to a certain degree exposed to laceration of the intestine, there being no bony framework in front to protect the abdomen as in the case of the other cavities of the body. Also, the spine is only a short distance behind the front abdominal wall, much shorter indeed than is generally acknowledged; so that it is comparatively easy for a heavy force or a sharp blow to bring the front and rear surfaces of the abdominal cavity together and catch and tear any intestine interposing.

The forces producing rupture may be divided into two classes: Sudden sharp blows, as kicks or heavy objects thrown, as a block from a saw (this causes about 70% of all ruptures); and heavy lacerating forces, as being caught between buffers of cars or run over by wagons or trucks (this causes 30%). These two forces in most instances produce two different kinds of injury, as shown by Bryant,[2] of London. The sudden, sharp blow produces usually a single tear, while the passage

* Read before the St. Mary's Hospital Alumni Society of Brooklyn, April, 1899.

of a large body produces usually more than one tear, and generally a separation of the torn ends.

The portions of intestine most frequently injured are the upper end of the jejunum, near the duodenum and the lower end of the ileum near the colon, places where a movable portion of gut is attached to one more fixed. As to the place of rupture with regard to the force applied, Fevrier and Adam[3] of Nancy, found that in dogs the lesions were always superposed one upon the other, so that by going from the injured portion of the abdominal wall towards the spine the wounded loop could always be found. This is what, *a priori*, we should expect from the experiments of Curtis. The immediate effect of a tear of the intestine may be hemorrhage from a torn vessel and extravasation of the intestinal contents into the peritoneal cavity, or there may be no hemorrhage, or so slight as to give no symptoms. Later on, due to the extravasated fecal matter there is peritonitis, and this is usually of a very virulent type.

Sometimes, however, at the time of the accident the bowel is not torn, but is either bruised or the blood-supply separated from the part so that it becomes gangrenous and a perforation takes place even so late as six days after the original accident. Curtis found that even a slight force would cause a separation of the blood-supply from the part, and one of my cases well exemplifies how a late rupture and sudden death may occur from this cause.

A boy was kicked in the epigastric region and vomited at the time. He was somewhat collapsed and complained of pain in the abdomen. Nothing seemed to indicate serious abdominal injury and the patient was put to bed on a fluid diet, where he gradually improved so that he complained only of tenderness. On the sixth day after the accident he sat up in bed and suddenly fell back dead. On autopsy a perforation of the small intestine was found.

In taking up the symptomatology of rupture of the intestine, I have left out of account those serious cases in which there is evidently visceral lesion and confined myself, as far as possible, to the consideration of those more difficult cases in which there is a greater or less element of doubt as to the presence of a rupture. In examining the histories of the cases I have also tried, so far as possible, to divide the symptoms into two periods, those occurring at the time of the accident and for several hours thereafter, and those later symptoms arising and due either to the loss of continuity of the bowel or to peritonitis. Then I have endeavored to analyze the various symptoms, and determine their relative values and their absolute worth in making a diagnosis.

I have examined the histories of 70 cases reported since 1893, and find the principal symptoms occurring early to be shock with its concomitant respiratory and cardiac signs; abdominal pain, either localized or general; vomiting, either of food alone or mixed with blood. Local tenderness (whether the tenderness was superficial or deep was not mentioned,) rigidity of the abdominal walls and absence of liver-dulness. The later symptoms more usually found are obstinate constipation, absence of flatus, retention of urine, thirst, anxiety and restlessness, tympanites, tenesmus, late vomiting, and the symptoms more directly due to peritonitis, of pain and tenderness, contraction of the abdominal muscles, rapid thready pulse, thoracic respiration, and fever. All the early signs do not occur in any one case, and all may be absent. Furthermore, none of them are strictly reliable as diagnosing a rupture.

Shock occurs in 60% of abdominal contusions, and in about 80% of these injuries with gastrointestinal laceration. This shock may be slight and evanescent or it may be profound and continued. In a small number of cases, either without any primary shock or after the primary shock has passed off, a secondary shock came on.

Pain was mentioned as an immediate or very early symptom in 52 cases, or 93% of all the cases in which this symptom was given. This pain varied very much in degree, passing from a very slight pain or tenderness all the way to excruciating agony, which required large doses of morphin to alleviate. Furthermore, the pain had in no way any proportion to the amount of injury sustained—large lacerating injuries, or several ruptures often, not having as much pain or no more than a single tear or no rupture at all. In the majority of cases the pain continued and increased. In a small proportion the pain stopped and came on later when peritonitis developed. A few cases which had no pain at the time of the accident developed it later, even before peritonitis began.

The opinions of various observers differ very materially as to the value of pain in diagnosing rupture. Treves says the pain in visceral lesion is intense, continuous and burning. Manley[4] believes that great pain is strongly suggestive of visceral lesion, while Bryant,[2] of London, thinks pain a very confusing sign. He says that solid and hollow viscera give the same amount of pain, while the integument gives much more pain. He believes, however, that if the pain is localized and persistent it may be of importance.

The condition of the abdomen was mentioned in 14 cases. Rigidity occurred 12 times, or 84%. Gilliam,[5] Deaver,[6] Rogers,[7] and others set great store by it as a sign of visceral lesion. It may, however, occur due to severe injury to the abdominal wall (without rupture), as shown by cases mentioned by Adam,[17] Manley,[4] and one of my cases. Absence of liver-dulness due to free gas in the peritoneal cavity is certainly pathognomic of laceration, but there are so many factors necessary to its occurrence that it is a rare sign, being found in only 4% in the statistics quoted by Curtis,[1] and in only 2% of my series. Vomiting occurred in about 83% of the cases. Vomiting persisted or stopped and came on again, after several hours, in 66%. In a small number

of cases there was no emesis at the time of the accident, but it came on several hours later.

Persistent vomiting is not an absolute sign of rupture, as it occurred in several cases with no rupture. Still the proportion of these cases is so small that I should say that persistent vomiting or attemps at vomiting after the stomach has been emptied would be very strongly suggestive of intestinal rupture.

Vomiting of blood occurred in a small percentage of cases. It does not necessarily mean a rupture of the entire interstitial wall, but will occur when the mucous coat alone is torn.

Constipation occurs in a large number of cases as a late sign. That it is not absolute is illustrated by several cases reported by Bryant,[2] of London.

Pitt[8] in an article on ruptured intestine recollects several cases in which tenesmus occurred. He believes it valuable when taken in conjunction with other symptoms.

In a late article, Fowler,[18] of Brooklyn, believes that the pulse is of the highest importance in ruptures. A steady gain of from 10 to 15 beats an hour is said by him to mean rupture. Temperature and respiration have no value as early symptoms. As late symptoms, and showing the beginning of peritonitis, they are of value.

In attempting to establish a diagnosis of rupture of the intestine, no point that in any way may assist should be left out of account. The history of the case should be carefully examined, the quality and direction of the force and its place of impact on the abdomen.

The percentage of chances of intestinal rupture in any particular case of contusion is one in four. Out of 71 cases of contusion reported by Bryant,[9] 17, or 20%, had rupture. Shock passing off soon and the other symptoms going on to improve would rather be against visceral lesion.

Profound or progressively increasing shock, or a secondary shock coming on after the primary shock had worn off, would be rather in favor of intestinal laceration. Severe continued local pain would be more likely in rupture than in simple contusion. Rigidity of the abdominal muscles and continued vomiting occurring alone or in conjunction with one or more of the above symptoms would be almost certainly rupture.

The value of an early diagnosis of rupture of the intestine can hardly be overestimated. In fact, the life of the patient absolutely depends upon a diagnosis of his condition before peritonitis has developed. Fourteen of the cases I examined were operated upon, 5 of these early. Of these five 3 died, but in extenuation of this mortality it may be said that one died from peritonitis due to a tear not discovered at the time of the operation, the others from peritonitis due to gangrene. In each case a small discolored spot was noticed at the time of the operation, but the intestine was returned as safe. In the remaining 9, laparotomy was performed after peritonitis had developed, and all died. The diagnosis was not made at all or too late in the rest of the series, and all died.

Thus it can be seen that the mortality of the late operation equals that of the cases not operated, each being 100%, while the mortality of the early laparatomy is 60%. This is undoubtedly much too high, the deaths in these cases being due to faulty technic, and 20% would by no means be too low to put the mortality. Even granting the 60%, this is a clear gain of 40% over cases otherwise doomed.

The most important point in a subject of this nature is the treatment. Hardly any other class of cases has brought forth such diametrically opposed views, and amid all this discussion the mortality has kept at the comfortably high rate of 96%. Mendy[19] would treat all cases of contused abdomen by rest in bed, fluid diet, and opium, nature having in a number of instances taken care of these cases.

Manley,[4] Deaver,[6] Tillmanns,[10] Shields,[20] and Battle,[21] would treat every case as serious and watch carefully for the development of bad signs, and on their appearance operate. A sort of armed expectancy. These bad signs are, however, in the large majority of cases, due to peritonitis, so that the mortality of this form of treatment ranges very near 100%.

Lambert,[11] Rogers,[7] La Place,[12] Balladur,[13] and McDonald,[14] denounce the attitude of armed expectancy as pernicious, and would perform immediate exploratory laparotomy in all cases of contusion. It would seem as if a stand midway between the views of the two latter schools would give the best chance of life to the largest number of patients. I believe it has been demonstrated in a foregoing part of the paper that the symptoms are very fallacious as a means of diagnosing rupture. Therefore, would it not be a better policy to (while paying close attention to the symptoms) operate rather on the history than to wait for a certain diagnosis?

Chevasse[15] has collected 36 cases of kick by a horse in the abdomen. Of these 35 had ruptured intestine. Out of 25 histories of horse-kicks in my series 24 had intestinal laceration. Out of 17 people run over by vehicles 16 died from rupture. These two, as shown above, form the far greatest percentage of causes of rupture (of the intestine). Therefore, granting these causes, would it not be better to operate at once without regard to symptoms?

According to Kirmisson,[16] a person kicked in the abdomen by a horse has one chance out of three of dying, without operation. If early laparotomy is performed the chances of life are increased at least threefold. If laparotomy is done and there is no rupture, it is only exposing the patient to 1% chance of death, unless, indeed, a complete evisceration is done, when the chances increase to 99%.

For contusions from other causes the history and symptoms together would largely govern as to the necessity for laparatomy. In regard to the technic of the operation in these cases, it may not be out of place to call your attention to several points shown in this paper: (1) To cut down over the point of impact of the force, and then gently lift the loops of intestine going towards the spine, Fevrier and Adam having shown that the laceration will be found in this situation; (2) after finding one tear to search for others, avoiding, however, evisceration; (3) to regard any discolored spots with great suspicion and treat them as ruptures.

CASE 1.—January 26, man, aged 30, stableman, kicked in abdomen by horse. Suffered from shock, vomited, and had severe pain and tenderness in the abdomen. Abdominal muscles rigid. Shock gradually passed off. Vomiting ceased, but pain continued. Was brought to hospital the day following the accident. January 27. On examination there was pain and tenderness in the abdomen. No external mark of injury. Temperature and pulse normal. January 28. Patient resting fairly comfortable. Complains of some pain in the abdomen. Toward evening patient began to develop signs of peritonitis, and died early January 31. Autopsy showed rupture of ileum near cecum.

CASE 2.—Reported by courtesy of Dr. James McEvitt. Longshoreman. Had right inguinal hernia held in place by a truss. Between 4 and 5 P.M., was struck in truss by a flour-barrel. He had no shock, pain, or vomiting at the time of accident, and walked home. A doctor saw him at 9 P.M., and found the man with the right testicle swollen and painful. There was no complaint of any abdominal injury, and no external sign of violence, no abdominal pain or tenderness. The pulse was very slow, 56. Patient had vomited before the arrival of the doctor and several times after. Next morning patient in the same condition. Pulse 84, vomiting had ceased. No tympanites, no pain. On the following morning patient found collapsed and died soon after. Autopsy showed rupture of small intestine.

CASE 3.—Man knocked from wagon by car. Fell on abdomen. At time of accident he suffered from shock and pain in abdomen. Later shock passed off and patient became fairly comfortable, but still had some pain in abdomen. Two days after admission to hospital developed peritonitis, and died next day. Autopsy showed a rupture of the colon a short distance above the cecum.

CASE 4.—Laborer. March 28, 1898, was struck in the abdomen by a bar of iron. Suffered from extreme shock at time of accident, but did not vomit. Pulse very rapid and feeble. Patient was brought to hospital within two hours after the accident. On examination abdomen was very rigid. Did not complain of any abdominal pain. Was much excited. Vomited several hours after admission. Urine contained blood. Died 24 hours after admission. Autopsy showed rupture of the bladder and small intestine, and general peritonitis.

CASE 5.—Carpenter, German, aged 26, while working in a planing mill was struck in epigastrium by a log from the plane. Suffered profound shock. Had severe pain. Vomited once. Morphin controled the pain, and it passed off during the day. On July 22 he was resting easily and felt no pain except on pressure. On July 23, discharged cured.

CASE 6.—Man, aged 24. Kicked in abdomen by a companion. Slight shock at the time of accident. Pain in abdomen. Entered hospital several days later with pain and tenderness in the epigastric region, and a temperature of 99.5° F. Put to bed on a fluid diet. Pain and tenderness continued for 12 days and then disappeared. Patient discharged cured.

CASE 7.—July 12, 1886. Contusion without rupture. Man, aged 45. Kicked in abdomen by a delirious patient. Man suffered from shock and unable to move on account of the great pain. Epigastric region tender and swollen. Vomited at the time of accident. July 13, slept fairly well last night, and feels better this morning. No vomiting, no evidence of internal injury with the exception of a little soreness in epigastric region. July 19, patient discharged cured.

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THE SYMPTOMATIC TREATMENT OF CONSUMPTION.[1]

BY BENJAMIN F. LYLE, M.D.,

of Cincinnati, O.

FROM a clinic as well as from a pathologic standpoint, consumption may be regarded as a dual process —tuberculosis of the lungs upon which is engrafted a septic and inflammatory condition due to various microorganisms, principally streptococci.

The symptomatic treatment of consumption will depend largely upon the relative importance of the influences exerted by these two factors in any individual case.

We have while the disease is in its early stage the symptoms due to the tuberculous processes. These are principally manifested as impaired nutrition, accompanied by loss of weight, feeble digestion, lethargy, anemia, and palpitation of the heart. The cough, fever, and night-sweats, while present, do not cause serious inconvenience until later, when we also have the lesions due to the secondary involvement of the larynx and intestines.

Having no specific means by which we are enabled to destroy the tubercle-bacilli, we are compelled to depend upon the inherent powers of the body for the accomplishment of this purpose, or the modification of their deleterious influences. The support and improvement of the nutrition of the body is therefore the goal toward which we must at first direct all our efforts.

Nor should we ever lose sight of its importance, no matter how serious other symptoms and conditions may be. For the attainment of this purpose we must be watchful of the digestive and assimilative abilities of our patients, not forgetting the influence of foods and remedies upon these functions, as well as upon the metabolic processes.

The symptoms just mentioned as present during the first stage of the disease are all doubtless due to the

[1] Read before the Ohio State Medical Society, at Springfield, Ohio, May 12, 1899.

toxemia resulting from the absorption of the products of the activity of the tubercle-bacilli, of portions of the disintegrating bodies of the dead germs, and of the activity incited in the cells of the body by their presence.

The efforts to neutralize and destroy these toxins by means of serum-antitoxins has so far proved nugatory. Nor has the use of the products derived from the bodies of the tubercle-bacilli yet reached the perfection necessary to gain the confidence of the profession. Our efforts, therefore, must be directed toward counteracting the deleterious influences of the pathologic processes by improving the physical condition of our patients. We thus increase their powers of resistance and possibly enable them to inaugurate reparative or conservative changes in the parts involved.

In other words, the treatment of pulmonary tuberculosis is dietetic and hygienic, and its deleterious symptoms must be combated upon lines not calculated to compromise our efforts in this direction.

TOXEMIA.

For the toxemia of the early stages but one remedy seems to retain the confidence of the profession—creasote. Creasote has no effect upon the development and growth of the tubercle-bacillus; as even in a 30% creasote-bouillon it retains its virulence and productive powers. It diminishes, however, the poisonous quality of the tubercule-culture, apparently by its chemic effect upon the toxins. Its favorable influence are probably due—

First.—To its bactericidal effects upon the bacilli associated with the tubercle-bacilli.

Second.—Its stimulating influence upon metabolism.

Third.—Its power of neutralizing toxins.

It may be given in doses of from 1 to 3 drams daily, and, if the patient enjoys the proper hygienic conditions, no disagreeable results follow its use. It has but slight, if any, poisonous effects, and its beneficial influences are shown in the increased appetite, gain in weight, remission of cough, diminution of night-sweats, and the amelioration of other symptoms of toxemia.

MALNUTRITION.

Our first efforts, when endeavoring to improve the physical conditions of our patients, must be to secure for them sunshine and fresh air. I shall not dwell upon their necessity, but shall illustrate by the accompanying maps the deleterious influences exerted by living in damp, poorly lighted and ventilated houses. We can thus realize the importance of the environment as a predisposing factor, and as contributing to render the course of the disease unfavorable.

On the first,is indicated by dots the location of the residence of 250 patients, admitted to the Cincinnati Branch Hospital for Consumptives; the other was made by our former health-officer, Dr. John M. Withrow, and illustrates the relative proportion of deaths from consumption from the various portions of the city. Any one acquainted with Cincinnati will recognize that the bottoms, hillsides, and the older portions of the city are indicated as the locations of the greatest prevalence of the disease and the highest mortality.

The food should be highly nutritious, and easy of digestion. Daremberg says, "the stomach is the citadel of consumptives, and food their chief means of defence." Upon the functional abilities of the stomach, therefore, our results will largely depend. As a large majority of our patients suffer from indigestion, we must be constantly mindful of its condition; this dyspepsia is largely nervo-motor in character, and is symptomatic of the general faulty condition of the body which it tends to increase.

A urinanalysis should be made at times, in order to judge of the assimilative functions of the body, a decrease of urea indicating a diminished destructive metamorphosis of the tissues of the body, and a want of appriation of the nitrogenous elements of the food.

In this connection, it will be well to consider two foods or remedies frequently given in large quantities, and I think, with undesirable results, I refer to codliver oil and whisky. If taken at all, the dose of the former should not be more than 2 drams a day. While it frequently disorders digestion, the principal reason for objecting to its use is that, in the pulmonary capillaries, being highly oxidizable, it is rapidly converted into carbon dioxid and water, with the liberation of a large amount of heat. This transmutation of the oil is so rapid that no evidence of fat can be found in the pulmonary veins. If the quantity of oil taken is insufficient in amount to seriously compromise the ordinary metabolic processes of the body, through the removal of the oxygen necessary for the accomplishment of this purpose, its influence may be salutary.

The necessity for oxygen to assist in the metabolism of the nitrogenous wastes must never be forgotten. Its absence would result in a deficient elimination of urea with a compensatory amount of less highly elaborated but more poisonous xanthin-bodies. Besides, the constructive metabolism of the food-proteids would likewise be compromised.

No constructive or reparative elements are found in the oil, and heat and energy alone can be obtained. Alcohol, likewise, should be used only in small quantities, if given at all, since its affinity for oxygen subjects it to the same objections entertained for codliver oil. Besides, by forming with the hemoglobin of the red corpuscles, a compound, which takes up and parts with oxygen less readily than normal hemoglobin, it also interferes with metabolism. Its inhibitory effects on the formation and functions of the leukocytes and other corpuscular elements of the blood and tissues of the body are likewise detrimental. The chronicity of the disease renders it unnecessary to employ alcohol as a stimulant, its food-value alone being wanted.

The elimination of alcohol by the lungs, increasing the congestion of the bronchial mucous membrane, and thus enhancing the cough, is also objectionable. The digestion and appetite are compromised, the heart's action is impaired through fatty degeneration, and other functional and pathologic conditions are produced or intensified. Strychnia can well be substituted for it as a stimulant, while a full nitrogenous diet will be all the nutriment required.

Cough.

The cough of consumption is symptomatic, not so much of the tuberculous processes in the lungs, as of inflammatory lesions and irritation of the mucous membrane of the bronchial tubes and upper respiratory passages.

For its relief, local treatment should be adopted, the application of menthol and zinc-chlorid solutions made to accessible parts, while those which are lower down can be influenced by intratracheal injections. This method of treatment is one that still lacks the support of the general profession and Ewart speaks disparagingly of it. My own experience has caused me to give it enthusiastic support. It is grateful to the patient, and has never to my knowledge been followed by other than beneficial results. This method of treatment also enables us to dispense with opium and its derivatives in the cases we can hope to benefit permanently.

The preparation employed at the Branch Hospital is composed of menthol, camphor, and eucalyptol, each 3%, guaiacol and iodoform, each 1%, in liquid petrolatum.

We must resort to opium to relieve the cough of patients who have reached an advanced stage of the disease; but to do so is to acknowledge our inability to confer more than euthanasia. Potassium bromid will frequently enable us to dispense with the use of opium, particularly when the cough is nervous in origin.

Night-Sweats.

The lungs have excretory functions and assist in the removal of waste-products of the body as well as of carbon dioxid. Their importance in this respect is demonstrated by the fact that the lungs exhale 15 ounces of water daily, one-half of the amount excreted by the skin.

In consumption, this function of the lungs is greatly compromised; as the kidneys are also frequently partially incapacitated the task of compensating for their inability is thrown upon the skin when the autointoxication has become sufficient to cause a temporary paralysis of the vasomotors and a relaxation of the skin-capillaries. This occurs more frequently when the patient is asleep. The sweating, being a result of systemic poisoning by carbon dioxid and the products of destructive metabolism, is a conservative process. Its treatment is consequently of doubtful propriety and seldom necessary under proper hygienic conditions.

A number of drugs are lauded as valuable in this condition; at the Branch Hospital $\frac{1}{10}$ grain doses of agaricin usually suffice; if ineffectual, atropia is given.

Fever.

Any considerable elevation of temperature in consumptives is the result mainly of the action of septic agencies. The fever at first depends upon the extent of lung involved. It is then due to absorbed toxins and reactive inflammatory changes. Later the absorption of broken-down tissues and caseous matter increases its height. This is augmented still more by the inflammatory fever caused by the products of other pathogenic bacteria. For the relief of this condition ordinary remedies are useless, if not harmful, the anti-streptococcus-serum is positively injurious. Quinin at times seems to have a useful and lasting effect. Rest and the open-air treatment must be chiefly relied upon. Cold baths have only a temporary and sometimes a harmful influence.

Since writing the above I have had recourse to hypodermic injections of guaiacol for the purpose of modifying the fever. This method of treatment has proved very efficient and satisfactory, the temperature being reduced without any unpleasant sequels. The dose ranges from 10 to 30 minims. The drug is given pure and must be injected deeply in the subcutaneous tissue. If this is not done superficial eschars may result. The latter can, as a rule, be avoided by oiling the skin at the point of puncture. Coghill is very enthusiastic in his advocacy of his treatment.[2]

Hemoptysis.

The hemorrhage which occurs during the first stage is due to diapedesis and the rupture of capillaries in the inflammatory areas about tuberculous lesions. It is usually salutary, and requires no treatment further than to endeavor to combat the local condition by means of increased nutrition through an improved circulation in the parts. Ergot, nitroglycerin, and quinin have proved beneficial for this purpose.

The hemorrhage which occurs later in the course of the disease is due to the rupture of large vessels weakened by ulceration, dilatation and removal of contiguous tissue. The establishment of a thrombus in the artery is the object of our therapeutic endeavors. As experiments have shown, drugs possess little or no influence over the pulmonary arteries and the circulation in the lungs; this object can only be promoted by slowing the heart's action by means of aconite and morphia.

The patient should be placed in a reclining position and fresh air freely admitted to the room. If the bleeding is persistent, movements of the chest may be limited by adhesive strips and the return flow of blood from the lower extremities withheld by constricting the

[2] *British Medical Journal*, March 7, 1896; *Lancet*, June 3, 1899.

thighs. Ice-bags, by causing a contraction of the more healthy vessels of the lungs, are apt to be harmful through increasing the force of the circulation and the quantity of blood sent to the diseased parts.

A CASE OF INTRAUTERINE EPIDEMIC CEREBROSPINAL MENINGITIS.*

BY R. B. H. GRADWOHL, M.D.,
of St. Louis, Mo.
Bacteriologist to the St. Louis City Hospital.

IN my investigation of an epidemic of cerebrospinal meningitis during the past winter and spring, I had the good fortune to see many interesting cases in my wards at the St. Louis City hospital. The reports of these cases have already been presented to this association.[4] Among the 34 cases which I studied, there was one which was of the very highest interest, both because it was rare and because it brings to mind the fact that the physiology and pathology of antenatal life are becoming more clearly understood by reason of the very fact that we are meeting with cases of transmission of disease in utero more frequently than ever before. The case to which I refer was the twelfth case in the epidemic. Her history follows:

L. L., a married woman of 31 years, with a good family and personal history, was brought to the hospital on February 24, 1899, at 6.10 A.M. Her husband informed me that the sanitary conditions to which she was subjected in her daily life were bad. She was 7 months pregnant. Two days before coming to the hospital she noticed a pain in the left ear. After using all the household remedies in vain, she sought relief from her pain by going to a physician, who injected something into her ear. Her condition did not improve, and on the following evening she became comatose and was brought to the hospital in that state. Examination showed that she was a woman of good physique and that she was pregnant. No fetal heart-sounds could be heard and the fetus could easily be pushed from side to side. Vaginal examination revealed a soft, undilated os. Respirations were somewhat laborious; pulse rapid and weak, 120; temperature 102° F. Pupils were unequal, left pupil smaller than right. Kernig's sign was present. There was marked difficulty of deglutition when food was offered. Hyperesthesia was evident by quick response to mechanical stimuli. The head was drawn back. On touching the spine or the back of the neck, patient would come out of her coma for a moment or two and mutter deliriously. Photophobia was also marked. On inspection of the skin, a petchial eruption was found to be somewhat unevenly distributed over the upper part of the chest, both anteriorly and posteriorly. Tâche cerebrale was manifest by streaking the skin. As observed in nearly all cases of epidemic cerebrospinal meningitis, instability of the pupil was present.

Urinary analysis: (A.M.) single specimen, specific gravity 1030; acid; no albumins, no sugar, no casts, no bile.

The patient steadily declined, becoming delirious from time to time; complained at times of severe occipital pains in her moments of partial consciousness. Urinary analysis: (P.M.) single specimen, specific gravity 1021; acid; about $\frac{1}{5}$% albumins; $\frac{1}{2}$% sugar, estimated by Einhorn's saccharometer tube and by phenylhydrazin test. Temperature in evening was 103° F. Her condition was no better on the following day; pulse weaker; temperature had risen to 105° and she died at 4.45 A.M.

Necropsy was held 5 hours after death and the following conditions were found: Rigor mortis marked; usual changes of pregnancy present, *i. e*, discoloration of nipples and face; enlargement of breasts; enlarged abdomen; enlarged veins upon abdomen, etc. A 7-months' fetus was removed from the uterus by abdominal incision. The uterus was found to be in the state common to pregnancy of that duration, with no signs of abortion or perititonitis. The placenta had a median attachment; no lesion could be made out. The lungs showed signs of hypostatic congestion; heart was slightly enlarged but there were no valvular lesions. The diaphragm was pushed up on the left side to third interspace and to the fourth on the right side. The kidneys showed changes in the shape of an acute parenchymatous nephritis. Spleen was enlarged but not soft. The liver appeared to show nothing pathologic. Uterus and adenexa presented changes common to pregnancy. On opening the cranial cavity of the mother, a typical meningitis was found; there was great injection of the vessels of the pia arachnoid and an abundant purulent exudation scattered here and there over the entire meningeal surfaces, particularly at the base. The same condition was found upon the cord. An exact counterpart of the condition of the maternal meninges was found in the fetus, with perhaps more of a sero-purulent exudation than a purely purulent exudation as found in the mother.

Bacteriologic examination of fluid from both the maternal and fetal meninges revealed the presence of the diplococcus intracellularis meningitidis. The same microorganism was also separated in pure culture from the left ear of the mother. This ear contained pus in small quantity. Cultures taken from the lungs, blood, placenta and uterus were barren of growth. A dog was inoculated with pure culture obtained from the maternal meninges and it died on the fifth day following the inoculation, in convulsions. Another dog was inoculated with cultures obtained from the fetus of the above woman and it died two days thereafter in convulsions, as did another dog which was inoculated with cultures obtained from the ear of the mother. In this way the pathogenesis of the microorganisms from three different sources was clearly proved.

Pathologically, the maternal and fetal meninges, cerebral and spinal cord tissue exhibited about the same condition of inflammation and degeneration such as is found in epidemic cerebrospinal meningitis. This has been fully described by me in my general report of the disease.[4] There were widespread purulent infiltration of the cerebral and cord tissue with the degeneration of the cells in the anterior portion of the cord, and likewise a degeneration of the cranial and some of the spinal nerves. The auditory and optic nerves seemed to have received the brunt of the infection.

From what has already been said it can be seen that I was dealing with a case of intrauterine epidemic cerebrospinal meningitis. In looking over the literature upon the transmission of disease in utero and particularly upon the transmission of the so-called specific infectious diseases in utero, I find that no record has ever been made of a parallel case, *i. e.*, of a case of epidemic cerebrospinal meningitis in utero. It is already clinically known that syphilis, variola, scarlatina, and measles can be transmitted from the mother to the fetus in utero. W. Fordyce[1] has reported a case of intrauterine typhoid fever in which the bacillus typhosus was demonstrated in the fetus, and in which

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also Widal's reaction was positive. Similar observations have been previously made in regard to intrauterine typhoid fever by Reher, Neuhass and Eberth, in 1893. It is to be borne in mind that the case I cite is a case of *epidemic* cerebrospinal meningitis transmitted in utero. The only case that bears any semblance to it and that has been reported is one of Herwerden.[2] Herwerden relates the case of a woman who died with *sporadic* meningitis in an advanced stage of pregnancy. Cesarean section was performed. The child lived five days and then died of meningitis complicated with pleurisy. In the meningeal exudation of both the mother and child, and also in their blood and liver, pneumococci were found. The virulency of the pneumococci appeared to be very slight at first, but it was increased by submitting them to the action of hydrogen and oxygen, so that inoculation into rabbits produced meningitis. No mention is made in this case of the existence of a lesion of the placenta. The points of difference between Herwerden's case and mine are striking: in the first place, his case was probably one of *sporadic* cerebrospinal meningitis, as it was caused by the pneumococcus, while my case was one of *epidemic* cerebrospinal meningitis. In the report of his case, he says that the child showed symptoms of meningitis some time after removal from the maternal parts, and does not mention whether the symptoms were present at time of delivery. Indeed, it would not be possible to say that this was a case of transmission of the disease in utero, because he had no evidence that a meningitis existed at the time of delivery of the child. It is reasonable to suppose that the child became subsequently infected with meningitis after birth. However, it would be difficult to prove either assumption in the absence of a more complete report of Herwerden's case. It is referred to only as part of the literature upon this subject of meningitis transmitted in utero.

The question now arises as to the manner in which a specific microorganism can pass from the mother to the fetus and attack some special part of the body, such as the small intestine in typhoid fever or the meninges in meningitis. This brings us to the physiology and pathology of antenatal life. Ballantyne[3] describes the physiology of antenatal life, dividing it into these three periods: (1) *Germinal life*, about which little is known in the human subject, the period which ends in the mysterious phenomena of maturation of germ and sperm, of the expulsion of the polar globule from the ovum, of the atrophy of the female element of the cell and of the impregnation of the ovum by the spermatozoon, with the resulting formation of the morula-mass. (2) *Embryonic life*, the period beginning with the differentiation of the blastoderm and ending about the end of the second month, the period of evolution or development during which the lines of future growth are laid down. (3) *Fetal life*, the period in which the organism shows its vitality chiefly by growth along lines which have already been definitely laid down.

Ballantyne said that a prolonged study of antenatal pathology has led him to the belief that the fetus is liable to the same diseases as the infant, the child, and the adult. It enjoys partial immunity from parasitic skin-diseases. Fetal maladies differ from those of adult life by reason of the fact that the fetus has a different environment; thus, in fetal variola, the face is not marked because the skin of the fetus is kept moist and is not under the deleterious influence of light and air. Infection of the fetus from the mother occurs in one of two ways, *i. e.*, either by means of the blood-stream or by means of the amniotic fluid which is swallowed by the fetus. Intrauterine typhoid fever, when there are no intestinal lesions, is probably transmitted in the latter way. The case which I have recorded may have been infected in either way.

It has been said that disease is transmitted in utero by way of the placenta only when there is some placental lesion, because ordinarily the fetal villi form a barrier of protection for the fetus against the encroachment of pathogenic bacteria. The experiments of Arloing, Cornivix, Thomas and others have shown us that this is not always true, and that the specific microorganisms of chicken-cholera, tuberculosis, glanders, septicemia, recurrent fever, erysipelas, and anthrax can pass from the mother to the fetus in the absence of a lesion of that organ. However, we must take into consideration the extreme difficulty of locating a very minute lesion of the placenta. In whatever way the specific microorganism may gain access to the fetal tissues from the mother, it can be said that in a disease like typhoid fever or epidemic cerebrospinal meningitis, there must surely be some selective affinity on the part of the microorganism for some tissues, such as the lining of the small intestine offers to the bacillus typhosus or the pia arachnoid offers to the diplococcus intracellularis meningitidis. It is a biochemical phenomenon, dependent upon the affinity of the molecules of the meningeal tissues for the molecule of the microorganism.

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[4] *Philadelphia Monthly Medical Journal*, July, 1899.

Observations on the Sterilization of Catgut.—E. A. Darling (*Journal Boston Society of Medical Science*, May, 1899). A series of bacteriologic tests which this author has applied to various methods of sterilization shows that the most efficient method is by dry heat. The tensile strength of the gut is preserved by wrapping the several strands about with paraffined paper, which prevents the evaporation of moisture and the loss of the fat contained. His summary is as follows: (1) catgut can be sterilized by dry heat with but slight loss of tensile strength; (2) dry paraform-gas is of doubtful value for the sterilization of catgut; (3) methods of sterilization, which involve soaking in antiseptic solutions, tend to weaken the catgut to a greater or less degree. [C.L.L.]

ACUTE ABDOMINAL SYMPTOMS DEMANDING IMMEDIATE SURGICAL INTERVENTION.[1]

BY MAURICE H. RICHARDSON, M.D.,
of Boston, Mass.

ACUTE abdominal lesions which require surgical intervention are frequent; they cause more deaths than all other diseases that require surgical operation. Although, when unrelieved, many are invariably and some usually fatal, practically all are curable by operative treatment. The great mortality is owing to delay in operating. Upon the judgment, experience, and common sense of the general practitioner an early recognition of the emergency depends; and upon the surgeon's quick response, the efficacy of intervention. In my personal experience, death following abdominal operations performed too late, and deaths occurring without operation, constitute by far the larger percentage of mortality in general surgery. The chief reason why surgical aid is not called sufficiently early is failure on the part of the attending physician to recognize the gravity of early symptoms. A second reason is failure on the part of the surgeon, even when called early, to perform the necessary operation. Another reason is the fear that intervention may be uncalled for. Abdominal explorations for acute symptoms for which no local cause is found are humiliating to all concerned, and, if fatal, as some may be, are deplorable.

A careful study of initial symptoms and their importance cannot therefore be too strenuously urged upon the general practitioner.

Three classes of abdominal lesions must be considered:

1. Those in which hemorrhage is the chief factor.
2. Those in which peritonitis is the chief factor.
3. Those in which intestinal obstruction is the chief factor.

Under this general classification are included nearly all abdominal lesions. Practically all of these permit cure, though some are much more fatal than others.

A brief resume of the cases upon which this paper is based shows a long list of abdominal emergencies in which recovery depended largely upon the promptness of intervention, and a long list in which death was largely owing to delay. In every fatal case, except possibly those of pancreatic hemorrhage and one of fat-necrosis and extensive intestinal gangrene from mesenteric plugging, death might have been averted by early recourse to surgical measures.

The mortality in certain classes is appalling. It is proportionate to the rapidity and extent of the infections, and to the depth of the constitutional depression. The most fatal lesions are those which quickly produce extensive gangrene—as intussusception, mesenteric embolism, pancreatitis, and perforating ulcers. Hemorrhages, however, may cause death more quickly. Many extravasations are slow and easily localized, as in appendicitis and salpingitis. In the rapid processes operation must be immediate to be successful; even in the slow, operation must not be long delayed. Delay means sure death in the one, possible death in the other. If all acute lesions were operated on at the very outset, the mortality in the worst would be slight.

The mortality in the essentially and quickly fatal cannot reasonably be expected to be greatly diminished, because of the failure on the part of the patient to call the physician in time.

The value of initial symptoms must be carefully weighed. Pain is common to all varieties of acute lesions. It varies in onset, intensity, and permanence. It is of such a nature as to cause immediate alarm if it is dependent upon serious causes. It is the most important sign. Upon the patient it produces grave effects, as shown by his face, which expresses suffering, anxiety, and shock. The value of this symptom is very great. It must be differentiated from the acute functional pains of intestinal, renal, and biliary colics, indigestion, and cholera morbus. If owing to grave lesions, it will have, by the time the physician arrives, confirming signs of peritoneal shock. These, in hemorrhage, are pallor, restlessness, feeble pulse, and low temperature.

Simple faintness seen in severe abdominal pain will have given place to reaction by the time aid arrives. It cannot be mistaken for hemorrhage. Pain, with beginning sepsis, has peritoneal shock with abdominal tenderness and rigidity. Of these symptoms tenderness and rigidity are of great significance. With these vomiting adds important evidence, though vomiting alone means little. With the signs enumerated, the question of intervention ought to be decided, for if we wait for more positive evidence we shall be too late, for this positive evidence is generally a fatal infection. The diagnosis of an acute lesion that needs immediate operation must be made now,—the exact nature of the lesion may be deferred; but a good guess can be made even at this time. Pain, pallor, feeble pulse, low temperature, means hemorrhage; with irregularities in menstruation and tender breasts, extrauterine pregnancy; after operation, internal hemorrhage. Pain, shock, vomiting, tenderness, and rigidity in males means appendicitis, even if the tenderness, pain, and rigidity are general. In women with history of gallstones, these symptoms mean acute cholecystitis, if any of the signs point to the gallbladder; with history of uterine disease or pelvic disease, salpingitis if they point to the pelvis; with bloody stools they suggest intussusception; with circumscribed resistant coils, a local intestinal gangrene or an internal strangulation; with a tender symmetrical tumor in the lower abdomen, an ovarian tumor with twisted pedicle. On very rare occasions these symptoms are grossly deceptive, and mean nothing. Pain, vomiting, tympany, and disten-

[1] Abstract of an oration read before the Maine Medical Association, June 8, 1899.

tion, without shock, mean simple acute intestinal obstruction, or a chronic obstruction suddenly becoming complete.

In a general way a diagnosis as to the probable cause should be made exact enough to guide the surgeon to the affected half of the abdomen. In several cases I have been led to the region farthest removed from the true seat,—into the left upper quadrant for appendicitis; into the lower middle abdomen for acute cholecystitis. All these errors are emphasized to make conspicuous the difficulties of diagnosis and the need of increased knowledge.

As to urgency, cases differ. Hemorrhage demands intervention the most strongly. Hardly less urgent are lesions producing early intestinal gangrene, and those flooding with septic fluids the general abdomen. The less rapid processes,—slow extravasations, simple obstructions, and the like,—may, from their uncertainty, justify delay. The difficulty is that these processes cannot be clearly differentiated, and we may delay in the wrong case. But for the fear of unnecessary intervention, all might well be operated upon at the very onset of the pain and shock. In some cases delay is of great advantage,—*e. g.*, when patients are recovering from profound shock, either of hemorrhage or of sepsis,—shock so deep that the least additional burden would be fatal.

In cases of doubt, exploration is indicated when the symptoms enumerated are present. A small incision will show whether we are on the right track or not; for the moment the peritoneum is nicked, an escape of blood, serum, or pus will follow and prove that something serious is going on. Should no serious lesion be found, the chances of recovery are but slightly lessened. For one unnecessary operation, a hundred necessary ones would be performed,—for one life lost, a hundred would be saved.

Unless intervention is practised by men of a certain amount of skill and experience, the patient would be better left alone. The practice so prevalent of first magnitude operations being performed by the inexperienced, and by those so situated that in a lifetime's work they must always be inexperienced, is strongly condemned. When acute abdominal lesions are suspected, the attending physician should summon to his aid the nearest and most skilful surgeon in his community. They, after careful consideration, should decide as quickly as practicable the necessity for intervention. Having explained the difficulties in the way of positive diagnosis, and the probable disasters of delay, they may conscientiously undertake operation. The result, whatever it may prove, can then be attended by no just cause for regret.

Dr. Marie, of the Institut Pasteur, has been appointed by the Sultan of Turkey to direct the antirabic service of the Institute of Bacteriology of Constantinople.

PAROXYSMAL HEMOGLOBINEMIA; REPORT OF A CASE.

BY PHILIP S. ROY, M.D.,
of Washington, D. C.

HEMOGLOBINEMIA with the attending hemoglobinuria independent of other acute diseases, or following the action of certain poisons, begins with very definite clinical symptoms. These symptoms, however, might be easily mistaken for the symptoms of other acute diseases, and this is my principal reason for reporting this case. The chief causes of paroxysmal hemoglobinemia are cold and fatigue.

In my case the attack came in a woman, 60 years of age, after the fatigue of sightseeing in Washington. A history of uric-acid excess or syphilis may be obtained in some cases. This woman had suffered from uric-acid attacks and had, after the hemoglobinemia disappeared, a subacute arthritis of the wrist and elbow. She also gave a history of Raynaud's disease. The attack was typical—chill, headache, vomiting, soreness of the muscles, particularly those of the neck—temperature, 102°, generally lower. Marked coolness of the skin and a slight jaundice following later on in the attack, completed the clinical history of the condition, as described by Strümpell,—the only text-book-author who does furnish a careful description of this disease.

I did not recognize the condition until I had examined the urine; even the color of the urine, which was quite dark, did not suggest a diagnosis. The specific gravity of the urine was 1022, which is higher than usual, and 50 ounces was passed every 24 hours. No malarial history could be obtained. The mind was very stupid for two days.

I did not examine the urine until the third day, and had no idea what I was treating until then.

A Rectal Tampon.—J. R. Pennington (*Chicago Medical Recorder*, July, 1899) has devised a rectal dressing in the form of a tampon that is made by taking a piece of ¾-inch rubber tubing about 4½ inches long, or as the case demands, and attaching to it an anchoring suture. The tube is then wrapped with sterilized gauze or cotton until the desired size is reached. It is then covered by a sterilized rubber cover. It is inserted by using a bivalve speculum. Among its advantages are neatness; little pain on removal, as there is no adhesion; absence of hemorrhage and hence better aseptic healing. Defecation is practically painless, as there are no raw surfaces. [C.L.L.]

A Case of Tetany in an Adult.—E. C. Hill (*Colorado Medical Journal*, June, 1899) says the patient had exhibited the symptoms of gastric ulcer on several occasions and had been treated for the crises, although no hemorrhage had ever taken place. The author had relieved the pain and the patient had rested quietly till 2 P.M. When the author was again called he found her with marked and perfectly symmetrical, rigid, toxic flexion of the divisions of both upper and lower extremities. The chest was rigid as if held by a corset; the face was drawn and set. The spasm was relieved by chloroform, and about a dram of chloral hydrate per rectum produced rapid relaxation, and in the course of a couple of hours the patient was nearly as well as ever. The attack had supervened upon beer-drinking. [C.L.L.]

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First Aid to those Injured in Railway-accidents.—It is announced that because of recent railway-accidents the French Minister of Public Works has decreed that all trains must carry requisites for prompt surgical aid to the injured. This precaution is a wise and thoughtful one and worthy of universal adoption, even if our own great railroads have their medical departments, with surgeons located at various points.

Science and the Cattle-Breeders.—The quickness with which commercial cunning catches up scientific methods, and uses them not only against science, but against society (for which science exists), is shown by a fact that has recently come to light. It is known that after an injection with tuberculin cattle will not show a second fever-reaction within a period of several weeks. In order to deceive inspectors and buyers, many breeders and dealers have been practising the injections weekly prior to those of the buyers and inspectors, so that there is no fever-reaction when the real test should show the existence in the animals of tuberculosis. This is really more infamous than the purchase of testimonials by bribery from supposed reputable bacteriologists and experts, or the downright forgery of such testimonials—things that have more than once been proved. The law should make short shrift for such scoundrels. Another iniquity recently came to light by means of a blunder which brought quick and deserved retribution, but which also suggests an inquiry as to the possible number of instances in which bad results are hidden by a better technic. At a great agricultural fair a large number of valuable Jersey cows suddenly died while in the exhibition grounds. Investigation proved that to give a false appearance of "large bags," milk in quantity had been injected into the glands. The maladroits had failed to sterilize the milk, and the cows succumbed to septicemia.

At Last!—At last has come about that for which we have long and confidently looked. It is as certain as any psychic law that persons of the Christian science type will finally end up in the sewage maelstrom of morbid sexualism. The rigmarole, "Erotic, neurotic, tommyrotic," is still more true if the order of the words is reversed. We have no doubt that the secret of a large part of the vogue attained by Mrs. Eddy & Co. is due to secret worship of old well-hidden heathen divinities of unmentionable function. The quotation we shall give is proof, and it is also the best of testimony to the second article of the creed, the divinization of Mrs. Eddy. That remarkable woman is the latest product of modern paganism, and she must feel very like the old Roman Emperor who said it seemed to him exactly "as if he were becoming a god."

But here is a quotation made by the keen-eyed editor of *The Practitioner* from an article in the *Arena* for May:—

"If Jesus was divinely conceived by the Holy Ghost or Spirit without a human father, Mary not having known her husband—then women may become mothers by a supreme effort of their own minds or through the influence upon them of an Unholy Ghost, a malign spirit. Women of unquestionable integrity, who have been Mrs. Eddy's students, testify that she has so taught, and that by this teaching families have been broken up; that thus maidens have been terrified out of their wits, and stimulated into a frenzy resembling that of deluded French nuns who believed themselves brought into marital relations with the glorified Jesus, as veritably the Bridegroom of his Church. Whatever her denials may be, such was Mrs. Eddy's teaching while in her college, to which she added the oracular declaration that it lay within her power to dissolve such motherhood by a wave of her celestial rod."

Touting for Practice.—We have lying before us a letter, issued by a firm of Chicago lawyers, in which a bold bid is made to physicians to induce them to hunt up and work up damage cases against corporations. It is a plausible letter on the face of it, and well within the limits of respectability as these limits are set by medico-legal commercialism; but it is thoroughly mean in spirit, and venal to the last degree. It is a circular letter intended for physicians, and refers "without permission" to a number of more or less well-known Chicago specialists. It offers as inducements to physicians "a liberal amount out of any contingent fee" that may be received; and merely solicits that the doctor, if he has a patient who, in his opinion, has a just claim for damages, will refer the patient to this particular firm of Chicago lawyers. The bad features of the letter are not in the lines but between them. The obvious intention is to work up cases, and to offer bribes to physicians to secure their aid. The writers go on the principle that wolves hunt best in packs, and being themselves wolves they merely wish to increase the size of their pack. Admission to membership in the pack is open to any enterprising doctor who has a patient with a claim for damages.

Such a scheme is carrying medico-legal specialism

dangerously near the curbstone. This is apparent from the fact that the letter is not especially addressed to experts, whose testimony on the stand is worth something, but is a direct appeal to any practitioner who may have an injured patient. Such practitioner is evidently to be the expert in the case and to reap a good share of the contingent fee. Otherwise the letter would not be sent to general practitioners who first see these patients. Hence it is a shrewd scheme to open quite a new field of medical activity, by inducing practitioners to from a sort of medico-legal partnership, and to attend not so much to the practice of medicine as to the practice of law. The thing is rank; it smells to heaven.

Dr. Fell's Method of Forced Artificial Respiration in Morphin-Poisoning.—We have received several communications in reference to our editorial on this subject in the JOURNAL for August 5. Dr. R. Matas, of New Orleans, writes us that Dr. Fell's apparatus, or a modification of it, has been used in the Charity Hospital in that city for several years with great advantage in the treatment of opium poisoning. It has also been used in the Presbyterian Hospital in New York. Another correspondent informs us that the "bellows" is the same that has been used by physiologists for years in sustaining artificial respiration in animals, and that it was merely adapted by Dr. Fell for use in opium-poisoning. According to this statement Dr. Fell deserves full credit for original thought in making a therapeutic success of the instrument, but not for inventing it. We state the fact as alleged to us, and without assuming responsibility for it. If, however, Dr. Fell patented the apparatus, he has certainly gone counter to the best medical tradition and usage in such matters and cannot criticise the profession for ignoring him.

With reference to Dr. Fell's reported case of morphin-poisoning in a boy, we cannot reiterate too pointedly what we said a few weeks since. The report was unsatisfactory because it did not give reliable evidence of the size of the dose, or present full details of the patient's condition, from hour to hour and day to day. The fact that the patient recovered consciousness at the end of 28 hours, and that it was still thought necessary to continue forced respiration for 2 days longer, appears to us extraordinary. Our only desire in this matter is to obtain a clear knowledge of a most important case. Hence our criticism to the effect that Dr. Fell, in the first place, has not described his apparatus, and, in the second place, has not described his case. We would also remind him that he overloads his report with much superfluous writing, and thus detracts from its interest and valuc. We are ready to do him full justice for his work in the treatment of opium-narcosis, and believe that he is entitled to credit in spite of the fact that he has allowed commercial instincts to influence him.

Pathology in Art.—We are not prepared to go as far as Prof. Du Bois Raymond, who some years ago advocated that monsters, such as centaurs, should have no place in art, because their figures violate the laws of nature. On the contrary, the grotesque has a recognized place in art, and has been allowed in all ages; and it probably cannot be dislodged even to-day by physiological critics who are too realistic to appreciate its merits. Orthodox anatomy and conventional physiology are well enough in daily life; but, even as physicians, we need not feel called upon to champion their cause too literally in every domain of chisel and brush. This world, at present writing, has got itself down near enough to prosaic facts to suit the taste of even the most exacting Philistine; let us hesitate, then, about consenting to go further and to abolish the innocent gargoyles, griffins, hippogriffs, and centaurs of a more poetic age.

We draw the line, however, at pathology, and protest against artists who choose for their models the victims of consumption and rickets. This seems to have been frequently done, according to a recent German critic; and he (after the manner of German critics) has written a book about it. According to Dr. Stratz, whose book has just been published at Stuttgart, the celebrated Venus of Botticelli in the Uffizi Gallery, at Florence, shows unmistakable signs of consumption. As she is sailing naked in an open shell across the sea, this fact is not to be wondered at. We do not know how Dr. Stratz made the diagnosis, whether by auscultation or by a bacteriologic test—but so it is. As a German critic his word may be supposed to settle it. Worse yet, Franz Stuch, in his "Expulsion from Paradise" (exhibited at Munich in 1891), represents the common mother of us all as having peculiarly crooked limbs, enlarged joints and depressed ribs—all of which would prove to us that she had had rickets in her childhood if we did not know that she never had a childhood. In Klein's "Judgment of Paris," rickets is also seen, for Aphrodite has it, according to Dr. Stratz; but this does not seem to have interfered with her getting the apple. Our author thinks the only way to avoid such diseases in art is for the artists to study pathology; but we suggest that an easier way is for the public to remain ignorant of this useful science, just as it always has been; and then nobody but hypersensitive pathologic critics, like Dr. Stratz, will be alarmed at this unfortunate spread of disease.

Vacation Reform.—The desirability of some method of spending vacations other than that now in vogue at our most frequented summer-resorts is very evident to the physician who is familiar with the life at our great watering-places, and the needs of the tired workers of our hot, dusty cities. Everyone needs an occasional vacation, and the best form of vacation is that which gives

rest and change. Neither of these essentials is to be found in the life of the fashionable summer cities of our land; on the contrary, all the worst features of society-life with its nerve-straining events and unseasonable hours follow those seeking to escape the demon nervousness, the terror of the brain-worker. The inhabitant of the crowded town needs the change to country or lonesome fishing-village; the man of the inland plain does well to seek the bracing air of the mountain or shore; he of the more stimulating atmosphere of the elevated plateau should get a little of the relaxation of lower levels, and all need the ozone of the ocean breeze; for how is it possible to get that ozone except from the air blown over miles of water? In any case, the change is essential if one is to have the best from vacations. And as to the rest, any escape from the wearing noise of bawling hucksters, clanging bells, and the continual roar of wagons and electric cars, is a rest to the unfortunate of our modern city life; but the most desirable form of rest does not, by any means, mean sitting about a hotel at the shore or in the mountains. The best kind of rest for the brain-worker draws blood away from his head. Indolence is no more desirable than too much headwork, for while it does not grind the nerves so rapidly it is too purely passive to have much recuperative value. By squeezing the liver in rowing, or filling the lungs with fresh air, and stirring up the circulation by mountain-climbing or a bicycle tour, the brain is much more rested than by absolute quiet. The man who takes rational vacations is not without his sorrows; it sometimes rains at the wrong time and makes him uncomfortable and ill-tempered; he sometimes gets very sore feet, perhaps blisters on his hands; very often he is dusty and dirty. The things that are worth having in this world do not come cheap. But the man who overcomes the aversion to physical exertion and physical discomfort which brain-workers almost invariably have, and who cultivates a little healthy muscle in his vacation-time, will find that he goes back to his real work with a better relish for it and with a much stronger mental grip.

About Tobacco and Smoking.—Columbus is pretty generally acknowledged to be the discoverer of America, although there have been numerous claimants for that honor, but whatever question there may be about this point, there seems to be little doubt that he is at least entitled to the credit of one great discovery, that of tobacco and smoking. Since that time the habit of using the weed has spread with almost incredible rapidity to every land and people of the world, so that now one might divide the inhabitants of any land into three classes: first and most numerous, those who use tobacco in judicious amounts; secondly, those who use tobacco to excess; and thirdly, those who use it not at all. Among European nations, the Netherlands claim first place, the quantity used annually per inhabitant being 6.92 pounds; next comes the United States with 4.40, and Germany with 3 pounds. The antitobacco faction is a fairly active minority, as is evidenced by the fact that there is to be a congress of the antitobacco societies of various lands next year at Paris. The question suggests itself, not alone to nonusers of tobacco, but to every thoughtful mind, "Why this consumption of such enormous quantities of tobacco?" No one has ever answered this question to the entire satisfaction of everyone interested, and perhaps no one will for a time, but the weed certainly seems to satisfy some physiologic need in certain conditions of the system, for persons who are unable to smoke at certain times can do so with pleasure and benefit at some other period in their lives, as was the case with Huxley. Certainly no habit is so common or so generally harmless. Comparatively few use tobacco in such excess as to suffer bad effects, no doubt fewer than suffer from the overuse of coffee and tea, and infinitely fewer than those who suffer from overeating, while numbers will testify to the pleasure which they experience from its use. No one will question the harmfulness of the use of tobacco in the young or in excessive amounts, particularly with nervous people. Neither is smoking to be advocated at all times and in all places; everyone dislikes those who go about with their breath and clothes saturated with the foul odors of bad tobacco, who puff smoke in everybody's faces on the street and fill every room and house with a stale stench.

At no time is the effect of the weed more pleasant and soothing than after dinner in the evening; it helps one forget a hard day's work, it is an aid to digestion, and makes one feel at peace with the world: then, in the seclusion of one's own quarters, it cannot offend the nonuser, and the one or two cigars or pipes can work no great personal injury. Two bits of advice should be followed if one is to enjoy tobacco: smoke with moderation and do not smoke too cheaply.

The relation of brain-size to brain-power seems to be a topic of considerable interest to readers, both medical and nonmedical, judging from the frequency with which articles upon this subject appear in print. Probably Goll was the first to lay down the proposition that men of high intellectual development have larger and more richly convoluted cerebrums than their fellows, although this proposition on his part seems to have been based as much upon theory as upon facts, and it remained for Rudolph Wagner, in 1860, to show from a series of investigations which he had made upon the brains of men prominent in philosophy and letters that there is some real foundation for this theory. The discussion contained in Edinger's Anatomy of the Central Nervous System, bearing on this subject, is of much interest, and coming from the pen of one who has made an exhaustive and careful study of the nervous system,

may be considered of some value. He maintains that the great orator, the commander of remarkable genius, the unusually energetic business man, need not necessarily possess a larger, heavier brain, nor need this ability express itself directly in the general relations of the brain-convolutions. We rarely measure a man's intellectual value in its entirety; indeed, this is almost never possible. On the contrary, it is usually some one marked personal characteristic which gives position, authority, etc., to the man of prominence. And the peculiarities which give rise to the successful orator, commander, or business man may very well be traced to the increased development of single small cortical areas. As an example, Gambetta's brain, the speech-area of which was described as uncommonly developed, weighed hardly more than the average of smaller brains. This idea as to the different development of different brains in their various regions seems to be supported by Cunningham's embryologic studies; he finds that the embryonic fissures and convolutions appear by no means simultaneously in all individuals, nor do they have the same configuration when they are once distinctly present; this fact seems to show that the brain-cortex, the organ of higher intellectual activity, is variously expanded in different individuals even from the first. Another matter of some interest is the fact that Edinger's observations in a considerable number of cases are confirmatory of the opinion first advanced by Perls that a comparatively large number of men who are intellectually eminent give the impression from their type of face that they may have had hydrocephalus in early childhood, from which recovery took place, but which, owing to the less resistance presented to the growth of the brain, allowed that organ to enlarge and develop more freely. Cuvier and Rubinstein are cited as examples of hydrocephalic and rachitic geniuses. Thus it would seem that a man's chances for greatness may depend either on his being born with some little specialist corners unusually well developed, or upon his being born with a mild form of hydrocephalic degeneration from which he can recover, and which allows him to develop an all-round big head.

Suggestions to Writers, No. 34. Professional control, ownership, and use of professional literature is a matter of most serious concern to our guild as a whole, and individually to every physician. The question at issue is simply this: Does the literature of our profession belong to us or to the lay publishers whom we have allowed to publish it without remuneration to us? When a publisher pays a physician for literary work, the matter is on a different footing; but when the physician gives scientific articles or lends them, without compensation, to be published in a journal, it is plain that these articles are still the property of the author or of the profession, not of the lay publisher. To cite an illustration, we epitomize from a letter to the editor of the *Journal of the American Medical Association*, published March 6, 1897, an instance there set forth in detail, for which we cannot of course vouch, and for the truthfulness and accuracy of which the name of the writer of the letter is the only proof we have, except we believe that the charges there made were never answered. Who does not deny the truth of a charge, by his silence admits its truthfulness—is, we have heard, an old rule of evidence.

According to this letter, the lay publisher of two medical journals refused the editor and publisher of the *American Year-Book of Medicine and Surgery* the courtesy or right to abstract or make quotations from the articles published in the journals belonging to said lay publisher, or to reproduce the illustrative cuts of these articles. This refusal was intentionally made more insulting by the fact that the editors and publishers who thus denied, accompanied the denial with the statement that they "had always allowed the free use of the original matter contributed to it for all reputable purposes, provided that due credit, etc." Moreover, it was expressly denied that this course (of refusal) was "characteristic of our general policy," and it was said that this "one instance" was absolutely exceptional, etc. The editor of the *American Year-Book* at once proved that there were other instances in which the free use had been refused (*e. g.*, to *Sajous' Annual*), and expressed his thanks for the insult that the *Year-Book*, *Sajous' Annual*, etc., were not serials to be classed as published for "reputable purposes."

As every scholarly physician knows, the *Jahrbücher* and other epitomes of medical science published in Germany have been of inestimable service to the profession. In the two serious attempts made in the United States to do such work, this powerful lay publisher and his obedient medical editor refused the use in any way of the medical articles given or lent them gratis by members of the profession, and then wrote of themselves the following astounding, Pecksniffian, disgusting words: That they would be "the last to countenance any action which might interfere in the slightest degree with the fullest and freest dissemination of medical knowledge." Thus to misjudge the acumen of their readers was as wonderful an error of intellect as the deed was an error of morals. The lesson to be gathered is that the profession should own and control its journals, and, especially, that being offered a number of excellent ones thus controled and owned, it should support them rather than journals whose lay owners have always used them for purposes of unadulterated financial selfishness and for creating a monopoly of medical literature for which they have not paid the producers a cent. A slavery so absolute and extreme as this was never before illustrated in the history of the world, and it is a disgrace of which we should make all haste to purge ourselves.

Correspondence.

JONATHAN HUTCHINSON.

To the Editor of The Philadelphia Medical Journal:—

With my first introduction to practical medicine the name of Mr. Jonathan Hutchinson became very familiar, as my teacher, Dr. Palmer Howard, never tired of quoting his opinions, and ever held him up to his students as "one not in the roll of common men." Nearly 30 years of acquaintance with his writings have amply confirmed this judgment. In 1872, when a student in London, I spent three months at the Royal London Ophthalmic Hospital, where I first saw Mr. Hutchinson, and was deeply impressed with his powers of observation and his extraordinary capacity to take just the proper notes of a case. At this time Mr. Nettleship and Mr. Tay were his assistants and zealous coadjutors. My interest in syphilis as *the great infection* began with the many valuable lessons I have gleaned at Mr. Hutchinson's desk. During my second visit to London, in 1878, I did not see him, but meanwhile I had many occasions to refer to his writings, particularly to the monograph *On certain diseases of the Eye and Ear consequent on Inherited Syphilis* (1865). In 1881, at the International Medical Congress, I had the pleasure of hearing him introduce the discussion on congenital syphilis, and of studying with Dr. Howard his remarkable series of specimens and illustrations, which were on exhibition in the museum. Of some of his published works, the *Illustrations of Clinical Surgery*, the *Smaller Atlas of Clinical Surgery*, and the *Clinical Lectures on Rarer Forms of Skin Diseases*, I have only a casual knowledge. The *Pedigree of Disease* I remember well as a work full of suggestive thought, and to his manual on *Syphilis* I often refer. But with the *Archives of Surgery*, issued quarterly, and written entirely by Mr. Hutchinson (and now in its tenth year) I can claim a warm and growing friendship. The series forms an enduring monument to his industry, to his exceptional capacity for *seeing;* and still more, to a steady persistency which has enabled him to carry on such a work for ten years. It is a unique journal, equally useful to the general practitioner, the surgeon, the physician, and the specialist; for though called the Archives of *Surgery*, the author ranges over a much broader field than the title indicates. Of course, syphilis in all its manifestations, with all its anomalies, is exhaustively considered, case after case, case upon case, life-histories extending over 30 and 40 years, family-histories to the third generation—the whole illustrating what a man can do who faithfully, in hospital and private work, makes the most of his opportunities. The nine volumes of the *Archives* present an extraordinary picture of this disease, and are a mine of information for the student. Leprosy, skin-disease, all rarer forms of disease-problems of heredity, interesting historical cases, etc., are considered—a collection, it is true, but every number contains articles of special value. Thus, in Vol. IX, which is at hand, I find three which I recall as very helpful when they appeared—*Facial Paralysis after Herpes*, *Hematuria with Renaud's Phenomena*, and *Congenital Absence of the Pectoral Muscles*. When in doubt about any rare disease I invariably consult these volumes (which are well indexed). They should be more widely known, and no library should be without the complete set.[1]

Some years ago, after retiring from the London Hospital, Mr. Hutchinson organized a clinical museum in which he stored his extensive collection of colored drawings, charts and specimens, and in which he held clinical lectures and demonstrations. I visited this with him, and was much interested to see the originals of many of the beautiful plates in his works and in the archives. Since the founding of the Polyclinic and College for Graduates, Mr. Hutchinson has held his clinics at this Institution, in the work of which he takes an active part, and to which his unique collections will be transferred. I attended one of his demonstrations, at which a series of remarkable cases of skin-disease was shown. He adopts the Socratic method, and naturally is a past-master in the art of asking questions. I may add, in passing, that the Polyclinic and College for Graduates is destined to be of the greatest service to physicians seeking clinical instruction in the metropolis. It is in the hands of men who appreciate that the opportunities in London are unequalled in the world; organization, which alone has been lacking, this college will supply. A busy professional career, full of work and interest, actively maintained both on the practical and literary sides, would suffice to absorb the energies of any ordinary man, but Mr. Hutchinson lives a dual life, and of the other I was privileged to catch a peep at his country home and Educational Museum.

Leaving Waterloo Station, one Sunday morning, in the company of that master of all students of clinical medicine, Sir W. T. Gairdner, an hour and a-half's ride brought us to Haselmere, where for 40 years Mr. Hutchinson has spent his holidays. As one of the homes of Tennyson, Haselmere has already become a shrine, and among the homes of the English poets few can boast of greater beauty of situation, amid hills and moors and woods at the extreme western end of the weald of Sussex and Kent. After visiting one or two points from which extensive views could be obtained, we drove to Blackdown Hill, a secluded moor, on which many years ago Tennyson built a house (Aldworth). From the terrace of the lawn one has a magnificent outlook over the weald or valley, with the South Downs to the right, through which in a break at one point there was a glimpse of the sea. In front was Hindhead, the highest point of the neighborhood, from which to the left the North Downs extended far away into Surrey. Across the valley Mr. Hutchinson pointed out Moor-Park, once the seat of Sir William Temple, the home of Swift and of Stella, and from which (if my memory serves) Dorothy Osborne wrote her delightful love-letters.

The Educational Museum, which began, Mr. Hutchinson told us, in a very humble way in a little building near his house, has grown into an extensive collection in which are stored not only the ordinary specimens of natural history, but books, maps, charts, historical portraits, etc. On entering the gate one sees to the left an open shed-like structure, in which is displayed a series of rocks and fossils illustrating the geological sequence from the Laurentian to the post-pliocene periods, with suitable charts and figures. Of the two main buildings, one is devoted to the natural history collection, the other to the library. In the museum proper are representative forms of the animal series arranged in order, many very good skeletons, a large herbarium, illustrating more particularly the local flora, many cases of insects, a fine collection of birds'-nests and eggs, and a host of miscellaneous specimens. The library contains several thousand volumes, chiefly of general literatu e and science, and many charts, drawings, and pictures of historical events. Along one wall is a remarkable series, occupying a space of 600 feet, illustrating the history of the centuries—a sort of synopsis, beginning with the Egyptian and ending in the Victorian

[1] They can be had of West, Neuman & Co., 54 Hatton Garden, London.

era. Mr. Hutchinson has published this "skeleton schedule" and also a more elaborate chronological synopsis of universal history, called *The Centuries* (West, Neuman & Co.). He divides the whole period into 120 centuries, the table beginning ten thousand years before the Christian era at a date arbitrarily fixed on as the year *one*. For the early centuries the data are of course very scanty, and almost exclusively Egyptian. Attached to each century, as far back as possible, is the name of some distinguished person. The whole is constructed on what Mr. Hutchinson calls "the space for time method," which is elaborated in his chronological synopsis of universary history already referred to. As arranged along the wall and supplemented by drawings, pictures, portraits, and busts, one gets a most useful glimpse of the sequence of events in the history of the race. At one end of the museum, out of doors, is an aviary and vivarium, in which the chief birds and animals of the district are kept, and also specimens of the common snake and the viper. Just to the right of the entrance were placed, in little vases, the freshly-gathered wild-flowers of the season, labeled with their popular and scientific names. As Sunday is the great day in the museum, the visitors interested in botany are enabled in this way to identify their specimens.

The well-chosen name, Educational Museum, indicates the special object of the collections and their particular value in the community, but it is also a center from which much useful knowledge is disseminated. Every Sunday afternoon Mr. Hutchinson lectures on some subject of popular interest. After luncheon he disappeared in the fields for a few minutes and returned with a handful of flowers, etc., which he said would serve as his text for the first half of the lecture, though the subject proper for the day was "Some lessons to be learned from whales." At 3 P.M. a very good audience had collected in the museum, made up chiefly of people of the better class with their children. The flower of the potato was clearly described and the reason explained why it did not produce seed. The mode of formation of galls was discussed, and some fir-tree galls shown, which were mistaken by the children, whom he asked, for cones. The lecture proper on whales was most instructive, dealing with their habits, structure, and affinities. As showing the wide scope of Mr. Hutchinson's teaching, I may give the subjects announced for the three succeeding Sundays: "The Inner Light and the New Birth;" "The Influence of Wordsworth's Poetry;" "Tuberculosis and Leprosy as Social Problems." Occasionally he invites well-known specialists to give popular lectures in the museum. Haselmere is a small village with a rapidly growing suburban population, and one could not but feel that such an institution was worthy of a wider field. Mr. Hutchinson hopes that it may serve as a model for other places, and he has already done much good in insisting so strongly upon the educational value of such museums.

In connection with the museum and as a means of widening its influence, Mr. Hutchinson, with the help of members of his family, has begun what seems at first sight a most ambitious scheme, viz., the organization of a Home University. The following extracts from the preface of the first number (January, 1898) of *The Home University*, a monthly journal, tells its scope and objects. "Our universities are accessible only to very few. The necessities of social life require of a large majority that they should go from the school to the country-house, the farm, the warehouse, or the shop. The pursuits of school are widely broken off, and in but too many instances no further additions are made to the knowledge which has been obtained, and much even of that is allowed to slip away."

"The editors of *The Home University* are not unaware that they have adopted a name which implies ambition. It expresses, however, more clearly than would any other, their aim, which is by availing themselves to the utmost of the help of the printing press, to offer to the home student the best substitute for university residence which they can devise. In that endeavor neither trouble nor expense will be spared. It was said of Lord Burleigh's household that it was 'an university in itself,'" etc.

"*The Home University* will be neither a school-book, an encyclopedia, nor a journal of science and literature, but it will partake of the character of all three. It will deal with all subjects and be designed for all readers."

"Our wish is to advance the general knowledge of the many, and to cultivate in them the all-round attainments of well-informed men and women, rather than develop specialism."

"We do not purpose to be systematic in anything, but rather to supply intellectual food in somewhat the same fashion as a man takes his daily meals." These extracts give an idea of the objects of the undertaking. The numbers of the journal for 1898 are a storehouse of interesting, often curious, information, and I am sure the publication will be a boon to many young men and women whose circumstances have made it impossible to get a liberal education. The advice to students on page 44 is admirable. One feels inclined, perhaps, to criticise the motley character of the diet, but, as stated in the preface, it is offered not to the technical student, but to the everyday, ordinary person, whose interest in life is surely much heightened if he is omnivorous in his tastes, and while delighting in poetry is not indifferent to whales, and can even appreciate the mechanism of a new dynamo. The March number, a good sample of the whole, opens with an article on *Keats—A Medical Student Poet*, evidently a favorite with Mr. Hutchinson, as in another number he gives a series of selections from his poems to be identified. Then follows an article on *Etruscan Art*.

As I have already mentioned, Mr. Hutchinson is a great believer in the value of historical chronology, and he here has a note on the date of the birth of Christ, which in reality took place four years before the Christian era, and he explains how the mistake arose. Useful lists are given of distinguished men (with brief biographies) of the second and third centuries and a schedule of the third century in single years with the notable events. An article on *A Christian Philosopher of the Third Century*, gives a most pleasing account of Origen. Fénélon—tutor, author, Christian socialist, archbishop and saint—is dealt with in a characteristic way. A chronology in parallel columns from his tenth year, 1661, to his death, 1715, gives at a glance the main facts of his life; a portrait and a few extracts from his works suffice to whet the appetite of the student. A dialogue (with which form of instruction readers of the *Archives* are familiar) introduces us to Saint Simon, the great socialist. The useful recommendations of the Royal Geographical Society on the *Pronunciation of Proper Names* occupy a page; and then comes an article on *Spelling Reform*, part of the well-known *Imaginary Conversation* of W. S. Landor on this subject. (From this noble old man it was, I believe, that the editor of our JOURNAL got his shocking practices in orthography!) A language lesson, quotations for recognition, brief biographies of Lady Mary Wortley Montagu, and of Hamilcar, a dialogue on the Unity of Italy, and several fragments complete the literary

part of the number; *A Museum Lecture on Shells, A Classification of Insects, A Conversation on the Elephant, Mammoth and Mastodon*, an illustrated article on *At the Zoo with a Notebook*, with others on *The Ascent of Sap*, and a *Vivarium for Nurses*, form the chief part of the scientific section. From this hurried sketch some idea may be had of the contents of this valuable journal, a large part of which is from Mr. Hutchinson's pen, and all of which receives his careful supervision. I wish that it could be introduced among us, as a substitute for the bastard literature of some of our *10 cent dreadfuls!*

After a delightful day I left Haselmere with very mixed feelings. Uppermost in my mind was one of satisfaction that the old race of physician-naturalist was still represented in our ranks, and represented so worthily. Then, unbidden, came up the beautiful face (in a picture beside the mantelpiece in my library) of Godman, and I wished that he could have been with us. He was a companion spirit of our host, who more than any man I know would have enjoyed a ramble on the banks of the Patapsco with that most gifted yet ill-starred son of Maryland. I could not escape a certain depression of spirits. The contemplation of a life so full, so busy, so useful, and withal so calm and even, could not but arouse feelings of discontent at the "petty done, the undone vast" in one's own life, and at the narrowness of the interests which absorb one's energies.

The Society of Friends has given many good men to our profession, of whom Fothergill in the last century and Lister in this may be named as the most distinguished; but among them all no one has more fully exemplified the special virtues of its members—single-minded devotion to duty, and a keen sense of responsibility to their fellow creatures—than the man whose activities I have here in part and in feeble outlines attempted to portray.

W. O.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Hydrophobia in Dairy Herd.—Two cows belonging to a Locust Valley farmer have developed symptoms of hydrophobia. These cows were bitten by a mad dog several weeks ago. The milk has been served to customers in Coopersburg.

Poisoned by Toadstools.—Two families living in a tenement in the lower part of Spruce Street, are reported to have been dangerously ill from eating toadstools which they supposed were mushrooms. They were taken to the Pennsylvania Hospital.

New Jewish Hospital.—A preliminary meeting has been held and officers of an association have been chosen to found a hospital for orthodox Jews residing in the lower wards of the city. More than 400 persons have signified their intention to subscribe.

Army Nurses at Encampment.—Mrs. Elizabeth Windle Ewing, of Phœnixville, issued entertainment cards to 76 veteran nurses, all of whom wore silk badges. Mother Bickerdyke came from Los Angeles as the guest of honor of a Grand Army post of that city.

Cattle Dying from Anthrax.—Anthrax has broken out in a herd of cows near Kennett Square, and 5 animals have died and another is afflicted with the disease. It is feared that the contagion has reached other herds in the vicinity. State Veterinarian Pearson is investigating.

Filters for the Schools.—Chief Good, of the Bureau of Health, has sent to the Board of Education a report on the tests made of various types of filters which manufacturers desire to have placed in public schools. No announcement of the results of the investigation has been made, but it is said that of the 7 types of filters examined but 3 were found to meet with the requirements. A meeting of the Board's Committer on Hygiene will be held on September 8 to consider the report.

Revenue Tax on Medicines.—Revenue Collector H. L. Hershey, of the Ninth District, has just received a ruling from the Commissioner of Internal Revenue to the effect that any physician or company sending out circulars, letters, or advertisements professing to cure diseases, must pay the scheduled tax on these medicines if they are forwarded by mail or express. The Commissioner gives notice that this is a business that is extensively carried on, and the Collector is directed to make a thorough investigation.

A Boy Gasoline Tippler.—A 10-year-old colored boy, residing on Tenth Street, below Wharton, was arrested August 29 on the charge of the larceny of gasoline from city street-lamps. The police allege that he was one of a gang of youngsters who have been despoiling street-lamps in that locality of the burning fluid for the purpose of inhaling the fumes by means of a rag, and producing what the police term a "gasoline jag." Not long ago the patrolmen of the Moyamensing Avenue Station had to deal with a similar case, in which a party of urchins were found helplessly intoxicated on this peculiar tipple.

The G. A. R. Encampment has made Philadelphia once more the great center of interest, and has brought vividly back to the memories of many a veteran and citizen of the old town the time when it was the military center in real earnest; for through this city at the time of the Civil War passed the great majority of the troops of the North on their way to the battlefields of the South. And here above all was the great medical center of the war as it has long been the center in peace, for in this city were located the military hospitals in which a very large part of the work was done which is found recorded in the splendid medical and surgical histories of the war. The veterans are very welcome. Long may they live to teach lessons of patriotism to the rising generations. Many of their comrades are our comrades in a double sense, for the medical branch of service was well represented and suffered the greatest mortality in that terrible struggle.

The Ayer Clinical Laboratory.—Josephine M. Ayer recently bequeathed $50,000 to the Pennsylvania Hospital, and her son, Frederick F. Ayer, added $25,000 to this sum, on the condition that a clinical laboratory should be built, to cost at least $30,000, the remainder of the money should be used for the purpose of endowing the laboratory. The building has just been completed, and Dr. Henry W. Cattell has been elected by the Board of Managers to be the Director. The building is fireproof, and in the museum in the basement is stored the valuable collection of morbid specimens and prints which have been accumulating in the hospital for over 150 years. On the first floor is a large, well lighted necropsy room, with all modern appliances. The ice-boxes open into the marble hall, which can be used as a mortuary chapel, and the remainder of the first floor is taken up by large executive offices. On the second floor are 4 large and 2 small laboratories. There will be a separate laboratory given to the pathological histologist, bacteriologist, physiological

chemist and resident pathologist. A room in the main building is provided for taking skiagraphs and the urine and sputum examinations. The attic contains the photographic gallery and dark room. The whole building is well supplied with water, gas, ventilating flues, and electricity. It is expected to have the building thoroughly equipped and in running order by the early fall.

Vital Statistics of Philadelphia for the week ended September 2, 1899:—

Total mortality		336
Diseases.	Cases.	Deaths.
Pulmonary tuberculosis		37
Marasmus 22, inanition 7, debility 4		33
Cholera infantum 24, dysentery 3, diarrhea 2,		29
Nephritis 20, uremia 6		26
Fatty degeneration of the heart 5, Heart-disease 18, inflammation of the heart 2		25
Apoplexy 16, paralysis 7, softening of the brain 1		24
Pneumonia 14, congestion of the lungs 3		17
Convulsions		16
Senility		16
Diphtheria	80	12
Carcinoma		7
Inflammation of the brain 8, congestion of the brain 2		10
Typhoid fever	72	6
Scarlet fever	57	1
Casualties 5, drowned 1, cirrhosis of the liver 3, peritonitis 6, bronchitis 4, pertussis 6, diabetes 1, dropsy 2, suicide 6, shock 2, asthma 1, cyanosis 2, croup 1, gangrene 3, hemorrhage 2, rheumatism 1, insanity 2, obstruction of the bowels 3.		

NEW YORK.

State Health Statistics.—The State Board of Health published its July bulletin on August 30. This shows a mortality from all causes of 11,291 for the month, being about 600 below the average. Infant mortality was 4,819 as against 3,100 in June; it was 42.6 % of the total mortality, a figure considerably below the average. The course of smallpox provides an interesting series of tables in the bulletin.

Local Diphtheric Infection.—Dr. Alexander von Grimm, visiting surgeon of the New York Postgraduate Hospital, 8 weeks ago attended a child sick with diphtheria. The rubber gag, which held the child's mouth open, slipped out and the teeth shut on the doctor's left thumb, breaking the skin. Two or three days later his hand and arm began to swell. The inflammation grew rapidly worse, and soon the doctor's body was a mass of eruption. August 30 part of his left hand and a gland in the arm had to be excised. He is not yet out of danger.

Vaccination in the Schools.—Rather more than a year and a half has elapsed since the consolidation of the several municipalities which make up the city. At first there was a disposition to postpone drastic action until the initial difficulties had been overcome. Now the Department of Health is disposed to hold the local borough officials to a strict accountability under the law. The public schools are due to open on Monday next. In view of this fact President Murphy, of the Health Department, has expressed his dissatisfaction with the way in which the vaccination law for school-children is being executed in the boroughs of Kings, Queens, and Richmond. "These gentlemen of the Borough boards," he has said, "are very apathetic, to say the least, and do not show the interest in the matter of vaccination which they should. Unless there is a change for the better I shall adopt drastic measures and may prevent the opening of the schools until the law is complied with."

Opposed to Christian Science.—'Twixt tweedledum and tweedledee is a hard matter to decide, yet there seems to be some sort of difference which amounts to enough for people to fight over. One of the city papers recently classed the Rev. John Alexander Dowie as a Christian Scientist, whereas he is really the only real and original Zion of Chicago. This elicits a correction in the same paper, a correction which appeals indifferently to the medical and the theological practitioner. "Permit me to state," says the corrector, "that Dr. Dowie is not a leader in Christian Science, but the founder and general overseer of the Christian Catholic Church, the largest and most powerful organization in the world that believes in Jesus Christ, the same yesterday, to-day and forever, as the Healer of His people. Between this belief and Christian Science there is a radical difference, as any one can perceive who takes the trouble to investigate." The theological matters may be left for dogmatic theology to determine. The medical differences must be obvious. Yet it is reported that Dr. (Rev.) Dowie has just been found out in the treatment of pneumonia through milk and prayer. There was a precipitate of sulphur in the milk, and science has not yet been educated up to the point of cows which secrete matches. While keeping an eye open on Christian Science it might be well to look after Dowie's Zion with a sweet and simple recognition of the difference which has been pointed out. Mother Eddy was never charged with a sulphur sediment.

Nonhygienic Industries.—It is difficult for the stranger to conceive of the overcrowding of the poorer residences in New York. The normal division of land on the island of Manhattan was long ago established as the lot of 25 foot frontage with a depth of 100 feet. About 20 years ago 5 feet was shorn from the width and many tenements and apartment houses were built on a 20-foot frontage. Then, as more revenue was demanded from the reduced lot, a system arose of building two houses on the same lot, one in front, the other on the inner half of the lot, with an interval which rarely exceeds 10 feet, and is more commonly but half that narrow margin. The economic limit of height for such structures is six stories. On the east side there are hundreds of such dwellings which in the front and rear houses are normally fitted to accommodate 72 families on the lot of 20 x 104. The overcrowding is made even worse by the fact that in many cases each tenant sublets or takes boarders until the population of many such premises amounts to 150 families or their equivalent. The moral questions involved are the care of the charitable societies in their mildest form and of the police at the other end. The sanitary problems worry the Department of Health. The industrial complications are looked after by the labor organizations. Under an amendment which has just gone into effect with the first day of this month the transformation of these unhygienic tenements into room-industry factories may be curbed. This is done in the first instance at the demand of organized labor which dreads the competition of this worse than Mongolian condition. But it has the approval of the health-authorities. The new law prohibits the sale of a long list of articles if known to be manufactured in any room used by others than the actual members of the family who use it for dwelling purposes. The articles named in the law are various specified articles of clothing, purses, feathers, artificial flowers, cigarets and cigars. Under no conditions may these articles be manufactured in rear tenements. This law may not improve the moral and the sanitary conditions of life in the double-deckers, but the huddling will no longer pay, and that is a long step in advance. It is estimated that this law directly applies to some 9,000 factories in New York and to about 150,000 individuals.

Water-Supply.—Rarely has the city taken such prompt and popular action as in the late attempt to loot the treasury under the guise of adding to the supply of city water through what is now bluntly characterized as the "Ramapo steal." Despite the millions which have been spent, judiciously in earlier days, more or less inadvisably of late, in adding to the catchment area of the water-system of the city, it is acknowledged that the service is dangerously near its limit. So far as concerns the borough of old New York, now known as Manhattan, the limit of demand can be well foreseen, for there is little ground left on which to erect new buildings to tax the service. Even so it is easy to forecast that the available supply is not commensurate with the demand at present and incapable of meeting the demand of the rapidly advancing future. The borough of Kings, the former Brooklyn, has already reached the limits of its available sources of supply on Long Island and must face a growth to more than double the present needs, a growth which is already beginning to make itself felt. The needs of the other three boroughs of the city, the Bronx and Queens and Richmond, will soon clamor for settlement and in about the order named. Richmond, which is coterminous with Staten Island, must, from its insular position and its general geographic relation to New Jersey, form a distinct problem that is susceptible of greater delay. Queens is naturally connected with Kings, and in the same way the Bronx is associated with Manhattan. The plan of the Ramapo company was to provide a service for all the boroughs except Richmond. The Ramapo plan contemplated the expropriation of the watershed of the river of that name at the back of the Palisades and partly in New York and partly in New Jersey. The city was to enter into a contract with the private projectors to purchase the water for the next 40 years at $5,000,000 per annum. The scheme was sprung on the municipal legislature without any previous discussion of any sort. So far as the local board could accomplish it, the plan was rushed through to success, the only obstacle was the City Comptroller, who refused to approve the contract without a full hearing. Mr. Coler's position has received the approval of a large mass-meeting of citizens, and the Ramapo scheme may be considered as dead. Still it has awakened public interest in the need of increasing the water-supply, and the interest once aroused may be expected to keep alive until some rational solution has been reached. In such a question there are the two elements of quantity and quality. Industry and the need of protection against fire have already shown that the limit of quantity is dangerously near exhaustion. In the two more populous boroughs of Manhattan and Kings the question of quality is very nearly as important even at the present, for in the recent drought of the early summer it has been shown that the daily use of water reduces the storage below the limit which admits of proper settlement and filtration.

NEW ENGLAND.

Weekly Cost per Patient at the Boston City Hospital.—The average weekly cost of patients at the City Hospital last year was $11, as cost is usually computed; the net cost to the city, after deducting the income from patients, etc., was $7.51.

New Appointments.—The faculty of the Tufts College Medical School has been enlarged by the following appointments: Harold Williams, professor of the principles and practice of medicine; Henry B. Chandler, professor of opthalmology; Horace D. Arnold, assistant professor of clinical medicine; Albert P. Mathews, S.B., Ph.D., assistant professor of physiology. Tufts College Medical School has made a distinct advance since it adopted the 4 years' course 2 years ago. It is predicted that it will have a large growth after 1901, when the Harvard Medical School requirement of a degree from some college or scientific school before admission, goes into effect. The faculty and facilities of Tufts are being improved every year to meet the demand which the future seems certain to create.

Diphtheria and Its Treatment in Boston.—Previous to the use of antitoxin in diphtheria, the mortality from this disease in Boston ran so high as 50%, and the number of cases, compared with those of scarlet fever, pertussis, typhoid fever, measles or any other contagious disease, was much greater. Antitoxin cut down the mortality until last year it was about 12½%. The number of cases of diphtheria in the city at large have, however, proved steadily increasing since April, and they seem to be of a more virulent type than usual. Dr. Hill, superintendent of the bacteriological department of the City Board of Health, says that he is examining about 600 cultures a month, a large number of which are negative. The number of cases of true diphtheria last week was 54, of which number 31 were sent to the South Department of the City Hospital for treatment. Despite the increasing number of cases in their contagious wards, and the serious nature of many of them, the death-rate of diphtheria for the 6 months ending August 1 was but 8%, and during the past 2 weeks only 3%. It is customary in this hospital to give large early and frequent doses of antitoxin—3,000 to 4,000 units every 4 hours, until the membrane almost disappears and other symptoms improve. A boy 9 years old, who entered the hospital 5 days ago in a practically moribund condition, was given 12,000 units of antitoxin daily at 4 hours' intervals, for the first 4 days, and is in a fair way to recover. In the examination of 250 cases for the purpose of tracing the effects of the serum, the physician in charge says he can see no relation whatever between the amount of the dose and the symptoms, and concludes that the disturbances from antitoxin depend upon individual susceptibility to the serum, not on the size of the dose. Postmortem investigations in cases of sudden death from diphtheria show degeneration of the vagus, hence any organs supplied by the fibers of that nerve show derangement of function.

CHICAGO AND WESTERN STATES.

The **Cincinnati Academy of Medicine** and the Medical Staff of the **Cincinnati Hospital** have passed appropriate resolutions upon the death of Dr. Max Thorner.

Nevada Medical Society.—There are said to be but 53 physicians in Nevada out of a population of about 48,000, but in spite of small numbers a State medical society has been organized. Good for Nevada! It is said that more than one-fourth of the doctors of the State belong to the State society.

Higher Education of the Blind.—At the Convention of the Blind People's Higher Education and General Improvement Association, which was held at the Kansas State Institution for the Blind, a memorial to Congress was adopted asking for an appropriation of $50,000 annually, to aid in the establishment, in connection with the several State universities, of a branch for the higher education of the blind.

Medical Practice in the Klondike.—According to the *Medical Sentinel*, of Portland, the monopoly of Canadian doctors in the practice of medicine in the Klondike has been

broken. Commissioner Ogilvie, of the Yukon country, has appointed a local examining board, to be governed by the same regulations which obtain in other sections of the Dominion. Graduates of recognized medical schools, who successfully pass the required examination, will be allowed to practise, irrespective of their nationality. This will save time and expense, as those who have desired to practise in the Northwest Territory have always had to make a long journey to Calgary or to Regina, near the Manitoba border, in order to obtain a legal permit.

Nevada's New Medical Law.—An act was approved March 15, 1899, "for the creation of a State Board of Medical Examiners, and to regulate the practice of medicine and surgery in the State of Nevada." The board is to consist of 3 from the "regular," one from the "homeopathic," and one from the "eclectic" school of medicine. While the law is not exactly what was desired, yet if satisfactorily enforced in its present form, it may lead to a more stringent one, which will make the possession of a diploma obligatory on all applicants for examination before the board. The first meeting, in accordance with this law, was held in Carson City, on May 1, 1899, and the physicians constituting the board organized as follows: Dr. P. T. Phillips (regular), Reno, president; Dr. S. L. Lee (eclectic), Carson City, secretary; Dr. James Guinan (regular), Carson City; Dr. George Fee (regular), Reno; Dr. P. Wagner (homeopath), Carson City.

SOUTHERN STATES.

Government Hospital Abandoned.—The large Government hospital which was erected in Savannah, Ga., last winter, at a cost of more than $100,000 is to be permanently abandoned as a hospital. It is now closed and the wards are being used as storage-rooms for medical supplies temporarily.

Death of a Leper.—Mrs. Mary Sansoni, the leper, who had been at the Johns Hopkins Hospital since April, 1897, and who had caused both the hospital authorities and the city health-officials considerable trouble, died September 4. An autopsy was held which revealed diseased kidneys and malnutrition as leading causes of death. When Mrs. Sansoni was 15 years of age she went to Demarara, British Guiana, South America, and remained there several years. It is thought she contracted the disease there.

Yellow Fever.—The report of a case of yellow fever in New Orleans has caused both Texas and Alabama to quarantine against that city. The disease does not appear to be spreading, but the unreasonable panic into which the mere threat of it seems to throw Southern health-officials will probably damage New Orleans business interests. An attempt was made by Dr. Souchon, president of the Louisiana Board of Health, to bring about a conference of the health-officers of the several Southern States, to agree on some plan of action, but as the Texas delegate could not be present the conference was postponed. A much more serious state of affairs exists at Key West, where an epidemic appears to be fairly under way. Precautions will have to be taken in earnest to prevent its spread northward. Reports from the Marine-Hospital Service from several ports indicate that extraordinary care is being taken to prevent the importation of yellow fever into the United States, and to control the situation in Havana and other Cuban cities.

MISCELLANY.

A Change in Teaching Physiology.—The faculty of Georgetown University having noticed that this subject is rather difficult for students of the first year, and in order to overcome this difficulty it is considered desirable that the students should have a good preliminary knowledge of anatomy and histology. Hence, in future, physiology will be taught to the second and third year classes.

Sanatorium for Army Consumptives.—By direction of the Secretary of War, the Surgeon-General of the army is authorized to establish a general hospital at Fort Bayard, New Mexico, as a sanatorium for the treatment of officers and enlisted men of the army suffering from pulmonary tuberculosis, and hereafter transfers of enlisted men suffering from this disease may be made to this hospital upon the recommendation of medical officers of the army (to be forwarded through military channels). Such buildings pertaining to the post of Fort Bayard as may be necessary to carry this order into effect will be designated by the Surgeon-General of the army. Fort Bayard will be put in good state of repair by the Quartermaster's Department. The Surgeon-General is also authorized to provide for the care and treatment of discharged soldiers entitled to the benefits of the U. S. Soldiers' Home, Washington, District of Columbia, who may be sent to the sanatorium by the Board of Commissioners of the Home. The expense for the maintenance of such discharged soldiers will be paid from the Soldiers' Home fund.

The Medical Corps at Manila.—The Surgeon-General has issued orders looking to an increase of the medical department and hospital accommodations at Manila in conformity with the purposed army of 63,000 men. Instructions have been mailed to Lieut. Col. A. A. Woodhull, chief surgeon at Manila, saying that in view of the increased army now being sent to the Philippines and the expectation that active military operations will be resumed, it is evident that the hospital accommodations should be greatly increased. There not being time to build a large wooden hospital needed at Manila, orders have been issued for sending 500 hospital tents to the Philippines. Four experienced surgeons of volunteers, with rank of Major, are now under orders for Manila in addition to the commissioned medical officers belonging to the new volunteer regiments. The enlistments and preparation of men for the Hospital Corps Service has been carefully watched in order to direct the limited number of recruits in this branch of the military establishment so as to meet needs in both Manila and the West Indies. The hospital ship *Missouri*, which has been thoroughly overhauled, rebuilt and refitted, is ready to carry 250 hospital-service men to Santiago. This ship will ultimately be sent to Manila with a full equipment.

The thirty-second annual meeting of the Canadian Medical Association was held at Toronto, August 30 to September 1, 1899. Three hundred members and invited guests were present, including several "Americans." Irving H. Cameron, of Toronto, presided, and F. N. G. Starr, of the same city, was general secretary. The pathological museum, under charge of A. Primrose, was an interesting feature. The arrangements and entertainments were under direction of Bruce L. Riordon, Arthur Jukes Jackson and C. R. Dickson, of Toronto. The usual exhibitors' hall was in evidence, with the same merits and demerits as at similar meetings in the United States. A comparison with the American Medical Association naturally occurs to the guest from this country. The Canadian Association, being a much smaller body, retains the advantage of a meeting undivided into sections, but there seems to be the same plethora of

papers and the same proportion of titles by men who do not appear in person, as in our own country, and the same relief when a paper is "taken as read" (read by title in United States). The entertainments, which were thoroughly enjoyable, included a reception-musicale, a ride on the lake, with refreshments, and a visit to the Industrial Exposition. A skin clinic, arranged so as not to interfere with the sessions, was held by Graham Chambers and A. McPhedran. The next meeting will be held at Ottawa, with R. W. Powell as president, the secretary, F. N. G. Starr, of Toronto, and the treasurer, H. B. Small, being reelected. The choice of a president residing in the place of meeting, has much to recommend it, practically. The American guest was struck with the essential unity of medical spirit and customs in the United States and Canada, and with the many evidences of friendship existing between the independent and the nominally dependent colony of the same parent country, especially by the intermingling of the Stars and Stripes with the British flags. We shall devote a forthcoming number of the MONTHLY MEDICAL JOURNAL to a selection of the best papers read at the meeting.

Omega Upsilon Phi Fraternity.—The fourth annual convention was held August 23, in Alumni Hall, University, of Buffalo. Delegates from chapters located in University of Buffalo, University of Denver, University of New York, and Bellevue Hospital Medical College, Trinity Medical College (Toronto), and Roswell Park Graduate Chapter of Western New York were present. Important changes in constitution and laws, ritual and government were made, which will materially assist in the advancement of the fraternity in general.

The following officers were elected for the ensuing year: Senior Grand Master, Dr. Ross G. Loop, Elmira, N. Y.; First Junior Grand Master, Chas. Wm. Gerber, Denver, Col., Second Junior Grand Master, Dr. George S. Staniland, Buffalo, N. Y.; Grand Scribe, Dr. H. J. Knickerbocker, Wilson, N. Y.; Grand Chancellor of the Exchequer, Dr. Chas. W. Farr, Elmira, N. Y.; Grand Conductor, Dr. Harry B. Huver, Williamsville, N. Y.; Grand Priest, Dr. George H. Minard, Lockport, N. Y.; Grand Guard, Guy C. Boughton, New York City.

The next convention will be held at Niagara Falls, on September 26, 1900.

Omega Upsilon Phi, organized at the University of Buffalo, in 1894, is a professional fraternity confined to medical students and practitioners. Its objects are to promote good fellowship and advance the general interests of its members and of the medical profession at large. An effort is made to so prepare the student that in after-years none but the highest motives will animate his practice. Its teachings founded upon a keen appreciation of right and wrong are of a most elevating character.

The growth of the fraternity has been slow, thereby insuring strong organization and perfect detail in the chapters.

New chapters are desired only in colleges maintaining a high standard in conformity with the rules of the American Association of Medical Colleges.

The Fraternity is governed by a Grand Chapter composed of delegates from the subordinate chapters, and meets annually. In the interim of the sessions an executive council composed of the Senior Grand Master, Grand Scribe, Grand Chancellor of the Exchequer and three other members of the Grand Chapter have charge of affairs.

Charters for new chapters are granted upon a written request, signed by not less than 10 students in regular attendance at the college in which the chapter is desired, and endorsed by not less than three members of the faculty of said college.

All communications should be addressed to the Grand Scribe, Dr. H. J. Knickerbocker, Wilson, N. Y.

Obituary.—DR. JAMES FITZGERALD FEELEY, for several years surgeon-in-chief of St. Catherine's Hospital, Williamsburg, died August 30, aged 56. He was born in London, and graduated from the University of New York in 1865. He was one of the founders of the Brooklyn Surgical Association.—DR. HAMILTON MAILLY, Bridgeton, N. J., September 1. He graduated from the Medical Department of the University of Pennsylvania in 1891, and had been secretary of the Cumberland County Medical Society for several years. DR. ANDREW MARTIN was killed by lightning, August 26, at his home near Mount Joy, Pa. He was 66 years of age, and was a graduate of the University of Michigan and Jefferson Medical College.—DR. MATTHIAS J. PENNYPACKER, August 31, aged 79. Dr. Pennypacker was a son of Dr. Matthias Pennypacker, the celebrated Mennonite bishop, and a descendant of Heinrich Pfannebecker, who came from Holland. He was educated at the University of Pennsylvania, and practised medicine but a short time, when he was appointed assistant manager of the Phœnix Iron Works, and later general manager of the Durham Iron Works in Bucks County. Returning, in 1850, to his farm in Schuylkill township, he spent the remainder of his life practising his profession, and in farming and milling.—DR. R. C. HOLLADAY, Hot Springs, Ark., August 23.—DR. J. M. LOGAN, Kansas City, Mo., August 12, aged 54.—DR. J. C. MAXWELL, Greenwood, S. C., August 12, aged 62.—Dr. JULIUS NORTHHELFER, St. Louis, Mo., August 14, aged 33.—DR. EMORY PEDIGO, Edmonton, Ky., August 11, aged 55.—DR. EDWARD SPRAGUE, Coraopolis, August 12, aged 65.—DR. R. B. LORYEA, Manning, S. C., August 23, at Tryon, N. C.—DR. RANDOLPH V. BARKSDALE, Danville, Va., August 21, aged 83.—DR. JOHN BINNEY, Mount Olive, Ill., August 14.—DR. S. G. BLYTHE, Nora Springs, Ia., August 10.—DR. JULIUS HALL, Lower Marlboro, Md., September 4, aged 80. He was a native of Baltimore, and was graduated from the University of Maryland in 1842. He practised medicine in Calvert County until 1873, when he removed to Baltimore. From that time until January 1, 1898, he was physician-in-charge of the Southern Dispensary.—DR. J. TRIGG WADE, Arlington, Neb., September 2. Dr. Wade was formerly a resident of Baltimore, and a brother of Dr. J. Percy Wade, superintendent of Spring Grove Asylum. He was graduated from the College of Physicians and Surgeons, and for several years he was the surgeon of the Elkhorn Branch of the Chicago and Northwestern Railway.—DR. GEORGE S. POLIS, for more than 20 years a practising physician of Philadephia, died August 30, aged 49. He graduated from the University of Pennsylvania, in 1876.—DR. WILLIAM DALLAM died near Creswell, Harford county, Md., August 31, aged 77 years.—DR. SAMUEL RITTENHOUSE HOUSE, died at Waterford, New York, on the 13th of August, aged 82. He was not only a superior physician, but a distinguished missionary. He spent 20 of the best years of his life as a missionary in Siam, in which country, through his influence with the king, he secured many reforms for its people. The following story is told of him: On a journey to Chung Mai he was attacked by an elephant, the sharp point of whose tusk penetrated his abdomen, making a rent three inches long. Having his case of instruments with him, he sewed up the rent after replacing with his own hands the protruding viscera. A litter of bamboo was constructed by his native attendants, on which he was borne in the sultry sun to the nearest village, 5 hours distant, where he remained 14 days under an open shed until he could be conveyed by boat to his destination. Here he continued fever-stricken for many weeks, slowly regaining his strength.

Health-Reports.—The following cases of smallpox, yellow fever, cholera, and plague have been reported to the Surgeon-General of the U. S. Marine-Hospital Service, during the week ended September 1, 1899:

SMALLPOX—UNITED STATES.

			Cases.	Deaths.
FLORIDA:	Jacksonville	Aug. 26	1	
LOUISIANA:	New Orleans	Aug. 26	1	
MASSACHUSETTS:	Boston	Aug. 26		1
"	Fall River	Aug. 26	1	
MICHIGAN:	Battle Creek	Aug. 26	Rep'd present.	
OHIO:	Cleveland	Aug. 26	2	
PENNSYLVANIA:	Philadelphia	Aug. 26	1	
WASHINGTON:	Spokane	Aug. 19	1	

SMALLPOX—FOREIGN.

ARGENTINE REPUBLIC:	Buenos Ayres	June 1-30		1
AUSTRIA:	Budapest	Aug. 6-10	1	
BELGIUM:	Antwerp	Aug. 5	3	1
BRAZIL:	Rio de Janeiro	July 14-27		11
EGYPT:	Cairo	July 22-29		4
"	"	July 29-Aug. 2		5
ENGLAND:	Hull	Aug. 19		3
"	London	Aug. 5		1
GREECE:	Athens	Aug. 5-14	5	2
INDIA:	Bombay	July 25-27		9
"	"	Aug. 1		13
"	Madras	Aug. 15-21		1
MEXICO:	Chihuahua	Aug. 30		1
"	Mexico	Aug. 13-22	6	3
"	Nuevo Laredo	Aug. 12-18		1
RUSSIA:	Moscow	July 29-Aug. 5	3	
"	"	Aug. 5-14	3	1
"	Odessa	Aug. 5	1	2
"	St. Petersburg	July 29-Aug. 5	8	
"	" "	Aug. 5-12	7	2
TURKEY:	Erzerum	Aug. 5	2	

YELLOW FEVER.

ARGENTINE REPUBLIC:	Buenos Ayres	June 1-30	8	8
BRAZIL:	Rio de Janeiro	July 14-27		6
COLOMBIA:	Barranquilla	Aug. 6-13		2
CUBA:	Havana	Aug. 14-27		7
"	Matanzas	Aug. 21	1	
"	Santiago	Aug. 2-19	3	4
MEXICO:	Tuxpan	Aug. 14		5
"	Vera Cruz	Aug. 17-24		22

CHOLERA.

INDIA:	Bombay	July 25-Aug. 1		7
"	Calcutta	July 15-Aug. 3		73
JAPAN:	Yokohama	July 29		1

PLAGUE.

EGYPT:	Alexandria	July 30	4	3
INDIA:	Bombay	July 25-Aug. 1		132
"	Calcutta	July 15-Aug. 3		7
STRAITS SETTLEMENTS:	Penang	July 7-14		71
	Singapore	July 1-15	7	4

Changes in the Medical Corps of the U. S. Army,

for the week ended September 2, 1899:

WALES, Captain PHILIP G., assistant surgeon, is granted leave for one month on surgeon's certificate.

REAGLES, JAMES, acting assistant surgeon, now on duty at Vancouver Barracks, will proceed to Fort Flagler, Washington, for duty.

ECHEVERRIA, Major RAFAEL, surgeon, is granted leave for ten days from the date of the expiration of sick leave granted.

HARBERS, HERMAN, hospital steward, now at Tennallytown, D. C., having relinquished the unexpired portion of his furlough, will report at Washington Barracks for duty.

TEMPLE, HARRY P., hospital steward, now at Camp Meade, will be sent to Fort Niagara, for duty.

GILMAN, LOUIS L., acting assistant surgeon, will proceed to Fort Hancock for temporary duty pending the arrival of Captain Deane C. Howard, assistant surgeon.

WILSON, NELSON W., acting assistant surgeon, now at Buffalo, N.Y., will report at Fort Porter for duty at that post and as medical examiner of recruits at Buffalo, N. Y.

PILCHER, Captain JAMES E., assistant surgeon, is directed to report to Major-General Wesley Merritt, president of the Army retiring board at Governors Island, for examination by the board.

TAYLOR, DWIGHT B., acting assistant surgeon, now on duty at Columbus Barracks, will proceed with a detachment of recruits from that post to San Francisco, Cal., and on the completion of this duty will return to his proper station.

LOMMEL, NICOLAS, hospital steward, now at Santiago, Cuba, will be sent to Fort Reno, for duty.

LIPPINCOTT, Lieutenant-Colonel HENRY, deputy surgeon-general, orders are amended so as to detail him to represent the medical department of the Army at the Eighth Annual Meeting of the Military Surgeons of the United States, at Kansas City, Mo., September 27-29, 1899, vice Major Junius L. Powell, surgeon, relieved.

A board of medical officers, to consist of Major WM. R. HALL, surgeon; Major WM. H. ARTHUR, surgeon; Captain WM. L. KNEEDLER, assistant surgeon; First Lieutenant DOUGLAS L. DUVAL, assistant surgeon; First Lieutenant CLARENCE L. MANLY, assistant surgeon, is appointed to meet on board the hospital ship "Missouri," as soon as practicable, after the arrival of that ship at Manila, P. I., for the examination of candidates for admission into the medical department of the Army.

BRECHEMIN, Major LOUIS, surgeon, is granted leave for one month on surgeon's certificate, with permission to apply for month's extension.

STARK, Captain ALEXANDER N., assistant surgeon, is relieved from further duty on the hospital ship "Terry," and will report to Major W. FITZHUGH CARTER, surgeon, for assignment to duty at U. S. Military Hospital, No. 1, Havana, Cuba.

REAGLES, JAMES, acting assistant surgeon, the order directing him to proceed to Fort Flagler, Washington, for duty is revoked.

COX, First Lieutenant WALTER, assistant surgeon, leave granted on surgeon's certificate is extended one month.

WILSON, First Lieutenant JAMES L., assistant surgeon, the order which relieves him from further duty on the hospital ship "Missouri," to take effect upon the arrival of that ship at Manila, P. I., is amended so as to take effect at once, and to direct him to proceed on the U. S. hospital ship "Missouri," to Manila, P. I.

APPEL, Major DANIEL M., surgeon, is relieved from further duty at the U. S. General Hospital, Savannah, Ga., and will proceed to Fort Bayard, and enter upon duty as commanding officer of the U. S. General Hospital for cases of pulmonary tuberculosis to be established at that post.

Changes in the Medical Corps of the U. S. Navy,

for the week ended September 2, 1899:

STITT, E. R., passed assistant surgeon, detached from the bureau of medicine and surgery, September 25, and ordered to the "Hartford." August 25.

GARTON, W. M., assistant surgeon, detached from the "Annapolis," when placed out of commission, and ordered to the Naval Academy. August 28.

GARTON, W. M., assistant surgeon, orders of August 28 modified, when detached from the "Annapolis," ordered to the Norfolk Navy Yard for duty on the "Franklin," instead of the Naval Academy. August 29.

HURD, I. N., pharmacist, detached from treatment at the Naval Hospital, Mare Island, Cal., and granted sick leave for three months.

ROSENBLEUTH, J. C., passed assistant surgeon, detached from the "Nashville," and ordered to the Naval Hospital, Chelsea, Mass., for treatment. August 30.

GUEST, M. S., passed assistant surgeon, detached from the Boston Navy Yard and ordered to the "Wabash."

DUNN, H. A., assistant surgeon, detached from the Washington Navy Yard, September 2, and ordered to the Port Royal Naval Station.

STUART, A., assistant surgeon, detached from the Port Royal Naval Station, September 2, and ordered to the "Yankton."

KERR, D. B., assistant surgeon, detached from the "Yankton," and ordered to the "Marietta," upon report of relief.

JOHNSON, M. K., assistant surgeon, detached from the "Marietta," and ordered to the "Nashville."

WAGGENER, R., pharmacist, ordered to the Army and Navy General Hospital, Hot Springs, Ark., for treatment. August 31.

Foreign News and Notes.

GREAT BRITAIN.

Dr. Lewis H. Sutherland, of Glasgow, assistant to the late Professor Coates, has been called to the chair of pathology in the University of St. Andrews, Aberdeen.

Dr. E. H. Starling, F.R.S., lecturer on physiology at Guys' Hospital, has been elected professor of physiology in University College, London, succeeding Professor Schafer.

New Medical School in Belfast.—It is rumored that the Roman Catholics of Belfast intend to form a new medical school in connection with their "Mater Infirmorum" Hospital which is nearly completed. Application has been made to the Senate of the Royal University for recognition. The new buildings of the "Mater Infirmorum" Hospital, when finished, will form a distinct addition to the hospitals of the city.

Fleet-Surgeon Alfred Gideon Delmege, M.V.O., has been appointed Honorary Physician to the Prince of

Wales. M.V.O. stands for Member of the Victorian Order, an Order which is reserved for the decoration of subjects who have rendered personal service to the Crown in some capacity. As the most recent Order, its recipients rank last in order of precedence, but the circumstances under which the Victorian Order is granted render it much coveted.

Hospital for Contagious Diseases at Dublin.—A conference of municipal and poor-law representatives has been held to consider the question of providing hospital accommodation in Dublin for cases of infectious disease. The Lord Mayor presided and the proceedings were private, but it is understood that a meeting was arranged to take place at a future date of the representatives of the different sanitary authorities of the city and county created by the new Act in order to consider the matter.—[*Lancet.*]

A Strike of Medical Men.—The Colliery Surgeons' Association in the Bolton district has issued a circular containing a resolution to the effect that they will not meet in consultation or assist in practice any medical men who do not join the Association in demanding a certain rate of pay. The attitude thus adopted is a very strong one, and we are certain that to save a life every adherent of the Association would throw his principles to the wind and do his best for a fellow creature; but on the whole the courage of the medical men is to be commended. They are at present unfairly paid, and they have taken the only step which is in the least likely to show the miners that they mean to have justice.

The Drought.—The prolonged absence of rain from which parts of Great Britain are suffering bids fair to cause in many localities a great scarcity of drinking-water, a hardship to a community, beside which such mishaps as dusty streets, ruined gardens, and even blocked drains become trivial. In certain parts of Wales the inhabitants are in great trouble for lack of water. In the district of Carmarthen and Haverfordwest there is a supply of water sufficient only for an hour or two daily, while in some of the southern colliery towns the supply is still more restricted. London, owing to the timely conjunction of the mains of certain of the water companies to each other, has so far escaped a water-famine.

The Plague in London: A Stupid Canard.—"A report was widely circulated in London, to-day," writes a correspondent under date of August 26, "to the effect that a case of bubonic plague had just been admitted to the Middlesex Hospital. No such case occurred, and no patient whose symptoms provoked the least suspicion of *pestis bubonica* has been admitted to the Middlesex Hospital or any other metropolitan institution. It is much to be regretted that lay papers should publish these alarming statements without first making some inquiry. There is plague on the Continent at the present time, and not so many days' sail from England, while London is an enormous port whose sanitary supervision is necessarily very difficult. Such a story had therefore just that element of probability about it that it disturbed serious folks as well as credulous idiots and sensation-hunters."

The Vital Statistics of the United Kingdom.—Scotland during the summer heat is proving herself, as would be expected by her latitude and geographical conformation, far the healthiest part of the British Isles. The annual rate of mortality in the eight largest Scotch towns stood at 18.1, 17.9, and 19.3 during the first three weeks of August. The largest of these rates is 6.4 per 1,000 below the mean rate during the same period in the 33 largest English towns. Ireland possesses only one town whose population is great enough to make proper comparison with the largest towns of the other parts of the United Kingdom, and the death-rate in Dublin during the same three weeks respectively was 33.3, 33.9, 34.9. It will therefore be seen that the chances of life in a big Scotch town are just now practically double what they are in Dublin.

The late Sir Edward Frankland, whose death recently occurred in England, was born in 1825, and as far back as 1851, when only 26 years of age, was appointed professor of chemistry in Owens College, Manchester, having taken medical degrees at Marburg and Giessen. In 1853 he was elected a Fellow of the Royal Society in recognition of his researches in organic chemistry, and in 1865 became professor of chemistry in the Royal School of Mines, which post he held for 15 years. Sir Edward Frankland was an original and resourceful chemist, and was especially known to the public by his sanitary work. He was considered among the first European authorities upon the drainage and water-supply of urban communities. For a period of 30 years he made monthly analyses of the water supplied to London by the various water-companies, and his reports should have acted as a check to the operations of the companies, beneficial alike to the companies and to the public. His various investigations have been collected in one volume, entitled, "Researches in Pure, Applied and Physical Chemistry." He was a Corresponding Member of the French Academy of Sciences (an honor given to few Englishmen), and a Foreign Member of the Academies of Berlin and St. Petersburg among others.

CONTINENTAL EUROPE.

Prof. Dr. Eckhard, of Giessen, has just celebrated his fiftieth anniversary as a teacher.

Dr. Bourrillon has been appointed Director of the National Asylum at Vincennes.

The "Université de Paris."—The council has authorized Dr. Edmond Kœnig to open a free course in ophthalmology at "Faculté de Médecine."

New Chairs at the University of Paris.—The Council has decided to establish three new chairs in the faculty: Histology, Physics, and Applied Chemistry.

French Commission to Study Plague.—A special commission from the Pasteur Institute, composed of Drs. Calmette and Salinbeli, has been sent to Portugal to study the plague.

Typhoid in the French Army.—In June and July there were 177 cases of typhoid fever among the soldiers of Paris. Of these 13 died. At last report 144 were sick. The cause was impure drinking water.

Another Cure for Pulmonary Tuberculosis.—Prof. Cervello, of the University of Palermo, claims a cure for lung tuberculosis in the inhalation of formaldehyd. The Germans are very skeptical about it.

The Entomological Collection of Léon Dufour and Laboulbéne.—Mad. Laboulbéne, in accordance with the request of her husband, the late Alexander Laboulbéne, has presented his collection to the Museum of Natural History.

Druggist Fined for Substitution.—A druggist in the 20th arrondissement (Paris) has just been condemned to 6 months in prison and a fine of 50 francs for substituting, in prescriptions, inferior and cheaper drugs.

Attendance at German Universities.—During the summer semester in the German universities, Munich had the most medical students, 1,165; then Berlin, 1,093; Leipsic, 568. The consequence is that Munich is overcrowded.

German student-life is well illustrated by the police records of Heidelberg from June 16 to July 17 of this year, during which time 102 students were called to account. Putting out gas-lights seemed the favorite sport.

An Expensive Family of Criminals.—Prof. Pellmann, of the University of Bonn, has discovered and identified 709 descendants of Ada Jurke, a chronic alcoholic, born 1740 and died 1800. Of the descendants, 7 were convicted of murder, 76 for various other crimes, 144 were professional beggars, 61 sustained by public charity, and 181 were prostitutes. This family has cost the German Government $1,200,000.

The Kaiser's Physicians Shave.—It is reported that the Kaiser has issued an order, commanding Doctor von Leuthold and Doctor Kunker, his own and the Empress' body physicians, and their assistants, to shave off their beards and mustaches. An order to compel army surgeons to do likewise is contemplated. This measure was caused by his discovery that dangerous bacteria may become attached to the beard.

Obituary.—DR. HERRHEIMER, of Frankfort, the well-known dermatologist, died in Tyrol, August 13, from heart disease. — FRANCIS EDWARD HICKS, F.R.C.S.Eng., who died at Lingmead, Buntingford, Herts, was one of the oldest members of the Royal College of Surgeons of England, having taken his diploma so far back as 1832. He studied at St. George's Hospital and was house-surgeon there in 1834. In 1852 he became F.R.C.S.Eng. by election. He died on August 14th in his ninetieth year and is buried at Wyddiall, where he was born in 1810.

Precautions Against the Transmission of Plague by Rats and Mice.—The Public Health Committee of France has decided that precautions are to be taken against the transmission of plague by rats and mice coming from lazarets and shipping. In concert with the directors of the great ship-owning companies the committee has drawn up the following regulations which will be immediately carried into effect in all the ports in France. In the lazarets all openings are to be carefully closed or fenced with suitable protections such as metallic screens. The lazarets are to be provided with a sufficient supply of wire-gauze and funnel-shaped guards for the moorings and ropes of vessels lying at the wharf. On board the vessels, poison and traps will be laid down to destroy the rats and mice and their carcasses will be immediately burned. For their destruction in inaccessible places recourse will be had to sulfurous acid in the proportion of 40 grams per cubic meter of air. Places where dead rats have been picked up will be washed with disinfecting solutions. The same precautions are applicable to vessels lying at a wharf. Before loading it is to be made certain that there are no rats on board, and the vessel is to be disinfected.—[*Lancet.*]

Seventh International Veterinary-Medicinal Congress at Baden-Baden, from August 6 to 12, attracted some 1000 delegates, of whom there were representatives of 30 States outside of those of the German Empire. Among others, Dr. Cope, of London, and Dr. Chaveau, of Paris, were present. The question of international agreement as to methods of counteracting animal epidemics brought out lively discussion —many being somewhat pessimistic as to the attitude of the various governments. In the place of Pasteur, Drs. Chaveau and Lydtin were elected honorary members. The Grand Duke of Baden was present at one whole session, and his representatives showed keen interest in all the proceedings. Professor Dr. Löffler, of Greifswald, stated that the annual loss due to the foot and mouth disease was 100 million marks, and told of his experiments on a new serum. While he could not pass final judgment, yet he believed that before the end of the century we would have a good usable vaccination. The question of the examination of meat brought out a resolution of two points—stating the necessity of making this examination obligatory, to be done only by graduate veterinarians, to cover *all* food animals,—that killing should be done only in public slaughter-houses under the most rigid scientific control. In this connection it may be noted that the delegates from Paris visited the Heidelberg public slaughter-house and were so well pleased that they carried back copies of the plans for use at home. "The Combat against Tuberculosis" brought out the statement that the yearly loss from the disease is 7 million marks; that government control is necessary; that tuberculin is the best means of combating tuberculosis. Nocard, of Paris, claimed that vaccination was a sure means against "Schweinrothlauf." Dr. Schütz, of Berlin, believed that the end of the century would see no more "Rothlauf." The resolution asking for the compulsory vaccination of *all* swine was approved.

On the subject of the education of the veterinary, very definite resolutions were passed, recommending that it be made a university course (as in France and Belgium) of at least 8 semesters, and that as much practical work as possible be given, together with much comparative medicine. The subject of hygiene and vaccination should receive very thorough treatment. Dr. Eisenlohr, minister of the interior, was president of the convention, with special chairmen for each session. The next meeting occurs in 1905 in Budapesth.

Intestinal Perforation during Typhoid Fever.—H. H. Taylor (*Maryland Medical Journal*, August 19, 1899) reports having operated twice for intestinal perforation, occurring during typhoid fever; in one case, which has been several times reported previously, with success. The second case is reported. A young man had passed through an attack of enteric fever, of 6 weeks' duration. After a movement of his bowels he was suddenly taken with sharp, diffuse, abdominal pain. When seen, 2 hours later, his breathing was thoracic, his abdomen was flat but rigid, and his pulse 130, temperature 105°. Operation was undertaken 4 hours from the onset of the symptoms. A median incision was made, and bile-colored serum and fluid feces escaped. Two large perforations were found in the lowest part of the ileum within about 12 inches of the ileocecal valve. The perforations were on the free margin of the bowel about 4 inches apart. Both lesions were closed, with deep and superficial sutures, the abdomen was thoroughly irrigated and gauze-drainage was inserted. The operation lasted about 50 minutes, the patient reacted badly. Two quarts of hot saline solution were administered subcutaneously, hot coffee and whisky were given by the rectum and stimulants were administered hypodermically. In spite of all efforts the patient died about 6 hours after the operation, apparently from traumatic suppression of urine, as it was found that his kidneys had secreted only a few teaspoonfuls of urine after the operation. [M.B.T.]

Society Reports.

NORTHERN SURGICAL CONGRESS.[1]

Fourth Biennial Meeting, held at Stockholm, Sweden, August 3, 4, 5, 1899.

[Reported by Edouard Boeckmann.]

THE fourth meeting of the Northern Surgical Congress was held in Stockholm, Sweden, August 3, 4, and 5. The Congress meets every two years, the last meeting having been held in Helsingfors and the next and fifth to be held in Copenhagen. The Congress has at present some 250-odd members, 128 of whom were present, 77 from Sweden, 18 from Norway, 14 from Denmark and 19 from Finland—a respectable percentage of the entire membership. The most prominent Scandinavian surgeons came to this meeting both in person and with papers. It was with a great deal of anticipation that I went to this meeting, and all of my expectations were fully realized.

The first day the members of the Congress were invited to visit the city hospital between 8 and 10. DR. PERMAN, surgeon-in-chief, demonstrated to us this extensive institution, which appeared to be modern in every respect. My attention was particularly called to the latest pattern of Stillé's operating table, which corresponded pretty well to my own ideas of a practical one. The patient could lie comfortable and dry; as it was provided with two loose narrow mattresses and all fluids are carried away through the sewer. The patient could with comparative ease be put in almost any desirable position and the table could easily be raised or lowered. If the next modification will include easy and practical rotation, the table will almost become an ideal one. It is made of iron and is white enameled. Its cost is about $100.

At 10 o'clock the Congress met. The meeting was opened by its president, PROF. JOHN BERG, of Stockholm, Sweden's most prominent surgeon. Six papers were read in the forenoon and partially discussed.

DAHLGREN (Upsala) accounted for operation for **cancer of the breast** in the Scandinavian countries. The result was as follows:

Mortality of the operation itself, 2.28%.
Death from relapse, 56.38%.
Reoperated, 9.34%.
Death without relapse, 3.30%.
No relapse, 28.70%.

Dahlgren recommended a much more radical operation than usually performed as to the removal of the skin, fatty and connective tissue, muscles and glands, to which BERG protested in mild cases.

KROGIUS (Helsingfors) recommended **massage of the prostate gland,** both as a diagnostic and as a therapeutic measure for prostatitis. Large quantities of pus could in this way be pressed out and demonstrated.

ROVSING (Copenhagen) mentioned some unpleasant experiences he had had in Bottini's operation for **prostatic hypertrophy.** Immediate relief was always observed after the cauterization, but in two cases he had some days afterwards had severe hemorrhages—once venous and once arterial, necessitating immediate suprapubic section and cauterization of the bleeding surface. Both recovered. He advised vasectomy in the first instance and if no relief Bottini's operation.

AAKERBLOM (Stockholm) described a new operation for **ectopia testis,** consisting in restoring to the spermatic cord its normal anatomical relations in its new position, thereby avoiding atrophy of the transplanted testis.

ROVSING (Copenhagen) recommended conservatism in operation for **tuberculous epididymitis.** He confined his operation to the epididymis only with preservation of the testis and reported encouraging results.

ZACHRISSON (Upsala) accounted for his experiments with intravenous infusions of normal salt-solutions in **acute anemia;** no definite conclusions were arrived at, but he was of the opinion that timely infusions may be life-saving, as well in acute anemia as in shock.

[1] From advance sheets, by courtesy of the *St. Paul Medical Journal.*

In the afternoon session, which lasted from 2 to 5, STRÖM (Christiania) reported the results of 50 **gallstone operations;** his mortality was low; all cases were drained, and he had rarely observed relapses. He advised against operations in persistent icterus of long standing, which indicated incurability (malignant disease).

BORELIUS (Lund) read a paper on **surgery of the liver** and demonstrated a large cyst, he had removed successfully and with primary closure of the abdominal wall.

EKEHORN (Sundsvalt) had seen excellent results of his treatment of **empyema** with resection, irrigation with normal salt-solution and tamponade of the entire cavity with sterile gauze, which was removed every day. He had in all cases noticed surprisingly speedy recoveries.

TOCHERNING (Copenhagen) recommended to split the entire larynx longitudinally (after previous tracheotomy) for removal of deep-seated **cancer in the pharynx.** In the other operations, the larynx had to be sacrificed. In his operation he got good room and preserved the larynx. Ample provision is made for drainage after the operation to prevent mediastinitis by progressive infection from the wound.

After the afternoon session had closed all the members and their ladies boarded a steamer which took them to "Drottningholm"—the summer residence of the Swedish King—where BERG and SALIN gave a luxurious dinner in honor of the guests. Late in the evening the guests returned to Stockholm full of excellent food, choice wines, and beautiful music.

The second day was inaugurated with a visit from 8 to 10 to "Diakonissjukhuset," where the surgeon-in-chief, DR. TOLL, served breakfast. Dr. Toll practised medicine with great success in Minneapolis for several years. His love for his native country drove him home and his excellent qualifications both as a man and a surgeon soon obtained for him the position of surgeon-in-chief at the above hospital, a beautifully located and very modern institution. He demonstrated to his visitors his really ideal operating-room and did not forget to show an American production in the shape of a Boeckmann sterilizer.

At 10 o'clock the meeting again assembled. MEYER, of Copenhagen, spoke of the **retrodeviations of the uterus** and was positive in his statement that mechanical treatment in many cases was followed by immediate relief. This paper called forth an extensive, animated and able discussion, in which SALIN took the most prominent part. Salin denied positively and absolutely any clinical significance of movable deviations of the uterus, considering them all congenital and the reported success of mechanical treatment due to suggestion. He evidently carried the day, but, I believe, more on account of his elegant address, appearance, and eloquence than force of argument. Salin has evidently done a good deal to restrict the wholesale operations for deviations of the uterus in the Scandinavian countries, particularly in Sweden. Salin, as known, operated on the Swedish Queen successfully for double ovarian tumor. Most of the speakers would not agree to Salin's views, insisting on the influence of parturition in producing retrodeviations and on the utility of mechanical treatment in selected cases.

BORCHGREVINCK (Christiania) denied in his paper that laparotomy had any curative effect on **tuberculous peritonitis.** He pointed out that the benignity of tuberculosis of the peritoneum was constantly confounded with cures by section of the abdomen. In the discussion nobody took his pessimistic view, admitting, however, that there was a good deal of the truth in his statements. Sometimes palpable results occur in such a close connection with laparotomy, that we cannot completely ignore it. To empty collections or drain them must in selected cases remain good and justifiable surgery. But in these cases the peritoneal tuberculosis must be the predominant manifestation and the individuals must neither be too young nor too old; in the first ones the operations are unnecessary, in the last the operation is palliative only.

Between 1 and 2 P.M. we had the pleasant repetition of the preceding day's luncheon. In the afternoon session, NICOLAYSON (Christiania) reported the results of his treatment of **fracture of the neck of the femur** by nailing, for which operation he claims priority. He demonstrated the result with x-ray photographs. Twenty-one cases had been thus treated; all without general narcosis and in none was pain experienced. The pain disappeared immediately and the remote result was satisfactory in all cases. He used steel

nails, which were inserted and remained until consolidation. I supplemented his statistics with 3 cases of my own, remarking that I preferred to open the soft parts, inspect the fracture, scrape the surfaces, leaving them in proper apposition and then apply one or more absorbable ivory nails, to be sure that the nailing was properly done. In my cases the results were likewise satisfactory.

BLOCH (Copenhagen) read a paper on major operations by the aid of **ethyl chlorid** on the skin and primary chloroform-inhalation anesthesia. He uses remarkably little chloroform, usually 1, seldom more than 3, teaspoonfuls, and for what he called the "psychic" pain only. When the patient is thus rendered quiet, he only uses ethyl chlorid, locally, claiming that the skin is the only sensitive part of the body, and that the other tissues are almost absolutely without sensation, provided we operate with light hand, and avoid pulling and pressure. This method of anesthetizing did not entirely do away with vomiting afterwards, but greatly reduced it. The patients were, therefore, as a rule, cheerful immediately after the operation, and could take nourishment. He does not administer the chloroform before the patient is fully prepared, and the operation ready to begin, and it takes only a couple of minutes before he can go to work. I was a witness of his procedure, while in Copenhagen. After the meeting, we again boarded a steamer, and had a most charming ride among beautiful, small, green islands to "Saltsjöbaden"—a famous seashore place of remarkable beauty, where the Swedish Medical Society gave a banquet in honor of the surgeons and their ladies.

The third day, the "Serafimer lasarettet," connected with the university, was visited—again a beautiful modern structure of vast dimensions, with well-equipped operating theater for between 100 and 200 spectators. It is here PROFESSOR BERG performs his beautiful and surprisingly successful operations.

In the morning session, KROGIUS (Helsingfors) reported 40 cases of **diffuse appendiceal peritonitis.** Eight cases were saved by laparotomy on both sides of the rectus and drainage. The temperature in such cases should be taken in the rectum. He further mentioned his experimental researches with cultivation of bacteria in 28 cases of appendicitis. He did not think that there was a pathognomonic bacterium in appendicitis, but a combination of several. Most often, nearly always, he could cultivate bacterium coli; then diplococcus pneumonia; more seldom, proteus vulgaris, bacillus pyocyaneus, diplococcus intestinalis, diplococcus liquefaciens and streptococcus pyogenes. He demonstrated the cultures.

NICOLAVSON, Jr. (Christiania) accounted for his researches concerning the effect of **gastroenterostomy for gastric ulcer** in more than 30 cases he had operated upon. The result had, in the majority of cases, been most gratifying, but did not come immediately, the improvement taking place gradually in the course of months. Hematemesis had been present in the majority of cases, and the ulcer had often been very extensive and in the vicinity of the pylorus, riding, so to speak, on the small curvature.

In the afternoon session, Copenhagen was selected as the place for the next meeting in 1901, and PROF. BLOCH elected president unanimously.

BERG read a paper on the treatment of the **ureter** in operations for **renal tuberculosis.** He discriminated between different forms of ureteritis, the one complicated with sepsis requiring radical extirpation, while the uncomplicated tubercular ureteritis only called for ligature and cauterization. He emphasized that ureteritis gave just as evident symptoms as cystitis and nephritis. ROVSING preferred to sew the stump of the ureter to the skin; claimed otherwise that uncomplicated tubercular ureteritis was harmless, as soon as the lumen was not kept open by the urine; the mucous surface will close up and form a fibrous string just like the spermatic cord after castration, for which reason it was not necessary to extirpate either a tubercular ureter or a tuberculous cord.

PERMAN (Stockholm) gave an account of 42 **gastroenterostostomies for stenosis of the pylorus.** He preferred Hacker's method and with running (continuous) suture, 15 deaths, 27 recoveries.

MALTHE (Christiania) read a paper on **tuberculosis ileocecalis** and demonstrated some specimens he had successfully resected. The meeting was closed with the usual formalities and in the evening came the last dinner. This time the members paid 15 kroners for the ticket and it was well attended. But what happened, I do not know; I had had enough of high living and took the next train to Christiania.

From the above short report of the meeting of the Fourth Northern Surgical Congress, it is evident that all the members had a very profitable time, and that there will be some good meat for the profession as soon as the different papers, which number 50, appear in print, *in extenso*. As usual, there were too many papers, and consequently too little time for discussion. I shall long remember the successful congress, the beautiful city of Stockholm, and the magnificent hosts—my Swedish brethren.

INTERNATIONAL OPHTHALMOLOGICAL CONGRESS.

Ninth Annual Meeting, Held at Utrecht, August 14 to 18, 1899.

[From Our Special Correspondent.]

THE time fixed for the Congress was from August 14 to 18, inclusive, but the first day, Monday, was taken up with registration, securing tickets for the various excursions and in sight-seeing. The last included, of course, a visit to the new Ophthalmic Hospital, one of the finest in the world. At the opening exercises in the grand hall of the university, on Tuesday, PROF. ARGYLL ROBERTSON, President of the Eighth Congress, spoke of the appropriateness of meeting in Utrecht, the seat of an ancient and famous university whose school of ophthalmology, through the works of Donders, and later of Snellen, is so favorably known, and which occupies a foremost place among the schools of the world. He referred feelingly to the death of our master, Donders, and voiced the regret of all present that he could not have lived to attend this meeting in the city which his own labors had done so much to render famous.

PROF. SNELLEN was then elected President by acclamation and read his opening address in French. He paid a glowing tribute to Holland from an artistic point of view and then proceeded to discuss two prominent Dutch characters, Booerhaave and Donders. Both were early destined for theology, but following the inevitable trend of mind both devoted their lives to scientific studies with results known to all the world.

A general session for scientific business followed, in which the paper of the day was read by PRIESTLY SMITH, of Birmingham, on **convergent strabismus.** He follows the teaching of Javal, and favors early treatment. This he divides into three classes:

1. By diminishing accommodative power and increasing vision by glasses, or fully restraining accommodation by continuous use of atropia.
2. By exercise of the squinting eye by means of a shade or pad over the good eye.
3. Operation.

Then followed statistics of 576 cases, showing that of the onset age, 60% were under 4 years and 40% over. In a large percentage of cases treated, he used glasses; the youngest patient for whom they were prescribed being only 14 months old. In many the pad and bandage were used in connection with the glasses. If these measures fail, after a reasonable time, the author favors early operation, as opposed to those who wait till 5, 6, or more years of age.

The committee of arrangements had provided that one hour each day, from 9 to 10 A.M., should be devoted to a general session, and the remaining time to meetings in subsections, in order that the work of the congress might be divided and the largest possible number of papers be read. Thus, *Section A*, Anatomy and demonstrations; *B*, Biology; *C*, Therapeutics. A large number of papers was thus brought before the congress. The address in the general section on Wednesday was by DR. TH. LEBER, of Heidelberg; on Thursday by DR. PANAS, of Paris; while on Friday two papers were read in general section, one by DR. C. REYMOND, of Turin, and one by DR. H. KNAPP, of New York, the latter being on the **Symmetry of the eyes and a proper basis for noting meridian and field of vision.**

All of the sections were well attended and it appeared that the majority of the members had come for the purpose of attending to the scientific work of the congress and not for mere sightseeing and amusement. There were 98 papers

upon the program, and by division of the work in sections, an opportunity was given for the disposal of nearly all of them, a few not appearing though announced. Representation from America, on the program, was scanty, though many oculists were in attendance. Papers were read by DR. R. SATTLER, of Cincinnati, on **The ocular manifestations of hyperostosis cranii**; DR. J. M. BAIL, of St. Louis, on **Removal of the superior cervical ganglion for glaucoma,** with report of two cases; DR. H. KNAPP, of New York, on **Some rare tumors of the orbit**; DR. E. BOECKMAN, of St. Paul, on **Pannus trachomatosus and its treatment by periectomiae corneae**; and by DR. CHAS. M. May, of New York, on **A standard for measuring the field of vision.** DR. G. J. BULL, who, though now a resident of Paris, formerly lived in Massachusetts, read a very interesting paper on **Fatigue from the effort to maintain binocular single vision.** Many prominent foreigners took part in the work of the congress, and it was a pleasure to see and hear so many who are so well known to ophthalmology on our side of the Atlantic.

The social features of the week were by no means neglected. On Tuesday evening a grand dinner was given at Tivoli's restaurant, followed by an open-air concert and most beautiful fireworks. Wednesday afternoon and evening were devoted to an excursion to Amsterdam. On arrival, about 3 P.M., the museum and picture gallery were visited, then carriages were in waiting and members of the Congress and friends were driven through the chief parts of the city, ending at the Aquarium and Zoological Gardens. Then followed dinner, and concert and return to Utrecht about 11. On Thursday afternoon, starting at 4, an excursion was made to Baarn, and after a walk through the Royal Park, a visit to the summer palace of the Queen of Holland, at Soest dijk. In the grounds at the rear of the palace tables were spread in waiting and light refreshments, consisting of cake, champagne, and tea, were served as the Queen's tribute to the Congress. Upon returning through the palace each lady of the party received a bouquet from the Queen's garden. Then dinner at Baarn and return by train to Utrecht. On Friday afternoon the final excursion was made to The Hague and Scheveningen, the famous watering-place of Holland. Here dinner again and return to Utrecht about midnight. The dinner each evening was an elaborate banquet, at which over 300 people were seated. Speeches were made, songs were sung, and all present were prepared to vote each banquet a success, and each, if possible, an improvement upon its predecessor. At the last, held at Scheveningen, Dr. Risley, of Philadelphia, responded for the United States in a most appropriate and eloquent speech.

Dr. Snellen, as President of the Congress, won golden opinions from all. The railroads put their best trains at the disposal of the Congress free of expense. The people of Utrecht seemed to feel that an honor had been paid them by holding the meeting of the Congress in their city, while each guest who partook of their unbounded hospitality will depart feeling that ophthalmology has been honored by the physicians and citizens of Utrecht, by the people of Holland, and by Her Gracious Majesty Queen Wilhelmina.

Nostrums.—H. C. Wood (*Maryland Medical Journal,* July 15, 1899), in speaking of nostrums, at the centennial meeting of the Medical and Chirurgical Faculty of Maryland, says that all physicians have to do is to make it a governing principle that the only patented or proprietary drugs they will use shall be simple organic principles. The golden rule of living should be: give no certificates; use no proprietary combinations of medicines. In reference to the laws protecting two classes of new remedies, he believes there should be a difference. No vegetable or mineral substance which exists preformed in nature should be capable of being patented. It can in no sense be called an invention; the discovery of its medicinal value is almost always largely the result of chance, rarely of foresight. A process for the extracting from the drug of its active principle might, however, be patented, so that process-patents might be allowed for medicines of this class. On the other hand, when by synthetic method a substance which is not found freely existing in nature has been made by a chemist, such substance may well be said to be an invention of the chemist, and to be, therefore, capable of patenting. [C.L.L.]

The Latest Literature.

British Medical Journal.

August 19, 1899. [No. 2016.]

1. Ununited Fracture in Childhood. EDMUND OWEN.
2. A Discussion on the Treatment of Pleuritic Effusion in Childhood. ROBERT MAGUIRE, H. BETHAM ROBINSON, EDMUND OWEN, E. MANSELL SIMPSON, A. H. TUBBY, R. STERLING, and G. F. STILL.
3. Observations on the Morbid Anatomy of Tuberculosis in Childhood, with Special Reference to the Primary Channels of Infection. GEORGE F. STILL.
4. Remarks on Tuberculous Adenitis. GEORGE MORGAN.
5. A Discussion on Convulsions in Infancy. A. M. GOSSAGE, J. A. COUTTS, HUGH R. JONES, EDMUND CAUTLEY, and JAMES GREEN.
6. The Causation of Night-Terrors. E. GRAHAM LITTLE.
7. The Causes of Cough in Children, with Special Reference to Practical Treatment. J. PORTER PARKINSON.
8. An Operation for the Relief of Contraction of the Forearm and Hand following Infantile Hemiplegia. A. H. TUBBY.
9. Abnormal Ossification of the Parietal Bones in an Infant. EDMUND CAUTLEY.
10. A Case of Acute Infantile Hemiplegia, with Recovery. JAMES PRIESTLEY.
11. A Discussion on the Treatment of Hernia in Children. JOHN LANGTON, FREDERIC EVE, ROBERT CAMPBELL, RICHARD H. ANGLIN WHITELOCKE, GEORGE HEATON, DAMAR HARRISSON, EDMUND OWEN, and W. MCADAM ECCLES.
12. Notes on the Treatment of Rickets in an Out-patient Department. E. MANSEL SYMPSON.
13. Contribution to the Study of Cardiac Overstrain in the Young. F. J. POYNTON.
14. A Successful Case of Splenectomy for Rupture. GEORGE HEATON.
15. The Necessity of Requiring a Full Course of Lectures on Children's Diseases and Attendance at a Children's Hospital as a Part of the Medical Curriculum. J. EWENS.
16. On Birth Palsy with Disseminated Tremors. G. A. SUTHERLAND.

1.—See PHILADELPHIA MEDICAL JOURNAL, August 12.

2.—Maguire believes in **diagnostic puncture,** with the ordinary aspirating apparatus, **in cases of pleural effusion in children.** The importance of considering the tension in the thorax is impressed. Robinson makes **the incision for draining an empyema** in the midaxilla over the line of the sixth rib, and always resects the rib. [A.G.E]

3.—From **a study of 269 cases of tuberculosis in children,** with postmortem in each, Still reaches the following conclusions: (1) The commonest channel of infection with tuberculosis in childhood is through the lung; (2) infection through the intestine is less common in infancy than in later childhood; (3) milk, therefore, is not the usual source of tuberculosis in infancy; (4) inhalation is much the commonest mode of infection; (5) prophylaxis must be directed to the prevention of overcrowding, the improvement of ventilation, and the inculcation of the extreme importance of fresh air during early life. [A.G.E.]

4.—Morgan believes that **tuberculous adenitis** of the head and neck is not so common as it was 15 years ago. The tubercle-bacilli usually reach the postauricular occipital, superficial, and cervical glands by the skin, which is often affected by superficial wounds, eczema, etc., and allows the passage of the bacillus. Spongy gums and carious teeth are frequently followed in the strumous child by tuberculous enlargement of the submaxillar and deep cervical glands. The deep cervical glands about the angle of the jaw are infected chiefly through the tonsils and the lymphoid tissue of the nasal pharynx. If discovered in the early stage a great deal can be done for their cure without operation. Before beginning codliver oil, a little gray powder and alkaline mixture before meals may be given. In the majority of cases the iodid of iron and malt is the best tonic, and it should be continued with fresh air and sunlight, tepid sea-

bathing and everything which tends to improve the general health. An application of iodin and potassium iodid in glycerin to be painted on the tonsils and pharynx each night is highly recommended. Morgan states that if applied before softening takes place it undoubtedly reduces the majority of cases. For superficial glands potassium iodid ointment should be well rubbed into the skin. If, after a fair trial of constitutional and medical treatment, the glands still increase in size or show signs of softening, the sooner they are removed the better. [M.B.T.]

5.—Points are: (1) The frequency of **convulsions in infants** has been vastly overrated. (2) The immediate danger of a fit has been overrated, while the danger of future neurotic manifestations has been underestimated. (3) The predisposing causes are of much more importance than the exciting causes. [A.G.E.]

6.—Little states that **night-terrors in children** are, in the great majority of cases, caused by disorders productive of moderate but prolonged dyspnea. Many cases are due to obstruction of nasal cavities and fauces, while digestive disturbances are less important in causation than is usually believed. [A.G.E.]

7.—Parkinson reports **a study of 700 cases of cough in children.** As to cause the cases due to chest disease were 31%; throat disease 40%; gastrointestinal disease 23%; other causes 6%. [A.G.E.]

8.—In deformities of the arm and leg resulting from **infantile hemiplegia** there usually comes a time when the cortex cerebri ceases to send out irritating discharges and the condition is then one of contraction of imbalanced and insufficiently opposed muscles. This is the stage to select for operation. The position usually assumed by the upper extremity is that of flexion of the forearm, wrist and fingers with pronation of the forearm and adduction of the thumb. There is some loss of power in the extensors and supinators, loss of power is favorable if complete. It is useless to operate if by any means we can secure rest for partially paralyzed muscles, since they rapidly recover to a considerable extent, and do so in an unexpected manner. Operation has two objects, to lessen the power of the flexors and pronators, to transfer some of the pronator force in such a way as to make it a supinating force. Tubby divides the pronator radii teres from its radial insertion, passes it through a gap in the interosseous membrane, this around the posterior surface of the radius and readjusts it to its original side. The flexor carpi radialis is also divided at the wrist by this means, the excessive pronation of the forearm is diminished and the supinating force increased, while the flexion power at the wrist, elbow, and fingers is diminished. [M.B.T.]

9.—The right parietal bone in an infant was made up of 2 and the left of 3 distinct bones. [A.G.E.]

10.—Hemiplegia lasting for 40 days occurred in an infant of 20 months. Recovery followed. Causes were believed to be an attack of whooping-cough and the excitement of removing the child from home. [A.G.E.]

11.—Hernia in infants is chiefly of the inguinal variety. Langton has seen but one case of **femoral hernia in a child** under one year. He finds that Jewish children, especially the boys, are more liable to hernia than are the mixed races. In the preventive treatment a diet should be adopted which will prevent chronic intestinal irritation with consequent distention of the intestines and increased abdominal pressure. Muscle exercises which strengthen the abdominal muscles are of value in children over three years old. The wool truss is considered of little value. Trusses made by the truss-maker usually have an unusually strong spring. The judgment as to the mechanism should not be left with the truss-maker. The truss should be covered with soft rubber, and attention must be given to cleanliness and dryness. If these precautions are carried out, excoriation and other irritations are of the rarest occurrence. To obtain a cure the instrument must be worn day and night, and removed only for the purpose of cleanliness. The prospect of a permanent cure is most encouraging and indications for operative treatment are not often present. Operation should not be advised except under unusual or pressing conditions prior to 5 or 6 years of age. It is considered necessary in cases of irreducible omentum, strangulated hernia, fluid in the hernial sac, in cases in which it is impossible to retain the hernia by mechanical appliances, in cases in which proper treatment is impossible owing to the incompetence or ignorance of the mother, and in cases in which a truss has been worn for 3 or 4 years with no benefit. [M.B.T.]

12.—Simplicity and directness are stated to be the two great principles of treatment. The parents should be taken into confidence. [A.G.E.]

13.—The making and preserving a record of the cardiac dulness is described. **The influence of various games in producing heartstrain** is then discussed. [A.G.E.]

14.—A boy, 9 years old, who had been knocked down and run over by a heavy cart, was brought to the hospital suffering from severe abdominal injuries. He was pale, his pulse was 130, small; respiration 30, shallow; there was no external wound, but there was much bruising. He complained of much abdominal pain, and there was some dulness in the left flank; he rallied somewhat after admission, but soon became worse; his face was more blanched, his pulse increased in frequency, he was restless, tossing about the bed, and complaining of pain. A diagnosis of severe **intraabdominal hemorrhage** was made, and the abdomen was opened and was found to contain a large quantity of fluid blood, but no free gas or intestinal contents. On pressing the fingers towards the spine a mass of soft clot was found and the hemorrhage became alarming. The abdominal wound was enlarged, and it was found that all but $\frac{1}{3}$ of the spleen had been completely torn away and pulpified. The boy's condition seemed almost hopeless, he was pulseless, respiration was occasional, slow and shallow. Salt-solution was infused and injected hypodermically, and the patient gradually rallied, but improvement was very slow. On the tenth day his temperature became hectic, he seemed to get weaker and more anemic every day, and examination of the blood showed enormous excess of leukocytes, there was slight enlargement of the lymphatic glands, particularly the inguinal and left cervical glands, he was finally allowed out of bed about a month later and left at the end of 2 months convalescent. His restoration to complete health was very gradual. It was 6 months after the injury before his anemia entirely disappeared. [M.B.T.]

15.—Ewens insists upon the need of **a course for students in children's hospitals,** where detail in examination and tact in handling such patients may be acquired. This should be a part of every medical school. [A.G.E.]

16.—Two cases of birth-palsy with disseminated tremors are described. [A.G.E.]

Lancet.

August 19, 1899. No. 3964.

1. The Growth of Otological Science. URBAN PRITCHARD.
2. The Application of the Röntgen Rays to Medicine and Surgery. C. MANSELL MOULLIN.
3. Fracture-Dislocation of the Spine. E. NOBLE SMITH.
4. Albuminuric Retinitis. SAMUEL WEST.
5. Four Cases in which the Symptoms and Signs Suggested Volvulus of the Transverse Colon. Treated by Rotating the Body Round the Long Axis while in the Horizontal Position. G. H. HUNTER.
6. The Detection and Estimation of Phosphoric Acid in a Drop of Blood. WILLIAM MACKIE.
7. Case of Ruptured Gastric Ulcer; Recovery. ROBERT THOMSON.
8. Parturition Complicated by Fibroids of the Uterus. Postpartum Hemorrhage; Infusion; Recovery. A. J. HELM MONTAGUE and C. B. MOSS-BLUNDELL.
9. A Note on the Etiology of Rickets. CHARLES ELWOOD.
10. An American Sanatorium for Consumptives. F. R. WALTERS.
11. A Bicephalic Fetus. W. C. F. SMITH.
12. Note on a Case of Perforated Gastric Ulcer in a Man. S. L. CRAIGIE MONDY.
13. A Case of Rare Obstetric Accident. H. MALLINS.
14. Two Cases of Papillomatous Cysts. PEARCE GOULD.
15. A Case of Multiple Fibroma. J. H. NANKIVELL.

2.—In using the x-rays the **danger of burns** may be minimized by using screens of substances perfectly transparent to the rays. It is known that ultra violet rays are more potent to produce injury than the other rays and screens which cut off one way have no influence upon the others. It is highly improbable that bacteria living in the

tissues can be destroyed through the agency of the x-rays as they can be when growing in artificial cultures. All hope of destroying such organisms as the tubercle-bacilli must be put aside; on the other hand, there can be no doubt that cases of lupus and eczema have been cured by exposure to these waves. Two improvements of the past year stand out above the rest as to the highest practical importance; the possibility of localization of very deeply buried objects and the introduction of the Wehnelt break which makes it possible to shorten the time of exposure from hours to minutes and by which the danger of injury has almost entirely disappeared. The perfection in technic has made it possible to utilize the rays in internal medicine and has made possible the demonstration of aneurysms, interlobular empyemas, mediastinal abscess, and patches of central pneumonia. The introduction of the x-rays makes the use of the probe unnecessary in military surgery and many deeply seated diseases, such as sarcomas, tuberculous deposits, abscesses, renal calculi, etc., are now easily recognized. [M.B.T.]

3.—A large number of sufferers from **fracture of the spine** must succumb to the injury in spite of any form of treatment, but active treatment has been successful in so considerable a number of cases as to justify its employment. The line of treatment which seems to be indicated is the application of fixation of the spine in every case; if any distended displacement exists, reduction should be attempted; if displacement of bone, obviously causing pressure on the cord, exists, which cannot be relieved by reduction, the open operation should be undertaken; if any bony displacement obviously exists it is best to wait to see if restriction of function will take place, but after waiting, if no improvement shows itself and the symptoms do not indicate complete fracture of the spine, it is best to cut down upon the spine and perform laminectomy or whatever other operation may be indicated with a view to relieving pressure. Smith reports a case of a man, 28 years old, who fractured his spine by a fall from a horse and was paralyzed so that his lower extremities were absolutely useless for 4 years and 9 months after the accident. Operation was then undertaken; the laminae of the tenth and eleventh dorsal vertebrae, which were pressing on the cord, were removed. Extensive bedsores quickly healed, the functions of the bladder and bowels improved, and the patient steadily improved until at present he is able to move about by supporting himself on chairs. [M.B.T.]

4.—West feels justified in drawing a sharp **distinction between the degenerative and the exudative forms of albuminuric retinitis.** The former is often of great diagnostic value in cases of granular kidney, while the latter s rather an interesting by-phenomenon of parenchymatous ıephritis. Impairment of sight is usually progressive if it)ccurs in the former, while recovery from extreme forms)ften takes place in the latter. [A.G.E.]

5.—Four cases of probable **volvulus** are reported in vhich rapid relief followed treatment by rotating the body ound the long axis while in the horizontal position. The uccess of the treatment suggests the untwisting of a olvulus by the rotation a half turn first to one side then o the other. If it increases the pain in one direction and ot in the other it would suggest the direction of the twist, nd then rotation in the opposite direction should unwrap ıe volvulus. [M.B.T.]

6.—The method described at length depends upon the)lor which phosphoric acid gives with a solution of ammoium molybdate in hydrochloric acid. [A.G.E.]

7.—A young woman, aged 19, who had had symptoms of **astric ulcer** for 15 months, was taken with pains in the)igastrium and back after eating heartily. On rising quickly ıe was seized with severe pain and faintness and vomited oody tinged fluid. The pain increased, the walls of the)domen were flat, retracted, rigid, and motionless, there as marked general tenderness, resonance on percussion ıd absence of liver-dulness. The diagnosis of **ruptured ıstric ulcer** was made. Operation was undertaken about r hours from the beginning of the attack and a median cision was made below the ensiform cartilage and was terward continued upward and outward to the left. A conlerable quantity of grumous fluid was found between the)mach and diaphragm. The perforation was found on the terior surface close to the lesser curvature just below the rdia. It was closed with a double row of silk Lembert sutures, the abdominal cavity was flushed with sterile water and drainage was inserted below the umbilicus. Rapid uninterrupted progress followed until the eighteenth day, when signs of pleurisy developed, and on aspiration about 5 ounces of turbid serum was drawn off. Within 48 hours the temperature fell and continued normal and the patient made a perfect recovery. [M.B.T.]

8.—Montague and Moss-Blundell report a **case of labor complicated with uterine fibroids.** A very severe postpartum hemorrhage occurred, and although ergotin was injected in the buttock, and the vagina washed out with hot solution of 1 : 1000 perchlorid of mercury, the bleeding continued and the patient's condition became serious; five pints of saline solution was injected into the median cephalic vein with splendid results, and the patient made a good recovery. [W.K.]

9.—A girl bore a healthy illegitimate child, then had five rickety children by a husband mentally and physically deficient, and afterwards raised two healthy children, one illegitimate and one by a second husband. The mother was healthy and the fathers of the healthy children were robust. Elgood suggests that certain assumed factors in the production of rickets may operate with greater force on children who inherit from a parent a constitution prone to be affected by their influence. [A.G.E.]

10.—Walters gives a description of the Massachusetts State Hospital for Consumptives. [A.G.E.]

11.—W. C. F. Smith reports with photograph a case of interesting **bicephalic fetus.** At the postmortem examination there were found two separate and distinct heads and necks, fusing at the level of the shoulders into one trunk which was, however, marked by the existence of two spines, lying some little distance apart, and uniting at the sacrum, which was single. There was no other abnormality of the skeleton, and the arms and legs were normal in number and conformation. The thoracic cavity was partially divided into three compartments by the projection forwards into it of the two spinal columns, the interval between the latter being bridged across by soft tissue. In the central compartment of the three was the single and normally formed heart, and the two lateral were occupied by normal lungs. The arch of the aorta was normally formed, but gave off arterial trunks to both necks. The condition of the specimen at the postmortem examination did not admit of further examination of the arterial system. There were two separate and complete esophaguses. The most remarkable feature disclosed by the examination of the abdominal cavity was an extensive reduplication of the alimentary canal. The esophaguses each led into a separate stomach. The right of these was a culdesac and was hourglass in shape. The left was small but otherwise normal. The intestine leading from the left stomach was normal in itself, but was accompanied throughout the greater part of its extent by an imperfect gut which fused with it one inch above the ileocecal valve, the latter as well as the large intestine being normal in every respect. This small intestine lay side by side with the other below the duodeno-jejunal flexure. Above the level it was represented by a culdesac extending in the direction of the pyloric end of the right stomach and united to it by fibrous tissue. There was a separate spleen on each side of the abdomen, one in connection with each stomach. [W.K.]

12.—The case of a man aged 42 years is reported who was taken with severe pain in the epigastrium and vomited. Tenderness and distention developed later, acute gastritis was diagnosed and bismuth, bicarbonate of sodium and opium were administered. The pain was somewhat relieved by the opium, but the patient continued to grow worse and died. At the necropsy a **perforated gastric ulcer** was found on the anterior surface of the stomach near the pylorus. [M.B.T.]

13.—Mallins reports a **rare obstetric accident.** In a case of forceps application it was found during delivery that the hand and forearm of the child had slipped through the fenestrum of the blade. [W.K.]

14.—Gould reports two cases of **papillomatous ovarian cysts,** which illustrate the tendency the intracystic growth has to pierce the cyst wall and cause ascites and give rise to papillomatous growths on the outer surface of the cyst, of the ovary, broad ligament, and contiguous structures. [W.K.]

New York Medical Journal.

September 2, 1899. [Vol. lxx, No. 10.]

1. The Sphere of Laryngology. WILLIAM E. CASSELBERRY.
2. Is the So-called American Voice due to Catarrhal or Other Pathological Conditions of the Nose? JOHN W. FARLOW.
3. Observations on the Treatment of Hay Fever. BEAMAN DOUGLASS.
4. Bovine Tuberculosis in Its Relation to Man. EDWARD MOORE.
5. The Therapeutic Value of Oxygen. W. L. CONKLIN.
6. Cerebral and Meningeal Syphilis Treated by Intramuscular Injections of Insoluble Salts of Mercury. Some Points in Technic. J. COPLIN STINSON.
7. A Case of Colocynth Poisoning. WILLIAM ELLERY JENNINGS.

1.—See PHILADELPHIA MEDICAL JOURNAL, June 3, 1899, p. 1205.

2.—See PHILADELPHIA MEDICAL JOURNAL, June 3, 1899, p. 1205.

3.—Douglass suggests that in cases of **hay fever with no discoverable nasal lesion** an extremely sensitive nerve, by reflex action, produces the vasomotor disturbances. Treatment is discussed at length. Suprarenal gland is almost a specific in his experience. He uses it locally or internally. After frost precludes more attacks, the nasal passages should be cleared surgically, if necessary. [A.G.E.]

4.—Moore thinks there is too much uncertainty in the statements of writers regarding the **transmission of tuberculosis from bovines to man.** He believes that the tubercle-bacillus, by a long residence in either man or cattle, acquires characteristics which render it practically specific to that class of animals. Hence, if the environment be changed in either direction, the pathogenic power will be lost. [To be concluded. A.G.E.]

5.—The conclusion reached is that **oxygen administered by inhalation is of positive value as a remedial agent.** Instances reported are cases of lobar pneumonia, chronic valvular disease, and neurasthenia, with persistent anemia. [A.G.E.]

6.—Notes of a case of brain syphilis which has been practically cured by **intramuscular injections of mercury salicylate** are given. In tertiary syphilis, 4 series of injections, each year for 3 years, should be given. A series should last about 5 weeks, 9 or 10 injections of 2 grains each being given. Between the series, potassium iodid should be given. [A.G.E]

7.—The patient macerated a colocynth "apple" in 4 ounces of gin, and took the tincture to produce an abortion. Severe symptoms of poisoning were followed by recovery. As an abortifacient the colocynth was a complete failure. [A.G.E.]

Medical Record.

September 2, 1899. [Vol. 56, No. 10.]

1. Psychotherapy; or, Suggestion as a Cause and Cure of Disease. H. H. SEELEY.
2. The Etiology of Scarlet Fever. W. J. CLASS.
3. A Preliminary Report upon the Use of Pure Carbolic Acid in the Treatment of Mastoid Wounds and Chronic Suppuration of the Middle Ear. WENDELL C. PHILLIPS.
4. An International Language for Scientific Men—Is it a Possibility? R. ELLIS.
5. Multiple Sinus-Disease following Influenza. CHARLES STEDMAN BULL.
6. Report of a Case of Cerebral Meningitis, Manifesting Extraordinary High Temperature. R. B. CHRISTIAN.
7. An Interesting Case of Membranous Sore Throat. BEVERLEY ROBINSON.
8. Cerebrospinal Meningitis with Ulcerative Endocarditis and Abscess of Myocardium, Due to the Diplococcus Intracellularis of Weichselbaum. L. NAPOLEON BOSTON.

1.—Seelye reports a number of interesting cases in which various **severe organic diseases were simulated.** The first, a girl of 18, who had taken a headache-powder before retiring, was awakened by her frightened companion who assured her that the powder had poisoned and paralyzed her. The paralysis was absolute, no muscles moving except those of the eyes. As no organic disease could produce such symptoms, Seelye suspected **hysteria,** and used strong counter-irritation in the form of inert drugs, massage, and exhortation. The patient recovered within five minutes. A second case, a man of 28, had what was apparently an hysterical wryneck. In another case, a woman had sudden loss of voice, brought about by a slight laryngitis and anxiety concerning a reception. An interesting case was that of a young man, who after exposure to a temperature of 90° suddenly developed the symptoms of sunstroke, which were cured by suggestion. A boy of 15 had an hysterical joint following a rheumatic attack. A girl of 9 had paraplegia with paralysis of the bladder. This same case, 10 years later, had hysteric vomiting simulating gastric ulcer. Both attacks were rapidly cured by suggestion. He then reported a remarkable case in which a woman of 30 was able to simulate catarrh and develop edema of the lungs. The first attack was treated as an organic condition; the second, as hysteria, and without the use of any active drugs, cure occurred within a few moments. Finally, he reports a case of obstinate hysteric contraction of the larynx, in which simulation was not suspected until two incisions for tracheotomy had been made. It is not recorded that any of the patients were studied with reference to the existence of the ordinary stigmata of hysteria, and the observations are, therefore, incomplete and unsatisfactory. [J.S.]

2.—Class describes a **diplococcus** that he believes is the **cause of scarlet fever.** He obtained it chiefly from the throat and scales of the skin of the scarlet-fever patients. It is a diplococcus, polymorphous in character, and of unusual size, particularly in old cultures. Sometimes a streptococcus form occurs, and in the early stages of division it seems to resemble a staphylococcus. It is not encapsulated, but there is agglutination as a result of a peculiar sticky intracellular substance. It stains with the basic aniline dyes, but does not take Gram's. It grows often upon glycerin agar, to which about 5% of black garden-earth has been added. The growth occurs in from 48 hours to one week. On blood-serum the microorganism grows, but not so well as upon the special medium. Cultures may be obtained from the blood in the first day of the disease, rarely later. The same microorganism was found in 8 of 36 cases not suffering from scarlet fever, and in the scales from the skin in 3 of 23 normal cases. It was not found in the blood of any normal patient. The organism is not pathogenic for rabbits and guineapigs, unless their vitality has been very much reduced, and then produces an acute nephritis. A number of pigs were used for experiment. After an injection of 1 to 3 cc., an elevation of temperature to about 103° occurred. In the seventh day, there was redness of the skin of the abdomen, and on the tenth desquamation. The organism was found in the blood and scales of the skin. At the autopsy, an acute nephritis was found. A source of error, according to Class, was the fact that the cultures were possibly not absolutely pure. The chief argument in favor of the pathogenicity of this microorganism is the fact that it does not grow well on the blood of scarlet-fever patients. [J.S.]

3.—Phillips advocates the use of **pure carbolic acid in the treatment of suppurative processes in the middle ear and mastoid.** The crystals are dissolved by adding just enough water to hold them in solution and are sprayed into the middle ear, and the use of an excess of carbolic acid should be avoided. After allowing the acid to act upon the tissues for a few minutes, alcohol is used, followed by water. The results of this method of treatment have been very satisfactory. The suppurative processes almost immediately commenced to subside. Six cases treated by this method are reported. [M.B.T.]

4.—Ellis does not believe that it will ever be possible to adopt Greek as an international medical language, nor does he believe it desirable, because he thinks that important papers should be read and not listened to, and that in a short time it will be practical to obtain all such papers in translation. [J.S.]

5.—A woman, 58 years old, who had had **grip** with high fever, was taken with profuse discharge from the nose and constant dull pain in the right cheek. At the end of the second week the antrum was opened through the canine fossa and pus was evacuated, 4 days later pus discharged

from the nose and the ethmoid cavity was opened through the nose, cureted and irrigated; 2 weeks later the woman was discharged. She remained well about 2 weeks, then she complained of pain in the right ear. **Mastoid disease** was diagnosed and the patient operated upon; later she contracted pneumonia and died. The interesting feature in the case is the long time which elapsed between the operation on the frontal sinuses and the development of the aural complication. The starting point of this extensive sinus-disease was the rhinitis caused by the grip. [M B.T.]

6.—Christian reports a case of **cerebrospinal meningitis** which was characterized by the almost daily occurrence of temperature up to 114°. Three thermometers were broken by the expansion of the mercury beyond their capacities, and death occurred on the twenty-fourth day, after 10 days of profound stupor. There was evidently no postmortem. The temperature-record is, unfortunately, not printed graphically. [J.S.]

7.—Robinson reports a case of **membranous sore throat.** At the beginning both tonsils were swollen, there was pain in the ears, and some patches of white membrane between the tonsillar follicles. A culture was negative. Later, the membrane extended, covering the tonsils, fauces, and the uvula, and 2,000 units of antitoxin were injected. The patient immediately improved, and ultimately recovered after several relapses. A subsequent culture was also negative. The case is, therefore, clinically one of diphtheria, but the bacteriologic investigations failed to confirm this diagnosis. It does not appear that any other cases developed in the persons associated with the patient. [J.S.]

8.—Boston reports the case of a man, 56 years of age, who was brought to the hospital in a stage of **acute alcoholism.** The sputum was found to contain tubercle-bacilli. Subsequently he developed delirium, rigidity of the muscles of the neck, and finally died. At the autopsy there was found pleurisy, abscess of the wall of the left auricle, tuberculosis of the lungs within a pneumonic area. The pia mater and arachnoid showed extensive purulent infiltration. Cultures showed the presence of a staphylococcus pyogenus aureus and the meningococcus of Weichselbaum. A mouse was inoculated with the latter and died on the seventh day, and cultures from its tissue showed the existence of the meningococcus. Boston believes that this is the first case of **ulcerative endocarditis associated with meningitis** that has been recorded. [J.S.]

Medical News.

September 2, 1899. [Vol. lxxv, No. 10.]

1. The Radical Cure of Hernia. WILLIAM B. COLEY.
2. Cerebrospinal Meningitis. JOSEPH W. IRWIN.
3. The Treatment of Tuberculosis. LAWRENCE F. FLICK.
4. Empyema from a Surgical Standpoint. JOHN C. MUNRO.
5. A Case of Sarcoma of the Tonsil. Three Removals, Recurrence after Each. Death from Metastases in Mesentery and Bowel. J. MORRISON RAY.

1.—An interesting sketch of the **operation for the radical cure of hernia** is given. Coley believes that the errors of technic that are responsible for failure to obtain good results are due to incisions of insufficient length; failure to dissect back the aponeurosis of the external oblique well over the edge of the rectus muscle; careless or unskilful dissection of the sac from the cord and surrounding tissues, thus prolonging the operation, bruising the tissues and thereby lessening the chances of primary union; and too great tension upon the buried sutures, or the use of nonabsorbable sutures. He believes that no operation has yielded such brilliant results as Bassini's. During the past decade the mortality has been reduced until it is less than 1%, and the final results in a large series of cases carefully traced show almost entire freedom from relapse. During the past 8 years Coley has operated upon 639 hernias with but one death. He departs from Bassini's technic in the substitution of chromicized kangaroo tendon for silk in the buried sutures, and he introduces a suture just above the cord, passing it though the same structures below the cord, with a desire to prevent any further separation of the tissues above the new internal ring, and keeping the cord restricted to narrower limits. He considers the use of absorbable sutures the most important modification of modern methods. The real and important objection to all nonabsorbable sutures is their liability to cause sinuses at long periods after operation. The operation is advised in children over 4 years of age on whom a truss has been given a fair trial without marked improvement; in cases complicated by fluid in the hernial sac; and in all cases of femoral hernia. He decidedly disapproves of operating upon infants less than 2 or 3 years old. The results of the operation for femoral hernia are often more successful than for inguinal. He has operated upon 40 cases with only a single relapse occurring in a case in which there was failure to secure primary union. [M B.T.]

2.—Erwin gives a general description of several **epidemics of cerebrospinal meningitis** that he has had the opportunity of observing in Louisville. The symptoms described are characteristic of the disease, that is, usually chill, fever, pain in the back extending into the limbs, headache, dimness of vision, and retraction of the head. Purple spots usually occurred. If death occurred within a few hours, no characteristic lesions were found at the autopsy; if, however, after several days, purulent or serous effusions were found at the base. Kernig's sign is, in his experience, invariably present. Some of the patients recovered, many of them were hopelessly crippled. He regards opium as the most important drug. Hot footbaths may also be employed, and occasionally it is necessary to administer nourishment by the rectum. Late in the disease mercury and iodids may be employed. He reports one curious instance in which infection appeared to have been carried from one town to another by a woman who had nursed her sick sister. [J S.]

3.—Flick believes that the important principles of **treatment of tuberculosis** are hypernutrition, plenty of fresh air, and certain drugs, particularly some form of iodin, creasote, and strychnia. He secures a sort of antitoxic treatment by placing a large fly-blister over the chest or back, and allowing the serum from it to be reabsorbed by the tissues. This produces malaise, and perhaps some fever, and benefit appears to be the result. He does not regard climate as particularly important. [J S.]

4.—In discussing the **surgical treatment of empyema,** Munro suggests that there are few cases in adults in which ether cannot be given provided it is administered by a skilful etherizer; ether is usually safe also in children. Too much cannot be said to induce physicians to submit their patients to early operation. When this principle is followed Schede and Estlander's operations are rarely required, immediate expansion of the lung usually follows the operation if it is undertaken soon after the formation of pus. In case of old left-sided empyema with marked displacement of the heart, pus may be withdrawn by preliminary aspiration to avoid the risk of embolism. Unless there are urgent indications to the contrary, resection of a rib is safe and is better surgically. The incision in cases requiring rapid operation under primary anesthesia is best made at right angles to the rib, the seventh or eighth rib is selected preferably in the anterior or midaxillary line, the drainage tube should be short to avoid irritation of the lung by the pressure of the end of a long tube. Death most frequently results from dislodgment of an embolus from the heart, which is displaced by a collection of pus in the left pleural cavity. [M.B.T.]

5.—A man, 37 years old, had noticed a small mass forming in his throat on the left side, for two months. There had been no pain or discomfort until within a few days. A mass as large as an olive, of dark purplish color, roughened on its surface, was found hanging by a central pedicle from a crypt of the tonsil at its lower part close to the anterior pillar. The parts were cocainized and the growth easily removed with a cold wire snare; about a month later the mass was found to be growing again and was removed by the cautery snare. Microscopic examination of the specimen showed the growth to be a **lymphosarcoma.** About three months later the patient was operated upon by another surgeon for acute obstruction of the bowel and a nodular mass was found in the wall of the intestines. The patient died 9 days later, and examination of the growth proved it to be a round-celled sarcoma. [M.B.T.]

Boston Medical and Surgical Journal.

August 31, 1899. [Vol. cxli, No. 9.]

1. The Effects of Training; a Study of the Harvard University Crews. EUGENE A. DARLING.

2. A Safe and Quick Method of Joint and Bone Fixation. EDWARD A. TRACY.
3. A Case of Sarcoma of Uterus ; Repeated Operations ; Recurrence ; Death. S. J. MIXTER.
4. A Case of Myxosarcoma of the Uterus and Vagina. E. H. MACKAY.
5. A Case of Sarcoma of the Uterus. F. H. DAVENPORT.
6. Sarcoma of the Uterus. WILLIAM F. WHITNEY.

1.—Darling carefully **studied the men training** for the Harvard crews last summer. The training consisted in rowing from 5 to 8 miles per day, with occasional time-rows of from 3 to 3⅜ miles each. Time-rows proved to be particularly exhausting and affected the heart, liver, and the general weight. The diet was generous, and the men slept about nine hours a day. For the first 10 days of this training, the weight of the men remained about constant. Then it gradually decreased, and showed marked reaction to the time-rows, dropping sometimes on an average of 3 pounds per man. The variation, of course, was not uniform ; some reacting less favorably than others. The effect of the time-row just before the race showed a total loss of 27 pounds. This excessive loss did not apparently correspond to any impairment of the condition, because the men whose weight decreased the most did not suffer apparently any more than their fellows. The temperatures were in general subnormal. Darling does not agree with Williams and Arnold, that a subnormal temperature in an athlete is any indication of staleness, and he rather inclined to suppose that mouth temperatures after exertion are not altogether reliable. [J.S.]

2.—Tracy highly recommends the use of **wood-fiber reinforced with gauze as a material for surgical splints** when it is wished to apply a splint to any part. A paper pattern is cut to embrace the limb in the same manner we wish the completed splint to embrace it. This pattern is laid on a sheet of splint material and the splint is cut out following the pattern, it is then moistened with water and bandaged over the limb. In some cases he advises the use of a little Le Page's glue spread between several splint blanks when it is desired to make a heavier splint. The edges of this material are where it requires no padding between it and the skin, thus immobilizing the parts better, and when swelling subsides the splint material may be made to fit the limb by applying the bandage more snugly. The splint is much lighter and more comfortable than plaster-of-paris. [M.B.T.]

3.—Mixter reports a case of **sarcoma of the uterus,** which indicates the necessity of early radical operation in all cases of recurrent uterine growth or hemorrhage, whatever may be the result of the microscopic examination. The patient had polypi and was operated upon 11 times; it was not until the seventh operation that the microscope showed anything malignant. The extreme rapidity of the growth and the great amount of sarcomatous tissue that formed before sloughing took place, were striking features of the case. [W.K.]

4.—Mackay reports a case of **myxosarcoma of the uterus and vagina** occurring in a woman aged 63 years. The condition found was an eroded fungoid mass springing from the cervix and occupying the vaginal vault. The diseased mass was removed with the curet, but the ultimate history of the case could not be obtained. [W.K.]

5.—Davenport reports a case of **uterine sarcoma** occurring in a patient over 40 years of age. [W.K.]

6.—Whitney discusses **sarcoma of the uterus** and gives a short resume of the results of observations upon this disease. [W.K.]

Journal of the American Medical Association.

September 2, 1899. [Vol. xxxiii, No. 10.]

1. Management of Pregnancy, Complicated by Abdominal Tumors. RUFUS B. HALL.
2. Prophylaxis of Uterine Cancer. W. W. GRANT.
3. Justifiable Artificial Abortion and Induced Premature Labor. W. C. BOWERS.
4. Typhoid Fever. GEORGE BOODY.
5. Typhoid Fever. JAMES L. TAYLOR.
6. Typhoid Fever. L. F. ROUSCH.
7. Acetanilid in Typhoid Fever. EDMUND C. BRUSH.
8. Periosteal Caries from Bacterial Origin. M. H. FLETCHER.
9. Medicine. J. BRUYERE. (*Continued.*)
10. Criminal Morphomania and Chronic Morphinism. Discussion.

1.—See this JOURNAL, Vol. III, p. 1334.
2. " " " " " " 1335.
3. " " " " " " 1336.
4. " " " " " " 1327.
5. " " " " " " 1328.
6. " " " " " " "
7. " " " " " " "

Journal of Experimental Medicine.

July and September, 1898. [Vol. iii, Nos. 4 and 5.]

1. Acute Interstitial Nephritis. W. T. COUNCILMAN.
2. A Case of Mycetoma (Madura Foot). JAMES H. WRIGHT.
3. Pseudo-Tuberculosis Hominis Streptothricha. SIMON FLEXNER.
4. Comparative Study of Bovine Tubercle Bacilli and of Human Bacilli from Sputum. THEOBALD SMITH.
5. The Relation of the Toxicity of Diphtheria Toxin to its Neutralizing Value upon Antitoxin at Different Stages in the Growth of Culture. WILLIAM HALLOCK PARK and JAMES P. ATKINSON.
6. An Experimental Study of Direct Inoculation of Bacteria into the Spleen of Living Animals ; and a Contribution to the Knowledge of the Importance of a Lesion in Animal Tissue for the Lodgment and Multiplication of Bacteria within it. T. M. CHEESMAN and S. J. MELTZER.

1.—The presence of **acute interstitial nephritis** was discovered in 42 cases of infectious diseases, most frequently in diphtheria and scarlet fever. The interstitial tissue is in these cases infiltrated diffusely and in foci by cells resembling the plasma-cells of Unna. Similar cells may be found in considerable numbers in the vessels, without necessarily an accompanying infiltration of the interstitial tissue. The latter condition is evidently due to migration of plasma-cells from the vessels, either as such or as lymphoid cells, which later assume the characteristics of the plasma-cell. No satisfactory explanation can be given for the almost constant tendency of the infiltrating cells to collect, especially in the boundary zone of the pyramids, the subcapsular region of the cortex and around the glomeruli. The presence of bacteria does not appear to play any marked role in the production of the cellular infiltration, nor does it explain the focal nature of the lesions. [F.K.]

2.—In cases of **madura foot** two types are distinguished, the ochroid and the melanoid. The light-colored granules found in the pus and in the diseased tissues of the former have already been cultivated and accurately described, but Wright's case is the first of the melanoid variety in which the fungus has been successfully isolated. The growth on various culture-media is accurately described, as are also the appearance of the fungus in the tissues and the pathologic changes resulting from its presence. [F.K.]

3.—Flexner reports a case with lesions of the lungs and of the peritoneum closely resembling those of tuberculosis. Cover-glass preparations from the lung-cavities failed to show the presence of tubercle-bacilli, but numerous branched organisms were discovered, faintly stained in fuchsin. Stained by Weigert's method, with, however, carbol-fuchsin substituted for gentian violet, the organism proved to be a form of streptothrix appearing as single branching filaments, or in more or less convoluted masses. Glycerin-agar cultures from the lungs remained sterile, and inoculation in a guineapig, although resulting in the death of the animal, did not produce any tuberculous lesions. In the tissues, organisms similar to those discovered in the cover-glass preparations were found both in the lungs and in the tubercle-like nodes of the omentum. The tissue-changes resemble closely those of tuberculosis, but the tendency to breaking down, especially in the lungs, appears to be more marked. Buchholz has described a similar case depending on infection by a streptothrix with which Flexner's is morphologically identical. Other pathogenic streptothrix forms have been described, but the data are still too limited to justify any attempt at classification. [F.K.]

4.—Bovine and other **animal bacilli** grow less vigorously and are less influenced by certain modifications of culture-media than those obtained from human sputum. They differ morphologically in remaining short instead of becoming slender and long as do the human bacilli in old cultures. In the highly susceptible guineapig the difference in virulence of the two varieties of bacilli is not markedly demonstrated, although death results more quickly and with severer lesions in animals inoculated with bovine bacilli. In rabbits the differences are more evident, tubercle-bacilli derived from animals causing death in 17 to 21 days and giving rise to widespread, markedly necrotic lesions, while on the other hand the sputum-bacilli produce only slowly-developing tubercles without marked tendency to necrosis and do not kill the rabbit. In cattle the differences are no less evident, the course of the disease and the extent of the lesions clearly indicating the greater virulence of the bovine bacilli. The numerous and remarkably accurate experiments reported show clearly the local nature of the lesions produced by human bacilli even when inoculated in enormous numbers, and justify the conclusion that **transmission from human beings to cattle is improbable.** The reverse infection, although generally presumed, has not yet been scientifically proved. If bovine bacilli do not diminish in virulence on passing through a human host, experiments on animals may prove a positive means for determining the source of the infection. [F.K.]

6.—The experiments reported by Cheesman and Meltzer give fresh proof that the presence of a point of diminished resistance determines the location of the focal lesions occurring in general infection. They also show that bacteria injected into the spleen rapidly disappear from that organ unless the affected part be cut off from its normal circulation, in which case the bacteria continue to multiply and to serve as a constant source of general infection. [F.K.]

Deutsche medicinische Wochenschrift.

July 6, 1899. [25. Jahrg., No. 27.]

1. A New Method of Producing Anesthesia. J. GEPPERT.
2. A Foreign Body wedged into the Tympanum, the Primary Cause of Chronic Ulceration of the Middle Ear. H. HAIKE.
3. A Case of Elephantiasis Congenita. M. MAINZER.
4. Ossification of the External Ear and Skiagraphy. WASSMUND.
5. Experiences in Appendicitis. R. STEIN.

1.—A detailed description of an apparatus for the **administration of chloroform** in such a way that the dose can be accurately administered and at one filling enough is provided for several anesthetizations. The details cannot be understood without the accompanying illustrations. [D.L.E.]

2.—**A piece of cinnamon-wood** had become so firmly **imbedded in the tympanic cavity** and adjoining portion of the external auditory canal as to require chiseling away of a portion of the bony meatus, to accomplish its removal. Its firm lodgment was probably due to the swelling of starch bodies found in the cells of the cinnamon, caused by the alkaline secretion in which it was bathed. Healing with some loss of hearing in the affected ear followed the removal of the foreign body. [G.B.W.]

3.—The manifestations of **elephantiasis** were present in this case at birth in that the left arm of the child was markedly larger than the right, and both of the lower limbs were enlarged, though equally so. The elephantiasis maintained the same proportionate size during the growth of the child. On examining the child it was seen that the thighs were of normal size, while the lower legs were enormously enlarged. Also in the left arm the distal portion was the part most markedly affected. The enlargement was perfectly smooth except on the toes of the right foot, where an indentation showed the position of the umbilical cord. The joint and bones were all normal, and the activity and skill of the child were unimpaired. [G.B.W.]

5.—Stein divides **appendicitis** into the severe and light forms, also he makes 4 groups where the symptoms indicate certain treatment. Group I. Cases in which the symptoms are very light, so that an expectant treatment may be carried out. Group II. Operation yields the best results in those cases where severe pain and tenderness in the right iliac fossa is present without other manifestations and where all other causes than appendicitis have been excluded. Group III. Cases of greater or less severity, where the inflammation tends to become localized; such are termed recurrent appendicitis and should be operated on between the attacks. Group IV. This class of cases offers the picture of a perityphlitis, where, either acutely or subacutely and accompanied by general abdominal tenderness and pain, vomiting and fever, a tumor appears in the right iliac fossa. These cases of perityphlitic abscess originating from the appendix demand active surgical treatment, and as soon as pus has been demonstrated by the exploring needle the abscess should be opened and drained. [G B.W.]

July 13, 1899. [25. Jahrg., No. 28.]

1. Fatal Acute Nephritis, following Sorrel (Rumex Acetosa) Poisoning. H. EICHHORST.
2. Glycosuria in Atropin Poisoning. F. RAPHAEL.
3. A Case of Stenocardia in a Child. HAUSER.
4. Contributions upon the Diagnostic Value of X-Ray Examinations. L. STEMBO.
5. A New Method of Producing Anesthesia. J. GEPPERT.
6. Experiences in Appendicitis. R. STEIN.

1.—The chief point of the report is contained in the title. The case is noteworthy more especially for the fact that this plant is eaten ad libitum by many children without harmful results, but that this child developed a nephritis after eating a large amount of the sorrel, and died 2 days after he was admitted to the hospital, the difficulty having commenced 6 days before. [D L.E.]

2.—The patient took 15 to 20 drops of an atropin solution which had been ordered for him for a conjunctivitis, and when examined he showed sugar in his urine. After this had disappeared it was found that 100 grams of grape sugar would readily produce an **alimentary glycosuria,** and that, therefore, he was a ready subject of alimentary glycosuria. The administration of large doses of atropin to guineapigs produced in 4 of 5 attempts the appearance of glycosuria. In some of these cases, grape-sugar was given to them at the same time. In some, it was, therefore, an alimentary glycosuria; in others it appeared spontaneously when no grape-sugar was given, and was evidently due to the atropin. [D.L.E.]

3.—The child had been in ill-health from its birth to the time of its death. It had marked dyspnea and constant bronchitis. Death occurred suddenly. The only satisfactory sign discovered in examining the heart during life was the presence of a dulness which was similar to that seen with a pericardial exudate. There were no other signs of pericarditis, however. The cardiac sounds were weak but pure. The pulse was regular. The postmortem examination showed an enormously large heart with the valves intact. The endocardium of the left ventricle was thickened, but this had not involved the mitral valve; this thickening of the endocardium toward the opening into the aorta had caused a certain degree of stenosis. A myoma was not to be thought of, other conditions were excluded, and Virchow agreed that it was probably one of those extremely rare cases of **stenocardia in a child.** [D.L.E.]

4.—Stembo reports the use of the **x-rays in diagnosing a case of pneumothorax.** As a result of the study of this case he comes to the conclusion that a pneumothorax can be diagnosed by the use of the Röntgen-rays. Characteristic for this picture are: (1) Intense clearness over that part of the chest where the air is to be found; (2) below this clear spot is a dark shadow thrown by the exudate; (3) the transverse upper border of this shadow sinks and rises with the respiratory movement; (4) wave-like movement of this border can be obtained by breathing, change of position, coughing, and on the left side this movement may be caused by the heart's action. Important factors in the diagnosis of phthisical cavities may be likewise obtained by the x-rays. [G.B.W.]

5.—The application in the clinic of Geppert's **apparatus for producing anesthesia** is as follows: Turn the regulating cock to 2.2 grams until the smell of chloroform comes from the mask; shut off the cock and apply mask to face of patient. Turn the cock to 1.2 grams for the first minute, then gradually increase until 2.2 is reached or anes-

thesia is produced. Occasionally it is necessary to go even higher, but the author has never been forced to go as high as 4.2. The anesthesia is kept up during the first part of the operation at the dose necessary to produce narcosis, and is only lessened by some danger-signal as failure of pulse or respiration. If the anesthesia is not complete enough the dose is increased. Later in the narcosis one should endeavor to lessen the dose. The proper time for the production of anesthesia is from 8 to 10 minutes; if it is shortened by forcing the anesthesia a larger dose is required to keep the patient under the influence of the anesthetic. [G.B.W.]

6.—As a diagnostic symptom of **appendicitis,** pain is of the utmost importance. The early pain is probably a colic caused by the efforts of the appendix to get rid of secretion or impacted feces. Tenderness over McBurney's point is an important factor in making a diagnosis. The localization of pain and tenderness in the right ileocecal region is of the greatest value to diagnosis in the severe cases attended by vomiting, abdominal distention, and rigidity of the abdominal walls. As to indications for operation, Stein says that cases in which the process is circumscribed should wait until the attack is over, and then the appendix should be removed; that localized abscesses should be drained, and cases where there exists a general peritonitis should undergo immediate operation, the appendix should be removed, and the peritoneal cavity drained. [G.B.W.]

Revue Mensuelle des Maladies de l'Enfance.

April, 1899. [Tome 17.]

1. When to Operate for Acute Appendicitis. A. BROCA.
2. Intubation of the Larynx in Private Practice. JACQUES.

1.—Broca considers **appendicitis** a condition to be treated by the surgeon rather than the general practitioner. In exceptional cases he advocates operating early in the attack. He prefers to treat all cases by absolute rest, opiates, rigorous diet, and the application of ice to the abdomen, deferring operation until all acute symptoms have abated. He objects to the use of purgatives on the ground that they tend to destroy the adhesions which naturally form to wall off and thereby protect the inflamed area. [S.M.H.]

2.—Jacques advises **intubation of the larynx on the occurrence of croup.** The operation should be done early. The tube selected should accord with the age and development of the patient. The patient should be fatigued as little as possible during the operation. To avoid having the apparatus withdrawn by the patient or by ignorant nurses, Jacques advises the removal of the thread before leaving the patient. The apparatus should be retained until the physician feels that the stenosis has begun to abate. The author has never seen death follow obstruction of the tube. The condition is usually caused by mucopurulent secretions from the bronchi or trachea. To prevent this a vaporized atmosphere and frequent lavage of the throat are useful. In the event of a sudden severe suffocation, place the child at the edge of the bed with the head low to induce the tube to displace itself, which procedure will relieve the paroxysm. When cases can be frequently seen, immediate reintubation is unnecessary; if at a distance, it must be done at once. Blocking of the tube by membrane at the time of operation rarely occurs, and can be prevented by seeing that the tube is well in place before withdrawing the introducer, and by introducing it into the larynx vertically and not obliquely. Oiling the head of the introducer and the external surface of the tube aids by causing it to slip over the false membrane easily. Fairly long tubes are to be preferred to the shorter ones. Displacement of the tube occurs in about 20% of all cases. Reintubation is frequently unnecessary when it occurs after the first 36 hours and as the result of slight effort. When it occurs early and as the result of a severe paroxysm of coughing, the dyspnea usually returns, and the operation must be repeated. When there is a tendency to frequent displacement of the tube, as the result of severe paroxysms of coughing due to a complicating bronchitis, the tube can be kept in place by having the attendant press the index-fingers, guarded by a hard rubber band, upon the tube during each attack of coughing. In cases of mixed infection recovery is much slower after intubation than in cases of pure diphtheria. [S.M.H.]

May, 1899. [Tome 17.]

1. The Digestive Infections of Nurslings. FISCHL.
2. The Future of Appendicitis.

1.—Fischl believes that the numerous contributions to the subject of the microbic etiology of the digestive infections have not yielded very definite results, owing chiefly to the complex biology of the bacteria of the intestine, and to the difficulty of experimenting under conditions similar to those existing clinically. He does not believe that the gastro-enterites are the result of an acid intoxication, and consequently deems of no value the conclusions which have been based upon this theory. From a microscopic study one finds in a great number of cases the following picture: in the intestine, numerous microbes and various lesions of the mucous membrane; in the lungs, lesions of bronchopneumonia—occurring in many cases at the very end—and containing microbes other than those of the intestine. The other organs are sterile, but present lesions, such as degenerations of the parenchymatous cells, hemorrhages, and intestinal inflammations. These lesions suggest the action of a soluble poison of intestinal origin; in other words, a condition of pure toxemia. None of the several classifications of these gastro-intestinal conditions is adequate. A satisfactory one is dependent upon a more definite knowledge of their etiology. [S.M.H.]

Revue de Chirurgie.

May 10, 1899. [19me Année, No. 5.]

1. Intestinal Occlusion by Meckel's Diverticulum. L. BÉRARD and X. DELORE.
2. The Ablation of the Gasserian Ganglion with the Tearing-out of the Trigeminal Protuberance in Rebellious Cases of Facial Neuralgia. S. COELHS.
3. The Surgery of the Heart. A. PODREZ.
4. Post-operative Psychoses. E. MARANDON DE MONTEYL.

1.—Heredity has been found to play a considerable part in these cases, as numerous instances have been found in which accidents of this character have occurred in members of the same family. Where there is any concomitant malformation of the intestine, as an atresia, the liability is greater. Hernias are also predisposing causes or subperitoneal sacs. It is remarkable that the majority of cases of **occlusion by Meckel's diverticulum** are seen in patients under 30, and many in adolescents. Males are more frequently attacked than females. The obstruction by Meckel's diverticulum is less rare than was supposed before the era of abdominal surgery. The determining causes are congenital bands and not bands that become adherent by recent inflammatory conditions. Everything that tends to temporarily increase the peristalsis of the intestines favors these accidents, the weight of the diverticular loop, its position and torsion, the retraction and torsion of the diverticulum, all these are determining causes of the obstruction. To this category belong errors in diet, such as a too copious repast or one composed of indigestible food, as an orgie of beer or the ingestion of any other liquid in such quantity as to cause a stasis by its mass; or, on the other hand, violent efforts, as in sports or gymnastics, which change rapidly the relation of the intestine and the diverticulum. Even accidental causes which increase the peristalsis may be responsible, as a large dose of purgatives. [C.L.L.]

2.—The **Gasserian ganglion should only be removed as the last resource in the treatment of trifacial neuralgia,** as it is a dangerous operation, especially in reference to a tear of the internal carotid artery. The injury of the sinus and of the middle meningeal are not as immediate dangers, since they can be supported, producing weakness and prolonging or postponing the operation. The causes of death are cerebral compression, shock, and secondary infection. The operation should be made complete by the removal by torsion of the trifacial protuberance, which prevents recurrence, since by this means we are certain to remove everything, which might not happen if the attempt were only made to remove the ganglion. [C.L.L.]

3.—Operations upon the pericardium and upon the heart itself are becoming much more frequent than

they were formerly. It has been shown by numerous operators upon the human subject and by series of experiments on animals that the heart and pericardium sustain operative interference with much greater tolerance than was formerly supposed. This author lays down the following rule: In every case when the signs of hemorrhage or of compression are noted after a penetrating wound of the pericardium, it is necessary to make a large incision in the cardiac region. After having made a provisional resection of a part of the thorax, explore the heart and the pericardial sac. The pericardium is packed with tampons or the wound sutured, according to the nature of the wound. It must, however, be admitted that there are cases full of insurmountable difficulties. Many patients are too weak to tolerate anesthesia. There are technical difficulties, the operation has to be frequently suspended and the patient may die while the sutures are being passed. The incision which he believes to be the best extends from the second intercostal space down through the sternum nearly in its center and includes the costal cartilages of the third, fourth, fifth, sixth, and seventh ribs, following the latter cartilage obliquely as the base of the flap. After having entered the mediastinum at this point the sternum is resected by means of strong scissors, a circular saw or even a strong resection knife. This flap is turned back without opening the pleura; penetrating at first into the mediastinum, if possible, the periosteum on the inner surface of the sternum may be preserved. The sternum is divided transversely at the level of the second intercostal space. The pleura may be preserved if the flap is resected with care and if the cul-desac of the pleura is drawn outward. Any way the opening of the pleura is not a very grave matter, especially with strict asepsis. The third and greatest difficulty is to enter the pericardium and discover what the injury has been. There may be such an outpouring of blood, that this is impossible and it may become necessary to pack the cavity with gauze. Great care must also be taken in making the diagnosis, and after it has been done a sufficiently large opening must be made to permit free examination and operation. The author reports a case in which he operated in the manner described, opened the pericardium, palpated the heart, found the wound of entrance of a 32 revolver-ball, but was unable to detect the ball. The pericardium was packed and drained, the patient made a complete recovery. The fluoroscopic examination showed the ball to be in the heart, but no exact localization was made. [C.L.L.]

4.—Monteyl does not find that these **post-operative psychoses** are in the majority of cases wholly attributable to the operation. He divides them into two groups, the toxic deliriums that are transient, lunacies that are permanent. The delirium may follow any operation in any patient; it may be medicinal or septic, and in those previously poisoned from some source due to their work or some organic malady. Lunacies, however, must be accompanied by some family predisposition. The intensity of the delirium or lunacy varies with the cause or the predisposition. Each, however, has its own proper symptomatology according to the cause that produced it, and in the graver forms the degree of predisposition. Operations upon the thyroid have a special influence, while all other operations exert an equal influence. It is wrong to charge this especially to ovariotomies. The deliriums are readily explained, as they are due to toxic influence. It is impossible to explain the lunacies. [C.L.L.]

Sundry French Journals.

1. A Case of Meningitis Caused by the Bacillus of Eberth. Hugot. (*Gaz. Heb. de Méd. et de Chirur.*, March 9, 1899. 46me Année, No. 20.)
2. Studies of the Topographic Anatomy and the Methods of Reaching the Common Bile-Duct. Wiart. (*Paris Thesis*, 1898 99, No. 197.) (*Gaz. Heb. de Méd. et de Chirur.*, March 19, 1899. 46me Année, No. 23.)
3. Primary Tuberculosis of the Breast. Cuneo. (*Paris Thesis*, 1898-99, No. 198.) (*Gaz. Heb. de Méd. et de Chirur.*, March 19, 1899. 46me Année, No. 23.)

1.—Hugot reports the case of a child, aged 6 years, who was admitted to the hospital complaining of violent headache. The patient was sleepy and it was almost impossible to arouse him from his torpid condition. The tongue was red at the edges and coated with a white fur on the dorsum, recalling that of a typhoid-fever patient. The abdomen was slightly tympanitic, the right iliac fossa was slightly painful, there were no spots, the diarrhea was abundant, and vomiting occurred frequently. Auscultation revealed a few sonorous rales, and the temperature was 49.5° C. (104.9° F.). Three days after admission the child became comatose and uttered prolonged cries, the temperature fell, the bowels moved involuntarily and contained blood; strabismus was noted, and the limbs were slightly contracted. Ophthalmoscopic examination did not give satisfactory results, but the serum-diagnosis test was positive. The patient died four days after the appearance of this complication. At the autopsy 6 typhoid ulcers were found in the intestine. The mesenteric lymph-nodes were enlarged, as were also the liver and the spleen. The cerebrospinal fluid was cloudy and contained a purulent precipitate. The pia mater over the entire brain was infiltrated with a purulent exudate that had invaded nearly all the fissures. Bacteriologic examination of the cerebrospinal fluid showed the presence of the bacillus typhosus. The organisms obtained from the cerebrospinal fluid of this case were agglutinated by the cerebrospinal fluid of the case from which they were grown and by the blood of two children suffering from typhoid fever and in whom the serum-diagnosis test had previously given positive results. After these demonstrations it was decided that the case was one of the rare instances in which a **purulent meningitis** had been **produced by the bacillus typhosus** in the course of typhoid fever. [J.M.S.]

2.—Wiart has studied the **topographic anatomy of the common bile-duct.** According to the author, the retroduodenal portion of the common bile-duct is in intimate relation with the posterior surface of the first portion of the duodenum; in its pancreatic portion, the duct usually lies in a groove in the gland-substance, and is interposed between the pancreas and the anterior surface of the inferior vena cava. It finally passes through the wall of the duodenum and opens into the intestine in different ways. The examination of the common bile-duct as it lies above the duodenum is, theoretically, easy after laparotomy. In order to reach the retroduodenal or retropancreatic segments of the duct, two ways have been proposed, the lumbar route and the abdominal route. The former, although strictly possible if the surgeon merely wishes to make an exploratory incision, becomes dangerous, difficult, and insufficient if he wishes to operate upon the duct. By the abdominal route the retroduodenal portion may be exposed after dissecting up the first portion of the duodena. On the contrary, the exploration of the pancreatic portion requires an exposure of the posterior surface of the pancreas by dissecting it away from the descending portion of the duodenum. Finally, that portion of the duct that is situated within the wall of the duodenum is readily exposed after opening that organ. [J.M.S.]

3.—Cuneo has studied **primary tuberculosis of the mammary gland.** This condition he finds to be more frequent in women than in men and, usually, to affect individuals of middle age. Pregnancy and lactation undoubtedly have influence upon its development. Three ways of infection are possible: infection by the lymphatics and infection by the bloodvessels, both of which have been clearly demonstrated, and infection by the galactophorous route. The latter method has not been satisfactorily demonstrated, and, if it exists at all, is very rare. The study of the pathologic anatomy of the disease shows that in the region of the mammary gland, as in all other organs, the lesion is interstitial in the beginning, and that the giant-cell is not of epithelial origin and is not situated in the acini. This tuberculous lesion may appear after the infection of the axillary lymph-nodes with the tubercle-bacillus. The treatment to be chosen for the relief of this condition is the removal of a wedge-shaped piece from the infected region. When the axillary lymph-nodes are involved, curetment of this region should be added to the excision of the gland. When patients refuse surgical intervention, sometimes a cure may be obtained by puncture of the primary cold abscesses of the mammary gland, followed by the injection of an etherial solution of iodoform. This has resulted favorably in a number of instances. [J.M.S.]

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.

Treatment of Chronic Nephritis.—Caracciolo (*Gl'Incurabili*, f. 9 and 10, Ann. xiv,) accepts Maragliano's view that reintegration of diseased parts of the kidney is possible, if not anatomically, at least functionally. This is especially true of partial chronic nephritis. While not completely accepting the view of certain authors that one may have nephritis without albuminuria, the author believes there is no certain correspondence between the amount of albumin and the renal disease. Mineral waters containing small amounts of salts are useful unless there is considerable polyuria, in which case the amount of fluid should be somewhat restricted. A moderate mixed diet is better than an absolute milk diet. As each individual has his own peculiar needs in the amount of food necessary, it is important to determine by test-meals what this is. The diet which is so consumed as to take albumin from the tissues is that which will give the maximum repose to the kidneys. This is to be determined in each case by accurate comparison between the food ingested and the ejecta. Cold baths are prohibited, but the skin may be methodically hardened by moist friction on leaving the bed. As far as drugs are concerned in addition to the usual remedies, the author speaks favorably of strontium lactate (6 grains a day) as tending to diminish the albuminuria.

Strychnin Arsenate.—Ide (*Wisconsin Medical Record*, II, p. 75, and *Merck's Archives*, July, 1899), highly commends strychnin arsenate as a tonic. He strongly advocates its use in conjunction with hyoscyamin in intestinal colic. It produces contraction of the longitudinal muscle and thus aids in expelling the offending material, while the hyoscyamin acts as a sedative. He advises its use thus combined in retention of urine, distended gallbladder, strangulated hernia, and inertia uteri. In the latter trouble he tells us that it frequently expels the child in a few minutes after there have been hours of waiting. He further asserts that it is an excellent preventive of postpartum hemorrhage. As a tonic for aged people he holds it superior to all others, and in malarial affections, where strychnin is indicated, its contained arsenic makes it a most desirable addition. The dose ranges between $\frac{1}{134}$ and $\frac{1}{30}$ of a grain, repeated as often as every two hours if necessary. Strychnin arsenate is soluble in 14 parts of cold water, while strychnin sulfate and chlorid require 50 parts each to dissolve them. Ide declares that there is never a case in which strychnin is indicated that arsenic is not also indicated, and that they therefore make an excellent combination. It can be advantageously used as follows:

Strychnin arsenate	$\frac{1}{4}$ grain.
Hyoscyamin hydrochlorate	$\frac{1}{4}$ grain.
Saccharin neutral	$\frac{1}{4}$ grain.
Cinnamon water	2 fluidounces.

One teaspoonful after each meal as a tonic.

Medical Treatment of Appendicitis.—Seymour Taylor (*West London Medical Journal*, April, 1899), in the discussion of this subject before the West London Medical-Chirurgical Society, stated that he was convinced that the majority of instances of inflammation about the appendix were dependent upon an infection of the tissues of that organ by bacteria, and that foreign bodies proper played only a very secondary part in the production of the disease. Catarrh of the mucous membrane of the viscus may pave the way for the more severe bacterial inflammation. From the physician's point of view, he considered that there were two periods when advice was of the utmost importance to the patient: The first, when there had been some indications of trouble in the right iliac fossa, and this perhaps repeatedly; then it is that the physician, by prescribing a very careful diet and avoidance of strain, may successfully ward off further attacks; the second, when symptoms are actually but recently in evidence, to decide what is the line of treatment which may tend to resolution. The prophylactic diet treatment resolves itself into the avoidance of large heavy meals, and particularly those which are hastily devoured. Milk is to be specially avoided, for it is a vehicle for bacteria of primary importance, and, further, it produces bulky and scybalous stools. On the whole, a liquid and vegetable diet is the best to advise. Suppose that a swelling has formed in the right iliac fossa, what should the physician do? There are two antagonistic methods of treatment—one to keep the bowel and the patient as quiet as possible, and the other to clear the bowel by means of purges, more or less drastic. It is impossible to say in any given case which is the line that should be adopted, but probably the milder form of treatment is the better.—*Treatment*, July 27, 1899.

Summer Diarrhea of Infancy.

℞.—Bismuth subgallate	24 to 36 grains.
Powdered opium	$\frac{1}{2}$ grain.
Powdered pepsin	6 to 12 grains.

Make 12 powders. One every four hours, alternating with the following:

℞.—Calomel	$\frac{1}{2}$ grain.
Cerium oxalate	2 grains.
Sugar to make 12 powders.	

One every four hours.

—STENGEL in *North Carolina Medical Journal.*

Treatment of Boils and Carbuncles.—Philippson (*Therapeut. Beil. der Deutsch. med. Woch.*, May 4, p. 31) says the three most useful agents for inhibiting the growth of the staphylococci, which are the cause of boils, are alcohol, benzoic acid, and salicylic acid. When fully developed a boil should be covered with a plaster containing 50% salicylic acid, which should be renewed 3 or 4 times a day in order to remove the discharge. Maceration takes place and the necrobiotic process is hastened so that the loosened core can generally be squeezed out after 24 hours' treatment. Rapid healing then follows under the salicylic plaster. The same treatment should be applied to carbuncles, though it is well to increase the activity of the plaster by covering it with linseed meal poultices. Multiple and deep punctures with the thermocautery often shorten the process, and if the carbuncle is spreading deep incisions over the infiltrated margin are necessary. Boils on the face are very liable to lead to septicemia. They should be punctured with the galvanocautery, the resulting slough removed with the sharp spoon, the cavity filled with powdered salicylic acid, and the whole covered with the salicylic plaster. For small furuncles, before they are fully developed, sponging three times a day with cotton wool soaked in alcohol, or in a solution of benzoic or 2% salicylic acid in alcohol, is sufficient. The inflamed parts should not be touched with water or soap. Thus in general furunculosis baths must be avoided, since everything which macerates the skin adds to the chance of the organisms penetrating it. For disseminated furuncles a convenient method of treatment is inunctions twice a day of a 2% salicylic acid ointment, which should be continued for 8 days after the appearance of the last boil. In children the application of a 50% salicylic acid plaster to large surfaces, such as the back or buttocks, causes the disappearance not only of the tone furuncles and carbuncles, but of the deep subcutaneous abscesses which so frequently accompany them, and which usually require opening. It is of importance to discover the constitutional cause of the furuncles and to treat it appropriately.—*Medical and Surgical Review of Reviews*, London, July, 1899.

Palpitation.—Lyon recommends rest, cold applications over the heart, and bromids internally:

℞.—Potassium bromid	75 grains.
Sodium bromid	75 grains.
Ammonium bromid	75 grains.
Sirup of orange	8 ounces.

Sig.—Two to four drams once, twice, or thrice daily, or:

℞:—Potassium bromid	75 grains.
Tincture of valerian	1 dram.
Sirup of peppermint	1 ounce.
Water	3 ounces.

Sig.—Two to four drams every few hours.

When the palpitation is the result of atheroma he advises a combination of potassium iodid and bromid:

℞.—Potassium bromid	6 drams.
Potassium iodid	1 to 2 drams.
Water	10 ounces.

Sig.—Two or three drams twice or thrice daily.

—*Révue de Thérapeutique.*

Original Articles.

NINETY-THREE CONSECUTIVE ABDOMINAL SECTIONS WITHOUT A DEATH, WITH CLINICAL AND PATHOLOGICAL REPORTS.[1]

BY HUNTER ROBB, M.D.,

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IT has often been said that the surgeon or physician can learn more from one failure than from a hundred successes. And yet profitable for the future as is bitter experience, success has its own lessons, and the careful analysis of any long series of successful cases with the view of determining what are the factors which in the main have conduced to these favorable results can hardly be without profit. Again, if in such a series of cases thorough macroscopic and microscopic examinations have been made of the various specimens removed we are able to some extent to determine the frequency of certain pathologic conditions and also their bearing upon the outcome in any individual case.

The 93 patients were operated upon as they presented themselves, and no attempt was made to select cases. In presenting these tables, then, for consideration, I would call your attention to what, in my opinion, are the most important factors upon which the favorable results depended, and I think these are to be looked for in a careful operative technic, and the proper care of the patient both before and after operation. It is true that with experience there comes increased manipulative skill on the part of the operator, and that this is a factor there can hardly be any doubt, but I have for a long time been of the opinion that the greatest danger to the patient lies not so much in the chance of defective surgical skill as in the possible carrying into the wound of pathogenic organisms with a resulting sepsis. Convinced, therefore, that prophylactic measures in this respect have in a large degree conduced to these successful results, I shall venture to briefly outline the technic which we have followed and shall emphasize some of the points in which we have found our difficulties and our solutions of them.

THE ORGANIZATION FOR OPERATIONS.

In order to carry out with any degree of certainty an aseptic technic in all operations, it is necessary for the surgeon to first organize his staff. He must not only have competent assistants and nurses, but each must be taught his or her special duties. To borrow an expression from the football field, the operator and his assistants must understand how to do "good team work." With a systematic routine, every one having his place and his work clearly defined, there will be few hitches, and there will be less likelihood of a break in one link of the chain which would render the whole technic futile. As regards assistants, I have been especially fortunate both in numbers and quality, and I take this opportunity of thanking each one of the members of my staff for their effective work. As a rule the members of the staff are arranged as follows: The first assistant stands opposite the operator and helps him directly, and unless his hands are otherwise employed the instruments and sponges are handed to him. The second assistant (or if necessary a nurse) on one side of the table has charge of the instruments, while the third assistant looks after the sponges or dressings that may be required during the operation. The fourth assistant has charge of the anesthetic and devotes his whole attention to this duty. The third assistant takes cultures, if necessary, during the operation or makes microscopic examinations of tissues or fluids. The nurse watches for opportunities to be of service to the surgeon or his assistants.

The preparation of the field of operation and of the hands of the operator and his assistants is practically the same as advised in my book on "Surgical Technic," only I would emphasize the fact that the use of rubber gloves and sleeves is in my opinion an important factor in lessening the chance of introducing septic material into the wound.

We have been using with much satisfaction Kiliani's dry catgut in different sizes, also St. John Levans and Van Horn's chromicized catgut. So far as we have been able to judge from the number of cases in which we have used these catguts, they have been on the whole very satisfactory. The only criticism that we have to offer would be that in using the large size of the chromicized catgut we have found that the suture sometimes does not become absorbed, but gradually works its way to the surface and is then discharged. In some instances a drop or so of pus will be present as the result of this shedding of the suture. In other cases a small amount of sanious fluid will at times escape.

We use sponges made of sterilized gauze.

Irrigation.—We irrigate entirely with normal salt-solution. The solution is poured into the abdominal cavity directly from the glass graduates.

Drainage.—We have not employed a glass tube for the last 5 years. Whenever it is necessary to drain we use strips of plain sterilized gauze, which takes care of any bleeding which it has been impossible to control by means of ligatures during the operation. We also drain with gauze in those cases in which there has been a rupture of the bowel, and in which it has been exceedingly difficult or impossible to close the tear.

Postoperative Care of the Patient.—After every abdominal section, the abdomen is thoroughly washed out with sterilized salt-solution, after which from 300 to 500 cc. of salt-solution is left in the abdominal cavity, and the patient is placed with the head low, in the postural

[1] Abstract of a paper read before the American Gynecological Society, May 22, 1899, in Philadelphia.

position for drainage for 24 hours. Immediately after the operation the patient is put to bed and kept in the recumbent position, and closely watched until she has fully regained consciousness. Every precaution is taken to keep up her strength. For the prevention of shock, strychnin is given hypodermically and enemas of strong black coffee 2 hours apart.

It is seldom that we have a patient complaining much of thirst following an operation. If this, however, is distressing, we are often able to relieve it by giving sips of hot water or by washing out the mouth with warm water at intervals of every hour or so, or by giving an enema consisting of 500 cc. of tepid water several times during the 24 hours. After the first or second day, if the patient complains still of nausea, 2 or 3 tablespoonfuls of very hot water, containing 5 to 10 grains of sodium bicarbonate to the ounce of water, is often effective. We repeat this at times every hour or so until the nausea ceases, or supplement it with a mustard-leaf over the epigastrium.

Drugs.—We do not use morphin or any of its derivatives as a routine measure for pain following an operation, and always try other procedures before resorting to morphin.

Bowels.—The bowels, as a rule, are opened on the day after the operation, sometimes on the second or third day. We generally accomplish this by giving the patient 2 grains of calomel by the mouth the morning after the operation, and 8 hours later an injection of 2 ounces of glycerin high up into the rectum, to be followed by an injection of a pint of soapsuds and warm water, in 2 hours.

Catheterization.—Patients are catheterized, when necessary, every 8 hours. We encourage them to pass urine and in some instances it is not necessary to catheterize them at all.

Position.—As a rule we endeavor to keep the patient in the dorsal position the first 12 hours following operation, but if she complains especially of pain in the back, she is turned on her side with pillows to support her back for periods of 5 to 10 minutes at a time, several times during the 24 hours. This procedure will often give great relief.

Tympanites.—If any special amount of tympanites occurs we place the rectal tube in the rectum for half an hour to an hour at a time; as a rule this will relieve the patient. If this does not succeed we often give an injection of sweet-oil, water and turpentine, and employ at the same time a mustard-leaf or a warm application, such as a turpentine stupe, over the epigastrium.

In conclusion, I would say that it is certain that serious septic infection could hardly have been avoided through a series of 93 cases had not the maintenance of asepsis through a careful technic been in every case insisted upon. I am convinced that the use of sterilized rubber gloves and sleeves largely diminishes the danger of infecting the wound. I think also that the irrigations of the abdominal cavity with hot salt-solution does much to prevent shock and to minimize the virulence of any septic poison which may be present at the time of operation.

THE CLINICAL AND PATHOLOGICAL REPORT OF NINETY-THREE CONSECUTIVE ABDOMINAL SECTIONS.

In the 93 cases the oldest patient was 57, the youngest 17, the average age being 31 years. Sixty-four were married, 21 were single. Eight were widowed. The chief clinical symptoms were as follows, many patients showing several of these symptoms:

Pain in the lower part of the abdomen was present in 76 cases.

Backache present in 46 cases.

Dysmenorrhea present in 36 cases.

Leucorrhea present in 28 cases. In 2 cases this was acute and of specific origin.

Menorrhagia was present in 23 cases.

Metrorrhagia was present in 1 case.

Frequent and painful micturition present in 9 cases.

Irregular menstruation present in 22 cases.

Scanty menstruation present in 4 cases.

Symptoms due to organic lesions present in 3 cases.

Dyspareunia present in 1 case.

Cases in which the lateral structures could not clearly be made out without anesthesia, 50.

Cases in which the lateral structures could be made out without anesthesia, 42. In these 42 cases the examination under anesthesia confirmed the results of the examination without anesthesia, except that in 6 of these 42 cases the tubes and ovaries were found to be adherent on both sides, whereas at the examination without anesthesia only one side was found to be involved.

Average time of anesthesia 2 hours and 9 minutes. Longest time, 3 hours and 15 minutes. Shortest time, 1 hour and 14 minutes.

Average time for total number of operations, 40.7 minutes.

Average time of operation, 1 hour 34 minutes. Longest time, 2 hours 50 minutes. Shortest time, 34 minutes. Average time of operation for total number of operations (288), 30.3 minutes.

Results.—In all 93 cases the patients recovered.

Irrigation.—In every case the abdominal cavity was irrigated with salt-solution.

Removal of vermiform appendix in 19 cases.

Temperature.—Highest temperature, 103.5° F.

Highest pulse, 160.

Highest respiration, 44.

Lowest maximum temperature, 99.5° F.

Lowest maximum pulse, 90.

Highest average maximum temperature, 100.9° F.

Highest average maximum pulse, 110.5.

Highest average maximum respiration, 30.2.

The bowels were opened on the day after operation,

except in 2 cases in which they were opened on the second day.

Urinary Analysis.—Albumin was found in 18 cases, and in 8 of these, granular and hyalin casts were present. In 8 of these cases the albumin and hyalin casts were only demonstrated after the administration of the anesthetic.

Nausea and Vomiting.—In 65 cases there was a slight amount of nausea and vomiting during the first few hours after anesthesia. In no case was it excessive, and the symptom generally ceased as soon as the anesthesia had worn off. In 28 cases there was no vomiting.

Opiates.—Thirteen patients received deodorized tincture of opium by rectum, in from 10 to 20-drop doses. The total amount received by these 13 cases was slightly over 4 fluidrams. Ten cases received hypodermic injections of morphin in doses of $\frac{1}{8}$ to $\frac{1}{4}$ of a grain, the total amount given to all 10 cases being 3 grains.

Suppuration.—Suppuration of the abdominal wound occurred in 6 cases. In 3 it was slight and was confined entirely to the skin. In the discharge from 2 of these cases the staphylococcus pyogenes aureus was demonstrated. In 3 cases there was a considerable amount of purulent discharge from the lower angle of the wound, which did not, however, involve the deeper tissues. In these cases the staphylococcus pyogenes aureus was found in the pus.

Drainage was carried out in one instance. In this case we drained through the vagina and also placed one piece of gauze in the lower angle of the incision in the abdomen. The large pus-sac that was present and which it was impossible to remove communicated with the peritoneal cavity and the vagina at the same time. In attempting to open the sac through the vagina an opening was also made into the peritoneal cavity. Thus as the sac would have drained into the peritoneal cavity, we evacuated the contents by the vaginal puncture.

The patients with few exceptions sat up in bed on the eighteenth day and were out of bed on the twenty-first day.

Greatest number of days in a given case in hospital, 87.

Least number of days in a given case in hospital, 22.

The average number of days in the hospital was 31.7. Convalescence was interrupted in 6 cases by a slight attack of bronchitis.

Pus was found at the time of operation macroscopically in 12 cases; microscopically in 25 cases.

CLINICAL DIAGNOSES.

Abscess, (tuboovarian)	7
Appendix vermiform, abscess of	1
Appendix vermiform, enterolith in	2
Appendix vermiform, flexure of	4
Appendix vermiform, adhesions of	14
Bartholini's gland, abscess of	1
Breast, fibroadenoma of	1
Carcinoma of rectum	1
Cervix, lacerated	12
Cystitis, chronic	2
Cystocele	1
Cystoma, ovarian multilocular	2
Cystoma, ovarian papillary, (double) (carcinoma)	2
Cystoma, ovarian papillary, (single)	1
Cyst, sub-peritoneal	1
Endometritis	10
Endometritis with stenosis	30
Epilepsy (menstrual)	1
Follicular hypertrophy of ovaries (cystic)	33
Hematosalpinx	1
Hemorrhoids, external	2
Hernia, ventral	2
Hernia, umbilical	1
Hydrosalpinx	5
Labial cyst	1
Myomata of the uterus	6
Omentitis	3
Oophoritis, or perioophoritis	22
Ovaries, prolapsus of	1
Perineum, lacerated	6
Peritonitis, tuberculous	1
Pyosalpinx (single)	2
Pyosalpinx (double), with pelvic peritonitis	7
Relaxed vaginal outlet	17
Descensus of uterus	1
Retroflexion of uterus	19
Retroversion of uterus	18
Salpingitis and oophoritis, chronic adherent	47
Tuboovarian cyst	2
Total	290

OPERATIONS.

All the operations were performed in Lakeside Hospital.

Appendicectomy	19
Colporrhaphy, anterior	2
Dilatation and curetment	55
Dilatation with vesical balloon (under anesthesia)	1
Fibroadenoma of breast, removal of	1
Hemorrhoids, removal of	2
Herniotomy	3
Hysteromyomectomy	1
Ignipuncture of ovaries	32
Myomectomy	5
Omentum, portion removed	5
Ovaries, resection of	14
Pelvic adhesions, separation of	29
Perineorrhaphy	13
Peritonitis, tubercular, drainage	1
Salpingectomy, single	4
Salpingo-oophorectomy, single	20
Salpingo-oophorectomy, double	37
Sebaceous adenoma of labium majus	1
Suspension of uterus	34
Trachelorrhaphy	8
Vaginal puncture	1
	288
Total number in which the abdomen was opened	93
Abdominal operations alone	44
Abdominal and plastic operations combined	49
Appendix vermiformis removed	19
Adherent vermiform appendix separated	4
Myomectomies	6
Myomatous tumors removed, in above myomectomies	14
Suspension of uterus with separation of slight adhesions. (This case was operated on under cocain-anesthesia)	1

PATHOLOGIC DIAGNOSES FROM MICROSCOPIC EXAMINATION.

Appendix, atrophy of	1
Appendix, abscess of	1

Appendix, concretions in	3
Appendix, chronic inflammation of	1
Appendix, normal (showing adhesions, sharp flexures, etc., at operation)	13
Appendix, occlusion of	1
Bartholini's gland, abscess of	1
Endometrium, glandular hypertrophy	16
Endometrium, glandular hyperplasia	4
Endometrium, interstitial endometritis	25
Endometrium, normal	2
Labium minus, cyst of	1
Myomata	6
Omentitis, chronic	2
Ovary, abscess, unilateral	4
Ovary, abscess, bilateral	2
Ovary, atrophy or sclerosis, unilateral	7
Ovary, atrophy or sclerosis, bilateral	10
Ovary, cystoma, glandular	1
Ovary, cystoma, corpus luteum large	3
Ovary, cystoma, papillary, carcinomatous	1
Ovary, cystoma, papillary simple	1
Ovary, follicular hypertrophy	15
Ovary, normal	3
Ovary, peri-oophoritic adhesions (other than abscess cases), unilateral	24
Ovary, peri-oophoritic adhesions (other than abscess cases), bilateral	17
Tuboovarian abscess	1
Tuboovarian cyst	2
Tube, hematosalpinx	1
Tube, hydrosalpinx, unilateral	6
Tube, hydrosalpinx, bilateral	4
Tube, normal (showing adhesions at operation), unilateral	8
Tube, normal (showing adhesions at operation), bilateral	2
Tube, pyosalpinx, unilateral	7
Tube, pyosalpinx, bilateral	11
Tube, salpingitis (other than pyosalpinx), unilateral	22
Tube, salpingitis (other than pyosalpinx), bilateral	11
Tube, salpingitis, tuberculous	1
Total number of specimens examined	241

In all of the pus cases coverslips were made and culture-tubes were inoculated, but only in 4 instances did we obtain any bacteria; in 3 of these the organism strongly resembled the gonococcus, and in one case staphylococci were found by coverslip examination only. Nothing grew on the tubes. It is to be remarked that in the inflammatory conditions of the tubes and ovaries large numbers of eosinophiles had infiltrated into the tissues.

In making up our pathologic protocols we are in the habit of following, as a routine, special forms which we have had printed for the purpose. Our forms are printed so that the following points can be dealt with in every case:

GYNAECOLOGICAL SERVICE.

Name.....
Date of operation.....

UTERINE AND CERVICAL CURETTINGS.

1. Superficial epithelium. 2. Utricular glands. 3. Glandular epithelium. 4. Stroma. 5. Vessels. 6. Muscle. 7. Cervix.

Diagnosis.....
Examined by Dr.....
Remarks.....

PROTOCOLS FOR TUBES AND OVARIES.

Pathological Report.

Hospital No..... Service No. .....
Autopsy No..... Laboratory Record No.....
Name.....
Date.....

OVARY.

a. *Gross appearances and measurements.*—(1) Shape, (2) size, (3) weight, (4) dimensions, (5) color, (6) consistence, (7) appearances on section, (8) gross appearances of corpora lutea, hemorrhagica and albicantia, (9) cortex in gross, (10) medulla in gross, (11) gross pathological alterations, such as cysts, hemorrhages, infiltrations, etc.

b. *Microscopic appearances.*—(1) Peritoneum and germinal epithelium, (2) cortical substance, (3) medullary substances (zona vasculosa), (4) tunica albuginea, (5) young Graafian follicles, (6) old graafian follicles, (7) bloodvessels, (8) lymphvessels, (9) nerve-cells and nerve-fibers, (10) hilum of the ovary, including remains of wolffian body, (11) pathologic alterations, such as degenerations, hypertrophies, hyperplasias, cyst formations, neoplasms, hemorrhages, inflammations, infections, anomalous development, etc., etc.

FALLOPIAN TUBE.

Macroscopic appearances.—(1) Size by actual measurement, (2) general appearance, (3) patency, (4) contents, (5) gross pathological lesions, *e. g.*, adhesions, hemorrhages, tubal pregnancy, inflammations, suppurations, cyst-formations, etc.

Microscopic appearances.—(a) Mucosa, (1) Longitudinal folds, main and accessory, (2) ciliated epithelium, (3) strata propria in isthmus, ampulla and infundibulum, (4) submucosa. (b) Muscular coat, (1) inner circular, (2) outer longitudinal. (c) Peritoneal covering, (1) cells, (2) sub-peritoneal infiltrations, etc. (d) Pathological findings in microscopic sections, other than those included in above description.

Finally, I wish to express my thanks to my assistant, Dr. William H. Weir, for valuable assistance in the preparation of the pathologic protocols, and also to my colleague, Prof. William T. Howard, for his kind supervision of this work.

DYSPHONIA—RELIEF WITH THE USE OF THE GALVANIC CURRENT.[1]

BY T. C. CHRISTY, M.D.,
of Pittsburg, Pa.

DYSPHONIA is the result of any interference with normal respiration and phonation, and may be accompanied by either pain or cough, or both. Dysphonia is:

1. Due to any interference with physiological functions of the glottis and true cords, generally from acute inflammatory causes.

2. Not always in direct relationship with the intensity of the inflammation.

3. Not always present in inflammatory affections.

4. Not always associated with the constitutional diseases, presence of growths, etc.

5. Found occasionally with that rare constitutional condition (mentioned by Morell Mackenzie), a chronic inflammation of the mucous canals.

6. Found in cases of trachoma of the true cords known as singers' nodes.

[1] Read at the Fourth Annual Meeting of the American Laryngological, Rhinological, and Otological Society, Pittsburg, Pa., May 11, 1898.

7. Found in cases of lithemic throat, also in gouty and rheumatic conditions.

8. Found in cases of cnervation of the larynx from general debility or localized paresis.

9. Frequently present during the period of pregnancy.

10. Causal relations not always determined by local inspection of the parts.

11. One vocal cord only may be normal, its companion useless.

12. Pain may or may not be a symptomatic feature.

13. Mild forms of dysphonia are occasionally due to gastric conditions.

14. Stenosis of larynx; pathologic changes found in subglottic space; chronic use of tobacco and alcoholics.

15. Caused by an elongated uvula.

The diagnosis of the seat of the lesion by artificial aid depends largely on the ability of the observer to keep in mind the color of the normal mucous surfaces of the upper respiratory tract available for purposes of examinations, as the mucous membrane of thc larynx differs from that of adjoining parts.

The mucous membrane covering the epiglottis presents the normal color of the larynx, "blassroth," and in anemia of the larynx is the distinguishing feature of that condition; for it then is perfectly pale, "ganzweiss." The mucous membrane of the ary-epiglottic fold shows the normal appearance of the membrane of the mouth, the arytenoids and the interarytenoid space.

The true cords have a pearly white color, a sharp contrast to the light red of the adjacent mucous membrane, owing, of course, to the character of their histologic elements, being firm and tendinous, with a diminished number of mucous glands. However, in voice-users, the color of the true cords is heightened to a moderate degree of congestion, which is constant. The congestion is not pathologic and the cords are healthy so long as they retain their firmness and power of contractility.

The normal glottis during quiet breathing is open wide, the groups of muscles preserving the proper counterbalance or equilibrium so that ingress and egress of air are unrestrained. In deep and prolonged inspiration the glottis becomes still wider through the action of the posterior crico-arytenoid muscle. The transversus muscle is relaxed, the arytenoids are widely drawn apart, and the mucous membrane covering the interarytenoid space is uniformly smooth. During expiration the glottis becomes narrower, and when dyspnea is present, or momentarily preceding a violent effort, the glottis is tightly closed in order to increase the expulsive power of the air, as well as to enable the inner recesses of the lungs to be filled by the deep inspiratory efforts.

Particular attention is to be directed to the examination of the interarytenoid space—the glottis and the immediate subglottic space; these points are usually involved in the severer forms of laryngitis—though the true cords may be exceptionally attacked without involvement of the arytenoids or the space lying below.

Generally, more or less edema of the arytenoids and roughened appearance of the interarytenoid space is too plainly evident; also some swelling of the posterior inner wall of larynx, more frequently met with in children and young people, less in elderly persons.

The study of the subglottic space demands more than a passing notice, and for these reasons:

1. It is the narrowest part of the laryngeal tract.

2. The affections which attack this region have a tendency to cause stenosis.

3. Pathologic changes so alter the relative proportions of the subglottic space as to modify the resonance of the voice and interfere with phonation and respiration.

The subglottic space lies between the vocal cords and the lower border of the cricoid cartilage, the cricoid ring forming the smallest diameter of the trachea.

The lining mucous membrane is loosely attached to the underlying structures by a very loose cellular tissue, and is abundantly provided with acinous glands. Inflammation of this space excites an excessive secretion of a thick tenacious mucus, very difficult to expectorate, and which quickly becomes dry and adheres to the mucous membrane, thus interfering with the physiologic action of the parts, acting as a foreign body in the subglottic space, an excitant of glottic spasm and the accompanying distress and discomfort.

The subglottic space is more vascular than any other portion of the larynx, the supply coming from the superior thyroid artery which perforates the cricothyroid membrane.

It is also believed that the inferior surface of the true cords is more exquisitely sensitive than their superior surfaces; hence the pain so frequently experienced under inflammatory conditions.

Laryngeal catarrh of varying degrees of intensity locates in the subglottic space; syphilitic and tubercular poisons and growths spring from this region, all tending to produce stenosis.

It is not a rare occurrence to find normal movable cords in a patient with a rough dysphonic voice, indications pointing to a subglottic disturbance.

Occasionally the loss of accommodative power in paresis of the thyroarytenoids precedes the stage of congestion.

The question of the proper treatment of the pathologic conditions springing from the subglottic space is important, as it implies intralaryngeal instrumentation, which unavoidably excites pain, cough, and glottic spasm.

The two characteristic symptoms which mark inflamed conditions of this portion of the respiratory tract from other areas are (*a*) hoarseness or aphonia, or both (*i. e.*, "stimm-störung"), by intact true vocal cords;

or (*b*) a peculiar cough; the laryngoscope is unnecessary to determine the seat of the trouble from these two symptoms alone. (Stoerk.) The cough arising from inflammation of the interarytenoid space is short and frequent, differing from that excited by similar causes in the larynx or trachea.

It is painful to hear and witness the almost intermittent cough which is ("stossond") not broken by deep inspiration, but caused by the continuous forcing of the air through the narrowed space of the cartilaginous glottis, causing a tickling irritability which the patient is unable to resist.

The cough is further symptomatic in that it is never accompanied by a secretion; sometimes only little masses or lumps are forced from the ventricles of Morgagni, but a profuse secretion never appears.

When the inflammation results in edema of this interarytenoid space, the more chronic affections may possibly prove the exciting cause. Tubercle, syphilis, alcohol, and tobacco, or possibly paresis of one or more groups of the laryngeal muscles.

There are cases in which the point of irritation is referred to the trachea, when traces of catarrhal inflammation are to be found in those favorable for inspection by ordinary methods. In such instances, the mucous membrane of the trachea, instead of presenting the normal appearance of a pale, red, yellowish tinge, is deeply injected and slightly swollen even at the level of the larynx. (Stoerk.) The lining mucous surface of the trachea, continuous with that of the larynx, is more intimately associated with the underlying structures and is adherent to the inner surface of the rings of the trachea; consequently, during an acute inflammation the lining mucous membrane may furnish a high degree of inflammation without much apparent swelling.

In normal conditions the mucous membrane covering the tracheal rings is perfectly smooth and presents a clear white ("hell-weiss") color, while that protecting the interspaces has a deeper shade. In acute tracheitis the lining has a deep red tinge with an uneven surface, owing to the swollen mucous glands.

Hoarseness, aphonia, and cough being present in acute inflammatory affections of the lungs, the tracheal mucous surface has an almost bluish-red ("bläulich-roth") appearance in comparison with the bright-red injection of the surface in tracheitis. Anomalies of the circulatory system, *i. e.*, cardiac hypertrophy, aneurysm, valvular deficiencies, especially of the tricuspid valves, cause an increased injection of the mucous surface of the larynx and trachea.

The extreme degree of anemia of the larynx and trachea in tuberculous or other infiltrations of the lung affords a striking contrast to the conditions previously noted.

Subjective symptoms are few, and are referred to larynx and trachea, described as a feeling of weight or pressure, especially over the episternal notch. The feeling of pain and distress over this point is a constant symptom radiating over the central portion of the sternum and often to one or both sides.

Cough is more constant and noticeable than in laryngitis, and is excited by the inspiration of dust, hot, cold, or moist air. The voice may be quite clear in the morning; in the after part of the day it grows husky; the patient speaks, if at all, with increased difficulty, or becomes aphonic.

At the episternal notch the trachea is about $1\frac{1}{8}$ inch from the surface; but as the esophagus separates it from the vertebral column, it is hardly supposable that the discomfort is caused by pressure from any cause.

Treatment is sought for the relief of the dysphonia, cough, and pain. The voice-change varies from the light feathery huskiness, the hoarse, raucous tone to complete aphonia, with a sense of constriction, dryness of parts, a constantly tickling irritability, light dyspnea, with occasional attacks of glottic spasm. Pain is referred either to larynx and glands, or the episternal notch in tracheitis. The cough-centers are: (*a*) the interarytenoid space, (*b*) the posterior wall of larynx, (*c*) the spur of the bifurcation of the trachea.

In the graver forms of syphilis of the larynx, cough is usually absent, also in the presence of benign growths of the true cords and the subglottic space.

Treatment appropriate for the relief of laryngeal paralyses, the laryngeal complications of constitutional infections, or the surgical measures for the removal of growths, intubation, and tracheotomy, will not be considered. My attention was attracted to the use of the constant current through experience with its application in a case of acute laryngitis.

Early one Monday morning, a gentleman introducing himself as an actor, with a week's engagement before him, but suffering with all the symptoms of laryngitis, asked for professional advice in order that he might be able to perform his parts, which consisted of dialogue and song, the role of a comedian.

He was very hoarse—nearly aphonic, and presented all the aggravated symptoms of acute cold. It did not require an examination to verify the conclusion; the mucous surfaces were extensively congested, dry and glistening.

The laryngeal appearances and conditions were fully explained to the patient, but the advice to cancel the engagement was declined with thanks. The condition was not local by any means, and the most prudent advice pointed to at least a week's rest with careful treatment, constitutionally and locally. The gentleman was not so easily dismissed, and the method of treatment entered upon and carried out enabled him to complete a successful engagement, comprising six evening and two afternoon performances, the singing parts only being omitted.

No miracles were performed, but in addition to the remedies indicated the main reliance was placed on the use of the constant current applied to the larynx with such relief and comfort that its use since then has been employed in several interesting laryngeal conditions.

CASE I.—Dr. A writes as follows: "Early in May, 1894, after an exposure, I became hoarse as the first symptom of a cold which did not start as my colds usually did, in the nose.

"I used simple remedies, thinking it would pass downward to the bronchi and clear up, but it did not. The last week of June, I began my vacation by a visit to the seashore, expecting the change would clear it up. The sea air even made it worse and I came back the middle of July with more tenderness about the throat and as hoarse as when I went away.

"Under your treatment I began to improve at once. It showed itself first by remission from hoarseness, followed in the evening by an increase. This, at the end of 3 weeks, had all passed off not to return again, though I have had one severe cold with almost the grip symptoms. This I contracted in New York where the grip was prevailing at the time."

Treatment.—From 2 to 3 sittings each week for some time. No medication was employed, no symptom indicating any necessity for it, nor any application to the parts involved except an occasional topical one to the nasopharynx.

This gentleman I have known personally for years. He is of good constitution, a persistent worker as a student, and in his profession; robust and active, with no predisposition other than colds. Hoarseness was the marked feature, and the laryngoscope showed signs of reddened cords, and increased congestion of the upper part of the trachea. This condition was persistent, though the atmospheric conditions were very favorable, as the treatment was maintained during the delightful autumn season, and, as the patient says in his note, the hoarseness was intensified each evening.

CASE 2.—In January last, a gentleman, 35 years of age, actor by profession, consulted me for loss of voice as a result of an acute cold, which had passed through the purulent stage.

The conditions had not been benefited by laryngeal applications of silver and chromic acid to the pharynx, and the situation was serious from a professional point of view. He held the leading parts of the company, rehearsing daily at 10 A.M., with regular performances in the afternoon and evening—making ten and one half hours of actual work each day. His voice was almost aphonic; the mucous surfaces of the nose and throat inflamed, the local cauterizations of the pharynx still visible. Larynx was in a high degree of inflammation, the vocal bands so swollen as to nearly conceal the true cords, which were intensely congested. The patient was unable to phonate without great difficulty, and the pain was referred to the upper part of the larynx.

The clinical symptoms were so unpromising that a speedy recovery of voice was not possible. The daily application of the constant current with such remedies as were indicated enabled the patient to meet his appointments; in 12 days the voice was clear; and at the end of 3 weeks the congestion had disappeared and the tension of the cords became normal.

CASE 3.—J. M. L., 48 years, professional friend, whom I have known for 25 years, applied for relief from an irritable cough and a tickling in the trachea just at the episternal notch. He is a sufferer from "that rare constitutional condition, a chronic inflammation of the mucous canals."—(Mackenzie.) He had passed through two severe attacks of pneumonia. A brother, younger, died from a tuberculous laryngitis. The least exposure to night air, fog, or any irritating atmospheric influences, would excite the constant tendency to cough, the local point seeming to be in the trachea, over episternal notch.

The condition of the mucous surfaces of the air-passages were those of acute congestion, with little or no secretion. Previously, the pharynx and nasopharynx had been vigorously treated by other physicians with strong solutions of silver nitrate. A cleansing spray, with the constant current applied, one pole over the episternal notch, the other to the back of the neck, brought prompt relief at each sitting.

In a note written January 26, 1897, he says:

"I wish especially to mention your treatment of my throat by the constant current. Those applications gave me prompter and more nearly prominent relief than any other treatment.

"I had been a sufferer from tracheal irritation and cough since boyhood."

CASE 4.—Involvement of one vocal cord. The patient, a physician, writes as follows: "In reply to your request for a detailed account of the trouble with my larynx and vocal cords, from which I have been suffering, I beg leave to state that, so far as I can recall, the trouble began in the early spring of 1890, with a partial loss of voice, unaccompanied by any appreciable soreness of the throat or any constitutional disturbance. You treated me for the trouble at that time, and in the course of about a week the difficulty with my voice passed away. There was no return of the trouble until the following winter, when I suffered with several slight attacks, lasting a few days and disappearing, sometimes with treatment used, and again without any treatment. This was the general history of my case up to the winter of 1895. During this season I had several attacks of the laryngeal affection, which were more severe than before and less disposed to yield to treatment. Dr. Day, under whose careful treatment I was at that time, informed me that during these attacks there was a considerable degree of congestion of the vocal cords, sometimes on one side, sometimes on the other, and sometimes of both sides simultaneously. Accompanying the trouble with the vocal cords there was, usually, a considerable degree of tracheitis. The treatment which, as a rule, gave me most prompt relief during this period was intralaryngeal injections of a solution of menthol. Within an hour or so after the use of this preparation, the difficulty in using my voice would be greatly lessened; but this improvement would prove lasting only in part. All other treatment which even so resourceful a practitioner as Dr. Day could suggest was of little avail in relieving the symptoms, excepting, possibly, after a prolonged course of treatment. During the winter of 1896 I had more trouble than at any time since the affection began. The three or four attacks from which I suffered during that winter culminated, in March of that year, in an attack of unusual severity, which rendered it impossible for me to speak above a whisper for some 3 weeks or more. Although the acuteness of this attack subsided in the course of time, the trouble with the vocal cord which had been chiefly affected in this attack only partially disappeared; and until some time after I had been receiving the electrical treatment at your hands, a few moments' use of my voice above an ordinary conversational tone would exhaust it so that it would become impossible for me to continue. The condition of my vocal cords and larynx at the time you began the use of the electricity you know better than do I, and of this and the results obtained from that treatment you are too well informed to make it necessary for me to speak. As to the atmospheric conditions most likely to give rise to the trouble, I may say that they have usually begun during a period of damp weather; cold, clear weather seemingly having little effect in producing the attacks. The attacks came on suddenly, usually during the night. I would as a rule retire with little or no evidence of any laryngeal disturbance, and upon awakening in the morning would find my voice almost or quite gone."

Dr. E., the writer of this letter, is a man of fine physique and a professional acquaintance of some years. On his first visit his voice was quite hoarse, nearly aphonic, with a tracheal cough, expectoration scanty, a feeling of irritation over the episternal notch extending to the upper portion of the right lung. One or more glands along the right side of the larynx were slightly swollen and tender on pressure. His only complaint was either a complete or partial loss of voice, coming on, as he stated, suddenly, with attacks recurring *more* frequently.

The examination revealed a simple pharyngitis; also one healthy vocal cord, the left. The interarytenoid space was smooth, of normal color and appearance, with no swelling of the arytenoids.

The right cord was lacking those characteristic features which indicate its office; it had lost its tension, color, and firmness, as well as shape, appearing as a strip of fibrous tissue infiltrated with blood, in marked contrast with the color and healthy conditions of the remaining parts of the larynx. On the attempt at phonation it advanced but feebly to meet its fellow, and the husky tone shading off into complete aphonia. The mucous lining of the trachea was inflamed so far as

visible, and the feeling of weight or irritability over the episternal notch was so constant a symptom that it is reasonable to infer that the inflammatory process had extended downward along the tracheal walls. This irritability experienced over the episternal notch extended to the upper portion of the right lung; probably an extension of the inflammation along the lymphatic chain, the extent of which was previously noted by the presence of an enlargement of a few glands on the right side of the larynx.

The application of the galvanic current at stated intervals to the parts affected slowly alleviated the swollen glands and the tracheal inflammation. Laryngoscopic examinations, made immediately before and after the use of the electrical current, gave evidence of the bleaching process in the affected cord, which became more decided with each application.

By degrees the tension began to return and the voice became more flexible and resonant. It was especially interesting to watch the return of the normal shape and appearance of the cord.

Six months following last application of constant current, the right cord presents proper color and tension; on phonation it approximates the left normally, a slight blush of congestion passing over the cord during the act of phonation, while during inhalation the edge of the cord does not seem so sharply defined as that of the left.

This winter only two applications of electricity have been employed.

The galvanic current, as a curative agent in laryngeal and tracheal affections,

(*a*) is easy of application;

(*b*) is soothing and agreeable to the patient;

(*c*) it relieves the congestion, pain, and irritation;

(*d*) it does not excite pain or spasm of the glottis or trachea;

(*e*) it relieves the swollen lymphatic glands;

(*f*) it cures more promptly than any other agent.

(*g*) Patients recognize its value and return regularly for its application.

In the preparation of this paper I have received suggestions from Professor Stoerk's classical work, "Krankheiten des Kehlkopfs;" also from papers that have appeared in *Revue Hebdomadaire de Laryngologie, d'Otologie et de Rhinologie*, by Dr. Castex, of Paris; also from the resume of a paper by A. Trifiletti, published in *Annales des Maladies de l'Oreille, du Larynx, du Nez et du Pharynx.*

THE COLORADO CLIMATE AS A REMEDY FOR PHTHISIS.

BY ALFRED MANN, M.D.,

of Denver, Col.

A DISEASE so frequent in occurrence as consumption and the cause of so large a proportion of all deaths naturally commands the interest and deserves the close study of every medical man. In the details of its pathology and in the number and variety of its clinical manifestations it offers a fruitful field for study and very many sources of fallacy.

Some of the chief difficulties encountered in our management of patients affected with pulmonary tuberculosis are due to the fact that only too often the disease is not recognized in its incipiency. Yet if certain fundamental rules of diagnosis are carefully and consistently applied, there is but a small percentage of cases that need escape detection in the early stages.

Bearing in mind the ever-present possibility of tuberculous infection, the careful practitioner will examine and reexamine the chest, especially the apices of the lungs, to find at the earliest possible period the cause of obscure deterioration in general health or of a persistent cough. Careful examination of the sputum by one acquainted with its tolerably simple technic ought not to be omitted in any suspected case, and will often make the diagnosis possible when physical signs are yet absent, or inconclusive. At the same time when there is any doubt it may be necessary to make repeated examinations of the sputum before a few bacilli or bits of elastic tissue are found.

In the cases with cough, localized signs in the lung, emaciation and general debility, the diagnosis is usually readily made, especially if fever is present. Some of the cases in the early stages present apparently the general features of neurasthenia. In skilled hands the tuberculin-test and examination with the aid of the Röntgen-rays may solve an occasional difficult problem.

With the means for early diagnosis now at the command of the physician it is possible in the vast majority of cases of consumption to discover the nature of the disease as soon as it causes the patient sufficient annoyance to bring him to his medical adviser.

One of the first resources in cases of doubt should be a consultation with the most able and acute diagnostician within reach. This should not be left until the disease has made such progress that diagnosis is an easy matter. It is important in the interest of the patient as well as for the good name of the physician that the nature of the case be made out before there has been much advance in the destruction of lung-tissue. This course will often render unnecessary the dangerous and yet too common policy of waiting until the disease has "declared itself" and will thus make it possible to institute treatment at the most favorable time, that is, early in the disease.

The diagnosis of pulmonary tuberculosis having been made the question of treatment becomes of paramount importance, and in order that the patient may cooperate with the physician it is very important that the former should know the serious nature of the disease he has to fight. A patient is not likely to persist in conforming to irksome rules of behavior when he believes that his lungs are merely "weak," or that he has an affection of the throat alone, or a slight bronchial trouble.

It is just at this point that the physician in his character as friend and intimate adviser can do more than merely to write prescriptions and give routine advice. It now becomes his duty to instruct his patient or the patient's family in the character of the disease, and to

make them realize that temporizing with so dangerous an enemy is often a fatal blunder, and nearly always makes final recovery much more difficult. Not a few cases run a gradually declining course to a fatal termination which might have been avoided if only the patients had understood in the earlier stages the reasons for close attention to treatment.

The idea that consumption is an incurable disease is still widely prevalent among the laity, and is a survival from the time when early diagnosis of this common condition was almost impossible. At the same time the principles of its treatment were so little understood that cures were of comparatively infrequent occurrence. It has now been conclusively demonstrated by numerous results in many places that an out-of-door life and plenty of good food, especially under certain climatic conditions, are capable of bringing to a more or less favorable termination a large proportion of the cases. The best statistics have been obtained in the resorts of high altitude as the product of the systematic employment of all these factors in treatment simultaneously in the early stages of the disease.

The treatment of consumption in sanatoriums permits the attainment of the best results possible in any given climate. For in a properly conducted institution all useful measures can be fully carried out, while by careful supervision of the patients the incidental dangers and retarding influences can be excluded or minimized in their effects.

It is not always easy to impress upon the patient and his friends the conviction that half-way measures are out of place, and that the sooner our most reliable therapeutic means are brought to bear the more chances there are for recovery and the more complete the cure. It is at this juncture that the physician will have need for all the tact and skill in argument that he possesses in answering objections and quieting the fears which naturally beset his clients when removal to a distant part of the country is contemplated. Nothing will supply him with the proper firmness but the knowledge gained by experience that the earliest cases yield by far the best results. The study of the pathology of tuberculosis with its early destruction of tissue in the lungs, and the probability of a more and more rapid spread to fresh portions as the disease progresses, gives the scientific explanation for the observed clinical facts.

Colorado unites in its climate the special features of most value for the purpose under consideration. To the direct stimulating effect of the altitude are added great dryness of air and soil, seasons of moderate temperature and sunny skies, permitting outdoor life the year round. Denver, the capital of the State and its chief city, is situated at an altitude of 5,200 feet; thus one-sixth of the total atmosphere is below its level and the barometric pressure is one-sixth less than at the sea. Denver may stand as typical of the region just east of the foot-hills of the Rocky Mountains, which includes also Colorado Springs and Manitou, Boulder, Pueblo, Canon City, and a dozen other attractive towns.

The dryness of the atmosphere in this territory will be best appreciated by comparing the relative humidity of Denver with that of typical places in other parts of the country. The observations are taken twice daily by the observers of the United States Weather Bureau, and the figures are published in the annual reports of that department. The averages of the annual means for the six years, 1891 to 1896, are as follows: For New York, 74%; for Los Angeles, 72%; and for Denver, 47%. This conspicuous difference in the character of the air indicates a correspondingly important diversity in the effect on phthisical lungs.

Owing to the rarity and dryness of the atmosphere in Colorado the sun's rays pass through without greatly heating it, consequently the shade, even on warm days in summer, is always comfortably cool, while, because of the warmth of these very rays, invalids can lead an outdoor life and sit in the sun on verandas for hours on most days through the pleasant winters. In this thin, dry air cold is much less felt because heat is much less rapidly lost than in a denser and more humid medium. The dryness of the air has an evident beneficial effect locally upon the diseased areas in the lungs, as is indicated by the common observation that improvement in the physical signs is more rapid in dry than in comparatively damp seasons. The statistics of various observers also show much better results in dry as opposed to damp climates.

At the same time the low temperature of the mountain air exerts a powerful tonic influence upon the whole economy. The breathing of cool or cold air makes the circulation more active, causes nutrition and all metabolisms to go on more vigorously, and heightens the tone of the nervous system.

The question as to the way in which high altitude so favorably affects the general health can still not be considered as answered. Numerous bloodcounts in both men and animals, have been reported by a number of observers, agreeing among themselves quite closely and showing an increase in the number of red corpuscles directly proportionate to the altitude. An increase in hemoglobin has also been observed in many of the experiments, reaching its maximum more slowly than does the number of corpuscles. From these observations, mostly made with the Thoma-Zeiss blood-counter, the conclusion has been drawn by many that the lessened pressure of oxygen at high altitudes acts as a stimulant to the blood-making organs and that the number of red blood-corpuscles is very rapidly increased. The appearance of small forms was interpreted as a direct evidence of rapid new formation of red corpuscles. More recent work makes it seem likely that the observed results are due to the interaction of three factors: First, a defect in the apparatus used

(the Thoma-Zeiss blood-counter), which causes the counts to be too high under low atmospheric pressure; second, an *apparent* increase due to the rapid removal of water from the blood by evaporation in dry and rare atmospheres; third, an *actual* increase in the number of corpuscles due to the tonic effect of the climate, but an effect which is slower to become apparent and is accompanied by an increase in hemoglobin. According to this view, the good effect upon patients observed in high altitudes would be in part, at least, traceable to direct effects upon the concentration and composition of the blood. Whatever its mode of operation, the fact that altitude has a powerful tonic influence over nutrition has been noticed by many keen observers, American as well as foreign.

Immediate removal of the patient to a salutary climate like that described gives the best outlook for securing in each case as favorable a final condition as is possible. The earlier the stage at which the disease is arrested, and the more promptly actual healing is induced, the less extensive, other things being equal, will be the resulting scars and other abnormal conditions in the lungs. It is only in the most promising cases, however, that experience seems to justify the final return of the former invalid to the climate in which he acquired the infection.

On the other hand, the more advanced the pathologic changes in the lungs, the larger the caseous areas and cavities, the less likely will it be that complete cicatrization can take place. In these more serious cases we may secure arrest of the disease and a quiescent condition of the encapsulated lesions, necessitating permanent residence in a favorable climate, but very rarely do we obtain a result that can fairly be called a cure. Experience has shown that of the early cases which come to Colorado a very large proportion are benefited, many of them being actually cured. The better the constitution and the family history, in general, and the better the condition of the patient when he arrives in this region, the more quickly, with proper care, will improvement occur, and the better are the chances for ultimate healing.

The cases with lesions somewhat farther advanced, but with little or no breaking-down of lung-tissue, also do remarkably well here, even if there is slight fever.

With more advanced disease, considerable constitutional disturbance, but no large cavities, the results are not so good, yet even these patients often do very well in Colorado.

The so-called hemorrhagic cases, like those without hemorrhage, do well if the disease is not too far advanced. The cases with blood-spitting at an early stage of the lung-trouble are among the very favorable ones for high altitudes.

The rapid weak heart, which so often accompanies tuberculosis, is not a contraindication for an altitude of 5,000 to 6,000 feet, unless there is dilatation. On the contrary, as the general health improves the heart usually grows stronger and the pulse becomes slower.

Those with advanced or uncompensated heart-lesions should not be sent to high altitudes, nor should those with tuberculosis far advanced, with well-marked cavities, high fever and great general debility.

Concerning the treatment to be adopted in connection with residence in Colorado, the general principles are the same as those which are applicable in any other climate; out-door life, good food, plenty of rest, careful attention to all details of hygiene, and the judicious combating of symptoms as they arise. Even an outline of this interesting domain of practice would far overstep the limits of this paper. Proper individualization demands constant watchfulness and the highest skill of the physician in the use of all the resources of modern therapeutics.

A NOVEL TREATMENT OF CERTAIN FORMS OF HEADACHE, DEAFNESS, AND OF TINNITUS AURIUM.

(Second Paper.[1])

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IN a previous communication[2] I drew attention to a new and original treatment of certain forms of headache by means of syringing the nasal accessory sinuses with a stream of hot, dry air, under pressure. From this treatment, in many instances, excellent results were obtained.

It is evident, however, that the value of any treatment for the relief of headache consists not only in the relief of the headache at the time, but also in the fact that this relief is of a more or less permanent character.

It is therefore my desire now to review the cases presented in my previous paper, to continue their histories to the present time, and to add a few cases that may serve to further illustrate the conditions present and the results obtained.

At the same time I shall again draw your attention to the beneficial results of this hot-air treatment in cases of deafness and tinnitus aurium caused by middle-ear catarrh.

CASE 1.—Constant frontal headache and tinnitus aurium of over twenty years' duration in a case of atrophic rhinitis; permanent relief from the headache and tinnitus by one treatment. Miss K. O., aged 42, seen November 21, 1899, gave the following history: At the age of 12 years she had scarlet fever, which was followed by a chronic, purulent

[1] Read before the Section on Otology and Laryngology, College of Physicians of Philadelphia, May 17, 1899.

[2] Read before the Section on Otology and Laryngology of the College of Physicians of Philadelphia, May 3, 1898. Published in the PHILADELPHIA MEDICAL JOURNAL, May 7, 1898.

otitis and rhinitis. The aural discharge continued for many years; the nasal discharge has continued ever since, with at times the formation of crusts. The patient states that her mother, sister and brother all have the same form of catarrh. Her headaches commenced over 20 years ago, and, although at times the pain is somewhat easier, she states that it is never absent. Pain is referred to the frontal region chiefly, and at times also extends to the vertex. Her tinnitus is very loud, the noise in her head being compared to cars running on a track, or to thunder. In character the noise is always the same, although it varies in intensity. Her hearing has become greatly impaired, conversation requiring a very loud voice only a few inches from the ears. She has at times considerable dizziness. Her general health has always been good, with the exception of some indigestion. She has had at various times a great deal of treatment for her headache. Upon examination it was seen that the patient had an extremely high-grade atrophic rhinitis; the middle and lower turbinals had nearly disappeared through atrophy. The mucous membrane of the pharynx was dry, glazed, and atrophic. The membranae tympani were almost completely destroyed, only a small rim of each being left. No discharge was present in the ears. As to hearing, a loud voice was heard 3 inches from the head; the watch or a whisper not at all; tested by the tuning-fork, Rinné positive; note of fork was lost 40 seconds before ceasing.

Treatment.—After cleansing the nasal cavities, a forcible current of hot air was sent into the ethmoidal and frontal sinuses, also through the eustachian tubes into the middle-ear, and although the patient said she had an unusually severe headache at the commencement of the treatment, her headache and tinnitus entirely disappeared within a few minutes. Her hearing also improved so that she could hear a moderate voice at 2 feet. The treatment was repeated once a few days later, and then all treatment was stopped, with the exception of keeping the nasal passages clean.

This patient has recently reported to me and states that, since the treatment in November, 1897, she has been entirely free from pain in the head, with the exception of a slight neuralgic headache, of a few hours' duration, in February, 1898, which occurred after exposure to cold winds. She has continued entirely free from all noises in the head, and her hearing has remained improved. She is a shoe-operator by trade, and before the treatment was unable to pursue her avocation on account of the headache and confusion in her ears; but since the relief from these conditions she has been able to resume her work.

Case 2.—Acute frontal sinusitis, with intense frontal headache of three days' duration; immediate and complete relief by one treatment. Dr. P., a practising physician, visited me in December, 1897, with the following history: A coryza contracted some days previously, was followed a few days later by an intense pain over the right side of the forehead. The pain was so intense that he had been unable to sleep for 48 hours, and felt very wretched. The patient had been using various means suggested by a colleague, but had received no relief. Upon examination it was seen that the superior portion of the septum was bent with a slightly curved deflection to the right; this slight deformity, with the swelling produced by the coryza, caused an obstruction of the superior meatus of the same side. A current of hot air was passed into the right frontal sinus and the patient expressed himself as being instantly relieved, no pain remaining except a slight soreness. In this case relief was followed by a serous discharge from the right nostril lasting for several hours.

This was an acute case and the relief has been permanent.

Case 3.—Dull headache, with confused feeling in the head, for two years, relieved by one treatment. Mr. D., a merchant, referred to me in January, 1898, by Dr. O. H. Sterner, complained of nasal obstruction, postnasal dropping, thickened speech, voice easily tired, and constant dull headache, of two years' standing. Examination showed an exostosis on the left side of the septum, with hypertrophy of the lower turbinals and chronic granular pharyngitis. The exostosis was sawed off, the hypertrophied turbinals were cauterized, and applications were made to the nasal and pharyngeal mucous membranes. This treatment, which extended over several weeks, resulted in removing the nasal obstruction, stopping the postnasal dropping, and giving him a good clear voice, but the dull headache continued. I then syringed the frontal and ethmoidal sinuses with hot air with the result of completely and permanently removing the headache by one application. The patient inquired at the next succeeding visit as to what I had done to him, and when asked "Why?" replied, "All the dull feeling in my head is gone and my head feels clear and nice."

A recent report received of this patient states that he has remained entirely free from all dull feelings and headache since the treatment.

Case 4.—Frequent severe headache, for several years. Result of treatment—marked improvement after several hot-air applications. Miss K., January 5, 1898, had had occasional severe headache for the past 5 years. About a year ago she had la grippe and since then the headaches have been more severe and frequent. She now has a headache weekly and at times biweekly, lasting usually 2 days, or even 4 days. The pain is felt chiefly in the forehead and particularly on the left side. It commences suddenly and upon ceasing leaves a sore, beaten feeling that lasts a number of hours. The pain is very intense; the patient has been unable to find relief from any source, and states that she usually sits in a chair and cries. The headache causes a subsequent nervous prostration. Her general health is good, digestion fair, bowels regular. She has some mucous secretion in the nose and complains of a full feeling in the throat. The nasal chambers are narrow; there is thickening of the superior anterior portion of the septum, producing stenosis of the superior and anterior portion of the middle meati. The turbinals are fairly normal, the faucial tonsils are moderately hypertrophied, and there is enlargement of the glandular tissue at the base of the tongue and in the vault of the pharynx.

Treatment.—January 14. The patient at the time of the visit had a severe headache of 6 days' duration; hot-air was injected into the sinuses, with the result of relieving her headache before leaving the office. She remained free from pain for two weeks when another attack of headache occurred, this was relieved by repeating the treatment, and a month elapsed before another attack came.

During the past year this patient has had a number of attacks of headache, although they are much less frequent and less severe than formerly. The headache is usually relieved by the hot-air treatment. Various other remedies have been tried, but nothing seems to aid her except the local treatment to the sinuses. She is a dressmaker and is now able to keep her business engagements, which she previously was unable to do.

Case 5.—Constant frontal headache for the past 3 years. Result of treatment—permanent relief by one treatment. Miss S., aged 15, in November, 1898, stated that she has had constant severe frontal headache for the past 3 years, and also obstruction of the left nostril, postnasal dropping, and occasional sharp pains in the left ear. Examination showed a large polypus in the left nostril, blocking up the middle meatus. The polypus was removed by the cold snare and then some days were allowed to elapse to see if the headache ceased; this not being the case, a hot-air current was forced into the sinuses, with the result of immediately removing the headache.

The patient has since continued free from her previous headaches.

Case 6.—Severe headache (frontal and vertical), with excessive tinnitus and deafness of two years' duration. Result

of treatment—complete relief from headache and tinnitus, with restoration of hearing to normal, by three treatments. Miss E. M., aged 25 years, was first seen by me in December, 1897. Until two years ago she had been perfectly well, with good hearing. Then, after a series of severe colds in the head, she experienced an intense ringing in the ears (tinnitus), particularly in the left one, with considerable loss of hearing; at about the same time, intense frontal and vertical headaches commenced. The pain was most intense over the left brow. This condition persisted, with little change, until September, 1897, when, after a severe cold, all the symptoms were aggravated; the pain and confusion in the head, with the high grade of deafness, became so severe that she was compelled to give up her situation. At the patient's first visit, December 17, 1897, she stated that she felt nearly distracted with the pain and noise in her head. The tinnitus she compared to the buzz of a trolley-car or locomotive; at times it became more ringing in character, but it was never absent. The hearing was greatly impaired. A small, loud-ticking clock held close to the left ear, was not heard; the watch was not heard even on firm contact with the left ear, right ear 3 inches $\frac{3}{50}$. Rinné's test with the tuning-fork was positive in both ears, more marked, however, on the left side. She had no pain in the ear and no discharge. The eustachian tubes were pervious. Air was forced through them with a Politzer's bag; after the use of the bag the hearing was the same. She stated that her mother is hard of hearing. Examination showed a slight sclerotic condition of the turbinals, also a small spur on the septum near the floor of the nose. There was also chronic granular pharyngitis. The membranæ tympani were dull, opaque, and retracted.

After cleansing the nasal chambers, a hot-air current was passed through the eustachian tubes into the middle ear, and through the nasal chambers into the frontal and ethmoidal sinuses; after the treatment the patient stated that the tinnitus had nearly ceased, and that the pain in the head was gone. On testing the hearing with a watch, left ear 2 inches, $\frac{2}{50}$, right ear 12 inches, $\frac{12}{50}$. The next visit was January 10, 1898. The patient stated that she had been free from headache and that the right ear had felt perfectly well since the last visit, with good hearing and no tinnitus. In the left ear the tinnitus persisted, but was not so loud as before; the ear felt clear and she heard better. Tested by the watch before treatment, hearing with the left ear was $\frac{3}{50}$, with the right ear $\frac{24}{50}$. Hot air was used as before, with the result of entirely removing the tinnitus. The hearing was improved, when tested with the watch, in the left ear to $\frac{30}{50}$, in the right ear to $\frac{20}{50}$. January 30, the patient stated that she had been free from tinnitus and headache since the last visit, with the exception of a slight ringing in the left ear, which occurred twice, lasting a few minutes each time. The hot-air treatment was repeated, and by the watch-test the hearing was: left ear $\frac{40}{50}$, right ear $\frac{50}{50}$. The tinnitus had now ceased. The headache had not returned after the first visit in December.

This patient remained absolutely free from headache and tinnitus, and had perfect hearing for some weeks, when she had the misfortune to contract a severe grip, which confined her to her bed for some days and caused a return of the tinnitus and deafness in the left ear; headache did not return. A few treatments, however, again restored her hearing, and caused the tinnitus to cease. During the past year the patient has continued free from headache, she had had a slight tinnitus upon several occasions; her hearing has continued good. She is a seamstress and had been able to resume her occupation, which she had been compelled to abandon before the treatment because of her affliction.

For a full history of the following cases, see PHILADELPHIA MEDICAL JOURNAL, May 7, 1898.

CASE 7.—Headache of from four to five years' duration, principally frontal and associated with very severe tinnitus aurium. Result of treatment—relief by one treatment.*

I have been unable to ascertain the address of this patient and do not know his present condition.

CASE 8.—Intense frontal headache and severe tinnitus of six weeks' duration. Result of treatment, relief after a number of treatments.*

This patient, since the attack reported, has consulted me upon two occasions, with headache following exposure to cold winds. On one of these occasions there was a mucopurulent discharge from the left ethmoidal sinuses. A few treatments with the hot-air douche and appropriate attention given to the digestion entirely relieved her in each instance.

CASE 9.—Intense frontal headache of long duration, associated with occipital headache, uterine disease and general debility. Result, complete relief from the frontal headache by one treatment.*

During the past year this patient has had no further attacks of frontal headache.

CASE 10.—Severe frontal and temporal headache, associated with nasal polyps. Relief from the headache by one treatment.*

This patient remained relieved of his headaches for some time, when he again reported, suffering from the same condition as before. Another polyp was removed and the treatment repeated, which again gave him relief, since which time I have not heard from him.

CASE 11.—Acute frontal headache, following a coryza. Relief by hot-air treatment.*

During the past year this patient has had one other such attack of headache following coryza. The hot-air treatment again gave her quick relief.

CASE 12.—Almost constant headache for more than a year. Improved by the hot-air treatment.*

During the past year this patient has had several attacks of headache; the hot-air treatment quickly relieved her in each instance.

CASE 13.—Severe headache, with acute inflammation of the left frontal, ethmoidal, and sphenoidal sinuses. Result of treatment, relief after treatment.

This patient has continued free from headache and inflammation of the sinuses since the above treatment. During the past summer her usual attack of hay-fever was extremely mild.

I have had a number of similar cases of headache under my care and have obtained equally good results in appropriate cases. The cases already quoted, however, fairly represent the usual conditions present. That certain pathologic conditions of the nasal chambers, such as the irregularity of the septum, enlarged turbinals, polyps, etc., may cause headaches from obstruction and pressure has long been known. It is my practice, therefore, to combine such operative treatment with the hot-air syringing, whenever necessary. In a certain percentage of cases, however, the removal of the spurs, polyps, etc., has not relieved the headaches. Again, there are many cases in which the headaches are of purely catarrhal origin, as in atrophic rhinitis,

* For history of these cases see reference.

* For history of these cases see reference.

etc. Another very important class presents a thickened condition or a slightly curved deviation of the superior and anterior portions of the nasal septum, causing obstruction to the outlets of the sinuses, and being very difficult of successful operation. Nearly all these cases may be given quick relief by the hot-air treatment.

It certainly seems difficult to explain such quick and permanent relief from conditions lasting as long as they do in some of these cases. I am still inclined to think, however, that the explanation is as follows: The condition causing the headache consists in a blocking and stoppage of the small outlets to the sinuses or to the small cavities within the sinuses; that this stoppage is followed in some instances by a retention of gases or fluids in these cavities; in other instances by absorption and rarefaction of the confined air, thus lessening the support of the atmospheric pressure to the walls of the bloodvessels and causing chronic congestion of the mucous membrane lining the sinuses. The effect of the forcible syringing of these cavities with hot air, is to open up these outlets, allow retained gases or fluids to escape and to restore the equilibrium of the atmospheric pressure. When the outlets are once freed of their obstructions they do not easily become obstructed again, hence the relief from headache was not only obtained quickly, but the good results of the treatment were also lasting.

The following cases, which I have not previously reported, appear to me to be capable of a somewhat different explanation from those which I have just been considering:

Case 14.—Mr. ——, age 29 years, consulted me in October, 1898, for violent frontal and vertical headache of six weeks' duration. He gave the following history: His health had been exceedingly good until the autumn of 1897, when he contracted typhoid fever. During this illness he had severe cerebral symptoms with intense pain in the head. He was very ill for a long time, his life being on several occasions endangered by various complications that occurred during the course of the fever. After several months he convalesced and resumed his occupation. During August, 1898, while in a still somewhat weakened condition, he was twice overcome by the heat. Following this he had a constant dull headache which gradually increased in severity until I saw him in October. The patient at this time presented a somewhat weakened cardiac action and lowered nervous tone. His digestion was impaired and he was very fearful of a return of the typhoid condition. The pain in the head was very severe and constant. It was felt chiefly in the frontal, vertical and temporal regions. Examinations of his nasal chambers revealed nothing abnormal, they being exceptionally perfect.

Treatment.—Hot-air syringing of the sinuses was undertaken, and after a few treatments there was decided amelioration of the headache. He was given appropriate treatment for his general condition and diet, and exercise recommended. In the course of two months he was discharged cured.

The hot-air treatment in this patient was followed by a copious serous discharge from the nose, and this was more particularly the case with the initial treatment.

Case 15.—Miss H. was under my care last spring for chronic nasal catarrh. During July she was severely overcome by the heat. Her family-physician (Dr. C. A. Service) informs me that there were marked meningeal symptoms. Following this she had a long, tedious recovery of her strength, associated with a continual headache that became particularly severe upon exposure to the sun. In the autumn I again resumed charge of the patient. Her headache at this time was quite severe and almost continuous; there was pain all over the head with a feeling as of a heavy weight pressing on top of the head.

Treatment.—Hot-air syringing of the sinuses was used, and after a few treatments this relieved the patient almost entirely of her headache. As in the previous case, a course of tonics, diet, and exercise was necessary to complete the cure. The local treatment in this case was also followed by free serous discharge from the nose.

In both of these cases it seems to me that the depleting effect produced by the hot-air upon the bloodvessels and the lymph-channels in the nasal mucosa must have had a marked secondary effect upon the bloodvessels and lymphvessels at the base of the brain, more particularly those in the meninges.

The free serous discharge following the treatment would also point to some such effect upon the vessels, indeed, this effect upon the circulation in the blood- and lymphvessels may be more or less a factor in the relief of all the cases reported.

The length already reached by this paper prevents me from presenting the application of this hot-air treatment in cases of deafness and tinnitus aurium, so fully as I would like. In general, I have obtained better results from this treatment in cases when catarrhal rather than sclerotic changes were present in the middle ear and eustachian tubes.

For tinnitus aurium the treatment has proved especially beneficial.

The following 3 cases have been chosen to show the results of the treatment, because they seem to be good illustrations of well-marked grades of deafness with noises in the head.

Case 16.—Mr. H., aged 19, college lad, referred to me by Dr. E. M. Clark, gave the following history. For the past 3 weeks, he had been very deaf with a feeling of fulness in the ears. There is a very loud tinnitus aurium and resounding of his voice in his head. The tinnitus is very loud and constant. This condition he stated followed a coryza.

Previous History.—There has been some nasal obstruction, postnasal soreness, and dropping of mucus, with occasional slight earache since childhood. Three years ago he had measles and, although the ears were not apparently affected at that time, still his family thinks there has been a slight dulness of hearing ever since. Last Spring, he had an attack of typhoid fever, following which he was quite deaf for a time; the hearing gradually improved, but remained impaired.

Examination of the ears showed the membranæ tympani to be congested, pinkish in color and retracted, although movable. The eustachian tubes were patulous to Politzer's method of inflation.

Nose: The nasal septum is markedly deviated to the left, causing almost complete obstruction of the left nostril. The right lower turbinal is greatly swollen and boggy. Both nasal chambers contain considerable mucus. There is no apparent involvement of the nasal accessory sinuses.

Throat: The mucous membrane of the pharynx is fairly normal.

Hearing: Testing with a watch that can be heard 60 inches with a normal ear, the tick was not heard by the patient even upon firm pressure of the watch against the ear. A loud ticking clock was heard in the right ear 7 inches, in the left ear 12 inches. A loud male voice could be heard 10 feet. A loud whisper 9 inches. The tuning-fork was

heard much louder upon contact, and its note was lost 20 seconds before ceasing.

Treatment.—After the usual preparatory opening and cleansing of the nostrils, by means of cocain applications, followed by sprays, a current of hot-air was passed into the right ear through the eustachian tube, with the result of immediately relieving the tinnitus in that ear and improvement of the hearing, to hearing the watch 6 inches, the clock 10 feet, a low voice 20 feet. The left ear was not treated at this visit on account of the greatly obstructed left nostril. The patient continued his visits, at first every other day for 2 weeks, and then bi-weekly, the treatment with the hot-air being repeated at each visit. At the second and subsequent visits, the left ear was also treated. At the end of 3 weeks the patient could hear the watch with the right ear 30 inches, with the left ear 24 inches; the clock could readily be heard across a large room. He states he has had no further difficulty in hearing at school. The tinnitus is absent much of the time, and when present is but slight. This case was one of subacute exacerbation of chronic catarrhal otitis media.

CASE 17.—Mr. R., aged 40 years, clerk, consulted me in February, 1899, for a very loud tinnitus aurium with moderate deafness of two years' duration. He stated that the noises in his head were so loud that at times he could not hear his own voice; they were constantly present and consisted of blowing, hissing and ringing sounds.

Examination.—The membranae tympani are slightly thickened and retracted, although movable. The left nasal chamber is greatly obstructed by a deflection of the nasal septum. The mucosa of the nose and throat is congested and lightly covered with catarrhal secretions. The eustachian tubes were open to Politzer's inflation. He could hear the tick of a watch with each ear about 12 inches $\frac{12}{60}$. The tuning-fork was heard louder upon contact. Treatment of the middle ear by means of hot air passed through the eustachian tube was instituted. The patient reported twice a week for treatment.

Results of Treatment.—After a few treatments, the tinnitus was greatly lessened, being entirely absent for a time after each visit and then gradually returning, but never amounting to more than a low, mild, ringing sound. The hearing gradually improved. This improvement continued until, at his visit April 23, he stated that he had been absolutely free from all noises in the head for some days. His hearing at this time had improved to hearing the watch 30 inches, $\frac{30}{60}$, with each ear. The patient's treatment was then discontinued.

This case was one of chronic catarrhal otitis media with retraction of the drumhead, of several years' duration, the tinnitus aurium being a marked symptom.

CASE 18.—The following case is quoted to show what may be accomplished in cases that seem almost hopeless, when the hot-air treatment is continued for some time:

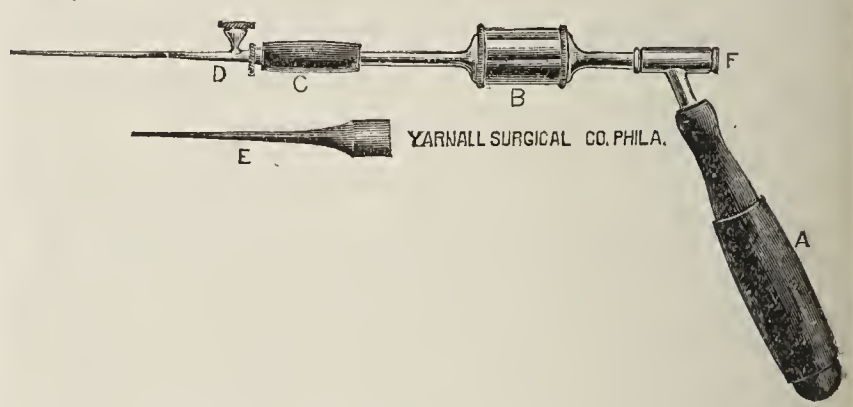
Miss B., age 30 years, dressmaker, was referred to me by Dr. C. T. Adams, in October, 1898. She was so deaf that she had to use a large ear-trumpet and even with this, people had to speak very loudly in order for her to hear; she also complained of constant severe ringing in the head that disturbed her sleep. This deafness and tinnitus had commenced 7 or 8 years ago, being slight at first, but gradually and progressively becoming worse. About a year ago she commenced to use the trumpet. More or less nasal catarrh had been present for years.

Examination.—The patient is extremely nervous and depressed about her condition; she has lost considerable weight in the past year. The membranae tympani are markedly thickened, opaque and retracted, although slightly movable. A moderate grade of atrophic rhinitis is present in both nostrils. In the left nostril a sharp, thornlike spur comes off of the bony septum far back and touches the posterior portion of the middle turbinal. The mucous membrane of the pharynx is congested and somewhat atrophied. Hearing: She could hear a loud voice through the trumpet, a watch not at all, a tuning-fork much louder upon contact. The tone of the fork was lost some 20 seconds before ceasing.

Treatment.—The nasal spur was removed. A cleansing treatment was given for her chronic nasal catarrh, and she was placed upon the use of a tonic. About a week later the hot-air treatment of middle-ear was commenced, the air being passed through the eustachian tube.

After a few treatments the patient stated that she now slept well every night, that the tinnitus was less and that voices sounded less harsh and more mellow to her. The treatment was continued with biweekly visits. The patient's health continued to improve, her weight increased materially, and in about a month or 6 weeks she gave up the use of the ear-trumpet. A clinical note taken on December 28, states that the patient can now hear the tick of a small clock with the right ear 4 inches, left ear 2 inches; that the tinnitus is entirely gone from the left ear and is greatly moderated in the right ear. A moderately loud voice can be heard 9 feet. The patient states she can now catch words of conversation not addressed to her. In illustrating her improvement she mentioned that before commencing her treatment she was not aware that the clock on the mantel-piece in her dining-room struck the hour, and that now she could distinctly hear it strike, from her seat at the table. In April, she could hear the tick of the small clock 15 inches with the right ear. The tinnitus was usually only in the right ear and was but slight. She could converse with people without very great difficulty. She was much happier and was able to pursue her avocation. In January aural massage was added to the treatment, but did not seem to increase the rate of improvement. Her present condition is somewhat better than in April.

Although I have described the apparatus I use in this hot-air treatment in a former paper,[4] I may be permitted to refer to it again. The hot-air syringe consists, as you



see, of a small chamber containing in some instances a piece of carbon, in other instances having in its interior several diaphragms of metal. This chamber is held over a flame, preferably that of a spirit-lamp, until heated. Coming off of the chamber, anteriorly, is a nozzle with adjustable tips. The air enters the chamber from behind and is heated while passing through. The instrument is small in size and is held by a handle placed at a convenient angle. The air to be heated is obtained from the usual air-condenser. The amount of heat produced may be varied at will, from a mild warmth to a burning degree, and depends upon how hot the

[4] Read before the Section in Laryngology and Otology, at the Forty-eighth Annual Meeting of the American Medical Association, June 1-4, 1897. Published in the *Journal of the Am. Med. Assoc.*, October 2, 1897.

chamber is heated, how swiftly the current of air is passed through, and how close the nozzle is held to the surface to be treated. In some instances vapors of chloroform, menthol, etc., have been added to the heated air; this is done by placing a small quantity of the medicament in the little cup found on one of the tips, or by placing it direct in the catheter, when one is used.

In preparing the nasal chambers for treatment, the mucosa is first shrunken by applications of cocain or eucain, used alone or followed by watery solutions of the suprarenal capsule of the sheep.

The hot air is directed against the openings of the sinuses, or, if necessary, a small catheter is used. When the middle ear is treated, the air is passed through a eustachian catheter.

The treatment, when properly carried out, is not painful, but is rather agreeable to the patient.

THE POWER OF SUGGESTION.

By ARTHUR MacDONALD,

of Washington, D. C.

Membre de la Société de l'Hypnologie de Paris.

The term "suggestion" is often preferred to that of "hypnotism," because it is the fundamental factor in hypnotism. Suggestions may be made by signs which are visual, auditive, olfactory, or tactile. Hypnotism may be defined as an artificially induced sleep in which there is suggestibility and hallucinability with insensibility to most impressions, and upon waking remembrance of little or nothing that has taken place.

Durand de Gros, while hypnotizing an individual whom he had previously directed to gaze steadfastly at a small brilliant object for the space of 15 minutes, said to him in a positive tone, "you will run on a gallop and you cannot stop without my permission."

That which he declared took place. The attainment of such a result involves as a first condition the participation of the consciousness and intelligence of the subject; this is proven by the fact that the affirmation has no effect until comprehended. If spoken to in a language he does not understand, the subject makes no reference to the suggestion. For the success of the method, in suggestion experiment it is necessary that the subject have a certain moral aid, a certain faith, that he believe to a certain extent the incredible assurances that are made him. The affirmation is not generally effective unless articulated in a peremptory manner and by a person whose voice, face, and entire bearing suggest conviction and persuasion. It is a universal fact that personal magnetism is a powerful aid to the hypnotist. To an old practitioner there is no doubt that the disposition to submit to suggestion lies in individual credibility and authority. Thus, in order that the suggestion may operate effectually, it is indispensable that its expression be comprehended by the subject and that it obtain a certain adhesion on his part. To induce hypnosis through suggestion the attention of the subject must be fixed on one idea, exactly as one puts oneself into the autohypnotic state necessary to success in a spiritualistic seance. The attention must be concentrated and one must think only of the phenomena to be produced.

This may be one reason why the subjects the most sensitive to hypnotism are also those who best realize spiritualistic experiences. All methods to induce hypnotic sleep aim to fix the attention of the subject and to play on his imagination.

In the neurotic the attention frequently cannot be concentrated for any length of time. Contradictory ideas pervade the mind, and the imagination wanders continually. Thus neurotics, though very suggestible when awake, are difficult to hypnotize.

Emotion and Suggestion.

Emotion as a physiologic state was studied by Professors James and Lange, who claimed that it is but the consciousness of the neurovascular variations which are produced in the organisms. Among the emotions, there are two which have a particularly paralyzing action on the will: sadness and fear. Besides these two fundamental types there are several secondary ones. Thus with melancholia, there is depression, discouragement—a feeling of weakness and powerlessness. With fear there is inquietude, apprehension, timidity, anguish, and terror. All of these emotions may have an inhibitory action on the will. Sadness, according to Lange, is an abnormal constriction of the small bloodvessels producing a general anemic condition, which shows itself in the pallor of the tissues, in coldness, a diminution of secretions, dyspnea, certain digestive troubles, and a diminution of voluntary energy. Fear may also be due to spasmodic contraction of the small bloodvessels.

Aboulia and Emotion.

Aboulia is a condition in which volition is impaired or lost. It may be divided into general and special aboulia. By general aboulia is meant that state in which depressive emotion is so developed that it plays a preponderant role in physical life and constantly interferes in the exercise of voluntary activity. The native instability of the vasomotor system disturbs the vascular equilibrium from the slightest cause, so that there is always a quantity of loose emotion which is ready to attach itself to the idea which commands the act, and to influence it in its realization. This original tendency to emotion may exist in various degrees. When very prominent, it corresponds to what may be described as "nervous anguish." When emotion is thus brought into play, apropos of a voluntary determination, it immediately opposes its inhibitory action to the dynamic power of the will, and a struggle results at times ex-

tremely painful, and accompanied by characteristic symptoms: pallor, cold perspiration, oppression, and palpitation.

The timid, who almost always have aboulia through emotion, know this uneasiness. They know that the most deliberately planned act may be suddenly prevented, at the moment of execution, by a stupid emotion which seizes the throat, crushes the breast, presses the heart, covers them with cold perspiration, and deprives them of all power. Sometimes by energetic force they succeed in overcoming this inhibition; frequently, however, they are incapable of overcoming it and are constrained to renounce their plans. All reasoning is vain, they are obliged to yield to this force which is stronger than they. Emotion does not always attain to such intensity and manifests itself under other circumstances by a resistance which interposes like a brake between the idea and the act. Thus the timid seldom realize what they desire. In them nervous energy, instead of spending itself in acts, is transformed into vasomotoric phenomena. In special aboulia, emotion is not generalized but localized in a constant manner in this or that territory of the voluntary activity. It is not a permanent infirmity, but an intermittent and elective incapacity to act.

The following cases may serve to illustrate the power of suggestion:

CASE 1.—Durand de Gros, taking the vegetative life as the objective of a disturbing suggestion, said to a subject (making him swallow a glass of water and a bread pill): "You have taken a powerful purgative which will act very quickly," and the event did not fail to follow the announcement.

CASES OF CURE OF OBSESSION BY SUGGESTION.

We give below some cases of persons healthy up to a certain epoch, being more or less under the domination of ideas of which they could not disabuse themselves, and which forced them to commit acts contrary to their wills. These cases were treated by Dr. Bramwell.

CASE 2.—M. A., aged 24 years, suffered from disordered glands in the neck and face. Cured of these he went to the seashore, where he fell and was wounded in the perineum. This formed an abscess which opened and let the pus enter the urethra. The doctor found a very bad-looking wound, by which the urine escaped. He told him to use a catheter regularly, and the wound would heal. Sometimes before he could introduce the catheter, the urine escaped by the wound. This became more frequent, and at last he allowed the urine to escape, no matter where he was. This was often the case at night. He was hypnotized at the first seance. While sleeping, it was suggested to him to think no more of this thing, to retain the urine for 8 hours, and to pass it by the catheter. After this seance the patient was absolutely free from his obsession, and the wound healed completely in a year without any operation.

CASE 3.—M. B., a young man of athletic habits, who loved all kinds of sport, as bicycle, football, etc., lost his mother by cancer of the breast. Fear seized him that he would contract the same disease, and he came to believe that he had a cancer in the left breast. He seldom left his room, and when he went out he wore an overcoat for fear that cold might aggravate the supposed disease. One day he thought he felt pains in his arm, and thenceforth carried it in a sling. Upon examination no trace of cancer was found, but the muscles of the arm were atrophied from lack of exercise. Being easy to hypnotize, he was quickly put to sleep and cured.

CASE 4.—M. D., aged 42 years, suffered from infancy from an obsession which made life intolerable. He fancied that everybody watched him and criticised him. If any one looked at him, even a child, he blushed. The idea that someone *might* look at him also made him blush. This obsession forced him to give up his business and he was haunted by thoughts of suicide. This man was cured after long-continued treatment, for, being refractory to sleep, he was only brought under its influence at the fifteenth seance. He had no return of the trouble.

A somewhat analogous case is that of a merchant who fancied that he committed errors to his disadvantage in the affairs which he undertook. After he had accomplished what he undertook he felt embarrassed and believed that everyone noticed it. This last idea possessed him equally when he went about in the world. He was entirely cured in six months.

Most of the experiments were successful. Those whom Bramwell did not cure were refractory to hypnotism. In these cases he did not succeed in provoking sleep, the mind of the sick man being so occupied by his obsessions that he could not hear what was said.

Many persons are prejudiced against hypnotism and decide to use it only when all else fails. Almost all patients have had some violent emotion. With one, it was the death of a member of his family which produced the obsession that his wife would die also. With another, it was an emotion caused by the sight of a drunkard on a railroad, which produced the idea of never being able to travel on a train again.

Berillon insists that these obsessions are generally associated with the daily occupations of the sick person, and show a pronounced professional character.

The greater number of authorities say that an obsession is different from a mental disease in that the patient considers his obsession as independent of his being. But this law has exceptions. One of Dr. Bramwell's patients became superstitious. Little by little he came to attribute his bad times to bad days. There are many superstitions which do not show other symptoms of disease or degeneracy. The unassimilation of an idea of obsession sometimes constitutes a morbid element, and this, it appears, depends rather upon the individual and peculiar circumstances than upon the obsession itself.

Obsessions may consist in a hypertrophy of the attention, the idea itself is normal, but its quantity, intensity, and degree are not so. Everybody cannot have obsessions, for example idiots, who possess little voluntary attention. Many very intelligent patients are not prevented by their obsessions from doing valuable work. The greater number are emotional, but it does not follow that the emotional brain is a degenerate brain and that the accidents to which it is exposed are the consequences of a finer constitution than that of the ordinary brain.

AUTO-HYPNOTISM NOT ALWAYS ADVISABLE.

CASE 5.—Dr. Bonjour often suggested to a patient that no one else could hypnotize him. One day the young man received a visit from a relative who was pleased to hear of his

cure. He told him how he had been treated: "I had only to count 20 to be in catalepsy," said he; "stop, I will show you—" and calling a servant—"Emily! go set the electric alarm at 2 o'clock. I am going to hypnotize myself and that will wake me in a quarter of an hour." In 20 minutes he closed his eyes and his body was relaxed. At the end of several minutes the maid, instead of executing the order received, went into his mother's room and rang the electric bell several times. The room communicated with the chamber of the hypnotized man. He rose immediately, ran into his mother's chamber crying: "The robbers! where are they?" Seeing no one, he dragged the furniture about and reached everywhere, went into another room, looked under the beds, went to the cellar, then seeing his brother, threw himself upon him forcibly to injure him. When Dr. Bonjour arrived the attack had lasted 3 or 4 hours. The doctor could not awake him. At last he awoke and said that upon hearing the bell, which his mother never used, he believed her to be in danger from robbers; hence his attack. He could not recall what he had done during the attack. After having calmed him and promised that he was cured, Dr. Bonjour advised him never to undergo this exper ence again, and suggested to him the uselessness of his efforts to hypnotize himself. The patient tried several times to count, as he was accustomed to do, without succeeding in putting himself to sleep.

As Bonjour could not be often with patients who lived far away, he suggested to them the case of self-hypnotism by counting, for example, 20, or 30 or more, in order that if they awake they could put themselves to sleep again immediately. It is necessary to suggest to patients that no one else can hypnotize them; but in some cases it may be wise to suggest in addition that they cannot hypnotize themselves.

HYPNOTISM AND MORAL EDUCATION.

Suggestion may be a moral agent and educator, or a curative agent of physical ills; as an illustration of this we give the following case of Bourdon:

CASE 6.—B., aged 13 years, had always been anemic and nervous; from the age of 2 years, she slept badly and was very restless at night. She was the daughter of an arthritic mother who also suffered from gravel, and of a father addicted to drink. At the age of 7 years she had articular and visceral rheumatism, which seemed to have affected the left side of her heart. A little later she had a severe fright; her father, in a state of intoxication, had struck his father-in-law with a gun. Later she had dizziness, syncope, then great nervous crises, convulsions, palpitations of the heart, at any sound or movement, constant fear, and loss of consciousness, when playing or at rest. Her character changed; she became peevish and choleric, especially at the approach of the crises. She ate very little and did not go to the closet. Her nose frequently bled, increasing her anemia and sense of oppression. At the age of 12, she had long periods of sleeping; she cried in her sleep, had violent nervous attacks, always announced by greater impatience and fretfulness. In a word, she had hysteric somnambulism. She was rude and unamiable, disobedient, idle, dirty although a little coquet, combing her hair every instant; she bit her nails; she ran after boys. It was not known whether she practised onanism. She had besides profuse hemorrhages from the nose and difficult menstruation; her monthly periods she had once at the age of 13; they had never returned. Hypnotism was difficult, sleep was not at all profound, but it increased a little at each new seance. The operator looked at her, and told her to sleep, also used his hand. He said to her, insisting upon it often, that she must not sleep during the day, but only at night, as other people did; that she should not be any more afraid in the evening or at night than during the day. He suggested to her amiability, goodness, gentleness, thoughtfulness, affection for her relations, thankfulness to them for their kindness, obedience, docility, cleanliness without coquetting, the care of her hair only in the morning, love of work, and the desire to do good, horror of evil, distaste for biting her nails, indifferenee towards boys; then, that she should have no more hemorrhages from the nose, that the blood should take its natural course, that her appetite should return and increase, that she should digest her food properly and go morning and evening to attend to the calls of nature, that she should have no more palpitations of the heart; in a word, everything that might redeem the situation as much from a moral as from a physical point of view; these suggestions were repeated several times, softly, but in a manner to impress them upon her mind, and this prolonged her sleep several hours each day. These seances were repeated daily for 10 days, then weekly, then semi-monthly, then at intervals more or less distant. Each time some ground was gained. The crises were less and less frequent and less and less strong. At last perseverance was rewarded by good results, and as the young patient seemed to acquire a taste for sleeping, fearing that it might grow into a habit, it was suggested to her that as she was growing better and better, she did not need to sleep so often. This treatment was accompanied by a tonic and massage of the body. At the beginning a blister was applied near the heart, with the hope of destroying or diminishing the valvular exudations left by the rheumatism. Several times by the aid of suggestion the wound (dried up by the blister) was made to flow and cease to flow as often as it seemed necessary. The heart grew better and better, and whether the action of these two means be illusion or not, there was scarcely any palpitation. The hypnotic sleep was each time easier and better, though never deep.

The young girl was completely cured; she was transformed physically and morally. There were about 42 seances in all. Thus hypnotic suggestion can be a salutary aid in moral education. Experiments have already shown to what extent the passions, instincts, tastes, and psychic faculties can be definitely modified by hypnotic suggestion, and one cannot help smiling at the protestations, as eloquent as they are incompetent, against "the outrage upon the rights of humanity by the practice of hypnotism."

REPORT OF A CASE OF MALTA FEVER.[1]

BY LIEUT. WALTER COX,
Assistant-Surgeon U. S. Army, San Juan, Porto Rico.

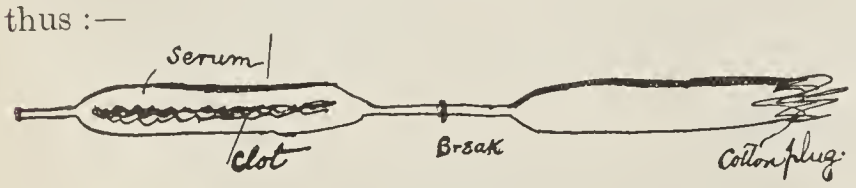
ON ARRIVING in the General Hospital at San Juan, in February of this year, my attention was attracted to the peculiar temperature-curves shown by some of the fever-cases in the hospital, and, on being put in charge of the clinical examination of the blood, etc., I soon found that we should probably have to look to other explanations than malaria and typhoid for a satisfactory cause in explaining them. Having read Dr. Musser's interesting report in the JOURNAL for December, of a case diagnosed by him as Malta fever in an officer who contracted his disease in Porto Rico, I lost no time in the attempt to find whether any of our cases might also be due to a similar infection, and in this connection would like to bring to your attention one in particular, which seems to me to support Dr. Musser's conclusion that this Island may be an endemic focus of this disease:

The patient was a private of the hospital corps, 30 years of age, who was admitted to the hospital January 14, 1899, with a fever diagnosed as remittent malarial. He had been

[1] Published by permission of the Surgeon-General of the United States Army.

well during his service in the campaign and at Guayama, but had some trouble and was tried by court-martial and sentenced to a three months' term in the guard-house of the old Spanish barracks, a place he described as, at that time, terribly foul and damp. Here he contracted his fever. He was in the guard-house from December 25, 1898, to January 14, 1899, the fever commencing January 11. On admission he complained of pain all through his body, especially in his bones and joints. He had two chills on successive days, when first taken, none afterward. He felt ill and stupid. His appetite was poor and he slept poorly. His bowels at first were loose, but later, constipated; no urinary disturbance. The temperature continued with marked daily remissions, on some days as much as three degrees, till he came under my observation, February 10, when he was noted at once as an unusual case. The temperature came to normal gradually, being normal in the morning and 101° or 102° in the evening, and beginning February 27, he had several days of apyrexia. Then a gradual rise came on, and on March 15 his fever reached 104°, again coming to normal March 27. He was discharged from the hospital on April 3, having had 6 days of apyrexia, but was readmitted April 7 with another recrudescence, the temperature being 102°. His fever fell to normal in several days. He was discharged from the army April 15, and left for home two weeks later. I saw him just before he left and he said he had had one or two feverish evenings after discharge.

Here then was a low fever lasting from January 14 to April 15—91 days—and showing the typical undulatory character and marked daily remissions which were noted by Dr. Musser. Repeated tests for the malarial organism were made by me and nothing suspicious was found. Quinin had no effect on the temperature. The Widal reaction with a delicate organism, tested in other cases, typically typhoid, was entirely negative, there being no reaction even with low dilutions. Through the kindness of Dr. Welch, of the Johns Hopkins Hospital, I was enabled to obtain a culture of the micrococcus melitensis of Bruce, and on testing the blood there was marked agglutination in dilutions so high as 1 to 60 in 25 minutes. The dilution of 10 and 1 to 20 showed marked reaction in 5 minutes. Normal serum and the blood of a typhoid patient produced no visible effect on the organism. It is evident, therefore, that, clinically, and also by the serum-test, this case supports the view that Malta fever may be endemic here; and the fact that there were so many cases in this hospital of fever, certainly not typhoid, in which the malarial organism was not demonstrated, and on which the administration of quinin had no effect, makes it probable that many more cases might have been proven to belong to this type. I regret that much of the material was removed before proper apparatus and culture were available for exact work in diagnosis. The method of making the test was somewhat different from that described by Dr. Musser. The blood was carefully drawn into a sterile Pasteur pipet made by drawing out a glass tube thus:—



Pasteur pipet.

and after sealing one end, the other being plugged with cotton, allowed to stand for 24 hours. The clot contracts down, leaving clear, limpid serum. Then by breaking the tube at the end used as a pipet, in making dilutions, a drop from the sealed portion, expelled by gently breathing, was of the same size as a drop from the capillary tube necessarily of the same bore. The serum was diluted with normal saline, and one drop of the diluted serum was added to the same-sized drop of suspension of the organism in natural saline. The suspension was best made from gelatin or agar cultures, by first adding to a large drop and then making a second dilution in the hanging drop to be used in the test. In this way a very even suspension was obtained and the agglutination could be watched with great satisfaction.

I wish, in conclusion, to express my thanks to Major Charles F. Mason, late commander of hospital, for valuable aid and interest in this and other work in the laboratory.

Sealing of Operative Wounds about the Abdomen vs. Treatment by Dressings.—E. S. Bishop (*Medical Chronicle*, April, 1899), in discussing the treatment of abdominal wounds, shows that where there was no previous infection the use of the drainage-tube or of gauze-drains has been proved to have been the point of entrance of infection, and that, in addition, the drainage tube has frequently been found to be inefficient for the purposes for which it was employed, foci of infection and undrained pus-sac having been found in close proximity to the track of the tube. The glass tube, with its perforations, has been responsible for hemorrhages that have occurred when it was withdrawn from the tearing of granulation-tissues, while granulations have been found completely occluding its lumen and rendering it useless. All forms of drainage-tube have the great disadvantage of rendering the patient more liable to a hernia. It has been shown that pus in pus-sacs is frequently free from germs; in fact, we may consider it to be free in the majority of cases. Raw surfaces from which oozing might take place should be covered by peritoneum, and the abdomen should be free from blood-clots. If this is secured, the peritoneum may be depended upon to take care of the bacteria. This is, however, presupposing perfect asepsis. There remain very few exceptional cases in which great damage has been done to intestine, and in which it is impossible to be certain the bowel will not give way. The belief that is gaining ground that the fluids of the wound are useful when aseptic rather than harmful, is doing much to render drainage useless. The elimination of the drainage-tube simplifies the question of dressings; if we do not require dressings to absorb the fluids drained from the wound, we may, if certain of our asepsis, seal it, and be certain that it does not get infected subsequently. The material which the writer has employed for this purpose is colloidin; 1 part of it is dissolved in 4 parts each of absolute alcohol and sulfuric ether. It is a clear fluid, which must be kept in a cool place. It is applied with a brush to the absolutely dry surface it is intended to cover. In order to obtain such dryness, it is well to wash the part quickly with ether. It sets in about 30 seconds, and forms a firm, air-tight connection with the underlying skin; becomes at once slightly puckered at the edges; if all goes well, it even causes the part to which it is applied to sink perceptibly below the level of its surroundings. The stitches, with their points of entrance and exit, and the line of union, can all be plainly seen through the glass-like film which is formed over them. At the end of 12 days it peels off, and the stitches can be seen and cut beneath it. Rarely it may be well to reapply the dressing. It is especially valuable in children, as the wound cannot become soiled nor the dressing wet and dirty. The author has had great success in the employment of this method, and illustrates his article by photographs showing abdominal wounds at different periods in their healing under this dressing. [C L.L.]

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A suggestion as to program comes from the Wisconsin Society, and consists in the rule that one half of the program (and we are glad Dr. Young, of Iowa, from whose presidential address we learn the fact, spells it *program!*) may be made up of volunteer papers, and that these are to be sent in advance to the program committee without the names of the authors, the secretary reserving the envelopes with mottos and names until the decisions of the committee are announced. A sort of competition is thus instituted; there is no publicity as to the refusals, and the best material is selected. The one half of the program is kept for papers by special invitation, and for the discussion of special questions, while the other half permits any volunteer contribution of value to secure a place. Both aristocracy and democracy are in this way satisfied, and we shall be glad to learn how the plan pleases in practical out-working. It would appear to be a just and sensible suggestion that all of our large societies might adopt, thereby avoiding many glaring abuses and absurdities of the past.

Exophthalmic Goiter and the Snake-Cure.—Dr. C. V. C. Comfort, a physician of Rochester, New York, believes that exophthalmic goiter can be cured by the use of a live (nonpoisonous) snake coiled about the neck for from one to two hours twice a week. He has thus treated 17 cases. The treatment is said to have been learned from the Indians by "Rattlesnake Pete," a citizen of Rochester, who manipulates the snake, keeps it coiled about the patient's neck, etc. Only one snake is used for one patient, and often the snake can be used but a single time. All the snakes are said to require at least a week after each use to recuperate, and sooner or later each one is said to "break out with sores" and die. We hazard no opinion concerning the matter except to say that frequently therapeutic measures may be and have been learned from the most ignorant, and that the real efficacy may consist in some trivial peculiarity or accident of the treatment, as the real significance of a slight-of-hand performer's trick is not in the thing he calls attention to, but in some unnoticed action he hides. Is it possible, for instance, that, if there is truth in the report, it is due to the constriction and massage, and that these things without the snake, of course, might prove to be therapeutic hints or helps to us?

The Moral Imbecility of a Nation.—That disease, and especially disease of a psychic kind, may affect an entire nation is not a new truth, but the hideous fact is sickeningly illustrated by the France of today. Slavery of the most brutal and heathenish sort is the lot of nearly every soldier forced into the army, a slavery reeking with malicious cruelty and utter disregard of manliness and decency. Sexual diabolism is so fashionable, and hatred of Jews reaches such a fury, that these things would be ludicrous if they were not tragically morbid. A few honorable men in the hell of dishonor look impotently and sadly about them seeking for a humane face, a healthy mind, or an upright character in this insane national mob howling its lunatic hatred of one innocent victim, and forgetting its own putrescent crime in the old scapegoat frenzy of mania. As there is not a national madhouse or pesthouse, the civilized races should put France into coventry, until death from her own gangrene shall have relieved humanity of our greatest disgrace. Let her and her ghastly militarism go the way of Nero's Rome, her ancient prototype in crapulous infamy!

The Bertillon Classification of Causes of Death.—The American Public Health Association has issued a pamphlet containing an exposition of the Bertillon system. We took occasion once before to refer to this subject, and to endorse the efforts made by this association in favor of a uniform system of classification for the whole civilized world. Such a scheme would evidently add immensely to the ease and value of the study of mortality statistics. The Bertillon system is used in France, and is making progress in Europe and South America. The present is an especially opportune time to consider this subject, because we are at the dawn of a new century and might thus provide for uniform returns for the whole of it. Moreover, the subject will be thoroughly considered by an international commission of revision, which will meet in Paris next year, at the same time the Congress of Hygiene and Demography assembles.

It is especially desired by Dr. C. L. Wilbur, secretary, Lansing, Mich., that all persons whose official duties require them to use or compile mortality statistics—such as sanitarians, pathologists, coroner's physicians, and members of boards of health—should examine this system and give their views about it. The pamphlet

will be sent, free of expense, to all persons who desire it. As the matter is one of considerable public and professional importance, we make a point of calling attention to it.

Diplomas in Public Health.—The following is the text of a law which went into effect May 5, 1899, in the State of Pennsylvania:

Section 1. Be it enacted, etc., That any medical college chartered by the State of Pennsylvania may confer, after examination, a diploma in public health on any person holding a degree of medicine: Provided, That at least 12 months shall have elapsed between the obtaining of the medical degree and the examinations for the diploma in public health. And provided further, That the candidate shall procure evidence of having attended after receiving his medical degree at least one college year of practical instruction in the laboratory of hygiene connected with one of the medical schools of the State, or one of another State recognized as giving equivalent instructions.

Section 2. Examinations shall be upon practical and theoretical hygiene and chemistry, physics, geology, and bacteriology, so far as they pertain to hygienic investigations, sufficient to allow the health-officer to draw correct conclusions from the reports of experts.

We think this a wise law and that it will result in better preparation and increased efficiency of medical officers in their efforts to further public sanitation. Every county, indeed every school-district, should have a capable medical official to advise in all matters pertaining to public health and to aid in the carrying out of existing but disobeyed laws. It is a disgrace of our civilization that we have not any efficient and accurate method of gathering and publishing vital statistics. These things will never be until the medical profession demands them; we shall never demand them so long as we are a disunited profession.

The functions of Boards of Health are matters to which we have referred on several occasions and which may be so performed as to be of the utmost scientific and practical value, or quite the reverse. Illustrations of both modes of procedure may be discovered by those who will take the trouble to look, and sometimes the discovery may be made without the looking. We have already spoken of the enterprise and the alertness of the Chicago Department of Health, of which additional evidence is afforded by an investigation into the influences responsible for an unusually great disparity that was found to exist during the first four months of the current year between diseases grouped as air-borne (such as diphtheria, influenza, measles, pneumonia, scarlet fever, whooping-cough) and others grouped as water-borne (such as cholera morbus, diarrhea, dysentery, enteritis, gastroenteritis, typhoid fever). It was found that during the period under consideration the precipitation was unusually low and the degree of water-pollution unusually high. With the latter there was naturally a marked increase in the number of deaths due to water-borne diseases, and this was the greater when with the pollution was conjoined rainfall. Equable temperature had a favorable, rising temperature an unfavorable influence. During dry weather air-borne diseases were more common. Comparative observations also seemed to sustain the proposition that, for Chicago at any rate, dry weather increases the prevalence and the fatality of air-borne diseases and diminishes the prevalence and the fatality of water-borne diseases, and conversely.

Death in the Parade.—The sudden death of three members of the Grand Army in the recent parade in this city was startling and lamentable. It serves to call forcibly to mind the fact that the members of this organization are fast passing into the ranks of old age. This fact, indeed, should have needed no reminder, for even the youngest men who fought in a war which ended more than 34 years ago, can be no longer young. It will, we trust, impress upon those who may be responsible for the details of these annual conventions in the future, that they will be chargeable with grave neglect if they invite such disasters again. We understand that the managers of the parade in this city considered this subject carefully beforehand, and even walked over the whole course themselves in order to demonstrate that it was not too long. It was, however, twice as long as it should have been. The exact distance walked over had, probably, to be doubled by most of the paraders in order to reach their appointed places in the line, and to return afterward to their quarters. Moreover, this season of the year is a most trying one for such exercise over hot city streets, although this year the day happened to be not exceedingly hot. Aged men, who came long distances from home, worn with travel and possibly in many instances upset with imprudent eating and drinking, are exposed to many risks in such celebrations, and these risks will grow greater year after year.

The season for the annual meeting should be changed, the program shortened, the zeal of some of the leaders moderated, and the extravagance of some of its features curtailed.

Physical Strength and Mental Development.—According to a report just made under the authority of the Board of Education of Chicago, the brighter pupils are found on an average to be the larger and stronger ones. The dull children, it is claimed, are generally small for their age and physically weak. The data were collected by Mr. F. W. Smedley, in two of the Chicago schools, from an examination of 1,100 pupils. The lung-capacity, height, weight, grip-power, and endurance, were the data that were relied upon.

Some of the results are interesting. The tests for height, for instance, of children of 11 years of age showed that in the higher grades these children are on an average several inches taller than those of the

same age in lower grades. The same results were obtained for weight and endurance. The induction is drawn that there is a relationship between physical development and mental capacity, and it is even urged that there should be a physical examination for admission not only to the schools but to the several grades. This seems to be justified by the fact that in one ungraded school in which dull and vicious children are taught, the average of physical condition was low.

Such investigations are interesting from both an anthropologic and educational standpoint, but we wish to point out that errors may easily occur when any such statistical study is made the sole basis for a practical classification. The doctrine of averages, supplied by statistics, is too likely to furnish cast-iron rules, which may be very prejudicial to individuals. It is a form of fatalism, supplied by figures that may be pushed too far. It is also a method which is strikingly in accord with the mechanical workings of our public-school systems. In these systems there is not enough attention given to the individual; everything is done by machinery. A sound educational system should develop the individual according to his talents, and while there may be a ratio in a school between physical development and brain-power, there is no necessary sequence between these factors in the case of all pupils. We should have no Newton in physics or Byron in letters if these authors were measured by the size of their heads or the weight of their bodies.

The Price is Too High.—As physicians, we have no political preferences and prejudices, but when political action costs the lives of thousands, then, as a profession whose labor and ideal is the saving of life, we certainly have a right to protest that the price may be altogether too much for value received. The losses of our troops in the Philippines since August 6, 1898, are as follows:

Killed	289
Died of wounds and accidents	138
Died of disease	480
Total deaths	907
Wounded	1,606
Captured and missing	18
Grand total	2,531

A trustworthy correspondent in Manila writes:

There seems to have been some lack of accuracy in the circulated reports of the physical condition of the troops. Accurate hospital reports are not open to newspaper men. Conservative estimates place the number actually in hospital at from 15% to 18% of the troops on the island, with an equal, if not greater, number who are unfit for service. A partial report was obtained by a local paper, and is published as follows:

"The number of sick in the various regiments in San Fernando, as given in last week's report, are as follows: Fifty-first Iowa, 232; Seventeenth Infantry, 261; Twelfth Infantry, 163; Third Artillery, 91; Fourth Cavalry, 22; Ninth Infantry, 93; and Hospital Corps, 7. The gain over the week preceding among these regiments alone is 195 cases, which is undeniable evidence of the effect of the rainy season on troops on the line."

This is the single expense-item of human life alone, and the following is what we have purchased:

The United States holds in the Philippines today, after a year of occupation and six months of fighting, a territory which includes barely more than 1 % of the area of the islands. At Santiago, practically one month of occupation, three days of fighting, and two-thirds the force sent to the Philippines gave us nearly one thousand times as much territory. The section here which today may be said to be under actual American control includes barely, if anything, more than 5% of the population of the islands. The force to which the United States troops were opposed at Santiago numbered hardly one quarter of that which is commonly conceded to constitute the Filippino force now in the field.

"Let us have peace"

Mr. Labouchere as a Medical Reformer.—Henry Labouchere, a power on the Liberal side of the House to an extent which his own party has never realized, is, as is well known, the editor and proprietor of the weekly society paper *Truth*. This paper has an enormous circulation in Great Britain and her colonies and has been for the last 25 years or more conducted with such conspicuous courage, energy, and foresight that it is no exaggeration to call it a British institution. One of the objects which Mr. Labouchere has always had before him is the ventilation of genuine grievances, especially when the aggrieved person or class is not in a position to defend himself or itself, and the number of instances that could be quoted when his pen or the pens of his staff have righted people who would otherwise have suffered manifest injustice must by this time be very large. Even persons who have fallen under Mr. Labouchere's lash as well as his many political foes allow this. *Truth* has now turned its attention to the evils and scandals of doctoring by contract, and in an able article has thoroughly condemned the system whereby the medical man is made to act as the sweated servant of an association under lay management. *Truth* points out, as the medical journals of Great Britain (and notably the *Lancet*, in a series of articles entitled "The Battle of the Clubs") have already said, that the tendency of all such contract systems is to increase the number of patients to be attended to such a point that the work must be scamped. When the British public reads in the columns of its favorite adviser the well-reasoned arguments of the article to which we are referring, it will see at once that the agitation made by medical men against the club system is not a merely selfish grabbing for more money, but a just demand for payment adequate to work done, as well as for conditions under which the work may be done properly. We hope that *Truth* may persuade or scare the managers of medical-aid associations into recognizing the necessity in the public interest of working on more

honest and generous principles; for it is conceivable that Mr. Labouchere's criticism may cost some of the societies many members unless they reform their ways. For a vigorous radical like the editor of *Truth* to champion the rights of a class against those of the people means that the class must have been very badly treated indeed.

Milk Diet or Mixed Diet.—In these days when dietetics play such an important part in treatment prescribed, one hears the virtues of a milk diet almost continually lauded by physicians—it is considered the food par excellence, the value of which cannot be equalled by any other means of nourishment. It is indeed often astonishing to see how rapidly body-weight and strength increase when good milk is systematically taken in large amounts by persons weakened and emaciated, whether by mental or physical overwork or by wasting disease. But it must we admitted that the value of a milk diet is often overestimated; very often the physician's advice to drink large quantities of milk is cheerfully followed by the patient anxiously seeking increased strength and weight, but sooner or later comes the time when the taste or even the sight of the bland fluid arouses repulsion and disgust, and, unfortunately, this feeling is almost certain to be aroused sooner or later in patients limited to a milk diet. For this reason Beerwald has recently recommended, in the *Zeitschrift für dietätische und physikalische Therapie*, that solid food of suitable character should be advised in all cases in which it is necessary to prescribe diet, provided the patient's condition admits of such a course. Perhaps it is a matter of less importance exactly what is given than as to the amount given. Bulky foods soon satisfy the appetite without furnishing an adequate amount of nourishment. This is a decided disadvantage of milk; in order to supply a large amount of nourishment, a disproportionately large amount of fluid must be given as compared with certain mixed diets. Whether in health or disease, the best results from forced diet are obtained by frequent feeding in small amounts. The morning meals are particularly important, for at this time the stomach is in the most favorable condition to assimilate. In view of this fact it is particularly unfortunate that the custom is common of filling the stomach at breakfast with two or three cups of coffee which contain almost no nourishment. The first meal should in all cases be as nourishing as possible, and in case the appetite is poor it is often worth while to try the experiment of stimulating it with a bit of smoked, salt, or pickled fish or meat; then perhaps an hour later the more nourishing steak or chop will be relished. Beginning in this way it is often possible, under favorable conditions of digestion, to induce the patient to take a comparatively small portion of food which in its nutritive value is fully equal to a quart of milk.

Delegate or Nondelegate Membership in State and National Societies.—In his most excellent presidential address before the Iowa State Medical Society at Cedar Rapids, May 17, 1899, Dr. H. B. Young, of Burlington, speaks of the methods of membership in State medical societies. He had tried to ascertain and classify the laws of membership of the different State societies in the United States. Of five States he could secure no report. In seven States the membership was limited to delegates. In thirty States it was nondelegate, and by calculation we find that in these State societies the members compose on the average over 33% of the total number of physicians of the respective communities. What the corresponding figures would be for the States with delegate membership, we cannot say, but undoubtedly it would be a much smaller number. In State societies, therefore, the vast majority prefer the plan of nondelegate membership. As Dr. Young says, we may gather from this that the committee on membership together with personal endorsement may be relied on to safeguard the interests of the society. Those who know anything of the actual conditions of medical societies in our country must long ago have recognized that the idea of the delegate-plan in a large majority of counties of the United States is utterly unworkable and impossible, simply because of the nonaction or nonexistence of the county society. Moreover, in those that do exist it is quite as likely as not that the politicians are in the saddle and that any practice of genuine representation is as much out of the question as it is in the ward-primary of other political meetings. The fundamental vice of democracy is again shown in the fact that presentable people do not choose their representative, and the representative does not represent. We are inclined to think that for State societies the nondelegate-plan is by far the best. The power and ruling of the membership committee should be strengthened, and in each case a large amount of liberty should be given to it by the general society. The basis of membership will doubtless be the endorsement of reputable physicians. The great desideratum is a larger membership; in State societies it seems unattainable with the delegate-plan.

Is it so with our national society? Taking the country as a whole it seems beyond any question. The American Medical Association meets the difficulty with splendid illogicality. Its delegates should logically be chosen by the State societies, but by a remarkable theoretic wisdom there are many methods of securing membership allowed, and by more wise leniency, of which we fear even to whisper, the practice of admission is in reality very nearly open to all who present a properly worded certificate from the Comptroller of the United States Treasury. As we are all too slowly coming to direct election of our Senators, so in our large medical societies we do not believe in election by indirection. The protection against charlatans in the

program is spoken of elsewhere in our columns, and the protection against them, as members, lies in a properly constituted and actively functional committee on membership.

A Duty of the American Student in Germany.—In the current number of the *Atlantic Monthly*, Münsterberg, a professor of psychology at Harvard, has called attention to a matter which is well worthy of the consideration of the medical profession, for the Americans who have studied abroad, or are studying abroad, or are intending to do so, are for the most part medical students, and more than 95% of them study in Germany. Münsterberg mentions the misunderstandings which have arisen between Germany and the United States during the past year, and the possible disastrous consequences; and he shows that this state of affairs is only possible because of the mental attitude of the people making up the two nations—their feelings, their emotions, even their moods decide such momentous questions. The American believes that the German is a sauerkraut-eater, who goes shabbily dressed, never takes a bath, drinks beer at breakfast, smokes a long pipe, is rude to the lower classes, slavishly servile to the upper classes, and has no manly desire for freedom or independence. The German believes the American to be a vulgar, brutal fellow, who drinks whisky, chews tobacco, spits, fights, puts his feet on the table, and habitually rushes about in wild haste, absorbed with greed for the dollar of his neighbor. How is this possible in the day of ocean greyhounds, the daily paper, and ocean cables, when there are so many tourists in Europe and German citizens in the United States? Because we are inclined by psychologic laws to perceive what we expect to perceive, we do not voluntarily suppress the remainder; but it does not exist for us at all. The little differences trouble the stranger-tourist and swell in his imagination; while every good thing which does not fit his anticipations fades away and is soon forgotten. The "Dutchman" in America, through his bad English, his habits and manners, his tastes and pleasures, is different from the majority, and is therefore set apart as a citizen of second rank; if not slighted, at least kept in social isolation, even when his skill, energy, honesty, education, intelligence, and devotion to the duties of a citizen would seem to entitle him to something better. Hence, his judgment is a mixture of ignorance of the inner life, unfairness as to the personal qualities, and blind admiration of the economic greatness of this country.

Very few American travelers come into sufficiently intimate contact with German life to get their traditional errors eradicated, but this should not be true of the student who lives some time abroad. The American who lives a quiet, earnest, manly life, who conducts himself like a gentleman, and disowns the un-American ways, can do something to teach the German that his judgment is erroneous. But perhaps he can do still more towards removing those foolish, narrow-minded prejudices which exist on both sides of the ocean, by taking every opportunity when he returns home to try to give his own countrymen the correct notion of the real German life and character, with its many generous and truly admirable attributes.

Suggestions to Writers, No. 35. "It is to be."—There is hardly a page of any newspaper that does not offer examples of an expression, the origin or meaning of which is beyond human understanding. Perhaps medical journals also sin in this way. "It is to be hoped that," "the plan is to be commended," "the procedure is to be endorsed and advocated," etc, are some of the forms of this strange method of expression. If we mean that the plan should be commended, that the proposal should be adopted, etc., then why in all simplicity and directness not say so? If we mean that "we hope," why make use of the highfalutin, silly and meaningless circumlocution, "it is to be hoped"? Man, it is said, takes infinite trouble in hunting up trouble; surely some writers give themselves great pain to make a simple, short statement obscure and long-winded.

Medical Sermonets, No. 6. "Lead Us Not into Temptation."—The startling sin of the age is public action divorced from personal morality. Men who would not cheat a friend nor play the scoundrel in private business, have no hesitation, nay, they exhaust human ingenuity, in cheating the government or in humbugging the community. We believe this is less frequent among medical men than in any other equally large class, but the representatives exist nevertheless, and their machinations are marvelous to behold The newspaper doctors, the quack M.D.'s, the advertising professors, form the majority, but perhaps the most corrupting of all are the commercial medical journals feeding gullible physicians with nostrum-advertisements. So sharp has become the rivalry of these pseudo medical journals that they have long been bribing and tempting pharmaceutic manufacturers in a way to scandalize the most degraded penny newspaper. The best lay newspapers do not condescend to solicit quack advertisements, and the basest of them do not fawn and cringe to be allowed to use them as editorials, the editor writing up the ad. himself, and guaranteeing the facts as stated. And yet so low have we fallen in medical journalism—so-called. The following is a verbatim copy of a widely distributed letter, the original of which lies before us. The names are omitted because it is our rule to oppose not bad individuals, but bad principles and bad actions.

DEAR SIR:—You will probably remember that we addressed you several weeks sinee, informing you that we were getting out a special issue of ——— ———, several pages of which would be devoted to "Practical Prescriptions for Progressive Praetitioners," and asking you to take a page in this special issue to exploit ——— in the manner we suggested.

Our Editor, in a practiee of many years has used your preparations frequently and has thus aequired an aequaintanee that would anable (*sic*) him to prepare a page of Preseriptions that will show the various eombinations in which your products have proven of serviee. He is aneious (*sic*) to have those preparations, with whieh he is partieularly well aequainted, represented in this special edition and direets that we address you on the subjeet. As a special inducement and believing if we ean onee induee you to take space with us we shall have your permanent patronage, we are willing to plaee at your disposal, if you are represented in "Praetieal Prescriptions,"

an extra page for your display advertisment (*sic*). For this extra page no charge will be made, the only charge being for the page of prescriptions, which is $25. These two pages will form a strong combination and will show in a Novel and striking manner the value of your products.

As we told you in our previous letter, this issue is to be in honor of the Chicago meeting of the Mississippi Valley Medical Association, and will have a circulation of 12,000 copies. After the issue is out the Practical Prescription supplement will be issued in pamphlet form, and 15,000 will be distributed among a select list of physicians. Containing so much practical and useful information these pamphlets will, in a large proportion of cases, be preserved and be a constant advertisement for your goods. With the ——'s circulation the distribution of this number of pamphlets will give you a total circulation of 27,000, the cost of which is much less than one dollar per page per thousand copies. We ask you to again look over our previous letter for further information, or, if you will address us we will take pleasure in answering any question you may put to us.

May we reserve space in this special issue for you? As there is but a short time before we go to press, we ask that you kindly let us have an immediate reply.

Thanking you in advance for the courtesy of a reply, and with kind regards, we beg to remain,

——— ———.

Now, this sort of thing should have an ending. If physician-editors cannot live except by such journalistic morals they should go into the service of Munyon or Dr. Pierce. If medical journals must resort to such practices, the profession should see to it that those thus guilty should be put to death. We beg every man who loves honor and his profession not to write for such journals and not to allow them to be sent to his address gratuitously. We beg every honorable manufacturer not only to put such letters as the foregoing in the waste basket, but to write to the Mephisto editor what he thinks of such rotten hypocrisy, and to use every means in his power to arouse a righteous indignation against such methods. It is not a private matter, but one seriously affecting every member of the profession.

Suggestions to Writers, No. 36. Tubercular or Tuberculous?—At the recent meeting of a National Medical Society one essayist used the term *tuberculized* to express the meaning usually served by other words. It was plain that he did so with "malice aforethought." When asked why not *tuberculosed*, *tuberculotic*, *tuberculous*, *tubercular*, *tuberculated*, *tuberculate*, etc., he said *tuberculized* was the more correct word. The controversy that has been raging on this subject in the columns of the *Lancet* during the last month or two is most amusing, although the correspondents are in fighting earnest and do not wish to make us laugh. All the philologists, however, differ from the writers who would have it *tuberculized* or *tuberculosed*, etc.; they resemble the Irishman; it is not *nīther* nor is it *nēther*,—it is *nāther*, bedad!

The correspondents, like all gall, are divisible into three parts: (1) Those who would use *tubercular* always; (2) those equally dogmatic for *tuberculous;* (3) those who use both terms. The first two classes are outnumbered by the third, and the members of this third class differ each from another absolutely and eternally as to the proper meanings or applications of the two words. The "fun at the fair" comes out in these astonishing differences. The *Lancet* started the dance by the attempt to limit the term *tubercular* to an anatomic significance, whilst restricting *tuberculous* to pathology. The first shillaly that came down upon this microcephalic head was that no such usage had ever been customary with medical writers, but that instead, *tuberculous* has been restricted to "concrete objects," while *tubercular* has been used with both abstract and concrete nouns. This writer is opposed to all who will not conform to such a usage, and in a subsequent letter he brings etymology and Dr. Murray to his support. The meanings of the terminations *-ous*, and *-ar*, are shouted with each repetitive whack of the blackthorn upon our poor heads, being emphasized by "*granular*, *granulous; nebular*, *nebulous;* nodular, nodulous; tubular, tubulous, etc." After much soreheadness and frolic, a wise correspondent whispers "Pedantry," and the headcrackers vanish to bind up their own scalps.

What egregious silliness! Suppose one attempts to limit these words to the significance expressed in the terminals: *-ous*, *fulness* or *abundance of*, and *-ar* (or *-al*, which is the same thing), *of the nature of*, *having the quality of;* he would at once, unless he were a philologic fop, or an ignorant pedant, run up against the fact that even in general English no such distinctions exist—that numberless words are used regardless of such finicky fussiness. Then when he turns to medical English he will be unable to find another word to illustrate and bolster up the contention. Most adjectives used to indicate pathologic or anatomic significations end in *-ic*, and in *-ic* alone, and will not even think of *-ar*, or *-ous*, as, *e. g.*, *pneumonic*, *syphilitic*, *necrotic*, *pelvic*, *albuminuric*, *phlebitic*, *nephritic*, *pleuritic*, *choleraic*, and a thousand more. Possibly the *-al* sticklers, *e. g.*, the *Medical Record*, the *Medical Mirror*, and the *Medical Press and Circular*, would say *pneumonical*, *choleraical*, *syphilitical*, *necrotical*, *pelvical*, *albuminurical*, *nephritical*, *pleuritical*, *phlebitical*, etc., but the argument holds just as well, even then! Others will not have any adjectival terminal except *-al*, *e. g.*, *malarial*, *gonorrheal*, *typhoidal*, *arterial*, *catarrhal*, *vaccinial*, *pharyngeal*, *brachial*, etc. There are many that will not submit to any other caudalization than *-ous;* as, for instance, *gangrenous*, *morbillous*, *leprous*, *osseous*, *eczematous*, etc. There is a small class that will have only *-ary*, as *bacillary*, *urinary;* another that objects to any but *-y*, or *-ly*, as *measly;* and a considerable number of nouns, such as *measles*, *smallpox*, *whoopingcough*, *cerebrospinal meningitis*, *acne*, *forehead*, etc., that aristocratically flock all by themselves, despising all adjectival and democratic invitations.

In a word, if the distinction sought in *tuberculous* and *tubercular* were worth making, it should be possible in all the other adjectives, whereas it never has been made, the thousands of such other words refusing to be so dealt with. It is not, moreover, recognized or practised by the medical writers of today. Who would know unless told, and who would care after the telling, that in the Report of the Royal Commission on Tuberculosis published last year *tubercular* is used to qualify disease, and *tuberculous* to qualify animals or carcases? Who follows this fashion? If the etymologic significance of the terminals is preserved this is a foolish dis-

tinction, and if usage is the guide it is one flying in the face of every writer. There are not two scientific treatises in the world on the subject of tuberculosis that make the same distinctions as to the meanings of the two forms of the adjective. The dictionaries do not even attempt to make them, and we doubt if a single writer is logical and uniform in his use of them, even admitting the validity of the premises he may have clutched out of the air as his laws.

Conciseness and accuracy of meaning in the use of words is desirable, but this is far from the pride of ignorant erudition, and the fussiness of the finicks. Indeed, the distinctions attempted in the two words are destructive of all accuracy and conciseness. If a man or an animal has a single tubercle-bacillus pathogenetically at work in his tissues he is tuberculous, tubercular, tuberculized, tuberculate, tuberculosed, tuberculotic, tuberculic, tubercular, tuberculary, tuberculy, or whatever other form of the word chance or whim may select. All the rules of all the rulers will not change the pathologic fact, nor will they be able to render the degrees, or the locations of the process distinguishable by forms of the word. Any adjective must be held to mean, *of the nature of, pertaining to, afflicted with, infected by, having the quality or character of, full of*, etc., indiscriminately, and any attempt to classify adjectives or to delimit adjectival significations is as ridiculous as the famous plan of John Phoenix to use numbers from 1 to 100 to make their degrees precise. The terminals, *-osus*, *-ose*, *-ous*, denoting fulness or abundance, or others with different meanings, do not signify when the pathogenic process is instigated by living germs. In a little while one germ will beget a million, and these will travel from lung to intestine, or to knee-joint, or from man to animal, and vice versa. If it is not true tuberculosis, but only resembles, then we have *tuberculoid*, if you please, but this "abstract and concrete" distinction is—well, let us say, it is in truth both abstract and concrete; and let us bid the pernickities good-morning, with a resolution to use the form of the word we please, and with the certainty that each means exactly the same thing, and that every reader will understand precisely what we mean. We prefer the single word tuberculous. If we use both, and if we seek to draw any distinction whatever between them,we shall not be understood, and we shall distinctly differ from every other distinguisher. *Quieta non movere.*

Bilateral Swelling of the Submaxillary (Salivary) Glands in Typhoid Fever, without Enlargement of the Parotids.—D. J. Miller (*University Medical Magazine*, July,1899). The swelling of the parotid glands during typhoid fever is of rare occurrence,the case reported is even more rare. On the twenty-seventh day of a mild attack the left submaxillary began to swell without a rise of temperature. It rapidly became painful and indurated, with slight redness of the overlying skin. Four days later the other submaxillary enlarged, there was pain and a rise of temperature in this instance. No enlargement was ever noted in the parotids. The author has found but one similar case reported in literature. [C.L.L.]

Correspondence.

THE PREVALENCE OF MESENTERIC TUBERCULOSIS.

BY ALBERT S. ASHMEAD, M.D.,
of New York.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

I READ in the New York *Sun* of December 22, 1898, under the title: The Prevention of Tuberculous Disease: "One very satisfactory statement was made on Tuesday, in London, at the meeting of the National Society for the Prevention of Consumption and Other Tuberculous Diseases.

"This was that the mortality from tuberculous maladies in Great Britain has been reduced 50% in the last 50 years.

"The authority for this statement is Sir William Broadbent, Bart. M.D., one of the most eminent physicians in England. His figures are rather higher than those of other students of comparative mortality in Great Britain, some of whom put the reduction, so far as tuberculous disease is concerned, at only 40%. Whether it be 40 or 50%, however, the decrease is certainly encouraging.

"Another distinguished British doctor, Sir Richard Thorne, has recently delivered a series of lectures on the administrative control of tuberculosis, in which he points out that this reduced mortality has not been obtained in all forms of tuberculous diseases, and that there is one malady, to which children are particularly subject, in which the mortality has actually increased by as much as 28% in 40 years. This is the malady known as *tabes mesenterica* in the medical world and as consumption of the bowels in the community generally.

"The question naturally suggests itself, says the *Lancet*, why this particular form of tuberculous disease should still continue to increase very seriously among children while pulmonary phthisis, another form of the same thing and caused by the same parasite, is as steadily decreasing.

"The answer given by Sir William Broadbent, and Sir Richard Thorne, in their recently published addresses on the subject is that this so-called consumption of the bowels in children is caused by cow's milk taken from cows suffering with tuberculosis. Sir William Broadbent goes even further and says that the diseases of bones and joints to which children are subject are probably also traceable to milk; humpback, hipjoint disease, and the diseases of knees, elbows, etc., which cripple so many children. The distinctive bacillus of tubercle is found in the milk of the cow in one stage of the disease; and through the milk the malady is communicated to the infant consumer."

I answer the *Lancet's* question by referring to an article ("The Absence of Cow's Milk from Japan; Its Beneficial Consequences,") which I published in *Science*, October 14, 1892. This paper was read at the 43d Annual Meeting of the American Medical Association, held at Detroit, and was published later in the *Journal of the American Medical Association*. It is my belief that it fully answers the *Lancet's* inquiry, as to the *continuance* of this particular form of tubercular disease (tabes mesenterica), while phthisis pulmonalis, another form, is decreasing. It seems natural to attribute the *increase* of tabes mesenterica to the increasing disinclination of American and English women to nurse their own children.

I have often noticed that things which had been studied carefully and described by Americans not only in one place, but in two and even three,* appear suddenly in some Continental journal or society meeting, as if an entirely new idea had just originated in the mind of some of the medical *Sir Knights*, and was now seeing the light of day for the first time, in a European paper. Is it not time that it should be understood that originality is possible in the American members of the profession?

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* The above article of mine was published not only in *Science* and the *Journal of the American Medical Association*, but also in the *Sei-I-Kwai Medical Journal*, of Tokio, in English.

PENSION ABUSES.

BY T. D. DAVIS, M.D.,
of Pittsburg, Pa.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

YOUR editorials are surpassed by no medical journal both in interest and accuracy, and it is your evident desire for fairness that leads me to presume to call your attention to some facts concerning pension abuses suggested by your article of July 29. Concerning the Loyal Legion and G. A. R., as stated by you, there would be as much truth and sense in saying that the American Academy of Medicine threatens to retire from the American Medical Association unless the latter organization ceases to permit itself to be used in the interest of all the quacks and so-called irregulars in the country. The truth is the G. A. R. does all in its power to unearth and prevent fraudulent pensions, and would expel instantly any such pensioner and report him to the authorities.

The G. A. R. does, like the A. M. A., however, try to see its members get justice. The difference between the two organizations you mention is possibly in regard to "service pensions" for all soldiers, and which I do not need to discuss.

As to how much "medical examiners have to do with pension abuse," do you realize that less than one-sixth of the present appropriation for pensions goes to soldiers of the Civil War? This fact I get from a high official in the Pension Department, although I have also seen it published. The entire expense of the department, the great building in Washington, its hundreds of clerks, the medical examining boards, the disbursing agents, the special agents, etc., are paid out of the appropriation. Do you stop to think that there are still widows of Revolutionary soldiers on the pension list, to say nothing of those of the War of 1812, the Indian wars, the Mexican war, and all the regular army soldiers, widows, orphans and dependent parents both before and since the Civil war? Then comes the wonderful list of widows, orphans, and dependent parents of those who fought in the Civil war itself, and finally a long list of large special pensions granted by Congress to Mrs. Grant, Mrs. Logan, etc. Now the medical examining boards have nothing to do whatever with all these. Indeed, the boards' chief work now is reexamining soldiers to see if their disabilities have increased or if they are of such a nature as to make them dependent. As to the rating, in the great majority of cases the law establishes the rate, and a layman could perform the duty almost as well as a "doctor." Such as loss of foot, leg, hand, arm, eye, hernia, exsection of knee, elbow, humerus, etc., in all these the law specifically states how much shall be allowed, and, wonderful to state, if a man has all these troubles he gets no more than if he had only the most severe. For instance, if a soldier has lost a leg, a hand, and eye, he gets no more than if he had simply lost the leg. Do you think this is just? Do you think it quite right that when a soldier who is drawing $4 per month dies his widow can immediately draw $12 a month? Or, that the wife of a poor fellow, who has lost a leg and thus been unable to earn enough to lay up for a rainy day, at his death shall be cut down to $12 per month?

As to centrally located medical examining boards, as you suggest, think of the impossibility of some of those old fellows who draw two or four dollars a month bearing the expense of a trip any great distance. Even some of them cannot stand it to go as far as they have to go now, but aside from this, is not a physician better able to judge the disability of one he sees frequently rather than a stranger whom he has never seen before, and as the recommedations of a board are entirely secret, danger of favoritism is very small, especially as a special examiner or another board may at any time be ordered to reexamine an applicant. From these facts I feel sure the trouble is not in the examining board, nor are there really many cases of *men* who do not deserve pensions now getting them. I personally know of none, but I do know a large number who richly deserve pensions who are not getting any on account of lack of proof, or from pride having never applied. I am neither a pensioner nor a medical examiner, but I am a member of the Grand Army of the Republic, and know that it spends time and money to keep down fraud, possibly even more than the American Medical Association, to which I have compared it, and to which I belong.

One word more. Have you no word of commendation for our President for having removed the odium of one examination from a doctor before he could be appointed on an examining board? Think of lawyers submitting to an examination before they could do any legal work for the Government!

[It may be that the Loyal Legion and the G. A. R. are doing what they can to prevent pension abuses, but it is a question concerning which there is considerable difference of opinion. At any rate it is a nonmedical subject. Our correspondent's comparison is unfortunate, because the American Academy of Medicine has no connection whatever with the American Medical Association.—EDITOR PHILADELPHIA MEDICAL JOURNAL.]

ON BOOKS AND BOOK-REVIEWS.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

THERE is a courtesy which is noble and a courtesy which is servile, and nowhere perhaps are the two found more strangely intermingled than in many of the book-reviews of to-day. Anyone familiar with the spirit that animated the old book-reviewers in their day of few books and costly ones, must at times long for a little of the open candor and plain speech that was part and parcel of our forebears in medicine. As didacticians they were supreme, and many of their textbooks were undertaken only after repeated importunities from their students, who wished to have always at hand the precious principles laid down by their teachers. That was a time when the demand *preceded* the book. And if the book fell under the eye of a confrere who was not at one with the author concerning his teachings, the objections were all set down, sometimes with, sometimes without, malice, in language plain and unmistakable. But "the times are changed, and with them, we are changed." The rapid multiplication of medical colleges, the increasing crop of professorships, the birth of a large medical reading public, the itch for reputation, the schemes of rival publishers, the cheapening of all literature, have given us a glut of books, good and bad, written more by the sweat of the brow than by stress of the brain; brought forth more in a spirit of self-glorification than in the spirit of writing down, in all humbleness, the convictions born of wearisome study and mental travail over moot questions. Nor has our periodical literature escaped the contagion. For along with the appalling increase in medical journals has come so great a wave of tolerance, of cheerful charity, of "apres vous, monsieur," of bowing and scraping to each other, that the still small voice of honest criticism is almost drowned in the polite uproar. Yet, is

there any good reason why books should not be truthfully weighed in print? Or is it because many journals are slow to put forth any but sugarcoated criticisms lest the offended publisher send his future wares to more tolerant critics? And yet this attitude of the medical journals toward the newcomer in medical literature can only add to the mental perplexity of the guild already bewildered with the ceaseless procession of new textbooks, systems, monographs, atlases, cyclopedias and all other manner of publishers' devices, all so heralded and blazoned forth a year in advance that the reviewer bows low to the imposing array of titles, etc., and the poor, tired-in-brain practitioner stands and delivers.

Most of the textbooks, systems, etc., of to-day are but compilations or digests differing from each other only in the selection of the material from the known scientific facts in the branch of which they treat, and in the arrangement and method of presentation of such facts. A half-hour's careful inspection of five or six such works would be to many readers a revelation as to the sameness of observation and statement that runs through them all, and the patent sameness of origin of much of the matter. About the only form of book that gives us an insight into the author's real convictions is the monograph, and it is to this form of medical literature, along with the original articles of the high-class periodicals and their condensations in the form of Year Books or yearly digests, to which we must look for the record of future medical progress, and to the permanent betterment of our science. Those who argue for the textbook and the system point to the value of, and necessity for, "authorities in medicine" to whom resort may be had on moot question. "But," some one may well say, "what constitutes an authority in medicine in our time, when the pathology, physiology, and bacteriology of to-day are not the bacteriology, physiology, and pathology of to-morrow?" In law, the decision of a court in a given case is held as the authority for all such cases until such decision shall have been set aside by some superior court. Unhappily, the time when a similar procedure may be adopted in medicine seems too dreamily distant to promise much relief. The need of the present is for monographs by earnest, authoritative workers written with true scientific zeal right out of their hearts. Careful reading of the foreign books that come to us will reveal much of this personal quality. In spite of the charge that the Germans are prolix, the French over-clinical, the English ultra-conservative, their books bear to us a message; and after all, the only valid excuse for the existence of any book is that it has a message—that the author has breathed himself into it. Far be it from our purpose to be disloyal to the scientific attainments and enthusiasm of our own home brethren; but it is well to pause, betimes, and in all humbleness "know ourselves," lest we forget the debt we owe to these our other brethren. American works, as a class, lack this charm, and the reason lies not far off. The Jacob's-ladder-like growth and multiplication of medical institutions in the last two decades has called into being an army of teachers; and among them there be those (especially in the larger institutions) who, assured of a large annual sale of their books among the student, take unto themselves pen, ink, paper, scissors, glue-pot, and after a more or less lightning gestation, lo! a new authority is born! Great is hustle of the Americans! As a nation we are swift, but are we sure? Doubtless some uncommon fine books are thus brought forth, but oftener a book is born that is but an added burden to a profession already weary and worn a-pondering over authoritative-looking volumes forced upon their attention by a book-reviewer whose courtesy outruns his courage. Is it not high time that we return to the truth, the whole truth, and nothing but the truth in matters fraught with so much importance to the *time* of a profession whose greatest lack is *quiet spare time?* Verily, "of making many books there is no end," and it is the sacred duty of the reviewer to point out, in all honesty, which of them are a "weariness of the flesh."

Respectfully yours,

X. R. W.

American News and Notes.

NEW YORK.

The Emanuel Hospital and Dispensary of New York City.—Articles of incorporation have been filed with the State Board of Charities for the establishment of this hospital, the object of which is the establishment and maintenance of a hospital or lying-in-asylum where persons non-resident can be treated and cared for gratuitously or for a nominal compensation, and also the establishment of a free dispensary. The directors are Drs. Maurice J. Burstein, E. K. Browd, Henry Levien, Maurice Caspe, Harris B. Adler, Abraham Hymanson, Israel Szlachecki, Max Wolper, Bernard Scheinkman, Joseph Barsky, and Morris Cisin, of New York City.

Death of a Leper.—A Chinaman died last week in an isolated hut on Blackwell's Island, in which he had been secluded for the last two years for leprosy. In October, 1897, three lepers were identified in New York and sent to North Brother Island. Two of them were successful in stealing a rowboat and made their escape. After being some time at large they were found together and sent to Bellevue. From the hospital they were removed to Blackwell's Island and established in a hut remote from all other denizens of the island where they looked after one another. The cause of death in this case was certified as heart-disease. The surviving leper still occupies the hut. It is believed that there are several lepers, Asiatic and Scandinavian, concealed from the health-authorities in the care of friends, but the disease is sufficiently rare for a seaport as large as this, where the waifs of foreign commerce are likely to manifest all sorts of exotic maladies.

Medical Charities and the City Government.—It has been generally understood for some time that Comptroller Coler of the City Government had been examining into the disbursements of city funds on the score of medical charity. Very recently this JOURNAL made mention of his trip of investigation in company with the President of the Commissioner of Charities and presaged the early appearance of a report on the subject which might contain drastic proposals of retrenchment. The report has now been made and it contains even more positive statements than were expected, in fact it argues for the complete upheaval of the present system, which has grown up under many administrations, and has been continued through the apathy of municipal government and the activity of interested beneficiaries. Before summarizing the report it would be well to say a word as to the personal equation of the man who makes it, for that is essential to a full comprehension of the subject. Without discussing the ethics of the present government of New York it will be generally acknowledged that the domi-

nant political organization has universally been credited with impulses other than disinterested. Comptroller Coler has set himself in opposition to every attempt to divert the public funds from economical public uses, and in so doing has incurred the hostility of the ruling political association and the warm approval of the best citizenship, the one being as much to his credit as the other. His report, therefore, on the abuses of municipal medical charity will be received as at least an effort in the direction of better administration. The report has been rendered to the Board of Estimate and Apportionment for its guidance in making up the budget for next year. Mr. Coler's report opens with the statement that the city now pays in actual cash $3,131,580 for dependent persons in private institutions who are charges on the city, and this does not include the collateral sum which is represented by the freedom from taxation of the millions invested in the property of such institutions. It is the purpose of the Comptroller to cut off one-half of this charge and thus save about $1,500,000 a year. Mr. Coler quotes the Stranahan act, passed on his suggestion by the last legislature, which repeals all laws making it mandatory for the Board of Estimate and Apportionment to allot a fixed sum annually to certain institutions. This act reverses the policy hitherto pursued and vests in the Board discretion to pay whatever in its judgment it deems just and proper. Mr. Coler's idea is to treat the matter on a business basis, that is to pay only for services actually rendered. If this suggestion is adopted there will be no more payments of lump sums, and all future appropriations are to be made in the budget. The city is to pay only a per capita rate for patients, the compensation to be the same to all classes of institutions for the same class of services. Dispensaries are to be cut off altogether after next year, and for that year they are to get only half the present allowance. No patients are to be sent to private hospitals at the expense of the city so long as there is room in the public hospitals. A liberal increase in the appropriations for public charities is favored in order that the facilities for caring for patients may be improved and enlarged. The Comptroller points out that great abuses have resulted from the present system, and that public funds instead of being used for the care and maintenance of the poor and suffering have been diverted to pay debts and to erect buildings. New York pays to private institutions three times more than all other large cities of the United States combined for similar purposes. This startling statement he supports from figures of the 15 cities next in order of population. Just as a single sample he calls attention to the payment of $3,131,580 by New York as against $151,020 by Philadelphia, which in turn is exceeded by only the two cities of Baltimore and Washington. Mr. Coler maintains that the subsidy system finds its greatest abuse in the case of the medical charities, of which he says: "The New York Medical League has for some years past strongly attacked the policy of granting public subsidies to private hospitals and dispensaries. The chief points of attack have been the claims (1) that many of the hospitals receiving public money are really business enterprises, the hospitals being merely necessary clinical attachments to medical schools which would have to be maintained for the proper teaching of students, even if the city contributed nothing to their support, and which are worth more to the medical schools than the cost of maintaining them; (2) that the books of 22 hospitals receiving public aid show an annual surplus in excess of the amounts received from the city; and (3) that dispensaries do not exercise proper care in confining their activities to those who are really indigent." The daily cost of maintaining each free patient in 14 private hospitals shows a variance in a remarkable degree. It runs from 35 cents in St. Mark's to $3.65 in the Homeopathic. Other figures are: Roosevelt, $1.92; Mount Sinai, $1.33; German Hospital, $1.13; average of the 14 institutions, $1.56. In Bellevue the cost per patient a day is 74.94 cents excluding salaries, and including salaries $1.0465. By way of comment on these figures the Comptroller continues: "It does not seem that per capita payments to private institutions should exceed the cost of maintaining patients in the city hospitals, and I think that the maximum rate should be 70 cents a day for medical and $1 for surgical cases. All cases of needy patients intended to be a charge on the city should be reported immediately to the Department of Public Charities and no payment should be made by the Comptroller except for such cases as have been accepted by the Department and certified as proper charges against the city treasury." On the same day that this report was filed the Board of Estimate received the following applications for apportionment from medical institutions, which forms an interesting commentary on the report: Long Island College Hospital, $8,000; Brooklyn Eye and Ear, $3,664; Flower Hospital, $10,000; Polyclinic, $10,000; Brooklyn Nursery, $4,000; St. John's Long Island City, $18,000; Lying-in, $12,000; Post-Graduate, $30,000; Women's, $8,000; Nursery and Child's, $90,000; Sloane Maternity, $8,000; Mt. Sinai, $26,000; Brooklyn Eastern District, $9,000; Brooklyn Lutheran, $5,000; New York Infant Asylum, $97,665.

NEW ENGLAND.

The New England Deaconess Hospital, conducted under the auspices of the Methodist Episcopal Church, has issued an appeal for funds. It asks for $50,000 for the training school; $5,000 to complete the purchase of the house now occupied as a hospital, and the endowment of beds at $5,000 each. A new hospital building to cost $100,000 is wanted, and in the meantime a new operating-room and sterilizing plant will be provided in the present structure.

Exclusion of Dust from the Operating-room.—One of the noteworthy features of the new surgical building now in process of construction at the Massachusetts General Hospital is the exclusion of dust from the operating theater. The danger of dust has been borne in upon the hospital staff on account of the unusual trouble in surgical cases whenever any buildings were being torn down near the hospital, or any source of dust was active. The new building is placed in the center of the grounds, as far away from the surrounding streets as possible. The air will be taken in from the top of a six-story building, and is to be passed through a system of fine-meshed traps, to remove every particle of dust that can be caught. The ventilation is so arranged that the currents of air all set away from the patient, so that any dust brought in by the opening of doors, the entrance of visitors, etc., is blown away from the scene of the operation by the persistent currents of air setting outward and downward. The system as yet only exists on paper, but it has been tried on much the same principle in theaters, so that there is no doubt that the scheme of eliminating dust is entirely feasible.

CHICAGO AND WESTERN STATES.

"The Denver College of Medicine" is the corporate name of the reorganized Medical Department of the University of Denver. The change of name carries with it no change in the relations heretofore existing between the University of Denver and its Medical Department, other than placing the Denver College of Medicine in a position to have an independent legal existence, enabling it to own property, make contracts, etc.

University of California.—Dr. W. F. McNutt, after a continuous service of over 22 years, has resigned the chair of the principles and practice of medicine. The library of the medical department, which for a beginning is fairly extensive, is now well-housed and is being catalogued and indexed. The list of pamphlets and monographs is particularly large and valuable, but further additions are earnestly desired. As but little money is at present available for securing accesions, contributions of books, etc., are solicited.

Itinerant Doctors in Nebraska.—It is stated in the *Kansas City Medical-Index Lancet* that the Nebraska State Board of Health has adopted a resolution against itinerant physicians who may happen to apply for license to practise

in the State. The resolution requires all such applicants to sign a statement swearing that they will not act as itinerant physicians; also, giving the locality in which they intend practising, before the application will be considered. This, they hope, will rid the State of tramp doctors.

The Professions in Kansas City.—According to the *Kansas City Medical Index-Lancet*, the new Kansas City directory makes the population of the city 192,030. There are 138 clergymen, or one for every 1,390 persons. Of physicians there are 518, or one for every 370 persons. Dentists number 125, or one for every 1,535 persons, and lawyers 561, or one for every 342 persons. The total number of members of the four professions is 1,342. If their average income is $1,000, the bill amounts to $1,342,000, or $7 per capita for every person in the city. If we include the professional Christian Scientists, it would reduce the per capita per physician to 359, there being 17 of them.

The Prohibition of Needless Noises in Chicago.—The first step toward the prohibition of unnecessary noises in Chicago has been taken by the officials of the Health and Police Departments, and Detective Charles E. Gross, appointed for the work by Chief of Police Kipley, is now gathering material for a report upon the infringements of certain city ordinances designed to put an end to much of the noise of the city. This report will be made this week, and after it is received action will be taken by the officials to check the nuisances. Detective Gross said that he had discovered several infractions of the city ordinances. The chief offenders, he declared, are the railroad companies, and he believes that the noises attendant on the running of trains within the city limits can be greatly abated. A movement has also been started on the south side which may end in a citizens' crusade against useless street noises. Those back of the movement say they would like to see it end in the formation of a general society for the prevention of street cries and nuisances.

Wyoming State Medical Society.—The third annual meeting will be held at Laramie, October 10 and 11. The following is the scientific program:

President's Address—Medical Legislation; Its Relation to the Laity and the Medical Profession, by R. HARVEY REED, Rock Springs; The Application of Our New Law, by GEO. P. JOHNSON, Cheyenne, Wyoming; Aortic Aneurysms with Report of Cases and Exhibition of Specimens, by J. N. HALL, Denver, Col.; Clinic—Opened by I. R. SWIGART, Laramie, Wyo.; Clinical Report on a Case of Fracture of the Nose and Upper Jaw, by E. STUVER, Fort Collins, Col.; Modern Business Methods for the Medical Profession, by W. A. JOLLY, Rawlins, Wyo.; The Administration of Anesthetics, by E. E. LEVERS, Almy, Wyo.; The Report of Some Cases in My Practice, by M. A. HUGHES, Salt Lake City, Utah; The Disturbances of Pregnancy, by CHARLOTTE HAWKE, Green River, Wyo.; Is High Altitude an Etiological Factor in Insanity, by C. H. SOLIER, Evanston, Wyo.; A New Method of Closing the Internal Ring in Operating for Inguinal Hernia, by LEONARD FREEMAN, Denver, Col.; Cerebro-Spinal Meningitis, Brief Report of 11 Cases, by I. R. SWIGART, Laramie, Wyo.; Mountain Fever, by E. STUVER, Fort Collins, Col.; The Management of Abortion With Report of Cases, by JOHN F. LEEPER, Casper, Wyo.; The Significance of Spastic Symptoms, by HENRY W. COE, Portland, Ore.; Pelvic Abscess, by P. HYRUP-PEDERSON, Laramie, Wyo.; Intra-Ligamentous Growths, by THOS. H. HAWKINS, Denver, Col.

SOUTHERN STATES.

Tri-State Medical Society of Alabama, Georgia, and Tennessee.—The eleventh annual meeting will be held in Chattanooga, October 24, 25 and 26. Those desiring to read papers should send titles to Frank Trester Smith, M.D., Secretary, Chattanooga.

The outbreak of yellow fever in the South has given rise to some uneasiness amounting almost to panic in the affected regions. It is reported that carloads of refugees are leaving Louisiana and Mississippi. A Key West despatch of September 12, stated that the total number of cases to date was 218, and the total number of deaths, 12. Surgeon-General Wyman, as a precautionary measure, has ordered all steamboats from New Orleans inspected at Natchez, Memphis and Vicksburg. Both the Secretary of the State Board of Health and Surgeon Murray report that there is no yellow fever at Vicksburg. There is, however, one case at Jackson and one case at Mississippi City.

Washington Purposes to Look After the Sanitary Condition of her Laundries and Barber-shops.—A complaint recently made to the Commissioners by a citizen against a washwoman, who, it was declared, was doing work for several customers while afflicted with a serious and contagious disease, has caused the Commissioners to suggest to Dr. W. C. Woodward, District health-officer, the advisability of an amendment to the police regulations having for its object the better protection of the health of those who patronize laundries and washwomen. It has also been suggested to the Commissioners that the public barbers of the District be required to sterilize their razors, towels, etc., it having been reported that a number of persons have contracted disease by patronizing certain barber-shops.

The Commissioners are authorized and empowered by an Act of Congress, approved February 26, 1892, to make and enforce such reasonable and usual police regulations as they may deem necessary for the protection of the lives, limbs, health, comfort and quiet of all persons, and for the protection of all property within the District. Their authority and power being ample in the premises, the Commissioners have requested the health-officer to carefully consider the question of prohibiting the washing of clothes for the public by any person afflicted with a contagious or infectious disease, as well as forbidding the use of any implements by public barbers until they have first been sterilized or otherwise prevented from conveying disease.

It is stated that all reputable laundries are conducted with great care, and every precaution taken by their proprietors to employ none but healthy persons, and it is also stated that a majority of the public barbers of the District favor such a regulation as will insure absolute safety and cleanliness to their customers. Therefore it is believed that the amendment suggested to the Commissioners will be heartily favored by the proprietors of such laundries and barber-shops.

MISCELLANY.

Obituary.—DR. WILLIAM F. TROUT, Chambersburg, Pa., September 7, after amputation of his leg for gangrene, aged 66 years.—DR. JOHN J. SMITH, veterinary surgeon, Chambersburg, Pa., September 7, of anthrax contracted while performing a necropsy on a cow that died of the disease.—MAJOR AUGUSTUS A. DELAFFRE, surgeon, U. S. A., Fort Sam Houston, Tex., September 2.—DR. WILLIAM H. CAEMMERER, Brooklyn, N. Y., September 6, aged 78 years.—DR. ROBERT W. HASLETT, Wheeling, W. Va., September 2, aged 71 years.—DR. ALFRED BROWN, South Bethlehem, Pa., September 10, aged 54 years.

Vivisection.—The following is from the *New York Times*, of September 9: There recently appeared in the little monthly

publication issued by the New England Antivivisection Society an editorial paragraph, in the course of which the writer asked: "Can any one with a brain and a conscience now deny that there is necessity for the regulation of vivisection in this country?" As moderation of language and the recognition of possibilities are the reverse of characteristic of this society's publications, the question quoted was calculated to arouse both pleased surprise and burning indignation—surprise among those who did not expect from such a source even an indirect admission that vivisection, however well regulated, can escape the utter condemnation of the virtuous, and indignation among the people, few in number, but of tireless volubility, who always fiercely scorn to draw a line between use and abuse. The gentler of the two emotions seems to have found no expression that reached the antivivisectional editor's attention, but in the current issue of his journal he records and resents the anger which his employment of the word "regulation" has created among his thorough-going constituents. "It is claimed," he moans, "that by these words we sanctioned the licensing of vivisection," and then he resorts to a bit of a quibble: "We would say in reply that the word 'regulation' was used in a generic sense, meaning the control, the restraint of vivisection, as opposed to its unobstructed practice." But immediately he repents of this decidedly weak evasion and proceeds in a way that will, we fear, seriously aggravate his first offense in the minds of his critics. "Even if we did favor a restriction short of total prohibition, that would not mean a sanction of the practice. It would simply mean that, knowing a total prohibition would be an impossibility for many years, we regarded a mitigation of the worst cruelties as an act of duty and humanity, never to be considered, however, as the ultimate goal. This is a question where the best and most earnest friends of the cause differ as to method." Having had personal experience of the ready irascibility of the antivivisectionists, we really shudder at the thought of the letters this "compromiser with evil" will have to read in the next few weeks.

Health Reports.—The following cases of smallpox, yellow fever, cholera and plague, have been reported to the Surgeon-General of the U. S. Marine Hospital Service during the week ended September 3, 1899:

SMALLPOX—UNITED STATES.

			Cases.	Deaths.
California:	San Francisco	July 31		5
Florida:	Jacksonville	Sept. 2	1	
Kentucky:	Louisville	Aug. 31	2	
Massachusetts:	Boston	Aug. 26-Sept. 2	2	
Ohio:	Cleveland	Aug. 26-Sept. 2	4	
Pennsylvania:	Altoona	Aug. 26-Sept. 2	7	
Texas:	16 points in State	Aug. 26 (71 cases and 2 deaths have, except in two instances, been traced to a hospital at Sedalia, Mo.).		

SMALLPOX—FOREIGN.

Belgium:	Antwerp	Aug. 19	1	1
Brazil:	Bahia	July 29-Aug. 7	3	1
"	Rio de Janeiro	July 21-Aug. 1	55	22
Greece:	Athens	Aug. 19	7	2
India:	Bombay	Aug. 8		6
Mexico:	Chihuahua	Aug. 26		3
"	Nuevo Laredo	Aug. 26	1	
Russia:	Moscow	Aug. 11	2	2
"	Odessa	Aug. 12-19	11	3
"	St. Petersburg	Aug. 19	3	1
"	Warsaw	Aug. 12		1
Straits Settlements:	Singapore	July 15		2

YELLOW FEVER.

Brazil:	Bahia	July 28-Aug. 12	3	2
"	Rio de Janeiro	July 21-Aug. 1	3	
Colombia:	Panama	Aug. 22	20	
Costa Rica:	Port Limon	Aug. 18	1	1
Cuba:	Christo	Aug. 19	1	
"	Sancti Espiritu	Aug. 24	2	
Florida:	Key West	Sept. 8	96	7
Louisiana:	New Orleans	Sept. 2	2	1
Mexico:	Tuxpan	Aug. 21-28		9
"	Vera Cruz	Aug. 25-31	19	14
Salvador:	San Salvador	Aug. 1	2	

CHOLERA.

			Cases.	Deaths.
India:	Bombay	Aug. 1-8		2
"	Calcutta	July 22-29		53
Japan:	Osaka and Fiogo	Aug. 12	4	1

PLAGUE.

China:	Amoy	July 22		250
"	"	July 22-29		100
"	"	July 29-Aug. 5		75
"	Hongkong	July 22-29	37	39
Egypt:	Alexandria	Aug. 7-13	46	39
India:	Bombay	Aug. 1-8		75
"	Calcutta	July 22-29		16
Formosa:	Tamsui	July 28-Aug. 10	13	20
Russia:	St. Petersburg	Aug. 12-21	1	
Straits Settlements:	Penang	July 14-21	49	39
	Singapore	July 15-22	3	5

Changes in the Medical Corps of the U. S. Navy, for the week ended September 9, 1899:

Marsteller, E. H., assistant surgeon, ordered to duty in connection with recruiting rendezvous, Buffalo, N. Y., to report at the New York Navy Yard, September 4.

Ward, B. R., passed assistant surgeon, is detached from the "Boston" when put out of commission and ordered home to wait orders.

Chaffee, J. F., assistant surgeon, is detached from the "Boston" when put out of commission and ordered home to wait orders.

Decker, J. C., surgeon, detached from the "Monadnock" and ordered to the "Monocacy" at his own expense.

Stoughton, J., assistant surgeon, detached from the "Monocacy" and ordered to the "Monadnock," at his own expense.

Changes in the Medical Corps of the U. S. Army, for the week ended September 2, 1899:

Gibson, Major Robert J., surgeon, is relieved from duty at Angel Island and will report in San Francisco, Cal., to relieve, temporarily, Captain Thomas U. Raymond, assistant surgeon, from his duties as attending surgeon.

Matthews, Major W. S. H., brigade-surgeon; Gilbert L. Pray and Walter R. Washburn, acting assistant surgeons; Milton T. Esterly, hospital steward, now on duty at the U. S. General Hospital, Presidio, are assigned to duty on the transport "Warren" during the voyage of that vessel to the Philippine Islands, and upon arrival at Manilla will report to the commanding general, department of the Pacific, for instructions.

Elsner, Fred R., hospital steward, will be sent to Hot Springs to report to the commanding officer of the Army and Navy General Hospital at that point for admission for treatment.

Kemp, First Lieutenant Franklin M., assistant surgeon, is granted leave for 7 days from August 30.

Hill, John Sturgeon, acting assistant surgeon, will proceed from Allegheny City, Pa., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

Johnson, D. J., acting assisting surgeon, is relieved from further duty with the Forty-seventh Infantry, U. S. Volunteers, at Camp Meade, Pa., and will proceed to Fort Strong for duty.

Orr, John C., acting assistant surgeon, is relieved from duty at Fort Strong and will proceed to Camp Meade, Pa., and report to the commanding officer, Forty-seventh Infantry, U. S. Volunteers, for duty to accompany that regiment to Manila, P. I.

Higgins, Aubray F., acting assistant surgeon, will proceed from Germantown, Pa., to Governors Island and report to the commanding general, department of the East, for assignment to duty.

Gabsch, Oscar, hospital steward, now at Washington Barracks, will be sent to the Army Medical Museum and Library, Washington, D. C., for duty.

Cable, George L., acting assistant surgeon, will proceed from New York City to Athens, Ohio, for annulment of his contract.

Collins, First Lieutenant Christopher C., assistant surgeon, granted leave on surgeon's certificate, is extended one month on surgeon's certificate.

Devereux, John Ryan, acting assistant surgeon, leave granted is extended 7 days.

Fulcher, Marion O., acting assistant surgeon, U. S. Army, will procced from Waynesboro, Ga., to Camp Meade, Pa., for assignment to duty.

Balch, Major Lewis, surgeon, will proceed from New York City to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

Meacham, Major Franklin A., surgeon, is relieved from duty in the division of Cuba, and will proceed to New York City, reporting by telegraph to the adjutant-general of the Army for further orders.

Davis, Major William B., surgeon, leave granted is extended 10 days.

Munn, Major Curtis E., surgeon, is relieved from duty at Fort Logan, to take effect about October 1, and at his own request will proceed to his home, where he is authorized to await retirement from active service.

Darling, John B., acting assistant surgeon, now at St. Paul, Minn., will report at Fort Snelling for assignment to temporary duty.

THOMAS, JOHN W., acting assisting surgeon, will proceed to Key West Barracks, for assignment to duty.
KIMBALL, Major JAMES P., surgeon, is granted leave for one month from September 14.
WATERHOUSE, First Lieutenant S. M., assistant surgeon, will report at Fort Columbus, N. Y., for temporary duty.
BALCH, Major LEWIS, surgeon, is granted leave for 14 days.
BRECHEMIN, Major LOUIS, surgeon, is relieved from further duty in the department of Porto Rico, and upon the expiration of his present sick leave, will proceed to Fort Logan, and report for duty.
GRAY, Major WM. H., surgeon, is relieved from further station at Fort Huachuca.
BOYD, ROBERT, acting assistant surgeon, leave granted is extended 14 days.

Foreign News and Notes.

GREAT BRITAIN.

The intended marriage is announced of Sir James Reid, M.D., the personal medical attendant upon Queen Victoria, and the Honorable Susan Baring, one of her Majesty's maids of honor.

There is **plague** in Oporto, and Astrakhan (Russia); there is also plague in Egypt and at Shanghai. The big English ports are taking all possible precautions against accidental introduction of the plague to the British Isles, for although the risk of this may be slight it is real.

The Hospital Saturday Fund.—This fund, which is in no sense a rival of the Hospital Sunday Fund, being rather an organized system of collecting subscriptions from the workers in workshops, etc., shows total receipts for the present year, calculated up to August 19, of £8,556 as compared with £7,803 on the corresponding date of last year. There has also been a decrease in the expenditure, so that the financial position for the year is a satisfactory one.

The Late Professor James Cuming.—Professor James Cuming, professor of medicine in Queen's College, Belfast, died on August 28, at Belfast, at the age of 66. He received his medical education at the institution where later he filled the chair of medicine, and also studied for some time at Vienna at a time when attendance at the famous Austrian school was not so usual an adjunct to British medical education as has become later. Almost immediately upon his return from Vienna he secured a large practice in Belfast, and for the last thirty years occupied a leading position in the Irish medical world. He was a fine general and medical scholar, and in in 1884, on the occasion of the British Medical Association meeting in Belfast, acted very successfully as President.

Sanitary Affairs in Dublin.—We referred in the PHILADELPHIA MEDICAL JOURNAL recently to the state of the public health as shown by statistics of the capital of Ireland. At the end of August Sir Charles Cameron, the medical officer of health, presented to the Public Health Committee a report which showed something closely approaching an epidemic of typhoid fever to have broken out on the north side of the city. Such a visitation is no novelty to the residents of the Glasnevin district. The death-rate of Dublin for the third week in August was 38.5 per 1000 of the population, and the mean death-rate for the corresponding period of the previous ten years was 23.9, which is heavy enough in all conscience, but a trifle compared to the present figure. We are surprised that the inhabitants do not show more alarm.

Diarrhea and Infant-Mortality in Birmingham.—Birmingham has suffered during an exceptionally hot and dry autumn from a scourge of diarrhea, which has swept away infants literally by the score. The mortality towards the end of August doubled itself in one week, and the undertakers cannot get coffins made fast enough for the unfortunate mites. In Witton Cemetery, which as the cheapest place of interment in the midland metropolis usually reflects with some accuracy the death-rate among the poor, there were 177 funerals in the week ended August 26, as against 154 in the corresponding week last year; but of these 177 deaths *100 occurred in infants under 1 year old*, and 28 more in infants under 5. Such figures show the great necessity that the excellent experimental work into the pathology of infectious diarrhea inaugurated recently by the Local Government Board should be continued.

Overcrowding in London.—Dr. J. F. J. Sykes, the medical officer of health for St. Pancras, a densely populated district in the northwest of London, has lately made a report on the sanitary condition of the parish, showing that it requires protection from the effects of pressure of population from without. He considers that increased transport by rail and road should be provided for suburban London, so that all those who can do so without inconvenience in their employment should remove to remoter suburbs; while proper dwelling-places fitted to accommodate dense masses should be erected for the shelter of those whose occupation compels them to live near their places of business. It is suggested that if some of the great buildings now occupied as manufacturies in St. Pancras could be transformed into barrack-dwellings for those who must live in the center of London, and the manufactories deported into the suburbs most of the now imminent perils of overcrowding would be avoided; but although such a plan would obviously facilitate sanitary measures it would certainly fall hardly upon the rate-payers who would have to pay large sums in compensation.

The Sanitary Institute of Great Britain.—The annual Congress of the Sanitary Institute of Great Britain, was held at Southampton, at the end of August. Sir Joseph Evart, M.D., an ex-mayor of Brighton, presided over the section of Sanitary Science and Preventive Medicine, and delivered an interesting address on the measures that have been taken during the present century for raising the standard of public health. Professor W. J. Simpson, who is now professor of hygiene in King's College, London, and was formerly medical officer of health in Calcutta, read a paper on the recrudescence of plague in the East, in which he dwelt on the necessity of organization to deal with these outbreaks, isolated efforts being of no effect. Localities, he said, in which overcrowding, poverty and filth existed had always been the favorite haunts of plague, and it was in these localities that protective efforts should be concentrated systematically.

County Laboratories.—A correspondent writing in the *Western Morning News*, the most widely-read paper, probably, in the west of England, recapitulates with much clearness the arguments of the medical profession in favor of establishing in every county and under the supervision of the County Council, laboratories where ordinary tests can be applied for the detection of such diseases as diphtheria, typhoid fever, and tuberculosis. The establishment of such laboratories has long been advocated by the local Government Board as well as by medical men, and as a matter of fact Great Britain is badly behind both the United States and Germany in not having proper and general provision for the detection of diseases of bacteriologic origin. Here and

there the authorities of a county have started such an institution, and in the large towns there exist some good municipal laboratories in connection with the Public Health Department, but, as Sir Richard Douglas Powell said in his recent address before the British Medical Association at Portsmouth, the time has come when in every district throughout the country there will be in connection with the Public Health Department a bacteriologic laboratory, where the ordinary and even the extraordinary clinical tests will be at the command of every practitioner.

CONTINENTAL EUROPE.

Dr. Widal, of Paris, has been elected a chevalier in the "Légion d'honneur."

The plague at Oporto is attributed to a cargo of rice received from Bombay, July 22.

University of Bordeaux.—Dr. Cannieu has been appointed professor of anatomy.

University of Nancy.—Dr. J. Rohmer has been appointed professor of ophthalmology.

The next congress of French physicians will be held in 1901; the place of meeting Toulouse.

Faculty of Medicine of Angiers.—Dr. Thibault has been elected professor of internal pathology, and Dr. Boquel, professor of gynecology.

Professor Koch, of Berlin, has temporarily interrupted his studies of malaria in Italy, and has gone to the lowlands of India to investigate the subject there.

Giornale Italiano di Laringologia, Otologia, e Rinologia is the title of a new journal being published in Naples under the editorial supervision of Dr. R. Borgoni.

Obituary.—JAMES CUMING, M.A., M.D., F.R.C.P.I., professor of the theory and practice of medicine, Queen's College, Belfast, senior physician to the Belfast Royal Hospital, Ireland, vice-president of the British Medical Association, August 27, aged 66 years.—PROFESSOR HERXHEIMER, the well-known dermatologist, of Frankfort, Germany.

Preserved "Game."—The correctional tribunal of the Seine has just levied a fine of 100 francs and a sentence of 8 months in prison upon a manufacturer of preserved meats. This "fabriquer" has been in business for 8 years and has put upon the market an innumerable quantity of tin boxes of preserved game, turkey, duck, goose, chicken, quail, etc., all of which has been made from wornout fiacre and omnibus horses.

Medical Education in Cape Town, South Africa.—It is stated in the *British Medical Journal* that the new Somerset Hospital is in sore financial straits, and is making an appeal to the public, but this is not being well responded to on account of the general depression. A committee of the Medical Association, moved for by Dr. Darley-Hartley, is considering the practicability of forming a postgraduate and preliminary medical school here. It is not contemplated that the latter portion of the scheme shall aim at more than the first year's curriculum, or, at the most, that of the second.

Tuberculosis in Cape Town, South Africa.—According to the *British Medical Journal,* the Cape Town Branch of the British Medical Association is now discussing a committee report on tuberculosis. Nothing special has been brought out except a general consensus of opinion that the disease is rapidly increasing in the colony, and the curious fact that tubercle is almost nonexistent in cattle. Medical and veterinary opinion are practically unanimous on this point. The result of the discussion will probably be the formation of an association on the lines of the British one, but at present it is almost impossible to enlist public interest in anything outside political turmoil.

An international committee on obstetric nomenclature was appointed at the congress recently held in Amsterdam. The committee is composed of Dr. Treub, president, and Drs. Bar, La Torre, Rapin, Queirel, de Rein, Davis, Edwards, Simpson, Freund, and will present its report to the obstetric section of the International Medical Congress to be held in Paris in 1900. The next International Congress of Gynecology and Obstetrics will be held in 1902. The committee on organization will fixed the date, and determine the place, their choice being limited to one of the following cities: London, Barcelona, Bucharest, Boston, and a city of Belgium.

The Diagnostic and Prognostic Value of the Elimination of "Methylene-Blue" in the Diverse Forms of Diseases of the Kidney.—Dr. A. Pedenko, studying these questions, has come to the following conclusions: The elimination, in the urine, of methylene-blue is more feeble and continues to stain the urine for a longer period in proportion to the involvement of the kidney. Administer to a healthy subject a dose of methylene-blue and note the time of the first appearance and intensity of the color, this is called standard No. 1. Every 4 or 8 hours note the color; if all the color is gone in 55 to 65 hours the kidneys are sound. If the first coloration is only $\frac{1}{4}$ the established unity and the coloration lasts for 100 hours, it indicates *interstitial nephritis*, or if the quantity of urine is normal or even above normal and contains considerable albumin, it indicates *atrophic nephritis* with amyloid degeneration. If the coloration is $\frac{1}{2}$ or $\frac{3}{4}$ the standard and the elimination lasts 80, 90, or 100 hours, then the gravity of the kidney lesion is in proportion to the time of elimination, By the means of methylene-blue the diagnosis of *interstitial nephritis* can be made at a period long before any appreciable symptoms make their appearance, or at least while the clinical picture is yet obscure.

Combating Infectious Diseases in France.—According to the *Evening Post,* M. Audiffred, deputy for Roanne in the French Department of the Loire, has started a subscription with the object of procuring sufficient money to enable experts and doctors to purchase apparatus and continue scientific researches to combat the ravages made by infectious and contagious diseases. These diseases, he points out, carry off in France, on an average, about 240,000 persons per annum, or nearly double the number of persons that were killed in the Franco-German war. Among the infectious diseases he includes tuberculosis, which in France carries off 160,000 victims every year; typhus fever, smallpox, measles, scarlatina, whooping-cough, diphtheria, and puerperal fever, apart from the occasional ravages caused by such diseases as the cholera and the plague. To enable investigations to be made the sum of 125,000 francs was, in 1896, provided by the Mutual Betting Fund, and distributed among 33 Parisian and provincial bacteriologic laboratories. This provision, M. Audiffred declares, is quite insufficient. Among those who have already responded liberally to his call for help are several important companies. The Crédit Foncier

has subscribed 20,000 francs, the Suez Canal, 2,000 francs, the great railway companies of France 44,000 francs, and the State railway 500 francs.

Tuberculosis in the German Army.—The *Militär Wochenblatt* publishes an article on tuberculosis in the German army, from which it appears that the number of cases has fallen from 2.9 per thousand in 1890–91 to 1.8 per thousand in 1898–99, the death-rate for the same periods from this disease being 0.42 and 0.24 per thousand. In the Bavarian army the decrease in cases has been 2.3 and in the death-rate 0.32 per thousand. The number discharged from the German army on account of the disease during the five years ending in 1896 was 7,205, or 51.9 per thousand of those discharged for any reason whatsoever. It must be remembered, of course, that no man is admitted into the army who exhibits the least tendency to the malady, which apparently is contracted after enlistment. The chief predisposing cause is stated to be a "cold;" the next in importance is the strain of military duty, but this does not include the blowing of musical instruments, which comes under a separate heading. The treatment was more or less successful in 23.3% of the cases; in 1.2% a perfect cure was effected. In the remaining 76.7% the treatment failed, and death resulted in 16.1%. The decrease in the number of cases in recent years is attributed largely to the discovery of the bacillus of the disease by Koch in 1882, owing to which it is easy to detect the disease and reject recruits who would otherwise have passed the medical examination.—[*Evening Post.*]

The German Professors and the International Congress of Gynecology Recently Held in Amsterdam.—The German professors, as a body, having abstained from participating in the International Congress of Gynecology recently held in Amsterdam, are now the subject of some acrimonious remarks, particularly on the part of the French. Opinions seem to differ as to the real cause of such action on the part of the Germans, but the following statement appears in the *Deutsche mediciniche Woehenschrift.* It seems that Professor Döderlein, of Germany, some time ago was called to a professorship in Groningen, Holland. This was made the occasion, by Professor Treub, of Holland, for some uncomplimentary remarks concerning Professor Döderlein. The remarks originally made in a clinic were subsequently published. Professors Martin and Sanger, of Germany, replied to Professor Treub's remarks, whereupon the latter republished and elaborated his remarks concerning Professor Döderlein so as to include insulting remarks concerning all the German professors. As Professor Treub subsequently became elected president of the congress to be held in Amsterdam, the German professors served notice on the committee having the congress in charge that they could not participate in the congress unless sufficient satisfaction were made for Professor Treub's insults. Such being not forthcoming, the Germans remained away from the congress.

MISCELLANY.

Appendicitis: Not a Novelty.—The *British Medical Journal,* quoting from *Guy's Hospital Gazette* of June 17, states that in the *Guy's Hospital Gazette* of June 17 Sir Samuel Wilks contributes a most interesting note entitled Appendicitis: Not a Novelty. He recalls the fact that Bright and Addison commenced the publication of a work on Medicine, only one volume of which appeared. This, which was wholly written by Addison, was published in 1836. It contains the following passage:

> The portion of the intestine which is lodged in the right iliac region is frequently the seat of inflammation. A hardness and tumefaction are soon evident, and, this continuing, general symptoms of peritonitis often take place and terminate fatally, or the inflammation may remain circumscribed and assume the form of deep-seated abscess. This may open of its own accord and ill-conditioned pus escape, which from its smell is soon discovered to be mixed with feculent matter. From numerous dissections it is found that the fecal abscess thus formed arises in a large majority of cases from disease set up in the appendix cæci. This organ is very subject to inflammation, ulceration, and gangrene, or may become thickened and ulcerated from tuberculous deposit. This worm-like process is often detected in the midst of the abscess with a perforation at its extremity. Foreign bodies may have fallen in and irritated it, but one of the most common causes is the formation of a peculiar concretion moulded in the canal, and composed of layers of earthy phosphates with occasional portions of feculent matter.

As Sir Samuel Wilks says, it seems to have taken the medical profession a great many years to recognize the facts so clearly stated by Addison. What is new is the practice of operating before any abscess is apparent. Referring to the fact of the comparative rarity of the disease in females (though he says it is becoming fashionable among the ladies of Paris), a circumstance which he thinks must be due to some anatomical cause not apparent, Sir Samuel quotes the following dialogue from *Tristram Shandy:*

> "I beseech you, Dr. Slop," quoth my Uncle Toby, interrupting him as he mentioned the *blind gut,* in a discourse with my father, the night my mother was brought to bed with me, "I beseech you," quoth my Uncle Toby, "to tell me which is the blind gut, for, old as I am, I vow I do not know to this day where it lies."
>
> "The *blind gut,*" answered Dr. Slop, "lies betwixt the ilion and colon."
>
> "In a man?" said my father.
>
> "'Tis precisely the same," cried Slop, "in a woman."
>
> "That's more than I know," quoth my father.

A Case of Transposition of the Viscera.—J. P. Crozer Griffith (*Univ. Med. Mag.,* August, 1899) relates the case of a child, 8 months old, that was admitted to the Children's Hospital suffering from attacks of cyanosis and dyspnea, which had been frequent for the past 3 months. The attacks occurred half a dozen times a day and lasted about 20 minutes. In the attacks he became blue in hands, feet, and face, and had rapid breathing with crying. The diagnosis was made of pulmonary stenosis, probably associated with perforate septum ventriculorum. The patient gradually became weaker and died in an attack. The treatment was entirely symptomatic, which was afterwards regretted, as the transposition was not detected *intra vitam.* The postmortem showed the following condition: The left lung had three distinct lobes; the right lung two distinct lobes. The heart was hypertrophied. It occupied the normal position in the chest, the axis running obliquely downward from right to left. The ventricles had their normal position with thickened walls. The auriculo-ventricular valves had two leaflets on the left and three on the right side. The intra-ventricular septum was deficient in its entire upper portion. The foramen ovale was patulous. The aorta was anomalous. The coronary artery arose from the right ventricle. The pulmonary artery was anomalous in origin and narrowed both at the orifice and in its trunk. The valves were small, poorly developed, and thicker than normal. The pulmonary artery gave off the ductus arteriosus, a small trunk, which was patulous to a large probe, up to, but not into, the aorta. The pulmonary vein entered the right auricle. The inferior vena cava was on the left, and emptied into the left auricle. The superior vena cava entered it. The liver was chiefly on the left side, its larger lobe being in the left hypochondrium. There were two supernumerary spleens. The spleen lies in the midaxillary line in the right hypochondrium. The esophagus descends upon the right side and opens into the cardia of the stomach, which was to the right of the median line. The pylorus was to the left. The cecum lies in the left iliac region. The course of the colon was from left to right. The left renal artery and vein were longer than the right. There was an entire transposition of the viscera, including the great vessels, but not including the chambers of the heart. [C.L.L.]

The Latest Literature.

British Medical Journal.

August 26, 1899. [No. 2017.]

[The number is entirely composed of editorial and other articles relating to medical education in Great Britain.]

Lancet.

August 26, 1899. [No. 3965.]

1. Some Details in the Treatment of Acute Intussusception in Infants. H. STANSFIELD COLLIER.
2. Eucaine β as a Local Anesthetic. GEORGE G. HAMILTON.
3. A Severe Case of Traumatic Tetanus Successfully Treated with Serum. C. L. FRASER.
4. Cases of Amenorrhea Associated with Raynaud's Disease and Pulmonary Tuberculosis. JOHN W. BYERS.
5. Acquired Oblique Inguinal Hernia; 150 Consecutive Cases of Radical Cure; One Death and Two Recurrences; A New Operation. JOHN O'CONOR.
6. A Suggestion as to the Treatment of Graves' Disease by the Administration of Bile by the Mouth, Hypodermically and Intrathyroideal, with Cases. C. M. ALLAN.
7. Hematuria, an Early Symptom in Tuberculosis of the Kidney; and Renal "Phthisis ab Hæmoptoë;" with Illustrative Cases. DAVID NEWMAN.
8. Diphtheric Paralysis in Cases Treated with Antitoxin. F. J. WOOLLACOTT.
9. A Case of Puerperal Septicemia Treated with Antistreptococcic Serum; Recovery. C. T. B. MAISEY.
10. Sequel to a Case of Diabetic Coma Successfully Treated by Saline Transfusion; Death 243 Days Afterwards from Coma. THOMAS OLIVER.
11. A Case of Narcolepsy. JOHN MCGEE MACCORMAC.
12. A Case of Acute Appendicitis with Unusual Complications. H. R. FORSTER TOWNE.
13. A Case of Congenital Atresia of the Bowel. J. JACKSON CLARKE.
14. A Case of Primary Sarcoma of the Thyroid; Thyroidectomy; Relief Symptoms. J. LACY FIRTH.

1.—Collier believes that the high mortality which attends every kind of treatment for **intussusception in infants** is due to failure in recognizing sufficiently early the nature of the case. His experience in treatment by rectal injections has not been encouraging. Of 5 cases he has saved but one, while in the other 4 the tumor disappeared and the children seemed relieved, but it was subsequently shown that reduction had not been complete. Infants do not bear abdominal section well, the exposure and manipulation of the peritoneum producing a great deal of shock. He believes that the shock may be reduced by a small incision, and that the mortality should not be greater than after the operation for strangulated hernia in children of the same age. Three cases are reported in which rectal injection was used until the intussusception could be clearly felt; then incision was made directly over the lesion and reduction was easily effected through a small opening. The patients were aged respectively 7 months, 20 months, and 4 months, and the duration of the trouble was 60 hours, 11 hours, and 24 hours. Recovery followed in all of the cases. [M.B.T.]

2.—After having tried various local anesthetics, Hamilton is convinced that the results obtained by **eucaine** β are by far the most satisfactory. He uses a 2% solution, introducing the needle in the line of the cutaneous nerves. [M.B.T.]

3.—A boy, 12 years old, received 2 scalp-wounds by falling from a wall. The wounds were well cleansed, sutured, and dressed, and healing followed by first intention; 15 days later **tetanus** developed. On the third day of the disease **antitetanic serum** was injected twice in 10 centimeter doses. The symptoms not improving, the doses were repeated on 4 occasions at about 24 hours' intervals. Recovery followed. [M.B.T.]

4.—Byers reports 4 cases in which **amenorrhea was associated with Raynaud's disease** and pulmonary tuberculosis, and calls attention to the fact of the distinct relation between the three, and that patients with such peculiarly marked symptoms seem to constitute a clinical group, sui generis, to which attention has not hitherto been directed. [W.K.]

5.—O'Conor has performed 150 operations for the **radical cure of oblique inguinal hernia** with one death and one recurrence. Halsted's operation was performed in 129 cases; Baker's method in 6, and a method, which he describes, in 15 others. Orchitis has followed in 80% of his cases after Halsted's operation, and atrophy of the testicle supervened in 20 cases. He considers that there are 2 causative factors in this form of hernia: the funnel-shaped process of peritoneum and the slight resistance offered by the transversalis fascia. No operation is complete which does not remove the funnel and reconstruct the abdominal aperture. In performing his own operation the incision is commenced one-half an inch internally to the anterior superior spine and carried downward to a point above Poupart's ligament; the muscular fibers are separated as in McBurney's appendicectomy, the funnel-shaped process of the peritoneum is sought for, the cord dissected away and the funnel incised and the intestine pushed upward into the abdomen; the sac is ligatured below the funnel, divided on the proximal side, and the distal portion is dropped back into the inguinal canal. The large gap left is closed by drawing the cut edges of the peritoneum together by continuous catgut-suture. The edges of the transversalis fascia are then caught by forceps, drawn into the field of operation, and 4 to 6 silkwormgut sutures are passed through the external oblique and transversalis and fascial pillars and brought out in the reverse order on the opposite side. [M B T]

6.—Allan reports a **case of Graves' disease which was benefited by the administration of bile.** He discusses at length the reason for this, suggesting the action of bile on the ferment causing thyroid activity as an explanation. [A.G.E]

7.—In studying the **relation of hematuria to tuberculous disease** Newman mentions with reference to the etiology that bleeding may occur from injury independent of preexisting tuberculosis; the effused blood or injured tissues form a nidus for tuberculous infection. Healthy kidney tissue is very vascular and has remarkable power of destroying tubercle-bacilli. He reports 2 cases; the first occurring in a man, aged 30, who fell 26 feet. After the injury he suffered severe pain in the left renal region, and had hematuria and effusion of blood around the left kidney. Apparent recovery followed, but 2½ years afterward the man was found to be suffering from advanced tuberculous disease of the left kidney. In the second case a woman, 47 years of age, received a blow causing ecchymosis in the right lumbar region; there was hematuria of 5 days' duration and recurrence on the eleventh day; there was also severe pain and some swelling in the right renal region. Six months later the urine became purulent and bloody and symptoms of **renal tuberculosis** were present. Attention is drawn to the fact that tubercle-bacilli may be carried by the blood from distant parts and eliminated without any morbid change of structure being produced in the kidney. For example, tubercle-bacilli may be found in the urine of patients suffering from tuberculous diseases of the bones, lungs, or other organs. Their presence in the urine is therefore not pathognomonic of tuberculosis of the urinary tract. Early hematuria may be a premonitory symptom of tuberculous disease long antecedent to the development of a gross renal lesion. Two cases of this kind are reported. A woman, 18 years old, had had previous hematuria with slight pain in the left kidney recurring twice; there was no other deposit in the urine and no swelling in the lumbar region. Apparent recovery followed, but 2 years later swelling appeared in the lumbar region, the urine was mucopurulent and contained tubercle-bacilli, there was vesical irritation, and other symptoms of marked renal tuberculosis were present. In another case a man, aged 30, had hematuria 13 years previous to admission and 9 years afterwards. Large tuberculous pyonephrosis was present. [M B.T.]

8.—Woolacott says that the influence of antitoxin on diphtheric paralysis may be summarized as follows: Up to the present the percentage of paralysis has increased on the whole. There is some evidence that large doses —*i. e.*, not less than 4,000 units—of antitoxin are more effective than small ones both in preventing paralysis and in diminishing the mortality due to it. The earlier antitoxin is given in diphtheria the less likely is paralysis to follow.

Should it occur after early injection it will probably be mild and of comparatively short duration. The type of paralysis has, on the whole, become less severe or, at all events, less dangerous to life. Finally, diphtheritic paralysis has become more prone to attack the young. This change in age-incidence has possibly made some minor differences in the relative frequency with which the various forms of paralysis are observed. The practical conclusion is that the full value of antitoxin is only obtained by using it early and in efficient doses. If this be done, not only is life saved, but tedious complications are prevented or at least deprived of their dangerous characters. [A.G.E.]

10.—A further report is made of a patient in whom **diabetic coma was relieved by saline transfusion.** After being remarkably well for a diabetic person for 243 days after this, a sudden attack of coma came on and death followed in 2 hours. [A.G.E.]

11.—Two series of attacks of **narcolepsy in a woman of 27** are reported. One followed the extraction of 10 teeth and the other came after deaths in the family. The medicines acting best were iron phosphate, quinin sulfate, tincture nux vomica, and nitroglycerin. [A.G.E.]

12.—A case of appendicitis complicated by pleurisy and pericarditis is reported. [M.B.T.]

13.—The case of an infant 3 days old is reported, who had vomited meconium-like material since shortly after birth without intermission. The child was deeply jaundiced, the abdomen tense and distended. A provisional diagnosis of an unusual form of hernia was made. Laparotomy was performed, but the nature of the case was not discovered. A few hours latter the child died. At the necropsy **congenital atresia of the small intestine** was found in the lower part of the bowel near the cecum. [M B T.]

14.—Firth believes that the frequency of **sarcoma of the thyroid** is probably greater than statistics appear to show, though the operation for this condition is rare. A woman, aged 69, entered the hospital with a swelling of the neck, which had been first noticed 3 months previously. It was so great as to cause obstruction to breathing when she lay down, she had cough, and was only able to swallow soft foods and liquids. The lateral lobes of the thyroid extended well past the sternomastoid muscles and vertically from the clavicles to the level of the angles of the jaw. Operation was refused, but about a week later the patient was driven to it by the urgency of the symptoms. The tumor was exposed by a vertical incision joined by an oblique incision extended upward and outward; the sternomastoid, sternohyoid and sternothyroid muscles were divided, numerous large vessels were ligated, and 1½ inches of the jugular vein, which was imbedded in the growth, was excised. The tumor had to be peeled off the carotid artery, esophagus, and trachea. The patient bore the operation well, the wound healed in 3 weeks, and she left the hospital at the end of 4 weeks. The patient was free from trouble with her breathing until the time of her death, 4 months later, and nearly all the other unpleasant symptoms were relieved. Microscopic examination showed the tumor to be mixed-celled sarcoma. [M.B.T.]

New York Medical Journal.

September 9, 1899. [Vol. lxx, No. 11.]

1. Fracture of the Lower End of the Radius. CARL BECK.
2. A Test Case for Taste. NATHAN T. BEERS.
3. Adenocarcinoma of the Nose. Report of a Case. JAMES E. NEWCOMB.
4. Traumatic Neuropsychosis. Report of a Case. C. E. IDE.
5. Synechiotomy of the Stapes for Improving the Hearing in Chronic Suppurative Otitis Media Residua. EDWARD BRADFORD DENCH.
6. Bovine Tuberculosis in its Relation to Man. (*Concluded.*) EDWARD MOORE.
7. Dust in the Etiology of Tuberculosis. MAX GIRSDANSKY.
8. A Case of Tetanus treated with Carbolic Acid. D. FLAVEL WOODS.

1.—Fracture of the lower end of the radius is commonly regarded as a lesion of constant type, but recent studies with the x-rays show that this point of view is erroneous. The anatomic aspects of various forms of fracture of the lower end of the radius differ more than those of any other fracture. A knowledge of these differences is of importance in the treatment; for example, a simple fissure or Y-shaped fracture should be treated differently from a complete fracture. Beck has studied 62 cases with the x-rays, and he divides these fractures into 3 main varieties: epiphyseal separations, fissures, and complete fractures. These may be complicated with fracture of the head of styloid process of the ulna. In the treatment of fissured fractures a long wire palmar splint is recommended for the first 3 or 4 days until the swelling has subsided, then a bracelet of pasteboard may be substituted. This immobilizes the wrist sufficiently and at the same time permits motion and counteracts the formation of adhesions. [The paper is to be continued. M.B.T.]

2.—Beers describes a **convenient case for taste-testing materials.** Points are also given on making tests and the solutions used. [A.G.E.]

3.—A woman, 61 years old, had suffered from persistent nosebleed, she had lost health and strength and had had a slight watery discharge from the nose with an offensive odor for several months. The middle turbinate was considerably enlarged and the mucosa covering it appeared to be in a condition of polypoid degeneration. Under cocain-anesthesia one of the masses was removed, and after microscopic examination proved to be **adenocarcinoma.** The woman refused radical operation. In a search through the literature few cases of this kind were discovered. [M.B.T.]

4.—The case of a man, 51 years of age, is reported, who suffered from traumatic neuropsychosis as the result of being thrown from a wagon. [M.B.T]

6.—(Concluded from last week.) Moore discusses the **question of the transmission of tuberculosis** from human to bovine tissues. He has failed to find a single case of consumption among people using the product of known tuberculous cattle. A comparison is made between the percentages of deaths from tuberculosis in cities and the country. It is far greater in the former, yet the latter use the tuberculous products freshly produced. The latter part of the article is made up of letters from various sources confirming his views. An appeal for thorough investigation of the subject is made. [A.G.E]

7.—The **influence of dust in the etiology of tuberculosis** is considered. The free use of water in cleansing, instead of the broom, is urged. [A G E]

8.—Recovery took place in a **case of tetanus in which carbolic acid was used.** Ten minims of a 10% solution were injected, then at intervals of 15 minutes, 20 and 30 minims were used. Thirty minims was used every half hour during the day and at night when circumstances seem to require it. After 2 days dram-doses were given by the mouth every 3 hours, the dose being diminished as the rigidity decreased. Carbolic acid is believed to act as an antitoxin, but is effective only in heroic doses. [A.G.E.]

Medical Record.

September 9, 1899. [Vol. 56, No. 11.]

1. Reflex Irritation, with Special Reference to Eye-Strain, a Factor in Nervous and Mental Diseases. C. A. DREW.
2. Scarlet Fever Reproduced by Inoculation; Some Important Points Deduced therefrom. JOSEPH WILLIAM STICKLER.
3. On Ozone and Its Generation by the Static Current for Therapeutic Use. J. MOUNT BLEYER.
4. Interstitial Pregnancy, and Report of Case. CHARLES F. SMITH.
5. Self-Inflicted Wounds in Both Eyes, Both Ears, Tongue, and Larynx, Leading to Thrombosis of the Sinus Transversus. GEORGE REULING.
6. Tetanus of 19 Days' Duration Successfully Treated with Antitoxin. WILLIAM M. JAMES.
7. A Case of Primary Renal Tuberculosis of 20 Years' Standing. JACOB FRANK.

1.—Drew contributes an article in which he contends that **reflex irritation,** particularly that due to eye-strain, may have an injurious influence upon the insane, although he admits that physicians are exceedingly apt to believe this the most serious element, that is to say, to ride it as a hobby. [J.S.]

2.—Stickler inoculated 10 children with mucus obtained from the throats of patients suffering with **scarlet fever.** In all cases a typical eruption with angina and fever was produced. The inoculations were made by plunging a hypodermic needle into, but not through, the skin, and then injecting the material. The average period of incubation was 32 hours and 13 minutes; the shortest period 12 hours, the longest 72 hours. This statement hardly seems to agree with the fact that the average time that elapsed before vomiting appeared was only 12 hours and 50 minutes after inoculation. The eruption appeared on the average 6.7 days after the inoculation, the maximum being 9 days, the minimum 3 days. The temperature was rarely high, 103° being the maximum. Nearly all the cases, however, exceeded 100°. Stickler concludes that he has proved that the mucus of the throat contains the contagion of the disease, and that, therefore, the earliest eruptive stage of scarlatina is perhaps the most infectious. It is also exceedingly important to prevent conveying this mucus in any way from the patient. All rags used in wiping the nose and mouth should be burnt, and the bed-clothing and any objects which could be smeared by the secretion should be carefully sterilized. [It is but just to Stickler to say that he attempted to attenuate the material employed by the addition of carbolic acid, and that as soon as he was convinced that true scarlet fever was produced, he discontinued his experiments. All the cases were mild and all ended in recovery. [J.S]

3.—Bleyer contributes a long article upon the **chemistry of ozone.** In conclusion, he calls attention to his own "original scientific researches" upon the subject, by which he was able to prove that passing a galvanic current through the body of a rabbit increased the quantity of ozone in its blood. If, an hour before, some solution of iron had been given, for instance, the tincture of the chlorid, the effects in the various forms of anemia were almost startling. For lack of space he refrains from reciting 100 more clinical facts. He describes an ozone generator which consists essentially of a glass bulb with a mouthpiece, in which 2 electrodes are placed, between which a spark of electricity passes. The patient inhales from the mouthpiece. He has also constructed a cabinet, in which he submits the patients to ozone and actinic rays simultaneously. [J. S]

4.—Smith reports a case of **ectopic gestation of the interstitial variety.** The patient died and at the autopsy the peritoneal cavity was found to contain 3 quarts of blood, most of which was fluid, but the culdesac contained a large clot. After the blood was removed extensive laceration of the uterus was found, just to the right of the median line and on the posterior aspect. The tubes, ovaries, and ligaments were perfectly normal, with the exception that the right tube and ovary were drawn a little higher by the development of the uterus being slightly greater on that side. Neither tube nor ligament showed any indication of inflammation. The whole fundus of the uterus showed degeneration and thickening of the wall, a portion being very soft. A ruptured amniotic sac was found containing chorionic villi, which had no connection with the uterine cavity. This was enclosed in degenerated uterine tissue. The uterine walls in other portions were firm and normally thickened for a two months' pregnancy. The decidua had formed in the uterine cavity, and the cervix contained a mucus-plug. [W.K.]

5.—The case of a man, 41 years old, is reported, who was suffering deep **melancholia** and **religious hallucinations.** He was brought to the hospital with paralysis of the facial muscles and ecchymoses of both eyes. On closer examination the right eye showed a large hemorrhage in its anterior chamber, a small perforating wound of the sclerotic and considerable protrusion of the coujunctival transition fold. The left eye was similarly injured and there was complete detachment of the retina. The external meatus of each ear was injured and filled with coagulated blood and the ear-drums were torn. On examination of the tongue a non-penetrating stab-wound was found in the center just at the beginning of the circumvallate papillae. All the injuries described had been made with the end of a painter's brush handle six inches in length, which the patient had trimmed to a sharp point. His acts were based on the frenzied conviction that he would find forgiveness for his sins by depriving himself of those organs which he blamed for the committal of his evil deeds. Under appropriate treatment there was improvement in the patient's condition for 3 or 4 days. On the night of the fifth day the patient became delirious and almost uncontrolably violent, and coma and death supervened. At the necropsy the left half of the sinus transversus was found to be occupied by a grayish-red thrombus which was undoubtedly the result of a thrombo phlebitis of the veins of the left inner ear which directly communicate with the sinus. [M B.T.]

6.—A man of 43 caught the palm of his hand with a rusty hook, inflicting a deep ragged wound. After a drive of 3 miles to his physician the wound was antiseptically cleansed and dressed. Cellulitis developed and on the sixth day there were symptoms of tetanus. He was removed to the hospital, under anesthesia, openings were made at the elbow and wrist for the escape of pus and for irrigation and drainage. **Tetanus antitoxin** was injected in 20 cc. doses at intervals of 3 to 12 hours for the next 16 days except at times when the supply gave out; at such times the patient grew rapidly worse. Recovery eventually followed. [M B.T.]

7.—A woman, 39 years old, had suffered for 20 years from what was believed by her attendants to be **cystitis.** She had intermittent attacks of painful and frequent micturition, with pyuria and polyuria; was lame and sore, and had a burning, hot feeling in her back, especially in the region of the left kidney. On two or three occasions she had had attacks resembling renal colic, but she had never passed calculi. On cystoscopic examination the bladder was not found in such condition as to account for the symptoms. Catheterization of the ureters was done and the urine was also collected separately from each kidney by means of Harris' instrument. The urine from the left kidney was perfectly normal; that from the right kidney contained pus and blood. The sediment was stained for tubercle bacilli with a positive result. On March 15, 1898, a **lumbar nephrectomy** was made, the right kidney and the greater portion of the ureter being removed. After operation the patient's temperature dropped to normal. She made a good recovery and was discharged from the hospital during the fifth week. Over a year from the time of the operation the patient is feeling well and has gained in weight and strength. [M.B.T.]

Medical News.

September 9, 1899. [Vol. lxxv, No. 11.]

1. The Specific Cause of Yellow Fever. A Reply to Dr. G. Sanarelli. WALTER REED and JAMES CARROLL.
2. Cardioesophageal Gush and Click. R. G. CURTIN.
3. The Hydriatic Treatment of Pneumonia. RICHARD K. MACALESTER.
4. A New Method of Treating Complete Tear of the Recto-vaginal Septum by Turning Down an Apron into the Rectum and by Buried Suture through the Sphincter Muscle. HOWARD A. KELLY.

1.—Reed and Carroll make an aggressive **reply to Sanarelli's criticism of their work with the bacillus icteroides and the bacillus cholerae suis.** They deny that they could possibly have mixed their cultures. They are certain that the culture of the bacillus icteroides was genuine, as it was obtained through the Pasteur Institute from Montevideo. They assert that the bacillus of yellow fever does produce necroses in the liver, and then assume that the fact that Sanarelli claims, that it is more likely to produce steatosis, is an argument against its pathogenicity, because in actual yellow fever, necrotic lesions are found. [There appears to be some confusion in their minds on this point.] In regard to the cultural differences, which have been found by many observers, they quote a number of articles which go to prove that the bacillus cholerae suis may produce a pale growth upon potato; and their own experiments show that the bacillus icteroides may under some circumstances produce a yellowish or brownish growth. They claim that Sanarelli's argument, that the toxins of the two organisms react differently to temperature, is based chiefly upon the inaccurate work of Selander, but they do not give any arguments which show, or even tend to show, that his statement is incorrect. They give a table showing the effects of the injection upon 27 dogs. In 20 of these, autopsies were obtained and fatty changes occurred in the liver in 13, that is, only 65%. Their most important argument is, that serum obtained from Brazil, presumably from

animals inoculated with pure cultures of the bacillus icteroides, caused a distinct agglutination in the bacillus cholerae suis in a dilution of 1 to 100,000. They reiterate the absurd argument, that because the bacillus icteroides resists freezing, it cannot possibly be the cause of yellow fever; although the clinical experience with this disease, and bacteriologic experiments in other diseases, show that the facts are opposed to this. They describe their experiments made upon young pigs, which they fed upon bouillon cultures of the bacillus icteroides that had been passed through a guineapig. Precautions were taken to prevent accidental infection and the bacillus icteroides was obtained from the tissues. The symptoms and lesions resembled those produced by the bacillus cholerae suis. They, therefore, reiterate their belief that the bacillus icteroides is merely a variety of the hog-cholera bacillus, and probably a secondary infection in yellow fever, not, at any rate, the cause of the disease. [J.S.]

2.—Curtin describes a case of **heart disease** in which there was a curious murmur, synchronous with the heart-sound and persisting when the breath was held; it was louder when the mouth was open, and duller when it was closed. It sounded like a slight gush of air, and he believes that it was due to the compression of the distended esophagus by the hypertrophied heart. A double mitral lesion also existed. A similar case was noted by Dr. Fulton, and at the autopsy the heart was hypertrophied but otherwise normal. He also reports a case of a curious clicking sound occurring towards the end of respiration and synchronous with the heart-beat. It was particularly likely to be present after a full meal, indulgence in alcohol, or exercise. The sound became duller when the mouth was closed and disappeared if the breath were held. This phenomenon has persisted, with longer or shorter intermission, for 38 years. Any attempt to explain it by a consideration of the anatomic relations appears to be impossible. [J S.]

3.—Macalester believes **that the most effective treatment of pneumonia is by cold water.** It serves to stimulate and invigorate the nerve-centers; to prevent and control heart-failure; to reduce temperature; and to eliminate toxins. Mild measures are indicated because in pneumonia there is usually a very pronounced reaction to the application of cold. He prefers the cold compress, consisting of three folds of linen, cut to fit the chest closely and wrung out of water at 60°, to the wet pack, or even full baths at temperatures of 60° to 70°. He reports a case of a patient, apparently in collapse, in which the external application of cold produced immediate relief. [J S.]

4.—See Philadelphia Medical Journal of June 3, page 1201.

Boston Medical and Surgical Journal.

September 7, 1899. [Vol. cxli, No. 10]

1. The Effects of Training. A Study of the Harvard University Crews. (*Concluded.*) Eugene A. Darling.
2. Two Cases of Injury of the Cord Resulting from Fracture of the Spine. John Jenks Thomas.
3. The Role of the Staphylococcus in Skin Diseases. Charles J. White.
4. Multiple Ulcers of the Vulva and Vagina in Typhoid Fever. August Jerome Lartigau.

1.—Darling concludes his paper upon the **effects produced by training.** Careful examination of the heart made after the periods of rest, after the time rows, and after the races, showed that as the training progressed there was moderate cardiac hypertrophy, and after each severe exertion, a moderate dilatation. In the period from May 9 to June 29, just before the race, the apex-beat descended, on the average, ½ cm., and moved 1 cm. to the left. The right border appeared to be moved 2 cm. to the right, and the left 0.3 cm. to the left, so that the total breadth of the area of cardiac dulness was increased more than 2 cm. The amount of dilatation after the time-rows and races was considerable, and is shown graphically. He divides the various effects produced upon the heart into three groups. In the first the effect of effort was merely to increase the pulse from 60 or 80 to 120, the first sound became somewhat louder, but no murmurs developed. In the second group, a fine, blowing murmur developed with each race. In the third group, various abnormalities occurred, one of them being particularly interesting. This patient had a pathologic heart. The pulse was irregular and usually about 96. After the first-time row, the pulse rate increased to 138; the rhythm was embryonic and the murmurs were very loud. From this time during the course of training, the condition of the heart grew steadily and markedly better, and even 3 hours after the race, the pulse was only 88, and the murmurs very faint. The general condition and physical power of this man remained excellent throughout the entire period. Darling concludes then that **the heart is merely a muscular organ,** and partakes of all the changes produced in the other muscles by exercise. Interesting results were obtained from the examination of the urine. Albumin was found with great frequency after all cases of severe exertion, and in general through the entire period of training. In 83 specimens, it was present 48 times. The greatest quantity was 0.9 per mille (Esbach), but this was quite an exception. Casts, epithelium, and occasionally leukocytes were also found. Investigation of the blood was entirely negative. The tendency to digestive disturbances was probably due to the habit of overeating and to rapid eating, which was common among most of the men. No case of overtraining occurred, but it is probable that the chief causes are dilatation of the heart, derangement in nutrition, overwork, and nervousness. It seems from these investigations, that the effects of training on the heart and kidney approximate pathologic conditions. The men should always be carefully watched. [J S.]

2.—The first patient, a man of 37, had fallen down three flights of stairs, and was found to have some swelling of the neck, paralysis of the lower limbs and trunk, with loss of sensation, except over the upper part of the chest. The reflexes were abolished. There was rise of temperature and some slight restoration of motion in the left arm. The patient became unconscious, and died on the eighth day of the injury. At the autopsy, there was **comminuted fracture** of the fourth, fifth, and sixth **cervical vertebrae,** involving the spinous processes and the laminae. The dura was tense and swollen, and the substance of the spinal cord in this region softened. Macroscopically, the rest of the cord appeared to be normal. The softened portion of the cord showed no trace of the normal structures along a distance of about 2 cm. Above and below this region there were dark areas in the left posterior and in the right anterior cornua. Microscopically, the lesion showed entire loss of nervous structure; there was considerable hemorrhage, numerous leukocytes, some of which were collected around the bloodvessels. In addition, there were numerous compound granular cells. The dark areas mentioned consisted of blood. In this region, there were some large round masses, apparently swollen axis-cylinders. The bloodvessels were dilated; otherwise the tissue was approximately normal. Marchi's method showed degeneration of the myelin sheaths through the cord. This was rather diffuse and not systematic. There were no hemorrhages into the pia. The second patient had also fallen down stairs; there were no signs of fracture, but marked tenderness over the spinous processes of the third, fourth, and fifth cervical vertebrae; paralysis of the left arm and leg complete loss of sensation below the fifth rib; and diminished kneejerks. An operation was performed and a considerable amount of serum was evacuated from the dura. Pulsation in the cord was reestablished and there was some improvement, but later the patient became delirious and died. At the autopsy, opposite the third cervical nerve, there was a linear area of softening; otherwise, the cord appeared to be normal. Upon section, the tissue was found to be dark for a considerable distance above and below this region. [The paper is unfinished. J S.]

3.—White, after an extensive review of the literature, reports his studies upon the **bacteriology of skin-diseases,** applying to the Massachusetts Hospital for a period of 18 days. The cases were as follows: Impetigo 11; sycosis 10; furunculosis 14; carbuncle 39; dermatitis 11; syphilis 4; ringworm 3; acne vulgaris 2; herpes 2; scabies 2; impetiginous eczema 2; eruption due to iodids and bromids 4; dermatitis venenata 3; herpes zoster 1; tuberculous gumma 1. There were 111 cases in which the staphyloccocus pyogenes aureus occurred 88 times. The bacillus subtilis 2, the micrococcus tetragenus 3, the streptococcus 4 times; a doubtful organism once, and no result 24 times. In 12 cases there was mixed infection. He concludes that this proves that the staphylococcus plays an exceedingly important part

in the pustular diseases of the skin. A study of impetiginous eczema shows that it is most common in warm weather and is frequently associated with pediculosis, especially in childhood, the pediculi only acting secondarily by causing scratching. There are two forms of the disease; one in which there is a thin, moist, superficial crust, lemon-yellow to orange, found particularly in dirty children upon the exposed parts of the skin. Another, broad, shallow pustules about the shafts of the hair, particularly on the face, that occurs in young men and is probably due to infection during shaving. The treatment for children consists of soap and water, and the application twice daily of 5% boracic acid ointment. The scalp should be thoroughly soaked with crude petroleum for three successive days. For adults it is necessary to use more energetic measures; either sulfur ointment, black wash with salicylic ointment, or carbolized cosmoline or other antiseptics. Soap and water and careful disinfection of the towels and shaving instruments are also important. [J.S.]

4.—Lartigau reports 2 cases of **typhoid fever;** one in a girl of 16, and one in a girl of 20 years, both of whom developed multiple small ulcers upon the vulva in the course of the disease. Cultures made from these ulcers in the first case gave a growth of typical bacilli. [J.S.]

Journal of the American Medical Association.

September 9, 1899. [Vol. xxxiii, No. 11.]

1. A Fallacy of the Rest-Cure Treatment. GEORGE M. GOULD.
2. Cataphoric Treatment of Cancer. G. BETTON MASSEY.
3. Treatment of Aneurysms by Extirpation; with Report of a Case of Popliteal Aneurysm Treated by this Method. JOHN CADWICK OLIVER.
4. Some Complications Resulting from Rectal Operations. WILLIAM M. BEACH.
5. Use of Acetanilid in Various Combinations as a Substitute for Many Proprietary Drugs and Mixtures. LOUIS FAUGERES BISHOP.
6. Progress in Serum Therapy. GEORGE W. COX.
7. Experiments with Paraldehyde. C. C. HERSMAN.
8. Accidental Wounds of the Female Bladder. FREDERICK HOLME WIGGIN.
9. Intestinal Treatment of Tuberculous Peritonitis. HENRY T. BYFORD.
10. Relative Toxicity of Cocain and Eucain. A. H. PECK.
11. Disease of the Pancreas. FRANKLIN E. WALLACE.
12. Medicine. (*Concluded.*) J. BRUYERE.

1.—See this JOURNAL, Vol. III, p. 1270.
2. " " " " " " 1270.
3. " " " " " " 1274.
4. " " " " " " 1332.
5. " " " " IV, " 17.
6. " " " " " " 18.
7. " " " " " " 17.
8. " " " " III, " 1336.

11.—After discussing various affections of the pancreas, the following case is reported: A woman of 26, who had had several previous attacks of pain in the epigastrium and icterus, was taken with pain in the region of the gallbladder, nausea, vomiting and fever. These symptoms continued for 3 weeks, and then gradually abated under treatment. For the next 10 days she was considerably better, but then the former symptoms returned. She was admitted to the hospital with a tentative diagnosis of gallstones, and an operation was planned, but was delayed because of the patient's low condition. She rapidly became weaker, sank into a state of coma, and died. At the necropsy, **abscess of the pancreas** was discovered. The body and tail of the pancreas consisted of shreds of necrotic tissue, extending across and lying free in a cavity, possessing for walls the stomach, retroperitoneal and perirenal adipose tissue, the transverse mesentery, duodenum, and tissue of lesser omental cavity, as well as some loops of small intestines and colon. The cavity communicated with the stomach and bowels through perforations, and contained fecal matter. The head of the pancreas was the least involved. Disseminated fat-necrosis and fatty tissue were found throughout the omentum and mesentery. [M.B.T.]

Journal of Experimental Medicine.

November, 1898. [Vol. iii, No. 6.]

1. On a Form of Degeneration of Striated Muscle met with in the Uvula. A. G. HOEN.
2. The Fate of the Giant Cells which Form in the Absorption of Coagulated Blood-Serum in the Anterior Chamber of the Rabbit's Eye. LUDVIG HEKTOEN.
3. Regeneration of Nerve-Fibers in the Central Nervous System. W. L. WORCESTER.
4. Experimental Fat-Necrosis; The Action of Pancreatic Tissue upon Subcutaneous Adipose Tissue. HERBERT U. WILLIAMS.
5. A Contribution to the Study of the Pathogenesis of the Bacillus Pyocyaneus, with Special Reference to its Relation to an Epidemic of Dysentery. AUGUST JEROME LARTIGAU.
6. A Historical Study of Typhoid Fever. F. B. MALLORY.
7. The Leukocytosis of Labor and the Puerperium. CLEON M. HIBBARD and FRANKLIN WHITE.
8. One of the Conditions under which Discontinuous Sterilization may be Ineffective. THEOBALD SMITH.
9. Notes upon an Epidemic of Fowl-Cholera and upon the Comparative Production of Acid by Allied Bacteria. CHARLES H. HIGGINS.
10. Diffuse Sarcoma of the Cerebral and Spinal Pia Mater. GEORGE H. WEAVER.

1.—The peculiar form of **degeneration in the striated muscle of the uvula** described by Hoen consists in the formation of bleb-like or vesicular deposits at the periphery of the fiber, each bleb apparently containing a nucleus. In the earlier stages of the process a homogeneous refractile band appears along the side of the muscle, or the deposit may at once become evident as small vesicular elevations of the sarcolemma. In the most advanced stage of degeneration the fiber appears as a cylindrical collection of large blebs containing a small nucleus and granular debris, with the position of the muscle-fiber indicated merely by a shadowy line. Fibers with advanced changes at one end may appear comparatively normal elsewhere, and in like manner the blebs may be seen collected at one side of a fiber, cut transversely, while the other side remains unaffected. The presence of nuclear figures indicates that the process, although degenerative, is associated with nuclear proliferation. The nature of the homogeneous contents of the blebs is still undetermined. A remarkable series of microphotographs accompanies the article. [F.K.]

2.—Hektoen supplements his report on the **fate of giant-cells** in healing tuberculosis by a series of experimental studies in which the foreign body giant-cells were likewise discovered to be capable of division into viable uninuclear elements which appear to take part in the formation of new tissue. [F.K.]

3.—Near the center of a large degenerated tract, situated in the region of the right corpora quadrigemina, and made up of a dense network of neuroglia fibers, Worcester discovered a small group of medullated fibers, contorted and otherwise, much resembling the fibers of an amputation-neuroma, but without any discoverable connection, proximal or distal, with normal fibers. No cells were discovered. The facts are simply stated. Should they be interpreted as indicating the possibility of **nerve-fiber regeneration** in the central nervous system? [F.K.]

5.—In the **epidemic of dysentery** studied by Lartigau, 15 individuals were affected, 4 of the cases ending fatally. Fourteen of the cases were members of two families, living about a mile apart; the fifteenth was the physician who attended one of the families. The clinical picture was in general that of severe dysentery; pain along the line of the colon, tenesmus, frequent bloody passages, and a moderate degree of fever. The onset was, in most of the cases, acute and severe. The duration averaged about 3 weeks for the nonfatal cases. Vomiting was a marked symptom in several of the cases. The stools were frequently of a distinct green color, which became more marked on exposure to the air. Bacteriologic examination proved the presence of the bacillus pyocyaneus in almost pure culture in all the stools examined. The same bacterium was discovered in samples of the well-water, thus proving the latter to be the source of the infection. The cultures obtained, like those from the

discharges, gave evidence of extreme virulence. The proof of the etiologic relation of the bacillus pyocyaneus is strengthened by the report of similar epidemics by Calmette and Maggiora. A very complete summary of the literature bearing on the **pathogenic properties of the bacillus pyocyaneus** prefaces the report.

6.—The gross lesions of typhoid fever have been studied in a manner which leaves little to be desired; the "primary essential lesions" resulting from the presence of the typhoid bacillus and its products have, however, been surprisingly neglected. Mallory's minute study of the organs of 19 cases of typhoid gave the evidence from which he concludes that **a diffuse as well as local proliferation of endothelial cells is the primary and essential pathologic change resulting from infection by the bacillus of Eberth.** These cells are epitheloid in character and are markedly phagocytic, as is proved by the presence within them of red-blood corpuscles and lymphoid cells. Their proliferation is most rapid in the paths of toxine absorption, but also in the general circulation, especially where the current is slowest, and in the lymph spaces throughout the body the changes are similar although less intense. The characteristic lesions of the lymphatic tissues are directly dependent upon these changes in the endothelium, which by the presence of enormous numbers of new cells produce for the time being a true tumor-formation—the swollen Peyer's patch and mesenteric gland. The subsequent necrosis of the lymphatic elements is a secondary process, and depends on the occlusion of vessels by fibrinous thrombi incited by degeneration of the proliferated endothelial cells. The focal liver-changes result from local proliferation of endothelial cells and from embolism by similar phagocytic cells via the portal circulation. In the affected areas there occurs necrosis of the endothelial phagocytes and the formation of fibrin. [F.K.]

7.—The examination of the blood of 55 women, made before and after labor, confirm the already recognized **leukocytosis of pregnancy,** and indicate that it is characterized by a maximum intensity at the time of labor, and by a rapid fall to the normal, broken, however, about the seventh day by a slight rise; that it is most marked in young women, especially in primiparae, and that even mild irritation of the breasts causes again a marked increase in the number of leukocytes. [F K.]

8.—Discontinuous sterilization, usually accepted as absolutely reliable, is shown by Smith to be inapplicable in the case of media containing anerobic bacteria more or less exposed to the air. The spores, under these conditions, do not develop in the intervals of sterilization, and are, therefore, able to resist the temperature of 100° to which they are subjected at the subsequent steamings. When, however, the conditions become favorable, the medium accepted as sterile may develop a luxurious growth of anaerobes, and thus give rise to endless complications. On this account, the use of the autoclave, at a temperature of 110° to 115°, is a far more reliable method of sterilization. [F.K.]

9.—From victims of an epidemic of **fowl-cholera** which occurred near Montreal, Higgins isolated an organism, apparently identical with the organism of fowl-cholera described in Europe and differing somewhat from that reported in the American epidemics heretofore described. To this report are appended preliminary notes on the value of quantitative tests for acid-production as a means for the identification of allied species of bacteria. [F. K.]

Bulletin of the Johns Hopkins Hospital.

January, February, March, 1899. [Vol. x, Nos. 94, 95, 96.]

1. The Dissection and Liberation of the Sphincter Ani Muscle, followed in its Direct Suture in Cases of Complete Tear of the Perineum, with a Splinting Suture Passing between the Outer and Inner Margins of the Muscle. H. A. KELLY.
2. Aberrant Portions of the Müllerian Duct Found in an Ovary. WILLIAM WOOD RUSSELL.
3. The Cause and Significance of Uterine Hemorrhage in Cases of Myoma Uteri. J. G. CLARK.
4. A Study of 67 Cases of Primary Malignant Tumors of the Suprarenal Gland. OTTO RAMSAY.
5. The Bacteriology of the Corpus Uteri of the Nonpregnant Woman. A Report of 68 Cases. G. BROWN MILLER.
6. The Presence of Foreign Bodies in the Vermiform Appendix, with Especial Reference to Pointed Bodies. JAMES F. MITCHELL.
7. Origin, Development and Degeneration of the Bloodvessels of the Ovary. J. G. CLARK.
8. Ovarian Cysts in the Negress. THOMAS R. BROWN.
9. On a Hitherto Undescribed Peptonizing Diplococcus Causing Acute Ulcerative Endocarditis. W. G. MACCALLUM and T. W. HASTINGS.

1.—A common symptom of the complete tear of the perineum is the lack of control over the functions of the bowel characterized by an involuntary escape of feces and gases. These sequels are not, however, invariably present in the same degree in all cases. The amount of control remaining will depend largely upon the condition of the internal sphincter which in the opinion of Kelly controls the bowel-functions in a more important way than the external sphincter. The latter is a provision against an emergency and is intended to form a temporary powerful supplement to the internal sphincter. The external sphincter is of further use in the act of defecation in breaking the fecal column at intervals, so preventing prolapsus recti by creating a pause in the act and allowing time for more material to pass down into the rectum before the renewal of the strain. When the ends of the external sphincter muscle are parted by any considerable interval in a recent tear, then the internal sphincter is also torn. What is true of a recent injury is true of an older one in which the tear has been narrowed. Kelly believes that frequently a tear of the external sphincter is overlooked because control of the bowel is retained. He has devised **an operation for restoring the sphincter,** the chief feature of which is the dissection and liberation of both ends of the sphincter muscle, after which they are sutured together with buried catgut sutures, end against end. The technic of the operation, which is carefully described and illustrated with sketches, can best be studied in the original. A method is also given of reuniting the ends of the internal sphincter when they are torn. [D.R.]

2.—In an ovary removed at operation Russell found numerous gland-like spaces resembling those found in the uterus. In many places the glands and interglandular tissue were surrounded by bundles of unstriped muscle. At the posterior surface of the ovary at a considerable distance from the hilum was a shallow groove partly filled with glands of the uterine type opening on the abdominal side. In the substance of the ovary were spaces lined with columnar epithelium, in places having distinct cilia. Beneath this was an aggregation of glands embedded in connective tissue. The glands were arranged as in the normal uterine mucous membrane and opened into the spaces, the epithelium being continuous with their lining membrane. Russell reviews the theories that have been offered in explanation of the presence of such structures as described in the ovary, and concludes that they represent **aberrant portions of the Müllerian duct.** [D.R]

3.—The explanations of **uterine hemorrhage in myoma** as given in the literature are not very satisfactory; but the researches of Clark will serve to throw light on the subject. Clark has investigated by means of vascular injections the **normal circulation of the uterus** and the circulatory changes of myomatous uteri. He is convinced that the increased menstrual flow and typical hemorrhages so frequently seen in cases of uterine myomata are dependent solely upon mechanical conditions which induce, first, a congestion of the more deeply seated muscular and endometrial vessels, and this in turn an increased prolongation of the menstrual flow; and secondly, an actual derangement or disorganization of the vascular system of the endometrium and of the tumor itself, through which a typical hemorrhage occurs, varying in degree from a simple intermenstrual discharge to a loss of blood so great as to cause the most prostrating or even fatal anemia. The tumors themselves, even the smallest ones, have a very poor internal vascularization. The tumor apparently starts as a whorl or kink in the fibers of the muscle and derives its blood-supply from vessels coursing between the surrounding fibers. This insignificant initial wreath grows into a thick network of encircling vessels which sends radiating branches into the interior

of the tumor. Increasing in size, the tumor follows the simple law of pushing in the line of the least resistance, and tends to move outwards towards the perineum or inwards towards the uterine cavity. In case the surrounding resistance is uniform, it naturally maintains its intramural position. *Pari passu* with the outward growth of the tumor the tendency to disturbance of the circulation sufficient to create menstrual disorders decreases. Even when the tumor remains as an interstitial growth no subjective symptoms relative to the menses are, as a rule, noted. Occasionally, even when the tumor does not encroach upon the mucosa, the menstrual flow may be increased or prolonged, a condition explicable on a mechanical basis. When the tumor encroaches upon the uterine cavity another factor comes into action. The vessels which supply the endometrium reach this point by penetrating the inner muscular coat of the uterus, where they freely anastomose with each other and finally terminate as delicate twigs around the glands of the mucosa. When the tumor reaches the mucosa the menses tend to become free and prolonged, due to a thinning of the mucous membrane and a coincident degeneration of the vessels, which render the usual diapedesis more easy or allows an escape of the blood through actual rupture of the capillaries. At first only the terminal twigs of the endometrium are involved; but later, as the tumor advances and the tension is increased, the mucosa through gradual erosion assumes a white, glazed, parchment-like appearance, showing the deeper-lying vessels of the myoma. Often a cup-like depression is made by the advancing tumor in the opposite uterine wall, in which the vessels are exposed in a similar way. From this endometrial zone the author has seen occur, in some of his injection-experiments, the most active oozing. In the further expulsion of the tumor the vessels undergo gradual necrosis, which renders them brittle. The occurrence of large, irregular, intermenstrual hemorrhages may be taken, therefore, as an almost invariable indication of the development of a more or less extensive submucous tumor. When the tumor has reached the point where its overlying mucosa has disappeared the hemorrhage may become well nigh constant. The author has studied the clinical and pathologic records of 100 cases of myoma of the uterus, and has tabulated his results in a systematic way, illustrating the various features by drawings. He favors conservative myomectomy, where it is possible, to total hysterectomy. [D.R.]

4.—Ramsay reports 3 cases of primary **malignant tumor of the suprarenal capsule** and collates from the literature the records of 64 cases. His own were, histologically, fibromyxosarcoma, large round-celled alveolar sarcoma, and alveolar sarcoma. In the entire number, 67 cases, the ages varied from 6 months to 73 years. Out of 37 cases of carcinoma, 22 occurred in the male, 15 in the female sex. The average age of these 37 was 43.4 years. Out of 30 sarcomata, 14 occurred in the male, 11 in the female sex, the sex of 5 not being noted. The average age was 31 years. Regarding the differential diagnosis *intra vitam* of carcinoma and sarcoma, these figures have not much value as, on account of the difficulty in classifying suprarenal tumor, some growths considered carcinomata were probably sarcomata. The **symptoms of malignant neoplasm of the suprarenal gland** in some respects suggest Addison's disease, but the resemblance is not marked, and the skin-changes and disturbances of the circulatory system are generally absent. The bronzing of the skin is probably not due, in Ramsay's opinion, to the destruction of the gland, but to involvement of the sympathetic nerves. If it were due to the former, it should always be observed in malignant growths. Tuberculosis he believes, with Leva, is more apt to involve the sympathetic, hence more apt to cause bronzing. [The absence of bronzing of the skin in malignant tumors, it appears to us, cannot be considered a point in favor of the "sympathetic theory" of the origin of the pigmentation. In cases of primary new growths of the adrenal, the cells of the neoplasm, descending as they do from the suprarenal cells, are probably capable of supplying sufficient internal secretion to prevent the development of the change, or of some of the changes, that follow total destruction of the gland-tissue as by tuberculosis. We have an analogy in the pancreas—primary carcinoma is not generally accompanied by glycosuria, while processes destroying the pancreatic cells give rise to this symptom. Here, too, we may assume that the cancer-cells being derivatives of the pancreatic cells, possess to some extent the functions of the parent cell.] The most frequent symptom (only 37 cases were available for study in this respect) was marked and progressive loss of strength—seen in 22 patients—accompanied in many by extreme languor and debility. Emaciation was present in 20. In 12 cases out of the 37 nausea and vomiting occurred; in 9 there was loss of appetite, diarrhea in 4, constipation in 5. The circulatory system was rarely involved. Though there was extension of the growth in the vena cava and thrombosis in 4 or 5 cases, they did not suffer from edema. Pain existed in 25 cases; in some it was referred to the renal regions behind, in others it occupied the whole back; in some it was in the epigastrium or hypochondrium. Three out of the 37 showed distinct bronzing of the skin; in 2 there was a peculiar profuse growth of hair. The temperature was usually normal, and not, as Berdach had claimed, subnormal. In 13 out of the 67 cases the growth caused no symptoms referable to the suprarenal. The **diagnosis** of suprarenal neoplasm is very difficult—the most striking symptoms are: loss of strength and great languor; deep seated abdominal pain; marked emaciation, digestive disturbances, possibly skin-changes, and the occasional presence of a tumor. In the differential diagnosis, cysts and tuberculosis of the adrenal and tumors of the kidney must be considered; at times also hepatic and pancreatic growths, and tumors also of the retroperitoneal glands. The **treatment** is surgical, but the prognosis is always serious, even after a successful operation, on account of the great frequency with which both glands are found involved, and the tendency to early metastasis. Operation has been successful in 2 cases. The principal difficulties in the operation are the friability of the tumor, the great tendency to hemorrhage, and the frequency of adhesions. [D.R.]

5.—The **vaginas** of both pregnant and nonpregnant women are, under normal conditions, **free from pathogenic bacteria**; the introitus vaginæ is the outer boundary of this aseptic zone. The cervical canal is likewise, under usual circumstances, free from pathogenic bacteria, and from a point at or just above the external os contains no bacteria whatever. The gonococcus and possibly the tubercle-bacillus have the faculty of invading the normal cervical canal, but in cases of a patulous or neurotic cervix, with disturbances in the aseptic properties of the vaginae, other bacteria, such as streptococci and stapylococci, may be found in the cervix. Miller has studied the **bacteriologic flora of the cavity of the corpus uteri,** and has for this purpose examined 68 uteri removed at operation for various diseased conditions. Of the 68 cases, 53 showed changes of an inflammatory nature either in the endometrium or in the uterine adnexa. In 18, inflammatory changes in the endometrium were absent, and in *none* of these were bacteria found, either in the stained specimens or in cultures. This corresponds with the prevailing view, viz., that the body-cavity of the normal uterus is free from bacteria. Concerning the bacteria found—the gonococcus was found seven times, the streptococcus once, the staphylococcus pyogenes aureus once, the staphylococcus pyogenes albus twice, the bacillus of tuberculosis twice, and unidentified saprophytic bacteria four times. The gonococcus was never found in chronic cases of endometritis. The fact that it cannot be cultivated or found in stained specimens in a given case is, however, no proof that it does not exist. It appears to be more apt to invade the puerperal or menstruating uterus, and is more frequently than is usually thought the cause of miscarriages. The streptococcus was found once, in a negro woman with a large, sloughing, submucous uterine myoma. In puerperal infections the streptococcus is of special importance. Pyosalpynx, however, is not usually dependent on streptococcus-infection. The tubercle-bacillus was found to be the cause of endometritis in 2 of 31 cases (nearly 6.5%). These 2 cases were apparently primary infections of the endometrium; usually tuberculous endometritis, which as a rule stops suddenly at the internal os, is secondary to tuberculous processes in the tubes. Clinically, the **modes of infection** in the 53 cases showing inflammatory changes were, in 26, probably gonorrheal, in 12 puerperal, in 3 tuberculous, in 4 connected with myomata or carcinomata, in 4 due to previous operations, and in 2 unclassified. The author draws certain **conclusions** regarding the **preferential operations** in various uterine diseases—in uncomplicated cases of hysteromyomectomy, hysterectomy for inflammatory processes, or ovarian tumors, in operations for extrauterine pregnancy,

and in all such cases in which the vagina and cervix are normal, except, probably, for the invasion of the gonococcus, the **safest route so far as infection is concerned is the abdominal.** In operations for carcinoma, especially when the cervix is neurotic, in submucous myoma, especially when it encroaches on the cervix, and similar cases of polypi, etc., in puerperal cases requiring hysterectomy, and in circumscribed pelvic abscesses which are liable to secondary infection from the intestine, **the safest route with regard to infection is the vaginal.** The cleansing of the external genitalia and the surrounding parts is as imperative as the cleansing of the abdominal wall preparatory to operation. Drainage through the vaginal vault in cases of laparotomy, unless required to arrest hemorrhage, or in cases of wounded intestine in which the suturing is unsatisfactory, is almost as much to be deprecated as drainage through the abdominal wall. [D.R.]

6.—Mitchell has examined the literature, etc., on **appendicitis** to learn the comparative frequency with which **foreign bodies,** particularly pointed ones, are present in the process. In 1,400 cases true foreign bodies existed in about 7%, in 700 of these cases, in which a definite statement was made as to the nature of the foreign body, there were 45% with fecal concretions. Many queer things were found —shot, pins, worms, gallstones, a tooth, a piece of bone; grape-seeds and cherrystones, and other seeds were also seen. Among pointed bodies, the pin is the most frequent, and the author has collected 35 cases of this kind. Contrary to what would be expected, perforation of the appendix does not always occur. In no single case was there any knowledge of the swallowing of a pin, and no explanation was offered for its presence. The author's general conclusions are as follows: Foreign bodies are now known to play a much smaller role than that formerly accredited to them; fecal concretions are much more apt to be present as the exciting cause. [The presence of fecal concretions does not always lead to appendicitis; we have often seen them in appendices that were perfectly normal.] While many curious things are occasionally found, the appendix would seem to act especially as a trap for pointed bodies, and for small heavy objects like shot or bullets. The frequency of light foreign bodies, like grape-seeds and cherry-stones is much overestimated, and their presence is in reality exceptional. [D.R.]

7.—This is a preliminary report of the author's careful studies of the **vascular system of the ovary,** and its influence upon the successive stages, and accompanying phenomena occurring in the evolution of the Graafian follicle. The relationship of the corpus luteum to the conservation and the final cessation of ovulation is also considered. Regarding the development of the Graafian follicle, Clark believes that only the ova are derived from the germinal epithelium; the lining membrane comes from the connective-tissue stroma. The ovarian circulation was studied in ovaries from human beings at various ages, from fetuses, and from lower animals. Additional evidence was found to prove the synchronism of ovulation and menstruation. The cessation of ovulation is ascribed to the gradual impairment of the vascular system, which in the end diminishes the blood-supply to the cortical area to such an extent that the growth of the primitive follicles is retarded and finally completely inhibited. These final retrogressive changes lead up to and constitute the menopause. The author has in preparation an exhaustive article on the subjects here mentioned. [D.R.]

8.—Of 224 **ovarian and parovarian cysts,** but 20 were in the colored race, *i.e.*, in a ratio of 1 : 11.2, while the proportion of colored to white gynecologic cases treated was 1 : 6.75; hence the relative frequency of these cysts is 1.66 times as great in the white as in the colored race. [D.R.]

9.—In a case of **acute ulcerative endocarditis** MacCallum and Hastings isolated from the blood, during life, and from the blood and the valve-vegetations, as well as from infarcts of the spleen and kidney, and from the lung, pure cultures of a **diplococcus,** the chief characteristic of which is its power to peptonize milk and coagulate blood-serum. On account of this quality they term it **micrococcus zymogenes.** In its mode of growth it resembles the micrococcus lanceolatus, the meningococcus, and the streptococcus, while in its action on gelatin it is similar to the staphylococcus. [D.R.]

Berliner klinische Wochenschrift.

May 22, 1899. [36. Jahrg., No. 21.]

1. The Sanatorium Movement and Tuberculosis Congress. F. HUEPPE.
2. Blood-spitting in Tuberculosis. C. GERHARDT.
3. The Surgical Treatment of Tuberculosis of the Lungs. K. TURBAN.
4. The Relation between Menstruation and Tuberculosis of the Lungs. NEUMANN.
5. The Most Important Measurements of the Body in Phthisis and Relations between the Chest and Abdominal Organs. S. GABRILOWITCH.
6. Upon Personal Infection of Tuberculosis. E. ARON.
7. Statistical Contribution upon the Spreading of Tuberculosis. G. MEYER.
8. The Care of Lung-disease Patients Since the Establishment of the "Aged and Invalid Insurance" in Berlin. C. POSNER.
9. Upon the Bloodless Reduction of Congenital Hip-dislocation. J. WOLFF.

1.—In a very positive article, based, however, upon an intimate knowledge of the subject, Hueppe considers the **tuberculosis-sanatorium** question and the value of **tuberculosis-congresses.** He emphasizes the fact that the struggle against tuberculosis must not be alone against the bacillus, but also against the predisposition (Krankheitsanlage). The spread of the disease must be limited in factories as well as in families, the sputum must be properly disposed of, and the baneful dust in houses, as well as in industrial establishments, must be controled. The dwelling question from the point of view of antagonizing the predisposition is of the greatest importance. There should be in cities an abundance of open places and of public games and sports. Hueppe, believing in the transmissibility of acquired characters, thinks that by proper exercise bad constitutional traits can be changed in the course of generations into the opposite. Sanatoria have several objects. Their chief value consists in acting as hygienic educational institutions, making of the inmate when he reenters life an apostle of sanitary living. Every large hospital should have a small sanatorium of its own. The construction of large people's sanatoria involves great expenditures. The beneficial societies can do something towards erecting such establishments, while communities will probably find it to their advantage to have in conjunction with their hospitals, convalescent homes and sanatoria for the tuberculous. The State may properly construct sanatoria for the army. It would be best if those interested would assist in the construction by their contributions. The workingmen's legislation of the German Empire, which Hueppe considers the greatest social progress of the century, provides the possibility and the means for this end, so that the German workingman can enjoy the benefits of a sanatorium without feeling under obligation to the ostentatious charity of others. It is impossible that all tuberculous patients should find refuge in sanatoria. The majority will probably be treated, as heretofore, in the home. The understanding of the essence of sanatorial treatment (the hygienic therapy) must become the common property of the entire people. In this education the medical profession plays the chief part. On account of this, physicians must themselves be thoroughly informed on these questions. In the sanatorium-treatment there are a number of points that will require careful thought—occupation, lectures, games, religious worship, etc. The question of the use of alcohol is an important one. Most phthisical patients bear alcohol badly. The question of alimentation is one in which there is much obscurity that needs clearing up. The climatic factors are also not yet sufficiently well understood. The abundance of questions awaiting settlement makes the holding of tuberculosis congresses a welcome event. The questions must be agitated, and the subject must be subdivided so that it can be the better attacked. The Association of German Naturalists and Physicians last year, at Hueppe's suggestion, appointed a permanent committee for the investigation and combating of tuberculosis. Much is hoped from the efforts of this representative body. [D.R.]

2.—The **hemoptysis of tuberculous patients** can be produced by all sorts of external causes, as by hard labor, excessive muscular strain, chest-injuries, and great excite-

ment. The nonappearance of periodic sanguineous discharges may also lead to intermittent bloodspitting. It may be stated, however, as a general fact that **hemoptysis in tuberculosis is a symptom of cavity.** Gerhardt has made some studies on the **quantity of blood** expectorated. Of 879 tuberculous patients, 264 had hemoptysis (30%); of these, 161 (61%) had merely a slightly bloody expectoration; of the other 103, the amount of blood in 150 attacks of hemoptysis reached in 60 instances 100 cc. (38.25%), in 76 (48.25%) 500 cc., and in 15.5% it exceeded 500 cc. Hemoptysis has no definite influence on the temperature. In those cases in which the temperature rose, the hemoptysis was generally very abundant; of these, a number died on the second day. Hence, a **rise in temperature** in connection with the hemorrhage is an unfavorable sign. Hemoptysis as an early symptom is prognostically comparatively favorable. Regarding the **treatment of hemoptysis** the author offers nothing new. In cases with marked fever he has employed digitalis. In obstinate cases of hemoptysis he has seen good from atropin-injections. In chronic bloodspitting, benefit is sometimes derived from the inhalation of dilute solution of chlorid of iron. In the rare cases of intermittent hemoptysis quinin is of use. [D.R.]

3.—The observation, that a serous pleuritis often produces, by compressing the lung, a cure of the disease within it, has led to the **opening of the pleural cavity for the purpose of producing an artificial pleurisy.** It has, however, been impossible to prevent infection and a resulting chronic empyema which was not desired. The results obtained have been in measure encouraging, and have from time to time led to new attempts with variations in the method of procedure. In cases of rigid thorax the author has employed the following method, which does not necessitate the opening of the pleural cavity, but secures the desired decrease in its size, and is followed by primary union. He removes sections of the ribs from the fourth to the ninth, thus allowing a shortening of the anteroposterior diameter. In order to prevent the regeneration of the ribs the periosteum must be carefully removed. He has employed the operation with success in a case reported, and believes it applicable to a few cases where, when disease of the entire lung is present, and there is a tendency to retraction, the shortening of the ribs will permit the wall to contract and the lung to collapse, affording relief to the patient. [C L L.]

4.—Neumann has studied **the influence of menstruation on tuberculosis,** and vice versa. As a general rule the periods are not markedly influenced by tuberculosis. Occasionally there is amenorrhea, just as is seen in anemic and feeble persons under other circumstances. At times women with advanced tuberculosis, when well nourished and free from fever, menstruate regularly, a condition that sometimes leads to a false hope. Some women show certain fluxional phenomena during their periods, such as sweating, coryza, headache, and diarrhea. Vicarious hemorrhages from the respiratory organs are rare. Some tuberculous patients become very feverish during menstruation, in others the pulmonary symptoms become more marked without any increase in fever. Not rarely it is possible in suspected persons in whom an examination previously had been negative, to demonstrate positive signs during the periods. These signs the author has found most frequently near the spine of the scapula and not at the apex. In other patients the symptoms in the beginning of menstruation are not modified, but towards the end show a marked improvement. These various observations apply, however, only to a small proportion of tuberculous women. Nevertheless, they teach that previous to, during, and directly after the periods everything should be avoided that could increase the state of irritation. Tuberculous women should not travel during the period. [D R]

5.—Gabrilowitch has taken a series of **measurements on tuberculous and healthy individuals,** estimating, (1) the height of the body; (2) the circumference of the chest at the level of the nipples and angle of the scapula, taking the mean of the results of inspiration and expiration; (3) the circumference of the abdomen at the level of the navel, likewise taking the mean between inspiration and expiration; (4) the height of the trunk from the upper part of the manubrium to the symphysis pubis; (5) the anteroposterior and lateral diameters of the chest. By taking the figure 100 for the chest circumference, the height of the body in healthy individuals was 180 on the average, or 1.8:1. The best-formed thorax was represented by the ratio of 1.6:1; the worst-formed, by the ratio of 2:1. These figures teach that the old rule, according to which the circumference of the trunk should be ½ of the length of the body, is not good. The mean circumference of the abdomen was 89, or as .89:1 (circumference of the thorax). The mean length of the trunk was 62. The mean anteroposterior diameter of the chest, after eliminating the extremes, was 70. Only 21 phthisical patients could be examined, as certain conditions had to be fulfilled, namely, similar age, similar stage of the disease, and similar occupation, dwelling, and conditions of life in general. Taking the circumference of the chest as 100, the length of the body was 200. The best thorax was represented by the ratio 1.8:1; the worst, by 2.2.1. The circumference of the abdomen was 86; the length of the trunk, 67. The anteroposterior diameter to the lateral diameter was as .73:1. These figures show that the **phthisical chest varies markedly from that of the healthy person,** the circumference especially being less. The length of the trunk is greater in proportion to the circumference of the chest than in healthy individuals, from which the defective development of the thorax and its organs may be inferred. There is likewise a less perfect development of the abdominal organs in a phthisical patient, as the circumference is less than in normal individuals. So far as the diameter of the trunk is concerned, the figures are rather surprising; instead of being shorter anteroposteriorly, that diameter is longer than in healthy persons. [D R.]

6.—Aron thinks that as the destruction of the tubercle-bacillus can never be complete, the chief goal must always be the **intensification of the resistance of the human race.** This can best be accomplished by ameliorating the social conditions of the workingman, by improvement in alimentation and domiciliary hygiene, and by lessening the dangers attending work in factories and other places of labor. [D.R.]

7.—There has been a steady reduction of deaths from pulmonary tuberculosis in Berlin since the year 1884. In 1883 the death-rate was 3 42 for 1000 inhabitants. By 1894 it had sunk to 2 30. The total number of deaths from pulmonary tuberculosis from 1880 to 1896 was 70,221; or including deaths from hemoptysis and laryngophthisis, 72,500. In London the mortality has sunk from 2.86 in 1000 in the period from 1851 to 1860, to 1.83 in 1895. The cause of the reduction in the mortality from tuberculosis in Berlin and in Prussia depends upon the coaction of a number of circumstances—the improvement in the general sanitation, the introduction of great sanitary improvements, and the passage of the laws for the protection of workingmen, etc. [D.R.]

9.—Wolff illustrates the value of repeated observations by means of the Röntgen-rays, in the treatment of congenital dislocations at the hipjoint, by means of Lorenz's bloodless method of reduction. He feels that such a series of observations made during the progress of the treatment are absolutely essential to its proper accomplishment, and are of the utmost value to the patient as well as to the operator. They cannot, however, yield their full value unless they are taken by one who has made a careful study of this method of diagnosis and is fitted by experience to show all that is to be shown and to correctly interpret the results of the examination from the skiagraph. [C.L.L.]

Münchener medicinische Wochenschrift.

May 30, 1899. [46. Jahrg., No. 22]

1. Concerning Multiple Bowel-Diverticulums in the Sigmoid Flexure. Graser.
2. Direct Bronchoscopy in Removing Foreign Bodies from the Lungs. Killian.
3. Case Reports of Minor Surgery. Wetzel.
4. Remaks on the Treatise "The Physiology of the Hearing Organs." Zimmerman.
5. The Therapy of Operable Uterine Carcinoma at the Termination of Pregnancy. (*Conclusion.*) Thorn.
6. The Histology and Histogenesis of Ovarian Papillary Cyst. (*Conclusion.*) Uffenheimer.

1.—In a case of **stenosis of the intestine,** the stricture being situated at the junction of the sigmoid flexure

with the intestine, numerous **false diverticulums** had developed. Numbers of these diverticulums were perforated at their extremities and as a consequence a high-grade inflammation was produced, which through induration and cicatrization helped in the formation of the stenosis. In trying to discover the pathogenesis of these diverticulums, Graser injected the inferior mesenteric artery of the body of a 37-years-old woman; the descending colon, sigmoid flexure and rectum of whom he then hardened in alcohol. Microscopical examination showed numerous bulgings of the mucous membrane into or through a thinned-out muscular coat, and these bulgings were arranged in a line parallel to the attachment of the mesentery. As a result of this examination, it was found that the false diverticulums begin at the point where the larger bloodvessels break through the muscular coats. [G.B.W.]

2.—In two cases of **foreign body in the bronchi** Killian employed direct broncnoscopy to locate the body. In the first, lower bronchoscopy, consisting in inserting the electroscope in through a tracheotomy wound, was carried out, and with success, a bean being located and removed. In the second, the upper method was employed. This consists in pushing the electroscope through the mouth, larynx, and trachea, down into one of the bronchi. This later case was not productive of much fruit, as the foreign body was found to have already disappeared, though a ring of granution tissue was present to account for the disturbances of the respiratory note. [G.B W.]

5.—Thorn continues his discussion of this subject begun in the previous number. [W.K.]

6.—Uffenheimer, continuing the discussion of papillary cysts begun in the preceding number, says the material used was collected at the Berlin Frauenklinik, 15 years ago, and preserved in absolute alcohol. The specimens described were two papillary cysts, a surface papilloma, and a ciliated papillary cyst; and his conclusions are as follows: These tumors develop in post-fetal life; the papillary cysts of the ovary develop from the germinating epithelium; the ground substance of the papilla is purely epithelial; the sudden appearance of ciliated epithelial cells is the result of metaplasia. The psammoma bodies result from the degenerating of epithelial structures and are found even in the first stages of the papillary formation; slightly stained pseudopodia, like extensions of protoplasm, or proliferating epithelial masses are perhaps the beginning of new growths; in follicles whose cells have been partially destroyed the ova may still exist; hyalin degeneration of bloodvessels seems to be a a constant condition in papillary degeneration. [W.K.]

June 6, 1899. [46. Jahrg., No. 23.]

1. A Clinical Contribution upon the Knowledge of Cholecystitis and Cholangitis Typhosa. RYSKA.
2. Two Mischances (not Heretofore Observed) following the use of a Plaster-of-Paris Dressing in a Surgical Case. KAPOSI.
3. Examination of the Quality of Sterilized Milk for Nursing Infants in German Cities. SCHWAB.
4. Concerning Goitrous Peripheral Neuritis. GRUBE.
5. The Exhumation of Long-buried Human Bodies. RIEDEL.
6. A New Support Apparatus. BÖGLE.
7. A Chinese Emmenagog for Amenorrhea and Dysmenorrhea (Extractum Radicis Tang-kin.) HIRTH.

1.—Ryska reports 3 cases of **typhoid fever associated with cholecystitis and cholangitis.** The first patient was a nurse, 23 years of age, in whom, 10 days after the beginning of the typhoid fever, tenderness and resistance appeared in the region of the gallbladder—the gallbladder was swollen and enlarged; jaundice was not present. Complete recovery ensued. The cases of typhoid cholecystitis recorded may be divided into two classes—those in which the cholecystitis began during the course of or immediately at the end of the typhoid fever, and those in which it set in some time after the occurrence of the typhoid—in one as late as 5 years. In the other 2 cases detailed by the author, the symptoms were chiefly those of **cholangitis.** In both patients, the one a bartender of 23 years, the other a boy of 13, the symptoms of this affection came on suddenly, with pain in the region of the liver and gallbladder. The temperature rose, but not suddenly, the rise really beginning from 2 to 5 days before the onset of pain in the liver. In the first of the two cases, the cholangitis coincided with a relapse of the typhoid fever, both setting in 4 days after the subsidence of the primary attack. The symptoms of both disappeared at the end of 3 weeks, then, after an interval of a week, the cholangitis was again lighted up, and lasted 11 days more. Six days later it recurred and had not entirely vanished at the time the patient left the hospital. In the boy the liver was enlarged and tender; pressure in the region of the gallbladder was painful; the subcutaneous veins of the abdomen were enlarged. There was no jaundice (the other patient had a distinct icterus). The dilatation of the veins was due to portal stasis, produced either by the inflammation of the bile-passages or their neighborhood or by inflammatory processes in the branches of the portal vein. These cases show that an inflammation of the bile-passages in typhoid fever can occur at any time, and can remain latent for varying periods. The **prognosis** must be guarded. In prolonged cases operation is to be considered. Spontaneous cure is possible, but the infection of the bile-passages may become the starting point of a typhoid relapse. [D.R]

3.—A chemical and physical analysis of the principal varieties of infants' milk prepared on a large scale in Germany. The article will be concluded in the next issue. [D.R.]

4.—The existence of a **gouty peripheral neuritis** has been maintained chiefly by English writers, but has not found mention to any extent in German literature. Grub has seen a number of cases of **gouty sciatica,** generally associated with neuritis of other nerves, most frequently of the anterior crural, more rarely of the obturator. The nerves were tender on pressure; paresis, atrophy, anesthesia or hypesthesia existed, and the patellar reflex was diminished or lost. The neuritis is usually, but not invariably, unilateral. It is not always easy to exclude other factors in the neuritis, such as alcohol and diabetes. As a rule the gouty patient has only small amounts of sugar in the urine. The author has seen neuritis in persons who were only gouty, in such as were gouty and alcoholic, and in some who were gouty, alcoholic and diabetic. The symptoms were the same in all in three classes. Duckworth and Gowers believe that gouty neuritis involves most frequently the brachial plexus; the author has seen only one case of this kind, the details of which are given. The patient, a woman 43 years old, of gouty ancestry, had formerly suffered from gallstones, later from psoriasis. The neuritis began with paresthesia of the right hand, then followed pain, chiefly nocturnal, and lessening of power in the right arm and hand, and wasting. Glossy skin was present; the musculospiral, median, and ulnar nerves were tender on pressure; the electric reactions were diminished; there was no fibrillation. All other causes save gout could be excluded. At the end of two years recovery was almost complete. Warm baths, the constant current, and an an anti-gout regimen constituted the treatment. Gout may also produce a multiple neuritis, and even an optic neuritis, according to Hutchinson. Although Garrod's thread-test failed in the one instance in which the author made it, the urine in the majority of his cases contained an excess of uric acid or gravel. [D R.]

5.—A year after the burial of a woman of advanced age, the **suspicion** arose that her **death** had been **due to poison** administered by a cousin. The body, which had lain in an impervious, moist, clayey soil, was exhumed by order of court. Its condition was frightful; the autopsy had to be made in the open, and the stench clung to the participants and bystanders for a week. No evidence of poisoning was found. The second body exhumed was that of a young woman who had drowned. There was a suspicion that her employer had violated her, and to prevent the birth of a child, eventually killed her by drowning her in a well. The body had lain for a year and a half in a dry, porous, sand soil, and when exhumed was in an excellent state of preservation. A virgin uterus was found, and the suspect was released from custody. The cases are published as a contribution to the **cremation question,** but the author entirely refrains from comment. [D R.]

6.—The **new supporting apparatus** of Bögle differs essentially from the older apparatus where the support was taken on one comparatively heavy steel rod. In Bögle's apparatus a number of light but stiff steel springs diverge from a charnier joint so as to more or less surround the upper

part of the limb. A like structure supports the lower leg, and the whole brace rests on a short foot-band made from steel plates. Bögle reports two cases successfully treated by this apparatus. One was a case of ununited fracture, and the other congenital luxation of the hip. [G.B.W.]

7.—Tang-Kin root has been used by Chinese physicians from time immemorial as a remedy in **menstrual difficulties.** At the suggestion of Hirth, Merck has imported a quantity, and has prepared an extract to which the name **Eumenol** has been given. [D.R.]

June 13, 1899. [46. Jahrg., No. 24.]

1. Upon the Prognosis of Chronic Phthisis, with Special Regard to the Sanatorium Movement. PICKERT.
2. The Therapy of Lung-tuberculosis. FRAENKEL.
3. Counting Blood-corpuscles at High Altitudes and in Meissen's Cleft-chamber. TURBAN.
4. Ichthyol and Therapy in Tuberculosis. WERTHEIMBER.
5. Experiments in Testing the Efficacy of Chinese Emmenagog Extracts, Tang-kin, Mau-mu, or Eumenol-Merck. MUELLER.
6. Examinations of the Quality of Sterilized Milk for Nursing Infants in German Cities. (*Conclusion.*) SCHWAB.
7. Correction. MUNK.
8. The Newly Reconstructed Sanatorium Neu-Wittelsbach, at Munich. RIEDER.

1.—Pickert thinks that the former pessimism regarding the **curability of pulmonary phthisis** is rapidly giving way to an unwarranted optimism. He insists on the careful thermometric study of all phthisis-cases as of diagnostic and prognostic importance. Regarding an absolute cure in phthisis, *i. e.*, in the sense that the pathogenic agent is either entirely eliminated or rendered so harmless in the body that in order for the disease to develop again a new infection is necessary, the author thinks that it is only possible theoretically; in practice only a relative cure is obtained as a rule. This fact has an important bearing on the sanatorium question. How long a relative cure obtained in a sanatorium persists cannot be definitely determined. Of 132 cases dismissed as cured by Detweiler 72 remained well for from 3 to 9 years. The figures do not justify a too hopeful spirit; and when the proportion of cured cases is considered, optimism is still less warranted. Detweiler s cures constitute 13.2% in a series of 1,022 cases; Nahon reports cures in 15%. For the achievement of a cure a much longer time is necessary than some late writers assert. While a certain pessimism respecting the curability of pulmonary phthisis is warranted, the same attitude is not justified with regard to **laryngeal phthisis,** in which the percentage of cures obtained in sanatoria is large (from 31.88 to 54.8%). Two things are necessary for the attainment of such good results—early diagnosis and skilful treatment. High altitude is generally believed to be injurious in laryngeal cases, but Pickert does not think so, and at Davos 45.7% of cures have been obtained. [D R.]

2.—"Without tubercle-bacilli no tuberculosis—no tuberculosis without predisposition," is the credo of Fraenkel. Tuberculosis would long ago have destroyed the race if a part of it did not possess immunity. This immunity is principally inherited, but is not absolute, and can be imperiled by acute or chronic diseases. The question of the **marriage** of sufferers from lung-trouble is an important one; it cannot be answered merely from the biologic standpoint of natural selection; it has its ethical side. In some cases the marriage is permissible—if the disease has been arrested for months, or better, for years. It must also be considered whether the predisposition was inherited or acquired—in the former case marriage is less warranted. But the most important point is whether of the contracting parties the man or the woman is tuberculous. Tuberculous men often bear marriage well, while the woman, if tuberculous, is placed in danger by pregnancy, labor, and puerperium. The mother, moreover, has much more to do than the father with the forming of the child. Phthisical mothers usually give birth to weak children; the healthy wives of tuberculous husbands, to healthy children. If the marriage is permitted, special attention must be paid to the **proper rearing of the offspring** (a sound wet-nurse; an abundance of milk, during childhood, no alcohol, plenty of fat and butter, exercise, sea-bathing). Fraenkel does not think that the disinfection of the sputum has had much to do with the reduction in the phthisis-mortality of the last few years. The success of treatment is intimately connected with the early recognition of the disease. The latter is possible even without the bacteriologic examination. In doubtful cases the author uses the old tuberculin as a test. Clinically, it is only possible to speak of relative cure in phthisis. **Relative cure exists** when all the general symptoms, especially the cough and expectoration, have been in abeyance for years, when nutrition is good, and when the ability exists to pursue, without special precaution, the accustomed vocation. Instances of relative cure in pure infections are not rare; in cases of mixed infection expectoration seldom ceases entirely, yet a relative arrest of the disease is possible even in them. Fraenkel does not think anything of the therapeutic properties of Koch's tuberculins, Klebs' tuberculocidin and antiphthisin, or of Maragliano's serum. Nor is creosote with its host of derivatives a specific. As a stomachic it has value. [The article will be continued. D.R.]

3.—Several writers have attributed the increase in the number of red corpuscles at high altitudes to the diminished pressure of the atmosphere on the coverglass of the Thoma-Zeiss hemocytometer, and Meissner has constructed a special instrument to overcome this supposed defect. Turban shows, however, that the Thoma-Zeiss chamber is *not* under the influence of the external pressure, if this is not changed during the experiment. Hence it follows that there is a **real and actual increase of red cells at high altitudes.** [D.R.]

4.—Wertheimber has seen excellent results from the internal use of **ichthyol** in the treatment of **tuberculosis.** He gives it in watery solution equal parts, from 1 to 2 drops, thrice daily in water. The dose is gradually increased to 10 drops 3 times a day. The most striking result is improvement of the appetite. [D.R]

5.—Müller made a series of 18 experiments on patients of his own with a **new emmenagog, eumenol,** which was procured from China where it had been in use for 45 centuries. He found in general that the drug worked well in all cases of inflammatory affections of the genital organs, and in most of them it hastened an otherwise retarded menstruation. In all cases of watery menstruation the discharge became more abundant and darker. He considers eumenol to be a decided menstrual tonic. The drug combined with the ordinary method of treatment hastens delayed menstruation, or induces it in cases of amenorrhea, and lessens premenstrual pain. The drug is not poisonous, and the dose is a teaspoonful 3 times a day. Experiments on animals have shown that it is not an abortefacient. [W.K.]

Deutsche medicinische Wochenschrift.

July 20, 1899. [25. Jahrg., No. 29.]

1. Upon Sporadic and Epidemic Cerebrospinal Meningitis. E. STADELMANN.
2. Epidemiology and Bacteriology of Cerebrospinal Meningitis. H. JAEGER.
3. Cases of Facial Furuncle. LIMPIUS.
4. A New Method of Producing Anesthesia. J. GEPPERT.
5. The Diagnostic Value of X-ray Examinations. L. STEMBO.

1.—Stadelmann reports a case which occurred in a man of 26 years who exhibited the usual symptoms of sporadic cerebrospinal meningitis. Lumbar puncture was done four times in all, and showed a fluid that escaped under excessive pressure, and looked almost purulent. At the repeated lumbar punctures, the condition was found somewhat better each time, the number of pus-cells becoming less and the fluid becoming clearer. Bacteriologic examination demonstrated the presence of a microorganism which was considered the cause of the disease, and which was thought to be peculiar to this case. Its cultural characteristics are described, the most striking of them being that cultures developed only after a week. In some general remarks upon cerebrospinal meningitis, Stadelmann notes that cases of the epidemic form have shown both the meningococcus and the pneumococcus. He believes that this cannot be questioned. He bases such a statement upon the fact that the pneumococcus lanceolatus has been found, particularly by Paniencki, as the cause of epidemics. In the second place, the meningococcus intracellularis has by no means always been found in pure culture, and has repeatedly been seen with the pneumococcus.

It has been claimed by some that the cases in which the pneumococcus was present were mere sporadic cases. This Stadelmann thinks is an unjustifiable claim. It has also been said that the presence of the pneumococcus was due to secondary infection. He considers that there is no proof for this. He believes that the meningococcus has been insufficiently studied, and that probably under this head are included a group of microorganisms that will ultimately be separated from each other. He finally remarks rationally that there is no reason that epidemic cerobrospinal meningitis should be due to but one microorganism, for we know numerous infectious diseases that sometimes become epidemic but are caused by numerous bacteria, as for instance, pneumonia may be caused by the organism of Fraenkel, that of Friedländer, the typhoid bacillus, the influenza bacillus, the streptococcus, and other microorganisms. [D L.E.]

2.—Jaeger believes that time has proved the correctness of his observation that the **meningococcus is the cause of epidemic cerebrospinal meningitis.** Since his original publication he has examined 17 cases, in all of which the meningococcus was discovered. Some of these were epidemic and some sporadic, and they furnished examples of the transformation of the disease from the epidemic into the sporadic form. Jaeger has no doubt that the microorganism is entirely different from the pneumococcus and can be fairly readily distinguished from it. It is more difficult to distinguish it from the staphylococcus, however, and this difficulty has, in his mind, led to the statements made by Hünermann, whose work was abstracted in this JOURNAL. Jaeger has no doubt that Hünermann found both staphylococci and true meningococci in his cultures, but that he has confused the two. The distinguishing characteristics of the meningococcus as against the staphylococci are that the former grows but slowly if at all on gelatin without liquefying it, while the staphylococci liquefy it rapidly. The reason that the meningococcus has been so frequently found in the nasal mucus and other locations without causing the disease is that it is a widespread microorganism, and is practically always present, but human beings have, as a rule, but slight disposition to the disease; all the epidemics are likely to be small. Jaeger has demonstrated, himself, that the microorganism can stand drying for so long as 96 days, and there is evidence of the microorganism having remained present for so long as three years after an epidemic, and then having caused another outbreak. [D.L.E]

3.—Two cases are reported in which there occurred large furuncles of the lip which infected the veins of the face, and led to abscess of the brain, causing death in both instances. [D.L.E.]

4.—Geppert gives as the results following his **method of producing anesthesia,** that of 248 cases, men, women, and children, in only 36 was vomiting a sequence to the narcosis, most of the cases sleeping quietly for an hour or so, then waking up, some even being hungry. As to experimentation on animals, Geppert by his apparatus has shown that it requires of chloroform vapor 1½–2½% volume to keep rabbits in a narcotic state; for dogs and cats, 2–3%. For man the dose for producing anesthesia in 12 minutes is 1½–2½% volume of chloroform-vapor. [G.B W.]

5.—II. Stembo reports a typical case of pseudomuscular hypertrophy. A most interesting feature of the case is that the heart was also pseudohypertrophied, as shown by the small weak pulse and the presence of cardiac enlargement. The enlargement of the heart was diagnosed by means of the x-rays. III. The patient, an insane man, 24 years old, gradually developed an enormous uniform swelling of the head, of probably traumatic origin. By puncture the enlargement was proven to be a hematoma, and the diagnosis was made of cephalohematoma sub aponeurotica. By translumination with the Röntgen-rays the tumor threw a dark shadow on the screen. [G.B.W.]

Centralblatt für innere Medicin.

August 19, 1899. [20. Jahrg., No. 33.]

The Use of Iodipins in Testing the Function of the Stomach. F. WINKLER and C. STEIN.

This **combination of iodin with fat** was considered by the authors to be of possible value in testing the functions of the stomach. Similar preparations have been used by others previously; the point being that the iodin is not set free from the fat until the preparation reaches the intestine; the time of occurrence of iodin reaction in the sputum, therefore, indicates the motor power of the stomach. The iodipin was given with a little oil of peppermint to cover its taste, a small teaspoonful being administered about one-quarter to one-half of an hour after a test-breakfast. Forty-six cases were studied by testing for iodin-reaction in the sputum. The conclusion is reached that delay in the occurrence of the iodin reaction for over one hour indicates a disturbance of the motor function of the stomach. Normally the reaction occurs between one-half and three-quarters of an hour after taking the iodipins. In cases of gastroptosis, dilatation, and carcinoma it was delayed for from one to four hours. [D.L.E.]

Centralblatt für Chirurgie.

August 12, 1899. [26. Jahrg., No. 32.]

A New Method of Intestinal Anastomosis by Invagination. DOMENICO MORISANI.

Morisani believes that the usual methods of performing **intestinal anastomosis** by the use of a button or some other similar contrivance is bound to give a considerable percentage of unfavorable results because a foreign body is introduced into the intestine. It is true that the majority of cases recover perfectly, but the exceptions show that a certain danger exists. To avoid this disadvantage he has devised the following method: After resecting the bowel the distal end is seized and a ring of mucous membrane from 4 to 6 millimeters wide is cut away from its upper end with the scissors, the proximal end is then invaginated into the distal end and is held in place while 2 or 3 fixation sutures are placed, and then the anastomosis is completed with a continuous silk suture, this brings the end of the lower segment, denuded of its mucous membrane, in contact with the serosa of the upper segment, and rapid union takes place without any danger of stricture or any other complication. He has performed the operation experimentally a number of times on animals, and has examined the state of sutures at periods varying from 24 hours to 3 months from the time of operating. The intestine has been found water-tight in all cases and it retains its normal character. [M.B T.]

Neurologisches Centralblatt.

August 1, 1899. [18. Jahrg., No. 15.]

1. The Results of Section Through the Trapezoid Body of a Cat. ARMIN TSCHERMAK.
2. Remarks on Karl Petren's Article, a Communication Upon a Peculiar Alteration of the Nerve-Fibers of the Spinal Cord, Without Clinical Significance; the So-Called Hydropic Alterations of Minnich. KARL SCHAFFER.

1.—Tschermak, having found that it was possible to trephine the base of the skull of a cat after an incision through the skin and trapezius muscle, and a dissection of the structures of the neck, undertook the study of the functions and relations of different portions of the medulla. In the course of his investigations, he performed an operation that resulted in **cutting through the trapezoid body** at the level of the immergence of the abducens nerve, near the commencement of the acoustic chiasm just below the caudal extremity of the superior olive. The intramedullary fibers of the abducens were also destroyed. The animal showed at first uncertainty of gait with some staggering from side to side. When it attempted to spring from any object, it usually fell upon the head. At the end of a few days, however, this incoordination disappeared. There was not complete loss of hearing, for loud noises attracted its attention. The following groups of fibers were destroyed: ascending and descending fibers in the secondary and tertiary auditory system, particularly on the left side; descending degeneration in the lateroventral root-fibers of the anterior lateral columns, or in the fibers coming from the nucleus ruber of the opposite side; very slight degeneration in the lateroventral segments, and in the fibers to the cerebellum in the posterior portion of the pons; ascending and descending degeneration in the

uncrossed fibers of the pyramidal tract, and descending degeneration in the crossed fibers from the central nucleus of the reticular formation; complete degeneration in the crossed fibers from the anterior pair of the corpora quadrigemina, and complete degeneration in the fibers of the lenticular nucleus. For the minute description of the microscopical sections which were stained by Marchi's method, the reader is referred to the original. [The paper is unfinished. J.S.]

2.—Schaffer makes an energetic reply to Petren's criticism of his interpretation of the **hydropic alteration in the nerve-fibers** of the posterior columns. He gives reproductions of the areas of degeneration in the posterior columns of a case of general paralysis which show that it involves the whole length of the spinal cord, and is symmetrical and systematic in distribution; and he contends that Petren is insufficiently familiar with the literature, and has not examined the proper specimens in order to make his opinion of any weight. [J.S]

Archiv für klinische Chirurgie.

[58. Band, 3. Heft.]

1. Wooden Phlegmon of the Neck. M. M. KUSNETZOFF.
2. One Hundred and Ninety-seven Operations for Biliary Calculi. HANS KEHR, P. EILERS, and R. LUCKE.
3. Apparatus for Anesthesia. H. KIONKA.
4. Mixed Narcosis. F. HONIGMANN.

1.—That form of **phlegmon** which originates in the deep tissues of the neck, and only develops after a long period, has lately been described by Reclus as the "phlegmon ligneux du cou." Its characteristic symptoms are: (1) in the anterior or lateral region of the neck a simple phlegmonous induration, which spreads out to a greater or less extent; (2) the swelling develops slowly, taking weeks and even months before the tumor softens and suppurates; (3) the enlargement takes place without fever, special pain, or noteworthy systemic involvement. There are no typical symptoms that characterize these swellings, the skin only being involved, and becoming reddened by an extension of the inflammation from the deeper tissues; (4) heat and pain are entirely absent; only the turning of the head is limited by the swelling; (5) the tumor maintains its hardness for weeks without manifesting any sign of softening or fluctuation; after a period of from 4 to 6 weeks the skin becomes edematous, and small foci of suppuration form at different points, that are not sharply defined, and lie in the depths of the altered and indurated tissues. The difficulties that lie in the way of a differential diagnosis are very great, the insidious development making it difficult to separate these tumors from malignant growths. It is seemingly impossible until the cure has been accomplished and the benign character of the growth demonstrated. The etiology of these tumors is uncertain; they, however, develop in patients with weakened and run-down constitutions. They are apparently due to a chronic infection, which owes its chronicity to an attenuation of the virulence of the bacteria. The removal of the tumor is not feasible. The suppuration is so deep-seated, and the infiltration about it so great, that the evacuation of the pus is not a radical measure. The difficulties in diagnosis are perhaps the reason that many charlatans have cured malignant growths in this region. A fuller knowledge can only be gained by further study of the symptomatology and deeper research in the bacteriology of this condition. [C.L L.]

2.—Kehr does not believe that **biliary colic** is the result of an inflammation in the gallbladder. Most cases are due to this cause, some to an inflammation in a perfectly normal gallbladder, while some are due entirely to the impaction of a calculus without inflammation. He believes that bacteria are to be found whenever inflammation and pus are present, and that the reason they are not found in some instances is that the methods employed are defective. He does not believe that pain is always the result of inflammation, or that it indicates its presence. He has great faith in the Carlsbad cure in certain cases, and as an after-treatment, when the patient has recovered from his operation, he would, if possible, have it carried out in all cases. The regulation of diet is very essential, but must depend, in a great measure, upon the patient. He should eat frequently, and the author would especially commend a late evening meal to keep up the flow of bile during the night. The indications for internal treatment by the Carlsbad method he gives as follows:—(1) acute closure of the ductus choledochus, while its course is normal (provided everything is in readiness for immediate operation, if indicated); (2) in inflammatory processes in the gallbladder, with and without icterus, when they are infrequent and not too severe in their recurrence. The pain does not always indicate the amount of involvement, and the palpation of the experienced surgeon must detect the proper moment for intervention; (3) when frequent colic is always accompanied by the passage of a stone (when it recurs frequently, without the passage of a calculus, operation is indicated); (4) in patients afflicted with excessive adipose tissue, gout, or diabetes, for when affections of the heart, lungs, kidneys, and liver contraindicate the administration of an anesthetic; (5) in cases that have been operated upon, treatment should be continued by the internal method, after recovery from the operation. Operation is imperatively indicated: (1) in acute seropurulent cholecystitis and pericholecystitis; (2) when there results from this adhesions between the gallbladder and the intestine, the stomach, the omentum, with marked symptoms of pain, peripyloritis, pylorus stenosis, duodenum stenosis, etc.; (3) chronic closure of the choledochus duct; (4) chronic closure of the cystic duct, with hydrops or empyema of the gallbladder; (5) in all cases of cholelithiasis that commence as mild cases, but gradually affect the general health of the individual and resist treatment; (6) suppurative cholangitis and abscess of the liver; (7) perforation of the biliary passages and peritonitis; (8) morphin habit as the result of gallstone disease. He has cured many of these cases of this habit. Frequently, exploratory operations will be indicated, but the more experienced the surgeon in this particular form of disease, the less frequently will it be necessary. The indications cannot, however, be rigidly enforced, and must, in a great measure, depend upon the surgeon's experience. The 197 operations reported *in extenso* have not been done by any fixed method, or can they be classified under exact headings. Each case is a law unto itself, and has to be studied and operated upon as an individual case. He prefers to operate and close the gallbladder or the duct after operation, wherever it is possible, and does not believe in the operation at two sittings. When the gallbladder is small or is ruptured, or the cystic duct is obliterated, he prefers the removal of the entire gallbladder. He does not believe in the use of the Murphy button for anastomoses, as it is liable to fall into the bladder and produce great injury. The crushing of calculi in the ducts he does not consider good surgery; they should be pushed back, or removed by incision and immediate suture. [C L.L]

3.—The development of an apparatus for the **absolute dosage of anesthetics** has been successfully accomplished, but Kionka finds the apparatus too complex and intricate for general employment. If complex apparatus are employed by hospitals, although they may give more accurate dosage of the anesthetic, they do not teach the anesthetizer to be observant, so that when he goes out into general practice he has no knowledge that he can employ for the safety of his patient. It is impossible to find a dosage that will do for all patients; the individual must be studied, and the only person that can do this is the educated anesthetizer. [C.L L]

4.—In studying the **narcosis produced by the mixed vapor of chloroform and ether,** Honigmann finds that a smaller percentage of the vapor of both is required than of either one alone. The action of the vapor is most harmful to respiration. This is shown by easily induced mild or severe asphyxia. Death can follow in the early stages from this cause. The bloodpressure is nearly unaltered when this narcosis is employed. Death from this anesthetic is due to its action on the respiration primarily, but may be followed by stoppage of the heart. This mixture has the advantage that smaller doses of both drugs produce the anesthesia of a like depth. It has the advantage over chloroform that it does not act so markedly upon the circulation, and that after its commencement in concentrated vapor the narcosis can be carried out with less concentrated vapor. It has the disadvantage of producing profuse secretions, though not to the same extent as in ether-narcosis. Ether has, however, the great advantage of acting less rapidly on the respiration and of responding to artificial respiration. The mixed narcosis is more liable to produce death without the possibility of resuscitating the patient. [C.L.L.]

Original Articles.

CASES OF FRACTURE OF THE SKULL FOLLOWED BY RECOVERY.

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IT is a source of regret in reporting the following cases that it is not possible to give with greater accuracy every detail in each case. Unfortunately some of the notes are incomplete, the record not having been so full as it should have been. There are, however, many points of interest. In beginning this paper it was my intention to confine it to a report of cases of fracture to the base of the skull with recovery. One case in which there was no involvement of the base has been added. All other fractures have been omitted. The evidences of fracture to the base of the skull may possibly be considered as inadequate in one or two cases. It is possible that deafness or paralysis of certain nerves of the face may result from injury to the head without the occurrence of fracture, and hemorrhage from the ear may take place without injury to the internal table of the skull. Careful observation of the cases reported has led me to conclude, however, that the symptoms observed in the cases reported are best explained upon the supposition that fracture occurred. It is also interesting to note that, in addition to hemorrhage from one or both ears, there are instances of deafness, loss of smell, and also of a slight degree of optic neuritis. All of the cases reported have recovered, and the majority of them have been observed for several years after the receipt of the injury.

In a portion of the cases in which bleeding from the ears occurred there was also an escape of what was supposed to be cerebrospinal fluid, but unfortunately the records concerning this are not sufficiently accurate to warrant me in reporting it, and thus it has been omitted. In reporting the loss of smell following the injury in several cases it may be interesting to record another observation, viz., that of a patient who had a deviation of the nasal septum to the right side. The septum was forcibly straightened and held in place by rubber drainage-tubes inserted in both nostrils. Soon after the operation the patient discovered that he was aware of the sense of the perfume of flowers and other delicate odors. Previous to the operation he had never recognized their existence.

Why there was recovery in the cases reported, while others to all appearances no more seriously injured were fatal, I cannot determine, nor am I able to draw any deductions as to what special line of treatment will enable the surgeon to avoid the dangers of infection and consequent meningitis. It does not seem possible to render sterile injuries to the base of the skull communicating with the nose and ears.

CASE I.—J. K., male, aged 51. Had always been well and strong. January 1, 1892, he was knocked down by a motor-car. From what I ascertained I concluded that, as he fell, his head struck upon the pavement directly upon the occipital protuberance. He was rendered unconscious by the fall, but regained consciousness in a few moments. He was carried into a drug-store, but says that he heard the ambulance drive up and gave orders that he should be taken home. Instead he was taken to Lakeside Hospital, where I saw him. He was able to stand, could talk, and his mind seemed clear. He was, however, absolutely deaf. I gave him pencil and paper and he wrote his name and address, and complained of being dizzy. There was a V-shaped scalp-wound over the occipital protuberance, and there was also some blood in both ears. The wound was carefully examined, but no fracture of the skull could be found, and the wound was dressed antiseptically, and the patient was placed in bed with ice-bags to the head. On the second day the patient could hear very loud talking. On the third day the ears were examined by Dr. Millikin and both tympanic membranes were found to be congested. The patient was kept in bed with absolute quiet until shortly before leaving the hospital on January 25. At this time he still complained of being dizzy, but could hear moderately well. June 15, 1892, I saw the patient in my office. He still complained somewhat of dizziness and told me that he heard nothing whatever with his left ear. At that time Dr. Millikin again examined the ears and found that the tympanum of the left ear presented a parchment-like appearance with no light-reflex. The right tympanum was dull in color, having slight light-reflex. Both right and left tympanic membranes were retracted. I saw the patient again on April 25, 1899, and at that time made the following notes: He says that on leaving the hospital he had no hearing whatever in his left ear, but his hearing was good in the right. It continued good in the right until April, 1896. When working in his cellar one day he took a severe cold and this was followed by deafness. He was treated for catarrh, but with little benefit. Twice for short intervals and again for an hour or so his hearing was restored to its original condition, but the improvement ceased immediately, and now he hears only very loud conversation. Before his injury he says his hearing was most acute. The same was true with reference to his sense of smell. Since his injury he has very little sense of smell and can distinguish only with difficulty what he is eating. He says that he is scarcely able to tell when he is eating onions. Examination of the ears shows the external meatus of the right rather small, the membrane very much retracted, of a ground-glass appearance, and almost no light-reflex. The left shows the same general appearance. The loss of hearing in this case may possibly have resulted from hemorrhage into the internal ear without fracture of the skull, and it is impossible, of course, definitely to determine the exact injury. Though hemorrhage was doubtless a factor in producing the deafness, it seems probable that the hemorrhage resulted from fracture rather than that deafness in both ears should have resulted at the same time from hemorrhage without fracture.

CASE II.—W. M. M., male, aged 32 years. Had always been well and strong. Was injured November 28, 1892, by being thrown from a carriage, but whether his head struck the pavement or a companion riding with him fell upon his head is not known. He was picked up unconscious and carried to Charity Hospital, where I saw him shortly after the injury. There was an incised wound over the occipital protuberance. He bled freely from his right ear. The wound was laid open and the skull carefully examined, but no fracture was found. The patient was injured at 6 P.M., and he complained of pain when the wound was laid open (which was done without an anesthetic), but showed no other signs of consciousness until 6 o'clock the next morning, when he asked what bells were ringing and also where he was. The patient developed high fever after the injury, the temperature rising to between 105° and 106°. He was able to answer questions rationally, and although he recognized people he seemed to have no realization of their relationship to himself for about three weeks. After this time his mental faculties began to be clearer and he regained them perfectly.

Some two weeks after the accident it was noticed that there was paralysis of the right side of the face. This doubtless had occurred some time before it was observed, but as the right side of the head was thoroughly enveloped in dressings it was not noticed. The paralysis of the face remained complete for a long time. For a year he had much trouble in keeping the food between his teeth and the cheek on the right side. There was inability to close the right eye and marked ectropion of the lower lid for nearly two years, after which time the ectropion disappeared. He cannot lift the lower lid, and can only close the upper lid over about one-third of the eyeball. There was no impairment of sensation at any time and the taste and smell remain intact. He has never suffered from dizziness, but for a considerable time he had severe headaches over the vertex of the skull, but at no time was there any at the base. The movement of the eyeballs is perfect and the sight is excellent. There is no paralysis of either tongue or pharynx. He is absolutely deaf in the right ear. The right side of the face remains entirely paralyzed and expressionless and the mouth is drawn markedly to the left side. The patient's health at the present time (May, 1899) is excellent and he is actively engaged in business as the purchasing agent of a large company.

CASE III.—J. E. E., female, aged 40 years. Had always been well and healthy. On November 5, 1898, while crossing the street, she was knocked down by a wagon. She was struck upon the right side and fell upon her left side, probably striking her head upon the pavement. She was unconscious, however, and knows nothing further about it. She was taken at once to Lakeside Hospital, where I saw her soon after her admission. At that time she was conscious, there was no paralysis of any sort, the pupils were clear and responded to light. The only serious symptom was the free discharge of blood from the left ear. The patient was placed in bed with ice-bags to the head, her bowels were emptied, and she was kept quiet and in a dark room. She expectorated some blood, and some blood also flowed from the nose, and she complained of severe headache. The next day she complained of nausea and dizziness. The bleeding from the ear had ceased, but she continued to expectorate blood and to bleed from the nose. These both ceased on the following day. On the 8th, she complained of twitching of the left eye and inability to close it. There was also noticed paralysis of the left side of the face. The ice-bag was continued until November 13, until which time she still complained of some dizziness. The paralysis of the left side of the face was complete. The patient remained in the hospital until December 13. At that time there had begun to be a little improvement in the condition of the face. March 4, I examined the patient, and while I found the hearing in the right ear normal the patient hearing the watch at a distance of 15 inches, on the left side she only heard the watch when held closely over the ear. She heard it still more distinctly when it was placed against the mastoid. The paralysis of the face, which three weeks before was still noticeable, had entirely disappeared, the right tympanum was normal, but the left was markedly retracted. The patient says that she notices no difference in her sense of smell. On March 29, her eyes were examined by Dr. Millikin. The vision in both eyes is $\frac{6}{6}$, being a little better in the left than in the right. Examination under a mydriatic showed hypermetropic astigmatism of both eyes. The ophthalmoscopic examination of the right eye showed striations running into the retina from the disc, a condition which awakened a suspicion of a moderate degree of optic neuritis. The left eye showed the same condition in less degree. The field of both eyes was good for objects, but for red and green was constricted. Other than a low grade of neuritis, especially marked in the right eye, and deafness in the left ear, there is no evidence of any remaining disturbance.

CASE IV.—A young colored man, aged about 25 years. Unfortunately the history of this patient has been lost. He was struck, in a quarrel, with the head of a hatchet, the blow being upon the level of the ear and about one-third of the distance from the ear to the occipital protuberance on the right side. The patient was brought to Lakeside Hospital shortly after the accident. He was bleeding profusely from his right ear and was in a dazed and semiconscious condition. The wound was enlarged and there was a small indentation of the occipital bone. This seemed, however, to be confined to the external table, so that the skull was not trephined. There was no injury to the external ear itself, so that it seemed probable that the injury to the external table of the skull had been associated with a fracture of the vitreous portion of the temporal bone which had resulted in hemorrhage from the ear. The patient made a rapid recovery and was dismissed from the hospital, and I have been unable to get any further record of the case.

CASE V.—O. K. M., male, aged 42. General health had always been excellent. On January 7, 1899, he was struck by a pine block falling upon his head from a distance of 50 feet. He did not come under my care until about 4 weeks after he was injured. The history of the case is as follows: The patient bled profusely from both ears and nose, and vomited large quantities of blood. There was also an effusion of blood beneath the conjunctiva of both eyes, the right eye becoming greatly swollen so that it was closed for several days. There was later discoloration in front of and below both ears, which continued for 2 weeks. The patient was unconscious for 72 hours. After this, consciousness gradually returned and he sat up February 1. He reached home February 6. I saw him first on February 6, at 4.15 P.M. I found him lying in bed in a perfectly conscious condition. He was able to move both arms and legs and grasp my hand with normal firmness with both his hands. Sensation over the entire body was normal, the patellar reflexes of both legs were equal, but, seemingly, somewhat exaggerated. The patient protruded the tongue in a straight line. Both pupils responded to light and the motion of the eyes was perfect. He closed both lids, but when told to open his eyes widely the left lid was raised further than the right. Pressure on the skull showed slight tenderness in the right parietal region. Pushing the head downward with the hand upon the vertex of the skull caused no pain. There was no evidence of paralysis of the muscles of the face. The patient heard my watch with the left ear at a distance of 2 inches. He did not hear it so well when placed upon the mastoid process. With the right ear he heard the watch at a distance of 4 inches, but heard it less distinctly upon the mastoid process. There was occasional slight ringing in the ears, but nothing marked. Patient says that at one time he had a feeling as though the right side of the face was asleep. When he sits up he feels somewhat dizzy, and says upon questioning that he has a sensation of things turning somewhat to the right, and feels like falling to the right. In other respects the patient's health seems normal. I prescribed a saturated solution of potassium iodid and directed that he take 10m after each meal. I told him to sit up a short time each day, but to remain in the house. He was directed to eat simple food and in moderate quantities, avoiding all rich foods and stimulants.

I saw the patient on March 6, when he reported that he had lost his sense of smell. When this occurred he cannot tell. Examination of his eyes by Dr. Millikin showed no serious trouble. April 3 I again examined the patient. The dizziness and headache had decreased and patient felt very well, and was permitted to go to his business.

The 5 cases just reported are, in my judgment, those of fracture at the base of the skull. They are interesting because associated with the fracture are other injuries, viz., paralysis of the facial nerve, loss of hearing and loss of smell. In part of the cases these injuries have been permanent, while in others improvement has taken place.

CASE VI.—C. H., male, aged 4 years. September 29, 1894, the patient fell from a second-story window into a cellarway, striking his head upon the stone steps. When I saw him, perhaps an hour later, I found the top of the head contused and the whole vertex of the skull sunken and irregular in outline. The head was shaved, disinfected and a transverse incision was made across the top of the skull. The vertex of the skull was found fractured in numerous pieces, there was a large fissure running from the vertex downward and to the left, to about the junction of the frontal with the left temporal bone, and a second line of fracture extending from the vertex into the right temporal fossa, and a third fracture, wide enough to permit the insertion of the finger, running from the vertex to the right downward and backward, well

to the lower extremity of the right parietal bone. In addition to the large fractured fragments there were also numerous small pieces, so that it was out of the question to remove the depressed or broken portions of the skull. To have done so would have been to lay bare the entire superior surface of the brain. After laying the scalp well back in various directions, a sharp, strong hook was used to lift the fragments of skull into place. By hooking it under successive fragments and lifting upward it became possible to restore the vertex of the skull to its original shape. After this was done the wounds were dressed antiseptically and healed by first intention. The record of temperature has unfortunately been lost. The fever, however, never rose to more than 101° and a fraction, and the progress of the case was most favorable. The patient remained unconscious for several days, after which he regained consciousness and became entirely rational. His improvement was very rapid, but as a matter of safety the child was kept in bed between three and four weeks. I examined the patient again in March, 1899. The boy has grown and developed in every way and is perfectly healthy. He is bright intellectually, of large size, and seems in no way to have suffered any permanent damage from the injury.

This case together with the one following is of great interest. The injury to the vault of the cranium was most extensive, so great as markedly to deform the skull and make any operative interference seem utterly useless and hopeless. The fragments of bone were numerous, the lines of fracture were partly closed and partly widely separated. They ran from the vertex downward so far that, although not followed on account of the extensive cutting which would have been required to do so, they had every appearance of extending to the base of the skull. The sharp hook used to raise the fragments to their normal position permitted this to be accomplished with a minimum of disturbance to the bones, and completely restored the contour of the skull. The hook used is a strong one used for resection of bones, and is most useful in fractures of the skull, as a rule rendering the employment of a trephine unnecessary, and at the same time being much more rapid and convenient.

Case VII.—O. K., male, aged 8 years. This patient was operated upon by my associate, Dr. W. H. Nevison.

July 3, 1895, he fell 25 or 30 feet from the top of a tree, striking the left side of his head upon stone flagging. He vomited profusely and bled from the left ear, but there was no bleeding from the right ear. Within a short time there was so great swelling over the right eye that the eye could not be opened. There was, however, no sign of any external violence in the region of the eye. The father said that the head looked badly out of shape. The patient remained at home for three days and was then taken to Lakeside Hospital. On admission to the hospital his temperature ranged from 104° to 105°; he was wildly delirious and had to be held in bed all of the time. This delirium lasted for about a week after the operation, but the patient did not regain consciousness for two weeks. An operation was performed on the fourth day after the accident. At the time of the operation there was a bogginess over the entire left side of the skull. Through this it was impossible to feel whether or no there was any depression, but there appeared to be irregularities in the contour of the skull. An incision beginning in the middle of the forehead just behind the hair line was made backward and to the left, terminating at the junction of the parietal with the occipital bone. On lifting the flap from the skull the latter was found to be fractured. One fissure ran downward toward the left ear, and was traced into the temporal bone. Another extended backward across the parietal bone into the occipital bone, and the third extended across the longitudinal suture over into the right parietal bone. The trephine was placed over the left parietal bone near the junction of the three lines of fracture and a button of bone was removed. A rongeur was then employed to enlarge the opening in the skull, and a bone-hook was used to elevate the depressed fragments. The wound was sutured and gauze drainage introduced. The patient bore the operation well, the fever gradually subsided, he made a good recovery and left the hospital at the end of one month. May 17, 1899, I examined the patient. He says that he has not been able to hear well with the left ear since the accident. With the right ear he hears the watch at a distance of 6 inches. With the left ear he does not hear the watch at all in front of the ear, but hears it when placed on the mastoid process. The sense of smell remains normal. Examination of the eyes by Dr. B. L. Millikin shows them to be normal. There remains a depression about one inch in diameter in the left parietal bone, separated from the median line by about one-half inch. This is firm and does not yield on pressure. It marks the point from which the bone was removed. The father says the boy is perfectly well in every way, being trustworthy and performing his work well. He goes to school, standing fairly well in everything except his reading. He is in the fourth grade when he should be in the sixth. The father thinks he may be a little more irritable than formerly, but is easily controled when kindly treated.

Case VIII.—F. C., male, aged 40 years, by occupation a pattern-maker. February 8, 1899, while working at the lathe, the piece on which he was working exploded and struck him in the left frontal region. He was brought to Lakeside Hospital, where I first saw him. I found a lacerated wound over the left frontal bone extending from the supraorbital ridge upward a distance of about 2 inches, the wound being about 1 inch from the median line. On examination I found a comminution of the frontal bone, and removed several fragments One of these included the supraorbital ridge and extended outward into the left temporal fossa, so that about one-half inch of the bone was removed from the anterior angle of that fossa. Fragments of bone were removed upward for a distance of nearly 2 inches, and other pieces extended over nearly to the median line In removing a portion which was in the neighborhood of the median line the longitudinal sinus was opened and bled profusely. A pair of hemostatic forceps was at once clamped upon the sinus, the forceps clamping the sinus against the skull, and was left in place after the application of the dressing and for the two days following. By means of these the hemorrhage was perfectly controled. On following the fracture downward there was found to be a fracture of the supraorbital bone backward the entire depth of the anterior fossa, so that the finger could follow the fissure backward behind the sella turcica. The frontal lobes were extensively lacerated, and considerable portions of brain-tissue were removed. In spite of the severity of the injury the patient was able to answer questions, upon entering the hospital, and also shortly after recovering from the anesthetic. In addition to the fractures described there was a transverse fracture extending from them to the right. It was located at about a half inch above the right supraorbital ridge, and extended from the left side over and into the right temporal fossa. The superior fragment was driven inward and the inferior fragment rested upon its anterior surface. By means of a strong hook the depressed portion of bone was brought upward into place, where it remained. The wound was thoroughly cleansed and packed with iodoform-gauze. The wound pursued an antiseptic course and there was little fever or general disturbance. A hernia cerebri gradually developed, having a diameter of about 2 inches and projecting above the surface of the skull a little more than a half inch. This was carefully protected by iodoform-gauze, and later was treated with powdered burned alum. On May 21, the hernia had become even with the surrounding surface, and the greater part had been covered by cicatrization. The sense of smell seems to be entirely lost. The hearing was not affected. There is double vision of objects to the right of the median line, but the images blend toward the left. During the first three weeks there was mild delirium, although the patient always answered questions intelligently. He would at times, however, attempt to remove the dressings and get out of bed. The mental condition since that time has seemed perfectly clear, and the patient feels well. His condition is most promising.

The injury both to the skull and brain in this case were very extensive, and the loss of brain-substance was considerable. The most striking feature was the widely-gaping fracture extending through the supra-orbital plate, so that the finger could follow it back to the optic commissure. It seems remarkable also that the patient should have retained his consciousness, being able to answer questions intelligently both before and immediately after the operation. The method of controling hemorrhage from the longitudinal sinus is also interesting. About 13 years ago I controled a hemorrhage from the longitudinal sinus caused by a sharp cut, three-fourths of an inch in length, by a continuous silk suture. The patient recovered without complication of any sort.

CASE IX.—J. G, male, aged 31 years. February 23, during a quarrel the patient was struck upon the head, receiving a compound comminuted fracture of the skull over the left frontal eminence about one-half inch outside of the median line. Upon examination under ether, he was found to have a fracture measuring about one inch vertically and one-half inch transversely of both the external and internal walls of the left frontal sinus, the fracture running down to the point where the posterior wall joins the floor of the anterior cerebral fossa. There was no sensory disturbance, the pupils were equal and reacted normally. In removing the fragments of bone on the internal table the dura mater was found to be slightly punctured at one point, a small amount of cerebral fluid escaping, but aside from this there was no injury so far as perceived. There were no other disturbances. The patient's condition seemed excellent in every way, there being no unfavorable symptoms of any sort. The temperature, however, gradually rose from day to day, until at the end of four weeks it reached 105°. It was difficult to explain the cause of the fever since the wound seemed to be doing perfectly in every way, there was no cerebral disturbance and the patient looked and said that he felt well and had a good appetite. On examining the abdomen a few rose-spots were found, the spleen was palpable and evidently enlarged. An examination of the blood by the Widal test gave the reaction which is supposed to indcate the presence of typhoid fever. The diazo reaction was also present in the urine. During the height of the fever there was slight nervousness and twitching about the face. After reaching 105° the temperature gradually declined during the next 10 days to normal, the patient during this time receiving sponge-baths. After remaining nearly normal for a week it was again irregular and again reached 105°, but descended to normal about April 18, and has remained so up to the present date. When the temperature was at its height the eyes were examined by Dr. Millikin, who found a slight amount of neuroretinitis of both eyes, suggesting the possibility of basal meningitis. A second examination of the eyes made by Dr. Millikin, June 17, showed vision of both eyes normal, with apparently a low grade of retinitis on the nasal side of disc in the right eye. The vessels, however, were of good size and normal in distribution.

This case was one of unusual interest. Though the skull was fractured and a small portion of both tables was removed there seemed to be no resulting disturbance, which could in any way be referred to the brain, and the sensorium was perfectly clear at all times. The gradually increasing temperature reaching 105°, falling to normal, and again gradually returning to 105° and later falling to normal, is a striking feature of the case. The rose-spots, the enlarged spleen, and the diazo and Widal reactions strongly suggest the presence of typhoid fever. The clear sensorium, uncoated and moist tongue, good appetite, and general condition of patient were not such, however, as are common in typhoid fever, and a careful observation of the case leaves me in extreme doubt if the conditions present were not the result of the cerebral injury rather than that they were caused by the chance association of typhoid fever with the injury to the head. The evidences of retinitis in both eyes suggest a basal meningitis, and must also be considered as a possible explanation of the peculiar temperature.

CASE X.—J. G., male, aged 57 years, by occupation a farmer. May 9, 1896, the patient received a kick on the right side of the head nearly over the coronal suture. The scalp was cut through and the patient was rendered unconscious for a short time, possibly a half-hour or an hour at the longest. He recovered and without assistance walked to his house. The wound was dressed in the usual manner and healed nicely. For two days the patient complained of faintness. About June 17, he began to complain of headaches, not very severe, but persistent. He had always been free from any trouble of this kind and was an unusually healthy man. From this date the headache continued until the time of operation. It was never very severe and the patient was unable to localize it. June 20, the patient seemed to become dazed and lapsed into an indifferent state, being very quiet and listless, a condition utterly foreign to him. He complained of increasing lack of strength in his right arm and leg, which eventually amounted to partial paralysis. His ability to think and reason became less each day. The bowels were obstinately constipated, he had no appetite, and when undisturbed he manifested a tendency to sleep. I saw the patient on June 26. On examination I found that his eyes responded normally to light, that motion was perfect, and that vision was seemingly intact. There was no difference in the pupils. The right arm lay apparently helpless, but when I insisted very strongly, he would, with great effort and deliberation, raise it from the bed. The patient would grasp the hand with considerable firmness. He could move the right leg more freely than the right arm, but still only slowly and with considerable embarrassment. Sensation seemed normal in both right arm and leg. The knee-reflex was normal. The left arm and leg were moved promptly. Patient seemed somewhat slow in comprehending what was said to him, but answered accurately all questions. There was a scar about $2\frac{1}{2}$ inches long extending from the frontal region upward and backward at about $1\frac{1}{2}$ inches to the right of the sagittal suture, and parallel to it. This marked the point at which the man had been kicked. A curved flap was made with its convexity forward, the flap having a length of from $2\frac{1}{2}$ to 3 inches. Upon lifting the flap no injury could be found to the skull at this point. The skull was penetrated by a trephine, but the dura mater was found to be normal. The brain bulged strongly into the trephine opening. No pulsation could be felt. An aspirating needle inserted in all directions found nothing. A probe carried in all directions under the skull and outside the dura mater disclosed no roughness. It was therefore decided to trephine on the opposite side, in the region of the arm-center. I trephined upon the right side first, because the external injury had been at this point. The difficulty in moving the right leg and more especially the right arm indicated an operation upon the left side of the cranium. The scar upon the right side, however, was so distinct and the injury had been so severe that it did not seem warrantable to disregard it. This operation was therefore performed contrary to the direct indications of the case as derived from localization symptoms.

Upon laying bare the skull by the same method as had previously been done upon the right side, a blue point could be seen, as of venous blood, shimmering through the external table. There was, however, no fracture. The pin of the trephine was inserted at this point, and there was profuse hemorrhage of venous blood. Upon division of the skull this bleeding largely ceased. The dura mater was seen to be somewhat thickened and more dense than normal. Upon division of the dura there was an escape of a large amount of liquefied blood of a dark color. After this, many clots were evacuated. The whole amount evacuated must have been from 4 to 6 ounces. The brain was pushed away from

the skull sufficiently to accommodate the accumulation of blood, and the removal of the latter left a considerable cavity in the parietal region. The cavity was thoroughly drained by turning the patient upon his side and wiping it out with a sponge. The pia mater seemed to be intact. The cavity was drained with a short piece of rubber tubing, and a small amount of iodoform-gauze was inserted. Both wounds were dressed with iodoform-gauze and a bandage was applied. The patient's condition at the close of the operation was good. After the operation the patient slept almost continuously for 36 hours. The wound discharged a large amount of serum, but healed except at the points of drainage by first intention. For some time after the operation the patient was unable to articulate distinctly, and swallowed with difficulty, but his mind was perfectly clear. The paralysis of the right side was entirely relieved and the patient used his limbs freely. He still complained of some headache, but this gradually decreased. Following the operation, the temperature the first day was 100°, and the second 99°, the third 98°, and the fourth 98°, and the fifth 98°. Previous to the operation the pulse-rate varied from 60 to 70. After the operation the pulse-rate increased to 120 the first day, but steadily declined to 80. I saw the patient about two years after the operation, at which time he was perfectly well.

The great interest in this case is that, without a discernible fracture at any point of the right parietal region, hemorrhage of the left parietal region should have followed a blow upon the right parietal region. It is possible that, although kicked by a horse upon the right side, the patient may have fallen upon and struck the left side of the skull. If so, there was nothing in the condition of the scalp on the left side to show such an injury. It would seem to be a well-marked case of transmission of force from the parietal region of one side to the other. The unusual feature is that the point of the blow and the point of hemorrhage should be so near to the median line of the vertex of the skull.

CONTAGION, INFECTION; ARE THEY SYNONYMOUS?[1]

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THE above was one of the questions given by the Medical Examining Board of this State recently, and was rejected by them, justly, I think, because of the chaotic condition of the current medical literature on the subject. After carefully reviewing the literature, recent and remote, I find that the different authors, with few exceptions, indiscriminately confound, either purposely or otherwise, contagion with infection, and vice versa. The terms are either synonymous and can be interchanged *ad libitum*, or they have a separate and distinct meaning and place in medical literature. If there be a distinction, which I believe there is, then that distinction should be respected, and all literature in the future should be made to conform thereto. Therefore, behold, I find "amid the clamor of many voices there is much confusion."

The word contagion has its origin in the Latin word "contagio," "contingere," which means to touch, to be in contact with. The word "infection" is derived from two Latin words, "in" and "facere," which when combined mean to make in something, to carry in something. I find it necessary here, before proceeding farther, to define a contagious disease and an infectious disease. This I shall endeavor to do from a bacteriologic and microbic standpoint, and, strange as it may seem, we find the key to the real application of the words in their original application and literal meaning.

From our present knowledge of the germ-theory of disease, I will say that a contagious disease is one that may be transmitted from a human being to a human being, from a human being to an animal, from an animal to an animal, or from an animal to a human being, either directly by contact, by the breath, by effluvia, from the body or by fomites. When transmitted from a diseased person or animal to another by fomites, the germs merely find a lodgment there. We know of no propagation while in transit from the afflicted to the prospective host. The chain of evidence from the afflicted to the person or animal to become afflicted must be complete, though not necessarily direct. Many microbes have great tenacity of life; for instance, the germs of smallpox may remain in bedding or clothing for a variable time, and finally be communicated to a host who never directly came in contact with the party from whom the germs or the disease originated. We have instances in which the walls of buildings in which smallpox patients were quarantined had been whitewashed for disinfecting purposes, and otherwise generally cleansed, but years afterwards workmen, who were employed to scrape the walls, contracted the disease through the germs that had remained in a dormant or quiescent state during all that time.

I define infection as the carrying or conveying of certain pathogenic microorganisms from their habitat, soil, water, food, or other substances upon which infectious microorganisms can propagate and exist, through the air or other media to a prospective host; or indirectly from a person or animal to a person or animal by a force extraneous to both the disease and the person or animal giving and receiving the disease.

Infectious diseases are either endemic, epidemic, or pandemic, while contagious diseases are almost always epidemic.

Infectious diseases are not transmitted from patient to patient as are contagious diseases, but the term infection was originally used to convey the impression that certain diseases, having their origin in a miasma, were wafted by the winds and thus communicated to any or all persons breathing that air, as, for instance, malaria. It can readily be seen that the term contagion would be illy suited to this class of affections. The latest edition of the Standard Dictionary, in defining "contagion," says:

"(Med.) The communication of disease from person to person by contact, direct or indirect. (2) The communication of manners, states of feeling or modes of view from one

[1] Read before the Silver Bow County Medical Association, April 29, 1899.

to another among persons closely associated. (3) The medium of transmission of disease. Contagion. Synonym: infection. Infection is frequently confused with contagion, even by medical men. The best usage now limits contagion to diseases that are transmitted by contact with the diseased person, either directly by touch or indirectly by use of the same article, by breath, effluvia, etc. Infection is applied to diseases produced by no known or definable influence of one person upon another, but where common climatic, malarious, or other widespread conditions are believed to be chiefly instrumental." "Contagious. (1) Transmitted by contact; catching, as a contagious disease. (2) Transmitting disease; pestilential; harmful; as contagious exhalations. (3) Exciting like emotions in others; spreading; communicable; as panic is more contagious than enthusiasm; a contagious example."

Under the head of "infection" are the definitions: "(1) The act of infecting; communication of disease as by contact or through the medium of air, water, or clothing; distinguished from contagion; as the malady spread by infection."

"*Infectious.*—That may be communicated by infection; passing easily from one to another; catching; distinguished from contagious."

Webster (edition of 1890) defines contagion:

"The transmission of a disease from one person to another by direct or indirect contact." He also says, "The term has been applied by some to the action of miasmata arising from dead animals or vegetable matter, bogs, fens, etc.; but in this sense it is now abandoned (Dunglison)." (2) "That which serves as a medium or agency to transmit disease; a virus produced by an exhalation proceeding from a diseased person and capable of reproducing the disease."

"*Contagious.*—Communicable by contact, by a virus or by a bodily exhalation; catching, as a contagious disease. (2) Conveying or generating disease; pestilential; poisonous; as contagious air. (3) Spreading or communicable from one to another, exciting similar emotions in others." "Synonymous. Contagious, infectious. These words have been used in very diverse senses, but in general a contagious disease has been considered as one that is caught from another by contact; by the breath; by bodily effluvia, etc.; while an infectious disease supposes some entirely different cause acting by a hidden influence, like the miasma of prisonships; or marshes, etc.; infecting the system with disease. This distinction, though not universally admitted by medical men as to the literal meaning of the words certainly applies to them in their figurative use. Thus we speak of the contagious influence of evil associates; the contagion of bad example; the contagion of fear, etc.; when we refer to transmission by proximity or contact. On the other hand, we speak of infection by bad principles, etc.; when we consider anything as diffused abroad by some hidden influence."

"*Infection.*—The act of infecting. There was a strict order against coming to these pits and that was only to prevent infection (Dr. Foe). (2) That which infects or causes the communicated disease; any effluvia, miasma, or pestilential matter by which an infectious disease is caused."

"Syn. Infection, contagion. Infection is often used in a definite and limited sense of the transmission of affections without direct contact of individuals or immediate application or introduction of the morbific agent in contradistinction to contagion, which then implies transmission by direct contact."

In Webster's edition of 1864, under synonyms, he further says:

"Medical writers in Europe do not, most of them, recognize any difference between contagion and infection. In America the distinction referred to under contagion is to a considerable extent admitted. We use contagion and contagious in respect to things that spread by intercourse or imitation, as the contagious influence of example, while we apply infection and infectious to a more hidden and diffusive power, as the infection of vice; the infectious influence of evil principles."

The Universal Dictionary, copyright 1896, defines contagion:

"The communication of a disease by contact with the person laboring under it, as distinguished from infection, used to signify its transmission by means of the air without actual personal contact with the diseased person. But sometimes the word contagion is used in both of these senses, and is divided into immediate or contactical contagion, that produced by actual contact and mediate or remote contagion communicated by the air. *Infection* is used in a more extended sense to include also miasmata or other causes of diseases not coming from human beings but rising from marshes or from any other source. Some make the two words, contagion and infection, strictly synonymous."

He then quotes Crabbe on English Synonyms, who, in explaining the difference between contagion and infection, hopelessly mixes them in a labyrinth of perplexities, by confounding the nature of the different diseases, the one for the other.

"*Infection* (by same authority). 2 Med. A term which has been vaguely used for the contamination of the human body by microbic particles, whether there has or has not been contact with a person similarly affected, but more especially applied to the contamination of the atmosphere or water by such agency, and through them of the human body. Marshes with decaying animal or vegetable matter send forth miasma when they begin to dry; emanations from putrid substances, etc."

Gould's Dictionary, copyright 1894, defines contagion as

"The process by which a specific disease is communicated between persons either by direct contact or by means of an intermediate agent. Also the specific germ of virus from which a communicable disease develops." *Contagious* (contagium, a touching.) "Communicable or transmissible by contagion or by a specific contagium. *Infectious*—applied to a disease engendered by a specific agency which once present may multiply and renew itself indefinitely, and which always gives rise to the same disease. (*a*) Miasmatic—applied to an infectious disease of which the specific cause exists only in certain localities, *e. g*, in malaria, pneumonia, acute rheumatism; (*b*) Contagious—applied to a disease of which the cause is transmitted from person to person, through houses, villages, cities and countries, *e. g*, variola, morbilli, scarlatina, diphtheria, etc. (*c*) Miasmatic contagious diseases applied to an infectious disease of which the specific cause is carried by persons or their emanations, to a locality and in the soil, water or houses of which it multiplies and thence generates the disease, *e. g*, cholera, enteric fever, yellow fever."

Thomas' Medical Dictionary, copyright 1885, Chambers' Encyclopedia, 1893 edition, and Johnson's Universal Cyclopedia, copyright 1897, and Dunglison's Medical Dictionary, all define *contagion* and *contagious* as do the aforequoted authorities, with slight variations. They definitely limit the application, use and meaning of the term contagion, but not so with infection. Instead of limiting its application and meaning to those communicable diseases that are not directly transmissible from patient to patient, as typhoid fever, malaria, cholera, etc., most of them give "infection" a more elastic and expansive meaning and include all or nearly all the contagious diseases as well. Why this is I will endeavor to explain in the body of this paper. I would include under contagious diseases the following: Smallpox, varicella, pertussis, mumps, measles, scarlet fever, rubella, diphtheria, erysipelas, typhus fever, tuberculosis, syphilis, gonorrhea, contagious conjunctivitis, trachoma, glanders, pyemia, septicemia, parasitic skin-diseases, relapsing fever, plague in its various

forms, anthrax, and leprosy. Under infectious diseases I would include the following: Typhoid fever, cholera, yellow fever, dengue, influenza, acute cerebrospinal meningitis, tetanus, trichinosis, the enteric parasitic diseases, hydatid cysts, pneumonia, malaria, and possibly carcinoma.

In Pepper's System of Medicine, copyright 1885, Reginald H. Fitz says, on page 200:

"By contagion we mean the communication of disease from one person to another either by direct contact or through some medium such as air, water, etc. It therefore includes "infection" which is now generally used as a synonym for it."

Notwithstanding this I see that James H. Hutchinson on Typhus Fever, William Pepper on Relapsing Fever, James N. Hyde on Variola and Varicella, and J. M. Keating on Mumps, in the body of the same work have seen fit to unhesitatingly call these diseases purely and typically contagious; and why J. S. Smith on Scarlet Fever, W. A. Hardaway on Measles and Rötheln, James N. Hyde on Erysipelas, and A. Jacobi on Diphtheria, all of which are etiologically the same as the group just named, should place these diseases with the purely infectious, is hard to understand. In Pepper's[1] American Textbook of Medicine, the term "infection" is limited in its meaning and is applied to diseases that are not easily if at all transmissible from patient to patient. With some exceptions his classification of contagious and infectious diseases in this his latest work corresponds closely with my classification given above. The same may be said of Wood and Fitz[2], Anders[3], Bartholow,[4] Flint,[5] and Liebermeister[6] on the Exanthemata.

Moir[7] places the communicable diseases under three divisions: (1) Miasmatic, contagious, as typhoid and yellow fevers. (2) Malarial or miasmatic noncontagious fevers, as malaria in its different phases, and dengue. (3) Contagious fevers, as typhus fever; measles, smallpox, relapsing, scarlet and miliary fevers, but under table of differential diagnosis he defines typhus and scarlet fever, measles, erysipelas, and smallpox as both contagious and infectious, and elsewhere in his book defines septicemia and pyemia as miasms generated by decomposing pus.

It is my belief that these diseases are either contagious or infectious, they are not both. The line of demarcation has been plainly drawn in my definitions of the diseases, and if a disease caused by a pathogenic microorganism cannot be placed either with the contagious or infectious ailments, it is because its life-history has not been thoroughly studied and understood.

On the other hand Osler,[8] Strümpell,[9] Roberts,[10] and nearly all the German authors use infection and infectious in the broadest sense, and include nearly all the contagious diseases under this head. Osler's Practice in all other respects I esteem very highly and think it a masterpiece, but in it I find only varicella, rubella, whooping-cough, erysipelas, rabies, and syphilis designated as contagious, while smallpox, scarlet fever, typhus fever, measles, mumps, diphtheria, and other equally contagious diseases are considered by him as infectious. If one of these diseases is infectious why not all? I can only find in Strümpell's textbook one contagious disease, and that is measles. It may be that this is a typographic error, but I think not, for he classifies dengue as both contagious and infectious.

Influenza I classify as an infectious disease, while Anders, and Wood and Fitz define it as contagious. Flint is strongly in favor of it being considered a contagious disease, and Pepper in his American Textbook pronounces it moderately contagious. On the other hand, Tyson, Osler, Bartholow, Strümpell, and others define it to be an infectious disease. If it were contagious it could be distinctly traced from patient to patient, but instead thereof, when an epidemic starts, whole villages, towns, cities, counties, countries, yes, continents are prostrated with the dreaded disease. It becomes at times pandemic in from 6 to 8 weeks. It may surround the globe, and that in a much shorter time than commerce can with the rapid transit of the present time. I can think of no contagious disease, requiring as they do from 3 to 14 days of incubation, spreading with such lightning rapidity, knocking with insinuating impunity both at the door of the affluent and of the humble peasant, overtaking ships in mid-ocean and prostrating those on board, there being no chain of evidence direct or indirect to show that this disease was transmitted from a fellow-sufferer, or that the pathogenic microorganisms were carried by fomites and thus produced the disease.

Prof. Herman Nothnagel, of Vienna, is a strong advocate of the infection-theory of influenza. He cites an instance during the pandemic of 1888. He personally knows of an island (the name of which I cannot now recall) on which the inhabitants were absolutely isolated during this epidemic. No ships landed at or near the island during this time, but notwithstanding this fact the inhabitants became infected with influenza and suffered therefrom as profoundly as did the people on the continent.

Drs. Wood and Fitz, Anders, Strümpell, Osler, and others, define tuberculosis as an infectious disease. I again take exception to this classification and consider it to be a contagious disease. It is true the contagion is mild and erratic, but there are good reasons for this. Most contagious diseases have laws to which they subscribe, but they differ to a great extent owing to the pathogenic microorganisms, giving rise to these diseased conditions, and also upon the necessary soil required by these organisms to develop and complete their role in life. The exanthems (typhoid fever excepted) are all contagious, but differ widely in the intensity of their contagion as compared with tuberculosis. The pathogenic microorganisms that give rise to the exanthems, readily find a suitable soil, which is soon exhausted,

and they readily pass out and escape from all parts of the body almost as soon as the disease is established, ready again to seek whom they may to "contage;" while it is with considerable difficulty that the tubercle-bacilli are implanted in a suitable soil, but when implanted the soil is most slowly exhausted, the bacilli do not escape from their habitat until the disease has been in progress for a long time, and they are forced to escape by a single avenue, entangled in broken-down tissue, thus making them prisoners until extricated from the mass, and rendering the disease thereby less contagious than if liberated in a free state, as are the microbes of the exanthems. Besides, you can directly "contage" a host from the tubercle-bacilli, and produce tuberculosis in this way, thus adding another proof of its contagious nature. Again, we have numerous instances of the disease having been transmitted by contact from patient to host.

In Dennis' Surgery, septicemia, pyemia, hospital gangrene, and erysipelas, are all classified as infectious diseases; still, on page 419, Vol. I, of his Surgery, he says, "the clinical evidence of the contagiousness of erysipelas is abundant. Stillé reports the following striking example: In 1852 a man arrived in Platte County, Missouri, suffering from erysipelas of the face. He was nursed by a farmer who himself fell ill of the disease. A second farmer who assisted in nursing these two patients was seized by the disease, and subsequently six other persons, who helped to nurse in their turn, were attacked. No other cases occurred in the neighborhood."

This classification of Dennis corresponds closely with the views expressed by other works on surgery and surgical writers. They speak of wounds being "infected" by the surgeon, the assistants, the nurse, the instruments, the dressing, etc., all of which is not literally so. The terms "infect," "infection," and "infectious," as used in this connection, are misnomers and should be henceforth banished from all works on surgery and medicine and become obsolete in this sense. These diseases are typically contagious and are communicated by contact, direct or indirect. The pathogenic microorganisms giving rise to these diseases require no preparatory outside propagation or surcharging to enable them to produce a similar contagious condition in a prospective host.

From the fact that it has been thoroughly established that infectious and contagious diseases are distinct and separate, that infectious diseases are not transmissible from patient to host, but infect the system from an extraneous source, and that a contagious disease is always transmissible from patient to host directly or indirectly, and "contages" the system from this source, I have found it necessary to add a new verb to the English language, "contage," which should be used in all cases where it is wished to convey the impression that a contagious disease is transmitted from a patient to a host directly or indirectly, and thereby he has become "contaged."

The verb "infect" should now be restricted in its application and meaning to convey the impression that an infectious disease has been transmitted to a host and thereby he has become "infected."

Heretofore the word "infect" has been used in a dual sense, conveying the impression that all communicable diseases, whether contagious or infectious, when transmitted to a prospective host have "infected" him. This is in part due to the old-time ideas, of which nearly all the dictionaries, cyclopedias, and many writers savor in regard to the etiology of disease, and is in part due to the fact that until the germ-theory of disease has been thoroughly investigated and studied, a clear-cut idea of what was meant by "contagion," or in what respect it differs from "infection," was impossible, and as the compilers of dictionaries have seen fit not to tabulate the word "contage," all writers up to the present time have been contented to use the word "infect" to convey both meanings. I believe that to this fact alone, more than any other, is due the great diversity of opinion on this subject in the profession, *e. g.*, some will argue thus: You have gonorrhea, that is a contagious disease, some of the secretions adhere to your finger, you rub your eye with the septic finger and you "infect" the eye. Now, they argue, you have produced an infectious disease from a contagious disease, therefore, they are synonymous. But we now know that this is not correct, as purulent ophthalmia is as much a contagious disease as is gonorrhea. So, by using the verb "contage" instead of the verb "infect" this confusion of ideas will not exist.

It seems to me that this paper would be incomplete were I not to refer briefly to the most recent etiologic researches on malaria. Within the past year Mason,[11] Ross, Koch, and others, claim that the plasmodium that is claimed to be a normal parasite of certain species of the mosquito, the culex pencillaris and the anopheles claviger, the common mosquito or culex pipiens not being included, is the direct cause of malaria in man. They have found that from the plasmodium in the stomach of the mosquito are propagated round bodies called protosoma coccidia; these in turn break up into germinal vermicules which infect all the tissues of the mosquito, including the venemosalivary glands. During the process of sucking blood from a human being, these germinal vermicules infest the system, producing malaria. These germinal vermicules develop into what is known as the malarial hematozoa of Laveran.[12] Laveran discovered these parasites in the blood of patients suffering from malaria in 1880, and they are now universally found in the red blood-corpuscles of all malarial patients. That malaria can now be produced directly from the infected mosquito, in man, seems to have been proven by the experiments of Bignami and Grassi, but that all cases of

malaria are produced in this way has not yet been proven. Mann says (see foot-note): "The life-history of the mosquito, however, makes it possible that paludism and water-poisoning may still be means whereby the parasite enters the human body after its evolution in the intermediate host. The female mosquito dies in swamp water, the male on the land. Swamps have always been associated with malaria, probably for this reason." With this recent additional light on the etiology of malaria, I see no reason to change my classification, and will still leave malaria among the infectious diseases, because even admitting that the mosquito originally became infected by sucking blood from a person who at the time was suffering from malaria, or suppose it should get the parasite from the swamps where other infected mosquitos had died, then an entirely new set of these parasites must be bred before a prospective host could become infected from the mosquito, because only when the plasmodium is in its vermicular stage, or its infancy, can a host become infected through the mosquito. This would place it on a footing with trichinosis, which is also an infectious disease.

Because the germ of a disease has great tenacity of life and has the power of retaining its virulency in fomites, the air, or in sunshine for a long period of time, or because a germ is short-lived and readily perishes when exposed to the air and sunshine, is no reason why the former should be classed as an infectious disease, or the latter as a contagious disease, for we know the microorganism of smallpox and also that of scarlet fever have great resisting power, still they both produce contagious diseases. On the other hand, the microorganism that produces tetanus dies almost immediately when exposed to the air, yet it gives rise to an infectious disease.

I reiterate that from my standpoint an infectious disease is produced by a pathogenic microorganism that lives and propagates in a suitable soil on the outside and independent of man, but when taken into the system and absorbed is capable of producing certain diseased conditions which are not directly transmissible from patient to host; while a contagious disease is produced by a pathogenic microorganism that propagates in the afflicted patient and which, after escaping from said patient without undergoing further change and on being taken into the system of a prospective host and being absorbed, is capable of producing certain diseased conditions and is transmissible from patient to host either directly by contact or indirectly as by fomites.

The question now naturally arises, "Why this commotion in the temple?" Why this hair-splitting distinction between a contagious and an infectious disease? The answer is: For the promotion and advancement of "Preventive Medicine," for the benefit of suffering humanity, for the further advancement of medical science, to know when to and when not to quarantine a patient. To say that contagion and infection, as advanced science of today understand them, are synonymous, and that to differentiate between them is to make a distinction without a difference, would be equivalent to trying to remove gigantic boulders from the path of science by working from the short end of the lever. An individual will clear away more debris in a decade by knowing enough to reverse the lever, place the fulcrum close to the boulder and properly adjust the weights at the extreme other end, than our combined scientific forces could do from the days of Galen to the present time, working from the other end.

Lawrence F. Flick[13] says: "For preventive purposes and correct classification of communicable diseases a careful study of the idiosyncrasies of each disease is of great importance. With contagious diseases the most important factors to be considered are the host and the prospective host, while in infectious diseases the most important factor is the intermediate agency of communication. In contagious diseases we should seek to make the host sterile and the prospective host immune; in infectious diseases we should seek to make the intermediate agency sterile. For example, in smallpox and tuberculosis we have to do (1) with the person suffering from the diseases, and (2) with the person who may be exposed to such a patient; while with cholera and typhoid fever we can accomplish most by looking after the water-supply, and the food-supply, or after the drainage of our habitations. With all contagious diseases the prospective host is as important a factor from a preventive point of view as the host himself."

In the future, if by actual research it should be proved that typhoid fever, yellow fever, Asiatic cholera, and malaria can be transmitted directly from the patient to prospective host without the bacilli or pathogenic microorganisms that produce these diseases undergoing any preparatory changes on the outside, I will then, and not until then, consider the distinction between contagion and infection not absolute, but one of kind only, and will remove my hat and submissively bow to the inevitable.

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NERVOUS HEMORRHAGES—A CONTRIBUTION TO THEIR STUDY.

By S. W. S. TOMS, M.D.,

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THE clinical history of the two interesting and rare cases of nervous hemorrhages recently reported in the JOURNAL of May 6, by Pepper and Taylor, has induced me to report a case that occurred in my own private practice which apparently belongs to the same remarkable category of anomalous derangements. The affection described by the French clinicians—*the neuropathic hemorrhages* of Parrot, and frequently referred to by Charcot—connects it with the phenomena of hysteria.

The study of hysteria major is no longer considered anomalous in the male sex today. Charcot was one of the first to teach the fact, and our own observers testify to its common existence. Spiller[1] has recently said: "I do not believe that hysteria is much more common in the female than in the male, for we see as severe manifestations of the disorder in one sex as in the other."

Another well-recognized fact is its close associations with diathetic diseases. It may alternate with systemic attacks of such, or occur as complicating conditions. Rheumatism is one of those diseases which often coexist in the same patient with hysteria, and is regarded as a predisposing factor in its causation.

Traumatism is a most prolific source in the development of this neurosis, as Putnam[2] and Walton and many other more recent observers have shown. A neuropathic heredity grafted on to a peculiar unstable and sensitive organism produces the neurotic soil in which hysteria flourishes. Also many peripheral sources of irritation existing in a subject whose nervous centers are responsive to exciting stimuli frequently produce hysteria—as is often seen in nervous females with visual and ocular-muscle anomalies, the correction of which relieves the symptoms promptly.

About January 1, 1896, X. Y. Z., aged 33, of American birth and parentage, married and the father of four healthy children, a carpenter by occupation, sent for me to attend him. The hereditary antecedents disclosed no history of alcoholism or specific disease so far as known. The patient's father was a man of prominence, a sheriff in the State of Connecticut, who was murdered by convicts when the patient was grown to manhood. His mother died in childbed when he was born. The paternal grandmother was an epileptic, dying at 90 from cerebral apoplexy. One paternal aunt and her daughter were epileptic; this aunt and her sister both died of tuberculosis—the daughter in status epilepticus. The patient has a deafmute sister—the affliction said to be the result of scarlet fever. She was educated for a school-teacher. A halfbrother was subject to convulsions in childhood and is mentally deficient. The patient says he escaped the diseases of childhood; no personal history of syphilis or alcoholism, and that he was very healthy as a boy. When he was 16 years old (17 years ago) he and a companion were assaulted by ruffians. His companion was killed and he was shot, stabbed and clubbed, and was for four months ill from the effects of the assault. There was concussion of the brain, a possible fracture of the skull, and unconsciousness for a long time. Some years afterwards he had a sunstroke and was delirious with a high fever which continued over a week.

When 24 years of age (9 years ago) he fell from a roof, injuring his head again and cutting his face, besides other contusions, which confined him to the house for six weeks, being delirious for a considerable part of this time. When 22 he had his first hemorrhage (6 years after his first accident). He was at that time treated for hemoptysis. He had an attack of delirium accompanying this illness, and for some days several men were required to control him. He has had some lighter attacks in the interim.

The patient is rather tall, of medium weight, rather slight build, moderately intelligent, a boss carpenter, education scanty. He is a mild-mannered man, good-hearted, kind and generous, not aggressive, of a sensitive nature, easily offended, given to worry, anxiety and depression over small affairs and difficulties; quick-tempered, timid by nature and exclusive—having few friends—and is in no wise addicted to vices of any kind, being thoroughly domestic in his habits, and honest.

His physical condition is not one of robust health; he is often troubled with headaches and dyspepsia, sometimes with rheumatic arthralgias and myalgias. He has no cough or pulmonary symptoms.

He is of a nervous temperament, not always a good sleeper, a poor feeder, scarcely ever eating meat or drinking water. He has none of the stigmata of the degenerate or criminal. He is not a hemophiliac, nor is there any such history in his ancestry.

The attacks of hemorrhage, from which he suffers almost annually, are usually provoked by some mental anxiety—fancied or real—this being sufficient to excite in a man born of a neuropathic ancestry and possessed of an impressionable neurotic system the train of nervous phenomena dominating "the great neurosis." The exciting and predisposing elements being present, it only requires the nervous shock to develop the typical exhibition; but before the real drama is opened definite prodromes usher in the actual scenes. First he has (usually) for some few days a rheumatic condition, pains in the muscles or joints, inducing irritability of temper; then some worriment. He becomes sullen for a day or two, won't eat, and confines himself entirely to the house, generally in the main living-room. He will not speak when spoken to and turns angrily on his wife or friends if they in any way disturb him.

This lasts one or two days, to be closely followed by pains in his head of an acutely neuralgic character, generally frontal or temporal, occasionally a true hemicrania; not accompanied by pyrexia, but by high-tension pulse, highly acid scanty urine, loaded with urates; constipation and a foul breath are also present. These headaches become very intense and are accompanied by delirium. In these paroxysms he will strike his head with his clenched fists and knock it against the headboard of his bed, cry out to be killed, often exclaiming against his supposed enemies or persecutors in his maniacal excitement.

After sedatives have been administered he will gradually become partially quieted from the delirium; but the muscular system becomes restless in various irregular movements and tremors. Suddenly he will com-

[1] PHILADELPHIA MEDICAL JOURNAL, January 14, 1899.

[2] *American Journal of Neurology*, page 105, 1884.

plain of nausea and pain in the epigastrium, a sensation of "*hot blood* rolling upwards into his chest," throbbing of his temples, and then the hemorrhage is manifested. Sometimes he will immediately lapse into unconsciousness if the bleeding is slight. If it is profuse he does not. At these times there is an immediate cessation of all excitement of mind and body. The pulse or temperature never changes from the condition preceding the onset of the attack. The breathing is quiet and regular, but shallow. No coughing or vomiting accompanies the flow of blood, which is either spat out freely or flows from the dependent commissure of the mouth.

After the hemorrhage ceases (often spontaneously) he will lie in a calm stupor for hours, free from voluntary movements, with some groups of muscles in fibrillary action—as the eyelids and the levators of the lips—while fairly free and constant lacrimation is present.

He will thus lie with his mouth open without stertor, with absolute anesthesia of skin, mucous membranes, and cornea. Finally he will awake from this real or feigned condition and gradually convalesce, complaining of various physical ailments like rheumatic pains in chest, back, legs, etc., or dyspeptic symptoms, and in the course of a couple of weeks or so he will be convalescent again.

A vague history of petit mal attacks occurred previously, three years ago. As described by his wife, he had "fainting spells" at various times. These did not recur with any definite periodicity; he momentarily lost consciousness, fell forward on his knees, and afterward did not remember the occurrence.

At the time these notes were recorded he had been overexerting himself in carrying a heavy piece of timber on his shoulder for a long distance; he had a slight hemorrhage from his mouth (?). The second day he became delirious with severe cephalalgia, mostly frontal, and pain in his eyes. On the fourth night he had, apparently, an attack of syncope—a fainting with loss of consciousness, partial suspension of respiration, and weak pulse. When I arrived he had partially recovered, but complained of numbness in his extremities, more especially along his entire right side, and a "confused sensation in his head." I inquired carefully for a description of the attack without eliciting anything definite. He had two others before the morning in which convulsive clonic movements occurred, mostly confined to right side of his body, and the muscles of his right cheek twitched for some time after the general muscular movements subsided. *A period of excitement followed this*, in which he threw himself in different attitudes in bed, followed by another hemorrhage. Up to the tenth day he was doing nicely, when another relapse occurred.

I found him lying on his back in bed, unconscious, legs and arms flexed and rigid, his hands and fingers in athetoid movements; with generalized fibrillary muscular motions, especially active in the nasal, superior labial and supraorbital groups. He was apparently unconscious, with irregular, shallow respiration, flushed face and distended prominent veins of the forehead, pulse and temperature were normal.

On January 19, after taking a drink of cold water—which he always objected to—he felt nauseated, together with vasomotor disturbances of hot flashes in legs and pelvis, and cold feet; he "felt his mouth fill with blood several times." This passed over without further complications. But two days afterward, on getting a letter that annoyed and distressed him, he had quite a profuse hemorrhage of at least a pint of bright-red blood, not mixed with mucus, gastric contents, nor frothy, lasting nearly an hour. Late at night it recurred again, when he lost fully as much more, weakening his pulse and producing faintness and nausea. At 4 A.M. he vomited half a pint of coagulated blood, which probably he had swallowed.

This hemorrhage was very persistent, resisting effects of hemostatics and ergot hypodermatically. It apparently originated somewhere in the buccal cavity, for it flowed in a stream from the dependent angle of his mouth as he lay on his side.

I endeavored as best I could by aid of a dim kerosene lamplight to discover its source. As fast as I mopped out the inside of the right cheek it filled again. This was tamponed with cotton wet with witch-hazel water in which calcium chlorid was dissolved, which succeeded in stopping the flow. This mixture was also given internally in liberal doses. No vomiting, coughing, dyspnea, rise in pulse or temperature occurred as we find it in other hemorrhages from the viscera.

This attack was so severe that it apparently aborted any subsequent nervous phenomena.

Nine days later he became suddenly erratic, had some hallucinations of persecutions, with delusions of taste, accompanied by insomnia lasting several days. In the middle of March he had a new sensation "as if something had suddenly burst in his head," with momentary loss of consciousness. Numerous physical examinations made during his illness were negative as to organic lesions. Following this illness his physical condition was much impaired, his mental state anything but satisfactory, as evidenced by the unfinished condition he left his work. He was unable to do hard labor as formerly. All this time he but poorly provided for himself and family, and this was a constant worriment for him.

In the middle of February, 1897, he passed through an attack of subacute muscular rheumatism contracted during exposure after an experience of nursing a friend through a violent sickness from which death resulted. He was at this time quite debilitated physically, his pulse was weak, bowels constipated, urine scant, depositing urates. He had fainting attacks which I believe were due to insufficient nourishment. While convalescing he stumbled on a stairs-landing, which brought on another hemorrhage—apparently from the esophagus or stomach. (He was much worried because I was going away on a vacation the following day.) I found him very nervous, with incoherent talking, unilateral muscular twitching (left side). I was unable to find any evidences of the source of the hemorrhage from mouth, gums, etc., nor was I sure but that his apparent physical condition was assumed, and that he had deliberately brought on this attack to prevent me going away. I gave him 0.02 gm. of morphin by needle, and was surprised to learn in one hour after I left his bedside he was perfectly rational and talked until midnight adversely of my going away, saying he did not believe I would ever return.

The next and several following days he was irrational, talking of past occurrences, but not connecting them with persons of the time; yet the reasoning and apparent design of conversation led me to suspect he was not really delirious but malingering. He complained of frightful dreams of coffins (his father was formerly an undertaker), of accidents happening him, and of snakes. He said the right side of his face felt cold and numb; also that he felt the blood flowing

from his stomach up into his throat after drinking a little cold water. He was suspicious of being watched for purposes of gaining information for a lunacy commission. During the following week he had two slight hemorrhages, accompanied by vague pains over the precordia, and his temples throbbed. Pulse and temperature were normal. Had some transitory and migratory articular pains occasionally.

An examination of thorax at this time was negative. Tendon and deep muscular reflexes were active; right side of face, head and neck sensation was diminished. In the middle of March (1897), over a year afterwards, he had a slight hemorrhage from his right auditory meatus. He felt a sensation of something warm in his ear, and putting up his handkerchief found it bloodstained. He at once lapsed into unconsciousness. Two handkerchiefs were soiled. He remained semi-delirious until next day.

It always seemed remarkable that he never fell to the floor, but got to his bed, or on a sofa, before losing consciousness, and often got partially undressed.

I examined him at this time, finding partial anesthesia still existing on right side of head and face, some right-sided amblyopia and narrowed visual field; also diminished sense of sound on this side, hearing watch-tick at ten inches, while on right side at over two feet.

Two weeks after this he had another hemorrhage from the right ear. He had been to my office for a physical examination during the morning. I found him as usual in a stupor, the pillow was stained on right side, blood in the external auditory canal having come from the floor of the mucous membrane, about midway between the meatus and drum, the latter intact and not bloodstained. The amount was perhaps about an ounce.

My examination did not in any way disturb him from his stupor. His breathing was shallow, regular, and quiet. He would not reply when spoken to. Next morning he complained of the right side of his face, head and arm feeling numb. The right eye "felt weak," with constant lacrimation and partial amblyopia, and the scalp above the ear felt "sore and bruised." He had hot flashes occasionally and complained of nausea on exertion.

During August I heard from his wife that he had attacks of severe headaches, becoming delirious from them.

In January, 1899, I heard that the patient had had eleven weeks' sickness with hemorrhages as formerly.

The interesting features of the case lie in the following:

1. Heredity—neuropathic and tuberculous.
2. The nervous shock of his father's tragic death.
3. The nervous shock accompanied by severe traumatism to his head from the personal attack on himself and his companion in young manhood.
4. The existence of the stigmata of hysteria, viz., sensory, auditory, visual, at all times during these attacks, and which were not accompanied by the usual symptoms of visceral hemorrhages.
5. The mental and physical state of the patient being predisposing conditions.
6. The study of the symptoms showed how persistent were the main features—the regular crises—but mixed in type at some attacks; the psychic state of depression with erratic changes of character and the sensorial manifestations; the epigastric and cephalic aura with precordial pain and throbbing of the temples, with regularity of the phenomena in the hysterical paroxysm.
7. The method of the patient in inducing the attacks for purposes of personal effect—the purposive acts of getting into a safe place before violent action commenced that he might not be injured by falling. The onset of attacks always occurring in secret, and the absence of the epileptic symptoms with reflexes intact and other classic conditions of spinal cord lesions wanting, make a differential and positive diagnosis of the hysterical condition of the patient.
8. The hemorrhages have always been from mucous membranes—never subcutaneous; nor have anything simulating extravasations into the deep tissues ever been observed. The hemorrhages always were of bright-red blood, clotting normally, never frothy or mixed with contents of stomach. They have apparently come from the mucous membranes of the mouth, throat, stomach, and ears, never from the bladder or rectum.
9. Physical examinations were always negative, as was also urinalysis.

MALIGNANCY IN THE FEMALE GENITOURINARY SYSTEM.[1]

BY L. GRANT BALDWIN, M.D.,
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A COMPLETE and thorough discussion of malignant disease, in all its phases, involving the entire genitourinary organs in women, would of necessity involve much repetition and take us also beyond my time-limit. I have therefore decided to offer in lieu of that a short review of some cases coming under my care, with some few deductions therefrom.

Out of 3,787 consecutive patients 60 were found to be suffering from some form of malignant disease of the genitourinary organs exclusive of the breasts, or a total of $1\frac{1}{2}\%$ of all gynecologic cases. Of this number the disease was located in the uterus in 55 cases, or $91\frac{2}{3}\%$ of the total; of these in 3 cases the fundus was the portion attacked, or 5% of the uterine cases. One case only is recorded of involvement of the urinary organs, and the labia were also attacked with the urethra and bladder, or $1\frac{2}{3}\%$ of the malignant cases, a surprisingly small proportion.

This patient was 60 years old, multipara; at the time she came under my care she had been bleeding for 7 months from the bladder. Nearly the entire urethra and bladder were involved, and the fatal issue soon followed. Probably temporary relief only could have been obtained had she at once consulted a surgeon.

[1] Read at the Fifteenth Annual Meeting of the Fifth District Branch of the New York State Medical Association, held in Brooklyn, May 23, 1899.

Two cases of carcinoma of both ovaries are noted, 3½%. One was 44 years of age and single, had been complaining of abdominal and pelvic symptoms for 6 years, and was beyond successful operation at the time of coming under care. This was an especially distressing case, as she had for several years pinned her faith on Christian Science. The other was also single and a nullipara, 50 years of age, and had been ill for 15 years. Here, too, the termination was prompt.

Sarcoma of one ovary occurred in one patient; she had noticed enlargement of the lower abdomen for 6 months, but did not call the attention of her family physician to this fact until she was in pain from a chronically inflamed appendix vermiformis. The other ovary, contrary to the rule, was not involved. The tumor was about the size of an infant's head, and had involved the peritoneum of the sac of Douglas, but a careful dissection resulted in complete removal followed by recovery, and she is today pregnant nearly to term. It is now 2 years since operation.

Out of the 55 cases in which the uterus was involved 17 patients came under my care, for whom I thought it wise to do hysterectomy. Of this number, 4 are well today, from 2 to 3 years after operation, with no sign whatever of recurrence.

In each of the 2 cases in which the ovaries were the primary seat of the disease, an exploratory abdominal section was made. In many of the other cases the necrotic tissue was removed and the base cauterized. In all, 5 cases out of the 18, or 26%, in which it was considered wise to do a radical operation, have gone sufficiently long without recurrence to be hopeful.

The youngest patient, not including the one with the sarcoma of the ovary, who was 23, was 29 years of age, and had been bleeding for 6 months when she was recorded, and the disease had already advanced beyond complete removal.

Of the total cases, 56 of the patients were married, and, with one exception, had been pregnant one or more times. This exception was a woman 35 years of age, who, when she came under observation 9 weeks after the beginning of her symptoms, was inoperable.

The preponderance of the patients in whom pregnancy had occurred would certainly seem to argue that procreation or its results favor the development of cancer in the genitourinary organs. Only one unmarried woman is recorded among the uterine cases, and she, I feel sure, had never been pregnant. That laceration of the cervix bears a very positive causative relation to malignant disease of the cervix, as was first pointed out by Emmet, is, to my mind, beyond dispute.

The oldest patient of this series was 70 years of age, and was 20 years after the menopause, and had been bleeding for 4 years at the time of her record. The largest number of cases occurred between the ages of 40 and 50; only 4 after the age of 60.

The fact which is most pointedly brought out by the review is that the prognosis in malignant disease of the genitourinary organs is very bad, and to my mind the fault is rather with the *family physician and the patients themselves* than with the treatment.

In nearly all of my cases, *from six months to two years* had elapsed before they came under notice. *Such a statement could not be made of any other disease.* The question naturally arises, why are not women suffering from cancer of the genitourinary organs sooner brought to the attention of the operating surgeon? For all will concede that in *early and complete removal is our only hope.* My belief is that it is in the main due to a widespread misapprehension on the part of women themselves, and shared to a great extent by the profession, that at or about the menopause, irregular, profuse, or prolonged menstruation may be expected, and is not an occasion of any importance, but is rather an indication of that much-abused phrase *change of life.* It is my belief that in the correction of this idea will be found the solution to the problem of an earlier diagnosis.

The occurrence of hemorrhage is the one thing of all others which should excite suspicion and call for a careful and complete pelvic examination no matter what the age or condition of the patient.

Profuse flowing at or between the menstrual periods is no more a sign or indication of the menopause than it would be of delayed puberty. This point cannot be too thoroughly impressed upon the mind of all who have an opportunity of spreading it among women themselves. We may not always be able to locate and remove the cause of undue bleeding, but surely we can all make an examination and do our best, instead of telling our patient that as soon as she has passed that critical time in her life she will be all right.

Oftentimes the first warning will come from a slight bleeding after coitus or other exercise. It will not, of course, be argued that all patients who have an irregular or profuse loss of blood have beginning cancer, but it *cannot be too much* urged upon the profession that it is always a symptom to be investigated with all possible care and promptness, for to the family physician must we look for the earlier possession of these cases.

It will be well to consider the matter of pain in this connection. It has often been said to me in an argument against a patient's having cancer that there is no pain; here again we have been misled by the prominence given to this symptom when the disease affects other organs, the stomach, for instance. In cancer of the uterus, pain *is not* a prominent symptom until the disease has extended beyond the organ itself into the surrounding tissues, so that as a diagnostic symptom it is valueless, not forgetting that the uterus is not a very sensitive organ.

Loss of flesh is another sign to which we have been taught to accord too much importance in the diagnosis of cancer of the uterus; like the pain, it only comes

late in the discase, either after metastatic involvement or septic infection has occurred and when our patient is again beyond our doing much more than pronounce her death-scntence.

The diagnostic value of the odor of the vaginal discharge is also, according to my observation, very much exaggerated. It has never been clear how the arrangement of cells could in any way influence their odor, when undergoing sloughing and decomposition. A degenerating fibroma protruding from the cervix will, I believe, furnish an odor in no way different from an epithelioma under similar circumstances.

The cancerous cachexia, so called, is another of the classical symptoms which we were once taught to rely upon, but here again it is too late to even make our patients comfortable; when she has a systemic infection from breaking down and decomposing tissue, the cachexia will be the same whether the original growth was carcinoma or myoma.

A thin, watery discharge from a vagina in some cases precedes a hemorrhage, and should always excite suspicion.

The continuance of the menstrual function to or beyond the age of 50 is always liable to indicate either the presence of cancer or a fibroid.

A small proportion of cases have absolutely no sign or symptom upon which a diagnosis can be made until after the disease has advanced beyond any possibility of even temporary relief. In one case coming under my care the patient had been losing blood but 2 weeks, and was apparently in perfect health, and yet her uterus was completely infiltrated and fixed in the pelvis by extension of disease to the surrounding organs.

As to treatment, but little need be said; the *early and complete removal is our only hope of nonrecurrence.*

Vaginal hysterectomy is favored by most operators, and the only subject now much discussed is whether to use clamps or ligatures.

Personally, I prefer forceps, and the model of Dr. J. S. Wight is the only one on the market that can be depended upon at all times not to slip. In an ordinary case, one on each broad ligament is quite sufficient. The objection has been made to them that the teeth are apt to cause bleeding in removal. This objection is not well taken.

The angiotribe is ideal in theory, but is clumsy and hard to use and may not be safe. Skene's electric hemostatic forceps are also ideal, less clumsy, and have been proved safe in control of hemorrhage.

If we can do away with all foreign material in the shape of sutures and ligatures in pelvic and abdominal surgery, a great step in advance will be taken.

Dr. William Osler arrived in New York on September 8 from England, where he had been spending the summer. He returned to Baltimore on September 15.

PHENOMENA AND MECHANISM OF INHERITANCE.[1]

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AS COMMONLY used, the term heredity means the sum of all those qualities in which the child resembles the parents. Frequently, however, the qualities of parents blend in a child, so as to produce qualities which neither of the parents possessed. Such qualities are no less inherited than are those which are transmitted without change. In fact, heredity includes two classes of phenomena—hereditary likeness, or repetitions, and hereditary unlikeness, or variations.

Repetitions of parental peculiarities are the most prominent phenomena of inheritance; they may occur in every character and feature of the offspring. They are especially recognizable in gross and minute anatomical characters, such as the form, structure, location, size, and color of each and every part. The saying that "like produces like," is only a generalization from the oft-repeated observation of the transmission of such anatomic characters from parents to children. Turning to more particular anatomic details, we all know how certain facial features, certain characters of eyes and nose and lips run in certain families. It is a common observation that stature, weight, complexion, are characters which are hereditarily transmissible; in fact, Galton gives a formula for determining the stature of children from the known stature of parents and from the mean stature of the race, and similar formulas might be worked out for the size and shape of each and every part. But repetition of anatomic characters extends to much more minute features than those mentioned. In certain families a few hairs in the eyebrow are longer than the others, or there may be patches of particolored hair over the scalp, or minute dimples may be found on the ear or cheek, and these trifling peculiarities are inherited with all the tenacity shown in the transmission of more important characters.

A second class of characters, scarcely so well known, but yet quite as universal, is found in the transmission of physiologic traits. Every one knows that certain families are short-lived and others long-lived. All the members of certain families grow fat at a certain period of life, while others, however well fed they may be, remain lean and hungry Cassiuses. All the male descendants of certain families grow bald at some period of life, while in other families neither care, dissipation nor age can rob a man of his bushy top. Lefthandedness, nearsightedness, a tendency to bear twins and triplets run in certain families, and not in others. All such cases are illustrations of the fact that physiologic characters are transmitted from generation to generation.

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[1] Abstract of a Lecture delivered before the Philadelphia County Medical Society, May 10, 1899.

Certain psychologic characters are hereditarily transmissible. No one doubts the transmission of instincts among both animals and men, and no one who has much studied the subject can doubt that certain habits of life and mind, certain temperaments and dispositions, such as the emotional, the judicial, the calculating, are transmitted. Nor can it be doubted that strength or weakness of will, a tendency to moral obliquity or rectitude, capacity or incapacity for the highest intellectual pursuits are born in men and are transmitted from parents to children. In spite of many noteworthy exceptions which occur to all of us and which must perhaps be attributed to remarkable variations, Galton's statistics make it probable that genius and mediocrity are hereditary.

Other hereditary characters, less common but no less interesting than those just mentioned, are pathologic, teratologic, and latent traits. It does not become me to speak in this presence of the supposed transmission of disease, and yet I cannot refrain from pointing out the fundamental difference between such transmission and that of such characteristics as have been mentioned above. If diseases such as syphilis, scrofula and tuberculosis are transmitted from parents to offspring it must be due either to the direct infection of the germ or embryo by microbes or to the transmission of a peculiar anatomic structure which favors the disease. Disease-germs, whether present in the egg, the embryo, or the adult, are foreigners, intruders and no part of the organism itself. Such "transmission" is nothing more nor less than infection and differs fundamentally from hereditary transmission of specific, racial, and individual characters. If, on the other hand, "inherited" diseases are the result of peculiar anatomic or physiologic traits which favor certain diseases, once the organism is infected, we are dealing not with the inheritance of disease, but with the inheritance of conditions under which certain diseases may develop. On the whole, then, it seems probable that diseases are not directly inherited.

While the phenomena of inheritance have been observed from the earliest times, very little has been known until within the last ten or fifteen years as to the cause or mechanism of inheritance. It is now known that all hereditary transmission must take place through the egg and sperm, and that peculiarities of inheritance must be due to peculiarities of the germ-cells. The male and female germ-cells, though apparently very different, are essentially alike. Each contains within its nucleus a definite number of chromatic threads or rods, the chromosomes. Every species has its characteristic number of chromosomes, and at the time of fertilization each of the germ-cells contains one-half of this number. After the fusion of the germ-cells the characteristic number is restored. It is extremely probable that the chromosomes of maternal and paternal origin are equally distributed to every nucleus of the developing organism. For these reasons, among others, it is probable that the chromosomes represent the material basis of heredity, or the inheritance-material.

Given a certain type of germ-cells the question arises, how are hereditary traits represented in these cells and how do they make their appearance in the organism which develops from these cells? This question cannot be fully answered at present, but it is certain that we are not to conceive that the characteristics of the parents are found *as such* in the egg or sperm. The germ-cells are cells, and not vertebrated animals or mammals or men. They do not contain backbones or hair or any other adult characteristic, and yet the egg of a vertebrate always develops into a vertebrate, and the egg of a man into a man. The egg of every species must, therefore, contain certain peculiarities, which in the course of development become transformed into the peculiarities of the adult. This transformation takes place throughout the whole course of development and is undoubtedly produced by the interaction of intrinsic and extrinsic causes; the former are represented by the structure of the germ-cells—more particularly of the chromosomes—the latter by various environmental conditions, such as food, salt, moisture, light, heat, gravity, etc. When both intrinsic and extrinsic causes remain the same through successive generations there results a high degree of hereditary likeness, or repetition; when either varies we have the production of variations. Variations may be due to peculiarities of the germ-cells, in which case they are inherited no less than are repetitions; or they may be due to peculiarities of the environment, in which case they are said to be acquired.

Briefly stated, the question of the inheritance of acquired characters is this: Can peculiarities of the environment, which bring about the development of acquired characters, so affect the germ-cells of subsequent generations that they will produce these acquired characters in the absence of the peculiar environment which first caused them? Considering the fact that germ-cells are cells, and contain no adult characteristics, it seems very improbable that any peculiarity of environment, whether of nutrition, use, disuse, or injury, which brings about certain peculiarities or acquired characters in the adult, could so change the structure of the germ-cells as to cause them to produce this same character in subsequent generations in the absence of its extrinsic cause. How, for example, could defective nutrition, which leads to the production of rickets, affect the germ-cells, which contain no bones, so as to produce rickets in subsequent generations, although well nourished? Or, how could overexertion, leading to hypertrophy of the heart, so affect the future germ-cells that they, in turn, would produce hypertrophied hearts in the absence of overexertion, seeing that germ-cells have no hearts? Or, how could the loss or injury of eyes, or teeth, or legs, lead to the absence or weakened devel-

opment of these organs in future generations, seeing that inheritance must be through the germ-cells, which possess none of these structures?

But, apart from these general objections to the doctrine of the inheritance of acquired characters, there are many special difficulties. There is no conclusive and satisfactory evidence in favor of such inheritance. Almost all the evidence adduced serves to show only that characters are acquired, not that these characters are inherited.

It is a matter of common observation that mutilations are not inherited: wooden legs do not run in families, although wooden heads do. The evidence for the inheritance of peculiarities due to excessive use or disuse is wholly inconclusive, and in general the same may be said of any special character due to abnormal nutrition. That unusual conditions of food, temperature, moisture, etc., may affect the germs of future generations so as to produce general and indefinite variations is very probable, but this is a very different thing from the inheritance of acquired characters. The germ-cells being a part of the parental organism may be modified by such changes in the environment as affect the body as a whole, they may be well nourished, or starved, they may be modified by changed conditions of gravity, salinity, pressure, temperature, etc., and these modifications of the germ-cells may, and probably do, lead to certain general modifications of the adult, which may be larger or smaller, stronger or weaker, according as the germ is well or poorly nourished, etc. It is further possible that these changed environmental conditions may bring about such changes in the structure of the germ-cells as to produce great and remarkable peculiarities in the adult; but it is inconceivable that the environment which produces rickets, or hypertrophied heart, or loss of sight in one generation, should modify the germ-cells of the next generation in such a peculiar and definite way that they would give rise to these particular peculiarities, in the absence of the cause which first produced them. The inheritance of acquired characteristics is inconceivable, because the egg is a cell, and not an adult organism; and, in this case, there is no sufficient evidence that the thing which is inconceivable really does happen.

INFANTILE GONORRHEA — HICCOUGH — EAR-WAX.[1]

BY W. BLAIR STEWART, A.M., M.D.,
of Atlantic City, N. J.

MARY M., aged 4 years, had a slight yellowish-white vaginal discharge which at first seemed of little importance. Four or five days later it had increased and become quite yellow, with great irritation of the vagina; a small finger would enter the vagina full length with ease. Microscopic examination of the discharge showed gonococci in excessive numbers. The case responded promptly to potassium permanganate injections. The child gave a full explanation of contact with a young boy, and, on inquiry, it developed that he had the same disease. Both children were colored. This is the youngest child I have ever seen with this disorder, and this is the excuse for reporting it.

In my reading recently I saw the bold statement, that in all cases of hiccough, mild or severe, the infallible remedy was to have the patient gargle the throat with iced water. I have used this simple remedy in a number of cases with prompt relief. A case of tabes now under observation presents considerable stomach-symptoms, the worst of which is hiccough. Gargling with iced water gives immediate relief while other remedies have failed. Just how or why this procedure will act is beyond my power to explain, but I present it for its merit and trial.

Hardened wax in the external ear can often be removed readily by injections of warm water and soap, soda, or ammonia. Many cases resist this, and require the softening effects of glycerin or sweet-oil for a day or two before syringing. Do not bother with these long processes, but use a half-strength solution of hydrogen dioxid in the ear for about 5 or 10 minutes. This will disintegrate the hardest plugs, and they can be removed with very little syringing. I have yet to see the case in which this process has caused irritation or inflammation. Do not use too much force with the syringe. Wipe the ear perfectly dry with absorbent cotton and apply petrolatum. Wear a small plug of cotton in the ear for one day after removal.

[1] Read before the Atlantic Academy of Medicine, Friday, September 8, 1899.

Lymphoid Hpyertrophies of the Pharyngeal Vault.—C. E. Munger (*Yale Medical Journal*, June, 1899) says nasopharyngeal lymphoid hypertrophy is of very frequent occurrence in childhood, its symptoms are marked and unmistakable, its removal is easily accomplished, recovery from operation very sure, and the good results produced by operating are pronounced and brilliant. The puny child gains flesh and becomes hardy, the nervous child ceases to be nervous, the deaf child gains its hearing. The backward child acquires ease in studying and the vacant expression of countenance changes to that of intelligence; in short, the child who has been held back by disease is able to get on. The systematic examination of the pharyngeal vault is as valuable in school-children as the examination of the eyes. [C.L.L.]

Pneumonia Following Ether, with Report of Case.—G. G. Campbell (*Montreal Medical Journal*, June, 1899) believes, from a careful study of this subject clinically and of the cases reported, that lobar pneumonia is never produced directly by etherization. The chilling of the ether and the irritation it produces may be predisposing causes, but since this form of pneumonia is infectious it is not the exciting cause. With regard to bronchopneumonia he, however, believes that there is, in most cases, a direct relationship between the etherization and the bronchopneumonia—the relationship of cause and effect. This is produced by the faulty administration of the ether. It should be given slowly at first to anesthetize the mucous membrane, the strength of the vapor should be decreased one-half after anesthesia is procured, and no more should be given than is positively necessary, nor should the anesthesia be unnecessarily prolonged. [C.L.L.]

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The natural right of man to a natural death was the subject of an address delivered by Judge Simeon E. Baldwin, of the Connecticut Supreme Court, President of the American Bar Association, and of the American Social Science Association, before a meeting of the last-named body, held recently at Saratoga, N. Y., in which it was contended that man had a right to die when suffering from mortal disease, without regard to interference by nurses and doctors. This is an old and well-worn question that arises periodically in somewhat varied form, and the answer to which would be simplified if there were a consensus of opinion as to the aims, objects, and purposes of life and of living. Acceptance of the proposition laid down by the learned jurist would, however, be destructive of all law and order and of morality as well. Who shall decide whether a man has a right to be born, to live or to die, or to be put to death; and who shall decide what diseases are mortal? The logical deduction from the proposition offered, would be to permit the infant to die at birth, in order to prevent death subsequently from the mortal disease that must eventually arise. For the physician there can be but one guide, namely, "While there is life there is hope." He will ever strive to prevent disease, to relieve suffering, and to defer death as long as possible. The incurable disease of today may be curable tomorrow.

The Automobile and the Doctor.—According to a recent writer for the *American Magazine*, the first horseless carriage was built 65 years ago by a Dr. Church, in England; the picture of it is given, copied from the *Mechanics' Magazine* of January 1, 1834. We do not wish to raise the question of priority; quite likely there were as many earlier inventors as of the inflatable rubber cylinders for intestinal anastomosis; but at any rate the inventor was probably a physician, for our profession is as fertile in producing inventors as it is in producing great scientists, literary men, etc.

Be the inventor who he may, the fact we wish to emphasize is, that in its present higher state of perfection, the automobile seems to merit the consideration of the physician who is about to invest in some means of locomotion. The great objections, that they are too costly, too expensive to maintain, and too complicated to handle, no longer exist. They are not so likely to be balky, tricky or vicious as a horse; they do not become spavined or sore-footed, and do not catch cold if allowed to stand without blanketing after a fast drive; they leave a man less dependent on hostlers, drivers, stablemen, and others of uncertain habits and tempers; they are not for sale by jockeys who are always ready to fleece the inexperienced horseman. They are safe, speedy, and ready to travel in less time than it takes to harness a horse in an emergency. These are all apparently advantages. Whether the automobile is really suited to the needs of the doctor, whether it has disadvantages that overbalance its good points, will no doubt soon be settled from the experience of those who have tried it.

The proper name nuisance is without doubt increasing. Every little while the medical reader comes across somebody's symptom or method of treatment that he has never heard of, and is unable to find in even his latest and best dictionary. Some investigator describes a new symptom or symptom-complex without suggesting any name for it; the next man who observes the same thing does not feel justified in giving a name to a condition first discovered and described by another, for brevity gives it the discoverer's name, and we have another John Blank's symptom or disease. It is doubtful if the average medical man appreciates to what proportions this nuisance has grown. *La Semaine Médicale*, in a recent number, after lamenting this deplorable state of affairs, gives a list of proper names applied in internal medicine alone, designed to help out the unfortunate reader who runs against this kind of a snag; the list covers six large pages and includes about 480 words. This is for internal medicine alone, and is admitted to be incomplete. It is easily understood that if a complete list were prepared, giving the terms used in surgery, and the specialties as well, that it would soon swell to over 2,000 words, a very respectable vocabulary; with one of equal size in a foreign language, it would be easily possible to carry on a conversation on almost any subject.

How is this nuisance to be abated? Every investigator should seek for a suitable descriptive name for his discovery or invention. Is Waldeyer any the less well known among those whose opinion is worth having because he gave his neuron the appropriate name? But it is not alone individual pride and desire to make one's name immortal. Why do we have an English,

Grave's disease and a German Basedowsche Krankheit? The Frenchman is more sensible in this particular case and gives the descriptive name, goitre exophthalmique, but he still has his maladie de Charcot. Scientists should throw away personal and national vanity. The descriptive name will prevail in the end; the names Schlemm and Flood are already being left out of the descriptions of the ligaments of the shoulder-joint in most of our best Anatomies; the same is true of hundreds of other names connected with all branches of medicine. Let us hasten the departure of all these impediments to medical progress and guard against adding new burdens in the form of words that convey no meaning to the overloaded medical student.

American vs. Foreign Medical Education—Matriculation.—The timely and interesting educational numbers of the *British Medical Journal* and *Lancet* suggest a comparison with the conditions existing in our own country. A fair comparison should deal with the conditions as they now exist, not as they were, for it must not be forgotten that wonderful progress has been made in medical education in the United States within 10 years. Instead of three years' courses (or in some cases so low as two years' courses), without preliminary examination for matriculation, we now have a uniform requirement for four years' study and a matriculation examination. The Association of American Medical Colleges now demands for entrance to medical study either a certificate of graduation from, or matriculation in, a recognized university, college, or high or normal school—or a satisfactory examination in English, mathematics, physics, and Latin. A comparison with the matriculation examinations of the University of London, which may be taken as fairly representative of British schools, shows that examinations are required in the same subjects, but that the examinations are somewhat more rigid and cover a little more ground than the examinations of the Association of American Medical Colleges, and, moreover, an examination in a second language besides Latin is required. So much for the average American institution. But when we turn to the best American universities, such as Johns Hopkins, Harvard, etc., a different state of affairs exists. For entrance to their medical schools a degree in arts, science, philosophy, or letters is required. This is a more rigid requirement than that of the University of London, for the entrance examination to the course of study leading to an American degree in arts, science, philosophy, or letters is fully equivalent to the London medical matriculation requirement, and in addition to this comes never less than three years' study, and usually four years. In the German and French schools the conditions do not widely differ. The "Zeugniss" of the German gymnasium required for entrance to medical study, we estimate to be about equivalent to the first three years of the American course in arts, and the French diploma, bachelier ès-lettres or bachelier ès-sciences, may be considered about equivalent to the German requirement, although there are minor differences.

We believe that it may fairly be said that matriculation in a few of our best American institutions is more difficult than in European schools of the same class; in our better institutions it is about an even thing, and in the average American institution the matriculation requirement, while considerably lower, is being rapidly brought up to what it should be.

Cerebrospinal Rhinorrhea.—Dr. St. Clair Thomson has just described this curious affection in a little monograph, founded upon a case which occurred in his practice. The patient was a young woman, in apparently good health, who suffered from an escape of cerebrospinal fluid from one nostril. There was no tangible cause for the affection, especially no trauma. The flow, at first intermittent, became after a while continuous, and had lasted, when the patient was first seen, for several months. The dripping ran forward, escaping from the nose, especially when the patient bent her head forward; but when she was lying on her back the fluid ran down her throat. The rate of dripping was from 7 to 5 drops per minute, and the amount was therefore 5 drams in an hour, or 15 ounces in a day. There was no pain, no local disorder, no inconvenience, except that arising from the need of constantly using a handkerchief. The character of the discharge was positively determined by chemical analysis, made by Professor Halliburton. The fluid was clear, like water, tasteless, odorless, with a specific gravity of 1005. Mucus and proteids were practically absent, and the boiling-test, with Fehling's solution, gave a distinct reduction. The fluid was absolutely sterile—an interesting fact, which Dr. Thomson claims is a proof that the nasal chambers in a healthy person are naturally aseptic instead of being the nests of bacteria that they are commonly said to be. The analysis, it is thus seen, showed positively the identity of the fluid with cerebrospinal fluid.

Dr. Thomson collected, with great care and labor, all similar cases that he could find in the literature, about 21 in number, including doubtful cases. An interesting discussion of the whole question—both historical and clinical—follows, and from this it appears that the affection, though extremely rare, is by no means new. The author tersely remarks that the new things in medicine are the things that have been forgotten. Dr. Thomson fails, however, to elucidate the real mystery in these rare cases. That such cases have occurred spontaneously (or, at least, without record of precedent trauma) his brochure abundantly proves, but why and how they occur is not made manifest. In this domain of speculation the author ventures but a little way. He refers to one case in which an autopsy demonstrated a minute

opening near the crista galli, and also suggests the possible existence of normal communications between the subarachnoid sac and the lymph-channels in the nose, but he confesses that the subject is obscure. Congenital defects, such as small meningoceles, are also suggested as causes. In not a few of the recorded cases there were associated cerebral and ophthalmic disorders.

Where Should the Student Get His Medical Education?—As the usual time for the opening of our educational institutions approaches, the practising physician will often be asked this question. Quite naturally, perhaps, the practitioner very often recommends his own alma mater, or some school well known to him, without giving the matter any serious consideration; yet it should always be remembered that this is a question of vital importance to the prospective student, and its proper solution may have much to do with the degree of his success in his chosen profession. There are many factors that may well come up for consideration before a decision is reached, the most important of which are, perhaps, the amount of money the student has, the location of his home, his previous education, abilities, tastes and aims. In the first place, no medical school deserves consideration the reputation of which is not of the best, and whose teachers are not men of recognized high professional standing and ability. Possibly, a question that will trouble many students is the matter of cost. A good medical education does generally come high, but not so high as to put it out of the reach of any American with brains and energy. For the man of limited means the most economical school will, in most cases, be near his own home; for traveling expenses in this country, where distances are so great, look large to men of small means. Then, again, the student can spend his vacations at home, thus saving board-bills, and very often it is easier to find employment for the long vacation, where one is known. For the man who has lived most of his life in country-places, away from large centers of culture, and who is not obliged to consider expense too closely, the broadening influence of a few years in the cosmopolitan life of our older cities is decidedly worth while, even leaving medicine out of account. The question whether to choose a school in a large city, or one in a smaller town, is very closely connected with the question of expense. There are many of the smaller institutions in which the cost of a course would be about one-half that at the larger city school; in many of them it is possible to get as thorough instruction in the studies usually taken up during the first few terms of study as anywhere in our land, but the wisdom of a student spending the last two years of his course at a school where there is not plenty of clinical material is very questionable. There is a great deal in the inspiration which comes from the teaching of the man who speaks from the large experience which can scarcely come to any but those who have had the advantages of large clinics for years, and who have served their apprenticeship under the masters of the profession. The first two years of study might, however, be spent in a smaller school, with a large saving of money, and without serious loss from an educational standpoint. For the student who possesses an academic degree before taking up medicine, the schools which are requiring such degrees for entrance will doubtless have more to offer, for it will cut down the number of students (a decided advantage in clinical and laboratory teaching), and surely men who have the benefit of a sound intellectual training should not be held back in their studies by those who have not this advantage. The man of better ability and training, who hopes to make his way toward the front, will find much that is necessary for his success in the training of our best schools. These well-established centers always have the most men of high attainments on their teaching-staffs; they have the best apparatus for the equipment of their laboratories and the largest clinical advantages; and what is of almost as much importance, the instruction is systematized and organized in a way that is the result of years of experience and careful study of the best methods. Not only is the stimulus of instruction which comes from acknowledged leaders in the profession very great during student-days, but the acquaintance with such men, and their influence after graduation, is most helpful and necessary for the best progress of the young medical man. It should not be forgotten, in making a selection, that great differences exist in relative importance attached to the various studies of the medical curriculum at different institutions; as an example, nearly a third more time may be devoted to microscopic pathology at one college than at another of equally high reputation; while in the latter, more time is devoted to clinical teaching. Some schools have made unusually high records in turning out large numbers of men successful in practical medicine and surgery; other schools make their best showing in graduating men well posted in the theoretic and purely scientific branches of medicine.

Few will ask whether they should study at home or abroad; to those few it may be safely said that the great majority will do much better to study first at home; at least, that is the opinion of most of the men with whom we have talked on the subject, several of whom hold foreign degrees. The postgraduate study should perhaps be taken abroad in the majority of cases, but in some respects the practice here differs from that abroad, and we believe one learns the thing first most essential to the American practitioner in the most practical way at home. The custom of dividing the time of undergraduate study among several different universities is common with German students, but not much in vogue here. It has much to commend it; or not only is the weak branch in one school often the

strong point of another, but learning the different methods of different men, and seeing the life of various parts of country, must have a broadening influence. Whatever institution the student chooses, he should feel that success depends largely on his own hard, honest work; the best school cannot make an eminent physician out of a second-grade, lazy student.

Suggestions to Writers, No. 37. The Capitalization of Scientific Terms.—It is now almost universally the custom to capitalize the names of the genus in the biologic sciences. There are some noteworthy exceptions to the rule to use lower case for the species. These exceptions relate especially to those instances in which the name of the species is derived from that of the discoverer. But just as it seems advisable not to capitalize the words *joule*, *coulomb*, *sylvian*, *galenic*, etc., so we do not see the need of capitalizing the species-name of plants and animals whether or not these are derived from the proper names of men or of countries. The honor is not less because the initial letter is not a capital, and the fact that it is not capitalized helps toward the desirable discrimination between genus and species. We therefore advise the invariable capitalization of the genus, and as uniformly the lower case for the species. For example: *Ascaris lumbricoides*, *Strongylus douglassii*, *Papaver somniferum*, *Gadus morrhua*, etc.

Suggestions to Medical Writers, No. 38.—Using Fine Tools without Having Learned the Trade.—A most interesting volume might be compiled of the humorous blunders made by writers in the use of a language they do not understand. "Translators, traitors" (*Traduttori traditori*), is an old saw, to be exemplified, probably, while there are two languages left in the world. *La dernière chemise de l'amour*, for *Love's last shift; La Perruque Indépendante*, for *The Independent Whig; God defends adultery*, for *Dieu défend l'adultère; Great is truth, and it will prevail a bit*, for *Magna est veritas et prevalabit*, etc., are well-known instances. There is an Arabic translation of the Bible which translates "Judge not, that ye be not judged," by, *Be not just to others, lest others should be just to you*, and the traitorousness of our own English translators is illustrated by the fact that in the original of Job the words, *Oh that mine adversary had written a book*, are (Alas, that it is so!) badly misrepresented by the King James' version. The mistranslation of *tellurische Magnetismus*, as the *magnetic qualities of tellurium*, it is said, made an eminent chemist much trouble in testing tellurium for the magnetism. Every literary physician could probably add a dozen words to Skeats' list of ghost-words.

This bastard imperialism of ours is on the road to the production of a bastard English, and among the first offerings in proof we are glad to give our readers to-day an instance from medicine not without instructiveness in a number of phases. There lies before us a pamphlet entitled, EXTRAT OF MY ORIGINAL WORK OF THE GREASE IN YELLOW FEVER URINE, by a physician of one of our 1200 newly-acquired islands. We copy verbatim :—

Afterwards the war, now in the peace, when Cuba nid to go rspidly to arrive the 15 or 20 million of white men, that she can support; and the agriculture go to reach the place that she deserv, and owe to be, in this richer ground. I think it is necessary, to open all the door to all the men of good will.

They are in Cuba two dangerous illnes, the malaria fever, and the yellow fever. We know that the padudic manifestatión is owe to one protozoos, that is an ameba that had flagelas in number of one to four for each one; that tad not envelop of quitinous substance, that tad a voluminous nucleus, that can be see when we add acetic acid; the membrane that envelop the ameba is rich in albumen, and in another subtance vegetable, insomerum of the vegetable filotum, the flagelas had not in its end cupping glass.

The form of the paludic ameba is spherical when it is big and strong, its reproduces by gems and by segmentation, they lives in the waters richer in organic vegetables subtances and in alkaline medium, we can make by this way artificial and sterile swampy, with ten part of boullon alkaline for 100 part of sterile water.

They dont not belong to the gregarinas, nor to the coccideus, they are not gregarinas because they have not quitinous in its composition, and they are not coccideus, because they have not its ovular phase. They are not simple ameba because they have flagelus and nucleus.

Its breathing and its circulation is owe to the caplllarity and osmosis laws, its fo d itselfs by a hole. The writters have present to the Academy of medicine in this town, severals case belong to the reconcentrados, thad had present the two forms of beri-beri illness, the atrophic and the swell forms. I have proved their that beri-beri, is the product of famish and paludic intoxication The blood of all this foor famish was-analyze by me, all have had the paludic ameba.

For me the paludic acces, is the result of the fight between two amebas, the leucosyts, this probo ameba in the normal blood and the paludic ameba; ours owe as a doctor is to aid the leucosyts, so that its can win the paludic ameba. Both the leucosyts and the plasmodic has the same compositión, life, etc.

In yellow fever we all think that they are one germs in its cause, but ours means of dye and of culture can not put out at our sight it.—Freire's cocus, Fiulay's tetrageneus, Gibiei's cromogenous, Stenberg's X and sanarelli' baccilus, has not full us, as the cause of yellow fever.—The histological works of this illness is make much times ago. The clinical study is all in yellow fever. Dr. Laine Mayor of Sanity of the American Army has address one questionary to the Doctors in Havana, one of the cuestion put their was that.—Are their one symptom that can be pathologilical in yellow fever? Yes sir can I ausuer and in the urine you can always faind it; it is the grease, you know perfectly well that yellow faver has a quickly evolution in 3 or 4 days; the fever and all the symptoms fall down and the infection of the body has finish.—The terminical periodic begin and by the urine you can make by surefy yours diagnossis, by the methodical examination of the urine you can see in it the fatness degeneracy of the kidney, and say suretly the prognostic.

That is the pathological symptoms in yellow fever and you can see it always in the urine. It is certainly that the kidney is the entrails more affect The apparition of grease in the urine, that I am the first in see and saying, show clear the fatness process that is characteristical in yellow fever always urine is acid in yelloow fever. And the colour is in direct relation witk the serious of the case. Yellow fever is one serious infection, that every one can take by the water, or by breathing in contagious atmosphere, its evolution is in 3 or 4 day and give inmunity, afterwards of the remition of all the symptoms, the last periodic beginning and it can finisched by two modes by cure or by death: in the urine you can by the microscopical examinatión follow the illness and make a certainly prognostic.

In proof of this I am going to refer you two case, one is cure, the other is death.—Both taking bed in Angeles Hospital, in the 5 days of its illness afterwards of the characteris-

tics remission. Both have had the same thermometer and pulse curve line, one of they have and incoercibles vomit, insomnious near 48 hours and eure hersself; the other one rest quiet in his bed and only have had furious delirium a few hours before his death The frist one, that is to say that, that cure had not jaundice; the other one that, that dead have had a pronounce jandiee.

Let us see now the urine, that of the woman, had a yellow colour, reactión acid, specific weig h, 1,018 Albumin enough,' at the mieroscope a great deal of grease and also epitelic cellule in fatness degenaracy leucosy, kidney eellule and kidney cylinder, in fatness degeneracy. In the man the urine had one brown yellow, reaetion acid, albumen 3 grames by 1.000, á great deal of pigment and bile aeid. By the microscope you can see a great deal of kiduey eellule in fatuess degeneracy. The analysis of the irune show us the march of the kidney fatness degeneracy: in the woman we ean see the restitution ad integrum of the kidney tissue, till the point to desappear all abnormal in the nrine an she leave the hospital in the ten days of ters illnes, beeause she was cure. The examinatton of the urine in the man let see that the dead is the natural end of the fatness degenerancy that go in increase every day. In 120 grames of urine obtain by the sound, afterwards of 24 hours of anurie. I have faund so great deal of kidney cellule that I doubt very mueh that one ean faind more that in this nefritis parenquimatous aeute, afterwards of this the pacient had been taken by a complete anurie. This urine greasy belong ouly to the yellow fever. Yellow fever-Histolegie We have make the following, post mortem examination.

Frist ease belong to one spanish man-Corujosegoud case belong to one spanish man-Quintela Third case belong to one Ameriean man-Henry Smith. Fonr cases, has not deads of yellow fever. Patrick Smith.—For proves the grease we have put the histological euts of the liver and kidney into the accion of osmic aeid 1 by 100, and to Marehi method that showing very well the fatness degenerancy beeause its dyers the grease in black colonrs. In Patrick Smith ease the reaetion of the grease, have not had place notwiths.tanding that the entrails euts has put into osmie acid solution for 4 hours.

In the liver of the 3 first case we can see the degenerancy and infiltration of the grease in all the organ, the livers eellules was full of grease and the same happen in the intercellular espace. In Patrick Smith case his liver have not farness degeneracy, but he had very much melanieh pigment. Patirck Smith have not lesions in Peyer's plates and his blood examination before of deads by Coronado and Kramer have show us the Laveran's plasmodie, we can affirm that he death of apaludie fever, and have not give his blood the Widal's serum reaction I am going now to refer the lesión of the kinneys we have observe two state, the first congestion, that can go to the apoplexy of the glomerul; and in last a:d seeond state the fatness degeneraey that can be following by the destruction of the kidney parenquima, we see also the hemorrhage focus, that go to transform in purulent abeess, and the necrosis of the Malpigio glomerul. We can not see this lession in Patrick Smith case.

As you can see the first organ that in yellow fever put out first the fatness degeneracy is the kidney since the first day the urine aecuse mucine, s nce the second ó third days the albumen appear and the grease como sooner and vacillate like the illness fluctuate, and by the microscopiee examination we can make snrely the diagnossis and the pronostic, and follow the kidney destruction by the fatness process day by day and steps by steps. In the five day of the illne-s jaundice appear and the pace of the bile by the kidney filter add more elements to the destruetion of the eellules of this orgam, that had been before lessioned.—The bacterio'-ogie is for making in yellow fever we have employeed Sanarelly's method and we have faund the baccilus in case that dont not belong to yellow fever and in truly ease of yellow fever we have not been able in faind it.

I think that I can now affirm that we possess now one sing that alwavs we ean faind in yellow fever urine, that is the grease, that put out the general degenerancy by the grease in yellow fever, and that I am first to speak and to make appear.

———

———'s originales works.

1o. Is the drarrhoa with our withot fever the porter and propagator of the contagion?

2o. Is beri-beri ilness the result of famish and paludic intoxication?

3o. Hysterical grils.

4o. Phisiological destrut produee by the first evolution of teeth.

5o. Antidifteric serum in the serious ulceration y mauth.

6o. One case of esphalum of the feet and anurie belong to one boy of the reconecntrado that have beri-beri.

7o. Diarrhoa of blood in the childhood.

8o. One case of Pott illness, cure.

9o. Paludic (marshy) dispeptic.

10. Biology of Laveran's parasite.

11. Is the marshy (paludic) accee the result of fight between two amebas, and is the leueosity [the white globul of blood] one ameba?

12. Is phosphoire loss the eonseeuence of the destruction of the organism?

13. Differential diagnossis between yellow fever and bilious malaria fever.

14. Clinieal, histoligical and bacteriollogiea diagnossis in yellow feve'.

15. The grease in yellow fever urine.

16. The yellow fever germs.

17. It is enough only see in blood serum the mee melanie pigment for making the diagnossis of malaria.

All this works has been read at the Academy of Medicine in Havana city.

We should in justice to the author add that a full page of errata is appended, in which we are told for *protologilical*, read *protological*, for *ausuer*, read *auswer*, for *weih h*, read *weigth*, for *fatuess*, read *fatnes*, for *segoud*, read *segond*, for *drarrhoa*, read *drarrhœa*, for *destrut*, read *destrub*, etc.

We have not the remotest desire to raise a smile at the expense of our serious-minded coworker, but only to illustrate several valuable lessons or psychologic laws. We can use our own native tongue so grotesquely as to traduce our meaning, and unconsciously tell a sorry tale of our past history and present ideals. But when we try to use a foreign language we must be doubly on our guard. The troubles of our author with his -als, and -icals, *terminical*, *bacteriollogical*, *protologilical*, etc., will bring him the tear of sympathy of the sticklers for all the -als. There are printed every week millions of pages of quack medical literature, as sincere, innocent, and bunglesome as this letter. As much more is printed in which the ignorance is spurred not by egotism, but by the grocer's bills. For example, why should a self-styled scientist have the recklessness to print the nonsense that one set of nerves transmit faradic electricity, another galvanic electricity? Scientific medical knowledge is also at last itself only a tool, and when vanity or ignorance use this tool, that an accident may have put into their inexpert hands, the result is not mirth-provoking pseudo-Spanish-English, but may be the health and life of patients. Fine tools (and what finer or more marvelous instrument is there than language and science?) should not be used by clumsy hands and unskilled brains without some least attempt having been made to learn the rudiments of the technic. As well pretend to be a bacteriologist without ever having peeped through a microscope.

Medical Sermonets, No. 7. For the Good of the Profession.—In every society there live a few men who

care more for communal progress and ideals than they do for themselves. Of these one or more are certain to be physicians. Among the physicians of a city there are one or more to whom professional purity and righteousness are more than personal ambition or success. These "divine fools," or professional prophets, are worthy of especial honor and love, for in truth they are the source of vital power, the very life-blood of the professional organism. They are men who care nothing for official position, prefer rather to work in quietness and ignored for the purposes they have in view. They well know the worthlessness of fame, the unreality of the aims for which most of their fellows are striving with such furious and impotent zeal. One's name they see is the merest accident of whim or fancy, having no connection with one's personality, and yet the endeavors and lives of many people result in a senseless and lifelong labor for an unreal fetich called Timothy Jones or William Brown. To the unselfish and intellectual all this is pitiable, and they endeavor to transmute life into some institution, some reform, or some progressive movement that shall live after their petty names shall have vanished even from the memory of men. The work of these men is often thwarted, and their minds embittered by the hatred of the self-seekers who instinctively recognize the eternal enmity of their aims with those of the impersonal worker. Sometimes, after heroic labors, the good man finds so little sympathy on the part of his fellows, that he tires of the unequal and seemingly useless struggle, and, settling back into some compromising selfishness or dolessness, he lets the world and his profession go on as it seems to wish to go. There are a great many people that even sneer at reform and at reformer, who, if they would but show a little kindness and magnanimity, might encourage the truly unselfish to great success in the realization of those things without which our world would be morally squalid and valueless. There are hundreds of those who without the zeal or devotion of the prophets, have yet enough clearness of mind and purity of heart to strike hands with them and give them the word of Godspeed, whereby they may be heartened to do unselfish professional work. To these hundreds (let us hope they are thousands), in our American profession opportunities are constantly presented to which we are all too indifferent, and which, if seized and supported, would lift our profession to a higher and better life and spur on the great progress which we all feel is the very object of our lives. To establish institutions which shall carry out by other hands the ideals we dumbly and vaguely love, to start a struggling reform, to support a tendency, to further a cause, not only with words but with deeds, which shall make life more sweet and dignified for our followers, and for humanity itself,—these are things that in our weakness or our indifference we let slip by. Thus we not only miss the good we might do, but we encourage those who stone the martyrs that desire to help us and whose only sin is their self-forgetfulness. Can we not rise to a more adequate realization of the duty of cooperation, we who more or less clearly see the light, and, uniting our wasted individual efforts, withstand the evil influences of egotism, quackery, and commercialism, which keep our whole professional life upon so low a plane? Do we excuse and consult with the newspaper doctor? Do we subscribe for the commercial medical journal? Do we prescribe nostrums? Do we send students to the medical college of low standards whose professors are medical politicians? Do we support the depraved schemers who for themselves or their brotherhood chicane for office in our medical societies? Are we indifferent to the foundation and support of medical libraries and the encouragement of good medical literature? Do we care only for the cure and not at all for the prevention of disease? If to these and many such questions we must in silence assent, then have we no professional religion; nay, no professional morality.

Correspondence.

THE NAUSEA FOLLOWING ANESTHESIA.

BY SAMUEL EDWARDS, M.D.,
Resident Physician, Bay View Hospital, Baltimore, Md.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

THE after-nausea and vomiting, which are sometimes most depressing and occasionally dangerous, produced by anesthetics, may be prevented by the inhalation of vinegar immediately after the anesthetic is discontinued; this also prevents the intense thirst which usually follows. This method has been used in Bay View Hospital for the past 4 years, and is successful in about 97% of cases.

UNUSUAL ACCIDENTAL VACCINATION.

BY WILLIAM WOTKYNS SEYMOUR, M.D.,
of Troy, N. Y.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

DR. MODELL'S report of a "Unique Case of Vaccination," in the issue of August 26, reminds me of a case occurring in my practice about 10 years ago. I vaccinated the parents and eight daughters in a family, refraining from vaccinating the infant son, two months old. All the vaccinations took, the baby developed a catarrhal cold, and one of the sisters not infrequently wiped his nose with a silk handkerchief which a younger sister had put about her arm when the vaccination was at its height. The result was that a typical vesicle formed at the junction of the left ala nasi and lip, and this had been clearly recognized by the observant father before I was called to see the child. A quarantine-officer would hardly seek such a location for a vaccination-scar.

PLACENTA MEMBRANACEA, OR WHAT?

BY GEO. M. AYLSWORTH, M.D.,
of Collingwood, Canada.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

SOME three years ago while in attendance upon a young woman in first labor with twins, the second child brought away the cord belonging to the first child. This cord ended in an expanded membrane about 18 inches across when expelled; it was apparently the chorion. The vessels of the cord ended abruptly where the cord joined the membrane. No vessels could be traced upon the membrane. The cord and placenta of the second child was normal. The problem was to find the villi of the first placenta. The forefinger introduced into the uterus removed some. I had a confrere see the case, by which time the membrane had contracted to about 9 inches across. During chloroform-narcosis I introduced my hand and removed a double handful, emptying the uterus. The mother made a perfect recovery.

I had been practising medicine for 25 years with a fair share of midwifery; my consultant had been practising much longer with a larger share of midwifery; neither of us had ever seen or read of anything like it, and in my efforts to solve the problem I have found others who had not.

Placenta membranacea comes nearest it, but I have been unable to find more than a dozen lines devoted to it by any one writer.

Reviews.

The Hygiene of Transmissible Diseases: Their Causation, Modes of Dissemination, and Methods of Prevention. By A. C. ABBOTT, M.D., Professor of Hygiene and Bacteriology, and Director of the Laboratory of Hygiene, University of Pennsylvania. Illustrated. 8vo, pp. 311. Philadelphia: W. B. Saunders, 1899. Price $2.00, net.

This is a timely and useful book, and if we were to specify the feature that makes it so we would say it is its clinical spirit. Prophylaxis is the natural sequence of etiology and bacteriology. The transmissible diseases represent disorders dependent for their exciting factors upon living causes, and thus to this extent preventable. Predisposition, susceptibility, and immunity are far more complex subjects that touch at many points the yet more obscure influences of heredity and of acquired characters. In an orderly and intelligent manner we have here discussed the causes of disease, predisposing and exciting; then the mode of origin, of dissemination, and of prevention of the several infectious diseases and also of those due to animal parasites; next prophylaxis in general of infectious diseases; and, finally, the precautions to be observed in the management of communicable diseases. Appropriate consideration, further, is given to the subject of quarantine. Each of the individual diseases is considered with regard to its cause, its geographic distribution, its mode of dissemination, its portals of infection, and its prophylaxis. The work is admirable in conception, and not less so in execution. It deals with established doctrines and knowledge, and avoids the speculative and uncertain. It is a practical work, simply and lucidly written, and it should prove a most helpful aid in that department of medicine that is becoming daily of increasing importance and application, namely, prophylaxis.

Aseptic Duties of a Surgical Nurse or Dresser. By JOHN O'CONNOR, M.A., M.D. Pp. 23. Buenos Aires: Grant & Co., publishers.

This is a concise setting forth of certain duties of persons practising asepsis. Only those methods which are practised by the author are described. The scope of the book is necessarily limited and its especial adaptation seems to be to convey upon beginners and others the strictness of the rules of asepsis and to give a good general idea of their applications. The interposing of blank leaves for the description of new methods, etc., is commendable.

Mt. Sinai Hospital Reports. Vol. I, for 1898. Edited for the Medical Board by PAUL F. MUNDÉ, M.D., LL.D., Pp. 343. 1899.

From an institution with a medical and a surgical department and 200 annual admissions in 1856, Mt Sinai Hospital has grown to one with a medical, a surgical, a gynecologic, an ophthalmologic and otologic, and a children's department, and a consulting neurologist, a consulting dermatologist and a pathologist, and 3,000 annual admissions, and not least of all it has begun to utilize its vast clinical material by the publication of an annual volume. The present report contains some 25 interesting communications by various members of the medical staff, and it marks an auspicious beginning for a most commendable enterprise.

Text-Book of Ophthalmology, by DR. ERNEST FUCHS. Authorized Translation. Revised from the Seventh Enlarged and Improved German Edition by A. Duane, M.D., Assistant Surgeon Ophthalmic and Aural Institute, New York. D. Appleton & Company, 1899.

Of all foreign textbooks on the eye, Fuchs' still continues undoubtedly the most popular in this country. This latest edition brings the work up to date in pathology, bacteriology and medical treatment, but there is the same lack, from the American standpoint, in other departments as in the previous edition. With the exception of glaucoma the relation of infractive errors to disease is ignored as before. The German seems to have a greater gift for discovering uncommon than common facts. Like a man down a well he sees the stars overhead but knows nothing of what is going on in the ordinary daylight in which the rest of us live. For the reader on this side of the water the editor's notes and interpolations increase much the value of the book. There is practically nothing new in the chapter on operations. The eighty-seven additional cuts are excellent and add much to the interest of the work. The book is bound in half-morocco, uniform with the other volumes of the publishers' Medical Library, and also in cloth and calf.

Regulations for the Guidance of Surgeons, Connecticut National Guard, and Post-Surgeons, for Medical Examination of Recruits for the Connecticut National Guard, 1899. Pp. 36 Middletown, Connecticut: Pelton & King, 1899.

This little manual has been prepared by Brigadier-General J. Francis Calef, Surgeon-General of the National Guard of the State of Connecticut, for the guidance of surgeons, assistant surgeons, and post-surgeons, in the medical examination of recruits for the Connecticut National Guard, and has received the approval of and been adopted by the State. It comprises general instructions to examine surgeons, a recital of conditions exempting from all military duty, and a statement of disqualification for service in United States Army and the Connecticut National Guard in time of peace. It contains further the Articles of the Geneva Convention, and is accompanied by a chart of test-letters and another of test-symbols for illiterates. The publication of this booklet is most opportune, and it should prove highly serviceable for those whose duties include the medical examination of recruits.

Shall We Drink Wine? A Physician's Study of the Alcohol Question, by DR. JOHN MADDEN, Professor of Physiology in the Wisconsin College of Physicians and Surgeons. Pp. 220. Milwaukee: Owen and Weihbrecht Company, 1899.

This work represents an earnest though perhaps overzealous attempt to point out the dangers attending the use of alcohol and is worthy of careful perusal. It contains much interesting information, and while failing to concede any practical utility to a long-employed and widely used therapeutic agent, it sounds a warning note familiar to medical men that should be heeded by all interested in the present and future of the race. The subject is discussed in twenty chapters, the first being historical, and the others dealing with the following subjects: The Constituents of Alcoholic Beverages; the Food-value of Alcoholic Beverages; the Effects of Alcohol Upon Digestion and Assimilation; The General Pathology of Alcoholism; Alcoholic Heart-diseases; Alcoholic Irritation of Other Organs; Effects of Alcohol upon Nerve tissue; The Influence of Alcohol upon Embryonic Tissue and Heredity; Alcohol as a Factor in the Production of Insanity; The Attitude of the Medical Profession Toward Alcohol; Who Become Drunkards, and Why? What is Inebriety? Intermittent or Periodic Inebriety; Constant or Habitual Inebriety; Popular Fallacies Regarding Alcoholic Beverages; Shall the Physician Cease to Prescribe Alcohol; Effects of Alcohol Upon Civilization; What is the Best Means of Combating the Alcohol Evil? The book is admirably printed, and temperately written, and it should aid in restricting the employment of alcohol to purely legitimate channels.

Annual Report of the Board of Health of the City and County of San Francisco for the fiscal year ending June 30, 1898. San Francisco Printing Co., 1898.

This Report makes a creditable volume of some seven hundred pages, and has appended to it a chart showing the average reading of the barometer, thermometer, range of temperature, humidity, and rainfall, and the number of deaths from tuberculosis, pneumonia, bronchitis, diphtheria, and typhoid fever, for each month for six years, and contains the reports of the Health-Officer, of the Quarantine-Officer, of the Chemist, of the Bacteriologist, of the Bureau of Food-

inspection, of the Health-inspectors, of the Chief Plumbing-inspector, of the Chief Market-inspector, of the Veterinary Surgeon, of the Bakery-inspector, of the Bath and Laundry-inspector, of the Cigar-factory-inspector, of the Superintendent of the City Cemetery, of the Disinterment-inspectors, of the City Physician, of the Public Vaccinator, of the Police Surgeon,of the City and County Hospital, of the City and County Almshouse. There are, further, mortuary statistics presented from various points of view, and maps and charts showing the location of cases fatal from all causes and individually from tuberculosis, acute diseases of the lungs, diphtheria, typhoid fever, scarlet fever, and diarrheal diseases; and also the percentage-mortality from tuberculosis, heart disease, pneumonia, diseases of the brain, carcinoma, and nephritis, as well as the annual mortality from specific febrile diseases, cholera infantum, tuberculosis, pneumonia, diseases of the heart. diphtheria, typhoid fever, smallpox, scarlet fever, measles and whooping-cough.

Wyoming State Medical Society, First and Second Regular Meetings, held May and November, 1898.

Though this is possibly the youngest of the various State medical societies in existence in this country, the various members of the Wyoming Association may take heart of grace in the feeling that their beginning is a most creditable one, the scientific work comparing favorably with that done by many older and larger societies. The list of members shows 33 names. The initial volume has 77 pages, and is substantially bound in cloth.

Transactions of the Medical Society of the State of California, 1899. Twenty-ninth Annual Session. Published by the Society.

It has long been suggested that some of the better medical literature of this country is published only in the annual transactions of the various societies before which the original papers were read. Certainly, judging from the merits of various articles that have appeared from time to time in the different transactions, and which, so far as we can ascertain, have not received publication elsewhere, this proposition contains more than the proverbial grain of truth. The Transactions of the California State Medical Society for 1899 represent a high degree of scientific work besides being a valuable and accurate record of the annual meeting. It is a well printed, strongly bound 8vo of 410 pages, containing the usual data as to membership, etc.

The Temples and Ritual of Asklepios at Epidaurus and Athens. Two Lectures Delivered at the Royal Institution of Great Britain in 1898. By RICHARD CATON, M.D., F.R.C.P., Hon. Physician Liverpool Royal Infirmary, Emeritus Professor of Physiology, University College, Liverpool.

This little volume is a beautiful specimen of typographic work, clearly printed upon heavy plate paper, and embodies in a compact form all valuable knowledge upon the subject. The illustrations are particularly fine, and especial interest will be felt in the outline restorations of the various buildings. The recitation of miraculous cures from the remains of the large stone tablets on the walls of the eastern abaton read somewhat like the claims made by the various faith-cure sects that exist to-day.

The Cerebrospinal Fluid; Its Spontaneous Escape from the Nose, with Observations on its Composition and Elements in Human Subject. By ST. CLAIR THOMSON, M D., M.R.C.P. Lond., F.R.C.S. Eng., Surgeon to the Royal Ear Hospital London. Cassell & Co., Ltd. Pp. 140. Price 5s.

This little volume probably embodies the first thorough research upon the curious phenomena of cerebrospinal rhinorrhea The research made by the author through the literature discloses 21 apparently similar instances. In many of these the exact source of the fluid which escaped from the nose is overlooked and the discharge was ascribed to hypersecretion of the mucous membrane. Most of the cases were associated with cerebral symptoms. The author expresses the hope that his chronicling of the condition will help to the discovery of other cases and a more complete study of the subject.

Transactions of the Louisiana State Medical Society. Nineteenth Annual Session, 1898.

Plainly and substantially bound, this little volume of 330 pages is a record of most creditable work in every branch of the medical sciences. The report of the various business transacted before the meeting of the society is particularly full. The only possible criticism would be upon the omission of the usual discussions of papers. It is needless to state that frequently these discussions are as valuable as any of the proceedings of a society meeting. The volume also contains a full list of members, officers, etc.

The Gross and Minute Anatomy of the Central Nervous System. By H. C. GORDINIER, A.M., M.D., Professor of Physiology and of the Anatomy of the Nervous System in the Albany Medical College; Member American Neurological Association. With 48 full-page plates, and 213 other illustrations, many of which are printed in colors, a large number being from original sources. 8vo. Philadelphia: P. Blakiston's Son & Co. Price, Cloth, $6 00 net; Sheep, $7.00.

It is certainly rather a bold scheme for a writer who is still somewhat untried in neurology, to make his grand debut in this specialty as the author of a work on the anatomy of the nervous system. This is the first attempt of an American or English writer to give to the profession a systematic treatise on this subject. Heretofore we have had to rely either upon translations or upon the original text of German and French works. This fact alone will probably bespeak for Dr. Gordinier's Anatomy a favorable reception. We are confident, however, that the merits of the book itself will be its sufficient passport. We do not, indeed, pretend to give it an exhaustive review in this place, but merely record our impressions. We should say that it is a reliable work, while not an especially original one. It will not leave the impression that the work of a Köllicher, Edinger, Dejerine or Van Gehuchten leaves; and it will probably not be sought by experts, when in a tight or obscure place, so much as by students and practitioners who want a guide-book of nervous anatomy. It is not rich in bibliography, though it is by no means deficient in it; in fact, the book has evidently been inspired as much in the library as in the dissecting-room. Most of its illustrations are borrowed from the masters, but it has not a few original ones of decided merit.

Seeking for a sample we turned to the description of the optic fibers. We have been impressed with the value of the diagrammatic scheme, given on p. 271, especially as showing the centrifugal fibers. Von Monakow, we believe, claimed that after enucleation of the eyeball in a young animal he observed atrophy of the cells in the anterior quadrigeminal bodies, while the cells in the pulvinar and external geniculate bodies remained intact—the inference being that the centrifugal fibers of the optic nerves originate in the anterior quadrigeminal bodies; but this does not seem to be the view supported by Gordinier, for he represents centrifugal fibers as arising from all three of the primary optic ganglia—a view in which he is supported by Cahal and Van Gehuchten. The recent attempt of Turner, in Albutt's *System*, to demonstrate that these centrifugal fibers, arising exclusively from the anterior quadrigeminal bodies, are the optico-pupillary fibers, shows how much more prone the physiologists are to force conclusions than are the anatomists, like Gordinier. The view of Turner seems to require that centripital impulses pass by way of centrifugal fibers—a view which is not in accord with sound neuro-physiology. Gordinier, we may remark, is curiously inexact on p. 273, when he says: "The fibers of the optic tract terminate in end-brushes about the nerve-cells of the superficial and deep layers of the lateral or external geniculate body." Certainly *all* of them do not terminate here; and the author himself goes on to describe how some of them terminate in the pulvinar and anterior corpus quadrigeminum.

We commend Gordinier's chapter on cerebral localization. This will be especially helpful to clinicians, although all the views expressed in it are not yet outside of the domain of controversy. We should like to say more about Gordinier's book, but space forbids. It is handsomely printed and copiously illustrated, and we can recommend it as a good textbook of nervous anatomy.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Philadelphia Hospital.—Dr. W. B. Jameson and Dr. Thomas S. Kirkbride have been elected assistant pathologists.

Calendar of Meetings of Philadelphia Medical Societies for the week ended September 30:—

Wednesday, September 27—County Medical Society.

Thursday, September 28—Pathological Society.

Dr. J. T. Rothrock has been reappointed by Governor Stone State Commissioner of Forestry. Dr. Rothrock was originally appointed eight years ago by Governor Pattison, and was reappointed by Governor Hastings at the expiration of his first term.

An Optician Technically Guilty.—Willard P. Face, an optician of Reading, Pa., was found technically guilty of practising medicine and surgery illegally, by a jury in the local criminal court, September 13. It was shown that the defendant employed a physician who prescribed for the patients and divided the fees, but that Mr. Face on several occasions, in the absence of the regular physician, gave treatment, thinking it was not contrary to law. The prosecution did not ask for sentence, and Mr. Face was directed to pay the cost within 10 days.

Prohibiting the Sale of Poisons.—As a consequence of the death of a man, following the injection of morphin administered by one addicted to the habit, Mayor Geise, of York, Pa., has issued the following proclamation:

"Fully realizing the growing evil and the fatal consequences attending it, I call upon all self-respecting druggists of our city who hold in regard the honor of their highly useful vocation and respectfully request them and each of them not to give or sell to any person or persons, especially to such as are under the age of 21 years, any hypodermic syringes, opium, morphin, or alkaloids of opium, except upon authority or prescription issued by a regular practising or graduate physician of known good reputation in the walk of his profession."

Philadelphia County Medical Society.—At a meeting held September 13, a resolution was unanimously adopted asking for the appointment of a committee of five members to confer with the Mayor on the subject of blocking streets to the passage of physicians during the progress of parades. The committee will wait on the Mayor at an early date to find, if possible, some solution to the difficulty which many physicians have encountered in getting through lines of march like those of the Encampment. The Mayor's attention will be called to the fact that it is often imperative that the physician shall reach his patient as soon as possible, and a delay of an hour or more, such as several doctors experienced during Grand Army week, may result in fatal consequences to the sick.

The Late Dr. Cruice.—At a special meeting of the Board of Trustees of St. Joseph's Hospital, Philadelphia, September 16, to take action on the death of Dr. Robert B. Cruice, the following resolution was unanimously adopted:

We have heard with great sorrow of the sudden death of our late fellow-member, Dr. Robert B. Cruice, who for 36 years discharged the duties of a member of this Board. During that long period his faithfulness was constant, and his zeal untiring. He was always prompt and ready to advance the interests of the hospital and to broaden the field of its usefulness. By advice and example he assisted the other members in the discharge of their duties, and his quiet, unassuming, gentlemanly bearing, remains with them as a pleasant edifying memory. His truly Christian life was the best preparation for death, which found him actively engaged up to the last moment in the faithful discharge of his duty.

The late Dr. William Pepper and the National Export Exposition.—The following is from the *Evening Bulletin* the day following the inaugural exercises of the National Export Exposition:

There were doubtless not a few yesterday whose thoughts turned in recollection of the citizen whose masterful and enkindling spirit, so often broadly exerted in the noblest offices of civic ambition, was in the planning of this enterprise, and who had pushed it with his large and commanding views of the future of the city. The genius of William Pepper was its life in its inception and progress, and it is not difficult to fancy that its fruition would have been more in consonance with a great success at the very start had he been spared to put into it his fertile ideas and matchless zeal. It seemed to be his design that on the further side of the Schuylkill we should have ultimately something that would not be unlike the aspect which the Trocadero presents to Paris on the further side of the Seine; and even now it is easy to see the opportunity there for reclamation and embellishment which will make this region hereafter, with the removal of the Almshouse and the University in the background, one of the great sights and embellishments of Philadelphia.

Vital Statistics of Philadelphia for the week ended September 16, 1899:—

Diseases.	Cases.	Deaths.
Total mortality		364
Pulmonary tuberculosis		47
Marasmus 23, inanition 13, debility 7		43
Cholera infantum 18, gastroenteritis 14, diarrhea 1		33
Heart disease		27
Nephritis 14, uremia 9, congestion of the kidneys 1		24
Casualties 15, burns and scalds 3		18
the brain 2		17
Pneumonia 13, congestion of the lungs 1		14
Inflammation of the brain 15, congestion of		
Convulsions		14
Apoplexy 10, softening of the brain 3		13
Diphtheria 11, membranous croup 2	64	13
Typhoid fever	86	12
Scarlet fever	37	2
Pertussis 5, dropsy of the brain 4, dysentery 4, bronchitis 4, peritonitis 4, cirrhosis of the liver 3, intestinal obstruction of the bowels 3, senility 3, diabetes 2, drowned 2, dropsy of the lungs 2, surgical shock 2, suicide by illuminating gas 2, asphyxia 1, carcinoma 1, cirrhosis of the stomach 1, cyanosis 1, fracture of the thigh 1, hemorrhage of the brain 1, heat prostration 1, morphin poisoning 1, tumor 1.		

Passenger-car Sanitation.—At the meeting of the Master Car and Locomotive Painters' Association, held in this city last week, one of the most interesting discussions was on passenger-car sanitation. A paper on this subject was read by Dr. J. N. Hurty, secretary of the Indiana State Board of Health, in which he stated that the first step toward better car-sanitation is sanitary construction. Our passenger coaches are now too ornate to be quickly, cheaply and thoroughly cleaned, but above this, carvings, panels and scroll-work catch dirt and microbes, and so hinder cleanliness. The first principle, therefore, which is necessary to be observed to secure better car-sanitation, is plainness of interior; and the second necessity is equable warming and good ventilation; and the third, freedom from smoke and dust. He advocated frequently-changed linen covers for plush upholstery. After treating of proper warming and ventilation, cleaning and disinfecting, Dr. Hurty dwelt with special emphasis upon the habit of spitting in cars. He said in part:

"So frequently is it diseased that by actual bacteriologic

examinations of saliva voided in public places, 2 to 5% of the samples are found to carry disease-germs. Pneumonia, consumption, influenza, catarrh and like troubles, which cost us more annually than the cost of government, are transmitted frequently by saliva. When we become sufficiently practical to ventilate cars properly, perhaps we also will see the economy and decency in prohibiting spitting in public places. How may this evil be stopped or even limited on cars is the question. A long campaign of education will first be required, and one of the ways to educate is by law. I would advocate, therefore, the system which the Big Four will probably adopt. This is to post notices of no uncertain sound forbidding spitting in the car."

Preliminary Examination of Medical Students.—The following circular signed by Nathan C. Schaeffer, President, Medical Council of Pennsylvania, and James W. Latta, Secretary, Medical Council of Pennsylvania, has been issued:

The Act of May 18, 1893, specifices a competent common school education as one of the qualifications to be required of those who desire to obtain a license to practise medicine in the State of Pennsylvania. The extent of this educational qualification may be inferred from other Acts of Assembly which prescribe that the branches to be taught in the Common Schools shall include Orthography, Reading, Writing, Arithmetic, English Grammar, Geography, History of the United States, Physiology and Hygiene.

Physiology and Hygiene are included in the list of branches in which under the law the Medical Examining Boards test the qualifications of applicants for license to practise medicine. The duty of conducting the examination in the other branches constituting a common school education has been assigned to a committee consisting of persons connected with the public school system. Two preliminary examinations for this purpose will be held each year in Philadelphia, one during the month of October, after the medical colleges have opened, and the other on the day preceding the final examination in June. On the same days examinations will also be held in Western Pennsylvania, at which the same questions will be used.

The next preliminary examination will be held Saturday, October 21, 1899, at 9 o'clock A.M., in Philadelphia, in the Robert Vaux School Building on Wood Street east of Twelfth Street, and in Allegheny in the City High School Building on Sherman Avenue.

The committee in charge of the examination in Philadelphia consists of the State Superintendent of Public Instruction and Professors Edgar A. Singer and Charles Henry Kain, Assistant Superintendents of the schools of Philadelphia. The committee in charge of the examination in Allegheny consists of the State Superintendent of Public Instruction, City Superintendent John Morrow and Professor George Kratz, Principal of the Franklin School, Pittsburg. The answers of those examined will be marked and then placed on file at Harrisburg.

In lieu of the preliminary examination the Medical Council will accept as satisfactory evidence of a common school education permanent certificates issued by the School Department of Pennsylvania, diplomas of colleges, Normal Schools and other institutions approved by the Medical Council, certificates of admission into the Freshman Class of Literary Colleges approved by the Medical Council, and certificates of graduation from high schools whose course of study is approved by the Medical Council. Persons holding such certificates will please send them for inspection to James W. Latta, Secretary of the Medical Council, Harrisburg. They will be returned to the owners, together with the necessary certificate from the Medical Council exempting the holder from the preliminary examination.

Blanks to be used in specifying the branches included in the course of study, or in the entrance examination for the Freshmen class, can be obtained from the Medical Council or from the Dean of any medical college with whom the blanks have been placed for distribution.

The Pathological Society of Philadelphia held its first fall meeting on September 14. The President, DR. WILLIAM E. HUGHES, presented a specimen of **gumma of the heart** from a syphilitic child, 21 months old. The gumma was situated in the ventricular septum near the undefended space. Through softening, a small perforation had been made in the center of the gumma. DR. CATTELL, in the discussion, remarked that he had seen 7 or 8 cases of marked visceral syphilis in the past year, but in none were there gummata in the heart. In one case an ulcerative process was found in the arch of the aorta, and was considered syphilitic.

DR. JOSEPH SAILER presented a specimen of **hypertrophic cirrhosis of the liver.** The patient, who was in the hospital only a little more than a day before his death, was jaundiced, had a large liver, a moderately enlarged spleen, fever, and a left-sided pleural, and a peritoneal effusion. At the autopsy the liver was found large, hard, and dark, the spleen soft, and the effusions referred to were hemorrhagic in character. Microscopically, the liver showed the features of an interlobular cirrhosis with intense round-cell infiltration of the connective tissue. DR. RIESMAN, in discussing the case, suggested the possibility of its having been one of cirrhosis with an acute infectious jaundice superadded, and thought that the soft spleen and cloudy swelling of the liver-cells, in the absence of intralobular hyperplasia, such as is found in hypertrophic cirrhosis, might render this view tenable. The case, he thought, bore a strong analogy to Weil's disease. DR. HUGHES had seen hemorrhagic dropsical effusions in cirrhosis. He thought that in this case there was an acute process engrafted upon a more ancient cirrhosis of the liver. DR. SAILER believed that an acute infectious process might have been present, yet the condition of the liver appeared to him a chronic one. The liver was harder than normal. The most important point against hypertrophic cirrhosis was the absence of proliferation of the bile-ducts.

DR. SAILER also showed specimens from a case of **fatty and contracted kidney, with hemorrhagic pericarditis,** and **dilatation of the ureters** without adequate demonstrable cause. DR. HUGHES thought the dilatation of the ureters difficult to explain and believed that there must have been some obstruction, probably dynamic in origin. DR. HAND thought that in some instances, especially in infants, uric acid concretions might cause obstruction from time to time and lead to dilatation of the ureters.

DR. W. E. ROBERTSON showed an **osteosarcoma of the femur** from a lad of 14, the result of a blow with a base-ball bat; and exhibited also a **chondrosarcoma,** a so-called "mixed tumor," **of the testicle.**

Pittsburg (Pa.) Academy of Medicine.—At a meeting held September 11, DR. F. F. SIMPSON presented some specimens and photographs illustrative of cases operated upon by Dr. X. O. Werder and himself. The first specimen consisted of more than **1100** (of a total of over 1300) **gallstones** removed by cholecystostomy from a man aged 38 years, who had suffered during the last 2½ years from repeated attacks of hepatic colic. His attending physician had vigorously used almost every known remedial agent during that time. There has been no recurrence of symptoms during the 2½ months that have elaped since operation. The next specimen consisted of **10 biliary calculi** removed from the cystic duct of a woman aged 43 years. She was jaundiced in early childhood. For 15 years she had suffered from frequently repeated severe attacks of hepatic colic often accompanied by chills, but seldom by jaundice. For two years, many years ago, she was free from these attacks. For the last six months before operation they recurred at least once a week and grew more intolerable. No enlargement of the gallbladder could be detected and at operation it was found collapsed. The stones were taken from the sacculated cystic duct which was immediately sutured and wound protected by gauze. This was removed in 36 hours. Good recovery. No return of pain in the two months that have elapsed. Nine of the stones were small and pyramidal. One was cylindric and measured ⅞ x ⅞ inches; it had a central core around which many smaller ones were cemented, resembling a section of an ear of popcorn. The third specimen was a crushed **phosphatic calculus** originally 1½ x 1¼ inches in diameter, weighing 300 grains. It was removed from the bladder of a woman of 53 by vesicovaginal incision, which was immediately sutured and healed promptly, notwithstanding the presence of much pus in the urine before and after operation. The symptoms which had been very severe for six months, quickly subsided. She was entirely relieved in 14 days. A **photograph of a kidney** removed from a woman of 23 by transperitoneal route, was then shown. The kidney was more than twice its normal size and consisted of a lobulated shell filled with cheesy pus. Prior to operation no urine could be obtained from right kidney using the Harris instrument, but one ounce was collected from the left in 35 minutes. The left kidney, therefore, accounted for the total daily secretion, which averaged about 40 ounces. No unusual diminution in the amount of urine was noted after operation, nor were

any abnormal constituents found in it. Sixty-six ounces was collected the twenty-sixth day. Convalescence was entirely normal. Photographs of a case of **congenital rectovaginal fistula** with entire absence of normal anus, were presented. The patient was 33 years old, married, and a secundipara. Convalescence was normal after both confinements. The abormal anus was just within the posterior commissure. She had no control of feces or flatus. The operation consisted in dissecting the rectum and its external orifice from their attachments; making an opening at position selected for anal orifice; and drawing the rectum down and out at that opening without incising the perineal body. The rectal mucosa was sutured to the skin and the former site of rectum and anus closed by a modified Tait operation. The patient now has complete control of feces and flatus, though nothing suggestive of a sphincter muscle was seen.

DR. J. C. THOMPSON reported a case of **falsetto voice** in a young man of neurotic temperament who was cured by training received from an elocutionist. He had considered the case hysterical.

DR. E. C. STUART read a paper on **acute ranula,** with report of a case. In January, 1897, he was called to see a laborer at 3 A.M. who had gone to bed perfectly well. He complained of a smothering sensation which had awakened him; he articulated with difficulty and was greatly frightened. Examination revealed the tongue pushed up and back by a firm cystic tumor directly in the median line of the floor of the mouth. It opened spontaneously in three days, discharging a clear watery fluid and soon closed. Fleischmann first described a serous sac in the median line of the floor of the mouth lined with epithelium; hence it has been called Fleischmann's bursa. In the formation of acute ranula it is supposed (by Tillaux) that an accumulation of saliva caused by obstruction of Wharton's duct ruptured into the bursa producing an acute cyst of this structure. In discussion DR. SINGLEY asked if this bursa, being a serous sac, was not lined with endothelium instead of epithelium. DR. WARD remarked that the case was most interesting by reason of its rarity.

DR. I. J. MOYER read a paper on **Intestinal antisepsis.** The physiology of the gastrointestinal tract was reviewed. We aim to secure intestinal antisepsis in several ways, among which are flushing of the canal by purgatives and clysters, the administration of drugs possessing antiseptic properties, and the improvement of the condition of the intestinal mucosa. It is generally conceded that fluids injected into the colon rarely if ever pass beyond the ileocecal valve. In administering drugs intended to reach the intestine, it is desirable that they be insoluble in the gastric juice, such as salol, naphthalin, keratin, coated pills, etc. Jacobi states, however, that because substances are soluble in the stomach it does not prove that they do not reach the intestine. It is stated that it is not possible to give sufficient of an antiseptic agent to destroy organisms in the intestine, and that the feces are never completely sterilized by internal medication. Accepting these facts, we know that the intestinal wall when normal is not pervious to bacteria. Changes in structure permit bacteria to pass, causing autoinfection. The absorption of the products of bacterial life by the normal intestine has been proved to take place, and our chief object in administering antiseptic agents is to restrict as far as possible this autointoxication. There are many agents given for the purpose of improving the surface of the mucous membrane itself, such as tannic and gallic acid, the various salts of bismuth, nitrate of silver, etc. The most reliable agent for the prevention of autointoxication seems to be charcoal, which acts by absorbing bacterial products. To be efficient it must be given in very large doses. In discussion, DR. THOMPSON, mentioned a case of exophthalmic goiter that had improved very remarkably upon a capsule of salol, beta-naphthol and bismuth salicylate. DR. SIMPSON spoke of an amusing case in which a patient was said to have vomited a soapsuds enema, although intestinal obstruction existed. DR. FISCHER related a case of **tuberculosis** which developed typhoid fever, while taking so-called antiseptic agents. DR. WARD emphasized the importance of the subject of antointoxication. Nasal surgery is not resorted to as frequently as it formerly was since we know more of the remote effects of gastrointestinal disturbances. Intestinal indigestion is much more common than gastric. He mentioned the case of a man with hemoptysis, due to an ulcer of one of the bronchi, in which he believed the underlying cause to be autointoxication. DR. SINGLEY described the case of a boy with severe enterocolitis, which resembled general peritonitis following appendicitis. The rapid pulse and high temperature were considered to be due to absorption of toxic products from the intestine. DR. ELTERICH,—Do these antiseptic agents produce any unfavorable symptoms? Are they not all cardiac depressants with few exceptions? It would seem that the action of such drugs is somewhat vague. Free purgation is of greater value, while diet is most important. DR. SIMONTON flushes out the alimentary tract with salines and then gives 10 to 12 drops of strong nitrohydrochloric acid in a glass of water. DR. HECKEL agreed that charcoal was the best intestinal antiseptic. Closing the discussion DR. MOYER stated that charcoal to be efficient must be given in doses of from one-half to one ounce daily; and that benzonaphthol was of considerable value.

NEW YORK.

Artistic Cremation.—We read in the *Public Ledger* that Colonel Michael C. Murphy, President of the New York Board of Health, has served notice upon the Stephen Merritt Automobile Burial and Cremation Company that it must not start a crematory on Eighth Avenue. The Rev. Dr. Merritt asks the Board of Health to wait until he can show how exceedingly well he can burn bodies by his new liquid-air process. The plan of cremation, as Mr. Merritt sees it, is artistic. The body is conveyed to the establishment in an automobile. It is prepared for burial and taken to the top floor, where services are held. It is then lowered to the cellar and treated first with liquid air and then with electricity. The ashes are placed in an urn, which is given to the waiting relatives, who sit on comfortable chairs, surrounded by blaze of electricity.

Reform in Dispensaries.—The old dispensary system in New York City goes out of existence with the current month, and hereafter all dispensaries must conform to the law passed by the legislature at its last regular session. This law defines a dispensary as any person, corporation, institution, association or agent, whose purpose it is, either independently or in connection with any other, to furnish at any place or places to persons nonresident therein, either gratuitously or for a compensation determined without reference to the cost or value of the thing furnished, medical or surgical advice or treatment, medicine or apparatus, provided that the moneys used by and for the purposes of said dispensary shall be derived wholly or in part from trust funds, public moneys, or sources other than the individuals constituting said dispensary. A license is necessary, and each applicant for license must take oath to the fact that the dispensary is for the public benefit; no school of medicine is obligatory, but the Board of State Charities is empowered to examine every dispensary and to move the revocation of any license which does not conform to law. No dispensary shall be conducted in a drugstore or tenement-house, and no person shall advertise a dispensary except one duly licensed. Violation of the law is a misdemeanor punishable by fine from $10 to $250, and the same penalty will be visited on any person who obtains dispensary-relief by false representations. The new law will not impede any of the regular dispensaries now in existence, but it will wipe out several hundreds which have been conducted for private gain. The new law was carefully considered by the medical and pharmaceutical societies and received their approval before being placed on final passage.

Rabies in and About Buffalo.—Reference has been made from time to time to the great prevalence of rabies in Erie County, and in the attack human lives have been lost in the destruction of stock and small animals. In Buffalo alone the police have killed, since April 1, 60 dogs suffering with hydrophobia so far as the officers could determine, and more than 100 whose conduct was suspicious of the rabies; in addition there have been killed at the pound between 50 and 60 more. Two persons have died of hydrophobia and at least a score have been bitten by suspicious dogs. To meet the danger the Buffalo Health Department has proclaimed a penalty of $100 on the owner of any dog found running at large, and indicates that more stringent measures may be found necessary; and in this the city officials have the co-operation of the State Board of Health. It is estimated that there are between 11,000 and 12,000 dogs in the city limits and 2,000 in the suburbs of Buffalo, and the health authorities figure that at least one-third of these dogs have come into contact with dogs having rabies, and therefore many hundreds of dogs now regarded as innocent are undergoing the incubation of the disease. The Health Department is watching the situation very carefully, and it is by no means improbable that during the autumn an order will be issued for the killing of every dog in the city. The outbreak can be traced with reasonable assurance to a village in the Province of Ontario, where rabies has been noted for two years, and from which an infected dog was brought to Buffalo, where it bit several dogs when the disease had developed in it. That a dog-quarantine is effectual in preventing the disease has been proved in the Australasian colonies, where a quarantine of six months is enforced against every dog which it is sought to import. The result is that not a single case of rabies or hydrophobia has ever been observed. The need of such precaution is particularly great on the continent of Australia, for the interior is swept by packs of wild dogs indigenous to the country.

Popular Aid in Sanitation.—The operations of the Department of Health of the city form a part of the ordinary machinery of municipal administration, but the Department occupies a position very remote from other administrative bureaus. No citizen, for instance, would ever feel impelled to give his time and his money for the assistance of the chief of police in the performance of his official functions. Possibly the reception of such an offer would be such as to damp the ardor of the well-meaning adventurer. But the Health Department has consistently welcomed the charitable aid of private beneficence, and much of its usefulness has consisted in affording an intelligent direction to the efforts of those who seek the amelioration of the sanitary condition of the poor during the trying period of the summer in particular. In this way the Commissioners of Health have been able to supervise the work of not only one but several "fresh air funds" which take the children of the tenements out of city and give them a day or a fortnight in the country. A similar work is accomplished by a recreation society which has obtained the use of one of the smaller parks in a most congested district, has set up swings and other gymnastic appliances, and a bed of clean white sea-sand. For sickness among the poor babies there are floating hospitals which secure the otherwise unattainable benefits of sweet air blowing in over unpolluted sea. From the beginning of the heated term until the cool weather the city is dotted with little booths where the charity of a single one of the merchants has made it possible to buy for the smallest coin an ample supply of sterilized milk. During this last summer the sterilized milk-supply has been extended to the borough of Brooklyn where the need has been just as great, and it is now in contemplation to cover all the boroughs of the city with the same service next summer. Private charity has furnished all these adjuncts to the work of the Department. For their own part the Commissioners of Health confine their connection with the volunteer work to such a supervision as shall secure intelligent application of the resources at hand, and in addition employ a corps of extra physicians whose duty it is to seek out all cases of illness among the tenements and administer such treatment as may be necessary at once and turn them over to the subsidiary service. Politically there is much in the municipal administion that may deserve the adverse criticism which it receives, but this cooperation of the Department of Health with the administration of private charity is so nobly planned that it should receive a fuller meed of approbation.

NEW ENGLAND.

Yale Medical School.—Dr. James Campbell has resigned as professor of obstetrics.

Massachusetts General Hospital.—Dr. Henry F. Hewes has been appointed physician to out-patients at the Massachusetts General Hospital, and Dr. H. T. Swain assistant superintendent in the place of Dr. F. H. Washburn, resigned.

Harvard Medical School.—Next Monday, September 25, the new academic year begins with the examinations for admission, and the school will open September 28. There is every prospect of a very large entering class, its ranks being augmented by those who wish to enter the school before the rule requiring a degree for admission goes into effect. That date is set for June, 1901, so that those who wish a Harvard degree by any short cut must enter this year or next. This term the new arrangement of subjects taught in the first two years of the course will go into effect. Anatomy and the correlated subjects of histology and embryology will take the student's entire time the first half of the first year, and physiology and physiologic chemistry, the second half. In the second year the entire first half is given to pathology and bacteriology, and the second half to subjects that will fit for the clinical work of the third and fourth years.

The change in the courses call for many more assistant instructors. The following new appointments have accordingly been made: Dr. Malcolm Storer, assistant in gynecology; Dr. Richard C. Cabot, assistant in clinical medicine; Dr. G. VanNess Dearborn, assistant in physiology; Dr. Calvin G. Page, assistant in bacteriology; Dr. Seabury W. Allen, assistant in anatomy; Dr. Francis P. Denny, assistant in bacteriology; Dr. Harris P. Mosher, assistant in anatomy; Dr. Henry J. Perry, assistant in bacteriology; Dr. Charles S. Butler, assistant in anatomy; Dr. James C. Donoghue, assistant in histology; Dr. Louis W. Gilbert, assistant in histology; Dr. Ralph C. Larrabee, assistant in histology; Dr. Richard M. Pearce, instructor in pathology; Dr. George S. Whiteside, assistant in anatomy; Dr. Hugh Cabot, assistant in operative surgery; Dr. Lincoln Davis, assistant in anatomy; Dr. Shepherd I. Franz, assistant in physiology; Dr. William Muhlberg, assistant in physiology; Dr. Joseph D. Weis, assistant in histology; Dr. Hugh Williams, assistant in anatomy.

CHICAGO AND WESTERN STATES.

Diploma-Mill Practitioners.—A conspicuous illustration of the danger of allowing "graduates" from alleged

medical schools to practise medicine was afforded recently in Grand Rapids, Mich., which State lacks a medical-practice act. A mother and child died, and one of these Chicago-made "doctors" is in jail awaiting trial. He was called in because he lived in the neighborhood, and the case was urgent, and after "fussing" around impotently for two hours, he left the house on a pretext, and did not return until the patients were dead. A postmortem examination shows conclusively, the physicians state, that death resulted from neglect. What adds point to the affair is the fact that the jailed "physician" was one of about 20 of his kind, named recently in a report by Health Officer Luton as practising medicine under Chicago diplomas, and without sufficient preparation. The developments are not calculated to further the suits for damages begun by the 20 pseudo-doctors, but may have an influence on a succeeding legislature on the matter of protective legistation. This has been denied at several sessions, largely through reluctance to offend the faith healers, the science curers, and the tribe of charlatans generally.—[*Evening Post.*]

Prohibiting the Entrance of Tuberculous Patients into California.—At a meeting of the California State Board of Health, September 14, the following resolution, introduced by Dr. D. D. Crowley, was passed unanimously:

"Resolved, That the State Board of Health consider the propriety of quarantining against human beings and domestic animals with tuberculosis entering the State."

The following statement is attributed to Dr. Crowley:

"In a year 20,000 consumptives enter our State, promiscuously spreading the germs of their own disease. The climate may save 1 in 50 lives or prolong lives a few months or a year, but how many others who have not been previously infected will die from this reason? We are morbidly afraid of diphtheria, scarlet fever, smallpox, cholera, and yellow fever. We quarantine these cases because they kill so quickly, and our people appreciate this, but lingering tuberculous disease that eventually kills twice as many as all these together is permitted to continue unchecked, notwithstanding the efforts of science.

"Patients, I think, ought not to attend churches or theaters, or public or social gatherings, nor should they occupy public conveyances, such as railway cars, without especial provision being made for them.

"I do not believe that patients suffering from consumption should be permitted to enter hotels without rooms being protected by a health officer of the community, acting in accordance with the general laws of the State."

SOUTHERN STATES.

The Yellow-Fever Epidemic in the South.—The yellow-fever situation at Key West is regarded as grave. Since the first case was reported, about 3 weeks ago, the epidemic has been steadily growing until September 19, there were reported nearly 400 cases. New cases are appearing at the rate of about 30 a day, but the mortality is low. The Marine Hospital Service has been directing its efforts to confining the epidemic to the island, and has been rewarded with signal success. All the suspects at Port Tampa were placed in a detention-camp, and Assistant-Surgeon Trotter reported that the camp would be closed on Wednesday, as all the suspects had been under observation 10 days. None but known immunes are allowed to leave Key West direct, and then only on certificates. Others who desire to leave must first go to the detention-camp at Dry Tortugas. One new case of fever was reported to the Surgeon-General from New Orleans September 19. The same report stated that freight from New Orleans was undisturbed except in Texas, which could not permit freight originating in New Orleans to pass through the State. Surgeon-General Sternberg has received a despatch from Havana, saying that the yellow-fever outbreak is under full control. The number of cases in all the hospitals in Havana are 9 soldiers and 11 civilians. There have been no new cases at Cabanas garrison since the 9th.

MISCELLANY.

Obituary.—DR. ROBERT B. CRUICE, a graduate of the University of Pennsylvania, class of '59, surgeon in the U. S. Army during the Civil War, and at the time of his death president of the staff and surgeon to St. Joseph's Hospital, suddenly, in Philadelphia, September 14, aged 61 years.—DR. CHARLES T. ROBINSON, New York, September 10, aged 26 years.—DR. GEORGE FLOYD LUDLOW, Bridgehampton, N. Y., September 5, aged 29 years.—DR. JOHN H. TILFORD, Wondom, Mass.—DR. WILLIAM B. NOLEN, Franklin, Mass., September 4, aged 83 years.—DR. THOMAS C. WORTHINGTON, Baltimore, Md., September 15, aged 81 years.—DR. M. A. MOSHER, Austin, Ill., September 12, aged 80 years.—DR. J. F. WADE, Baltimore, Md., September 3.—DR. ROBERT J. MCCLURE, Sandy Lake, Pa., September 3, aged 68 years.—DR. P. M. HOBBS, Wymore, Neb., September 4.

Health Reports.—The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General of the U. S. Marine Hospital Service during the week ended September 15, 1899:

SMALLPOX—UNITED STATES.

			Cases.	Deaths.
FLORIDA:	Jacksonville	Sept. 2	1	
MASSACHUSETTS:	Fall River	Sept. 2-9	1	
OHIO:	Cincinnati	Aug. 25-Sept. 1	6	
"	Cleveland	Sept. 1-8	4	
PENNSYLVANIA:	Philadelphia	Sept. 9		1
TEXAS:	San Antonio	Aug. 31	1	1
"	Sixteen places	Aug. 5-Sept. 2	76	4
VIRGINIA:	Portsmouth	Sept. 9	1	

SMALLPOX—FOREIGN.

BELGIUM:	Antwerp	Aug. 26	3	
BRAZIL:	Rio de Janeiro	July 28	54	34
CUBA:	Casilda	Aug. 1-31		1
GREECE:	Athens	Aug. 26-28	11	2
INDIA:	Bombay	Aug. 15		11
MEXICO:	Chihuahua	Sept. 4		4
"	Mexico	Aug. 20-27	4	3
"	"	Aug. 27-Sept. 7	5	3
"	Tuxpan	Sept. 4		2
RUSSIA:	Moscow	Aug. 12-19	1	1
"	Odessa	Aug. 19-26	1	1
"	Warsaw	Aug. 12-19		3
SPAIN:	Valencia	Aug. 22-29	4	5
TURKEY:	Erzeroum	Aug. 5-12	2	
"	Smyrna	Aug. 13-20		1

YELLOW FEVER.—UNITED STATES.

FLORIDA:	Key West	Sept. 9-12	92	3
"	Port Tampa City	Sept. 11		1
LOUISIANA:	New Orleans	From outbreak to Sept. 11	7	2
MISSISSIPPI:	Jackson	Sept. 10	1	
"	Mississippi City	Sept. 10	1	

YELLOW FEVER.—FOREIGN.

BRAZIL:	Rio de Janeiro	July 28	5	2
CUBA:	Havana	Aug. 31-Sept. 3		5
COLOMBIA:	Barranquilla	Aug. 20	1	1
"	Colon	Sept. 4	1	1
MEXICO:	Orizaba	Aug. 15-26		6
"	Tuxpan	Sept. 4		2
"	Vera Cruz	Aug. 24-31	16	11

CHOLERA.

INDIA:	Bombay	Aug. 15-17		1
"	Calcutta	Aug. 15-17		27
JAPAN:	Yokohama	July 16-20	2	2
CHINA:	Karachi	Aug. 12	14	17

PLAGUE.

EGYPT:	Alexandria	Aug. 20	2	1
CHINA:	Karachi	Aug. 12	1	2
INDIA:	Bombay	Aug. 15-17		71
"	Calcutta	Aug. 5-17		52

Heredity and Prolificity.—The following letter was recently received from a local agent in the West by the medical director of one of our large insurance companies:

"A lady came in the office the other day, and asked what her chances for a policy were in an old-line company. She had been married 15 years and had five labors, resulting in 13 children (four triplets and one single birth). Her grandmother, now living at the age of 90, gave birth to 18 children in six labors (six triplets). Her mother died on board ship, after giving birth to triplets at the age of 17. She was crossing the English Channel, and became very seasick, resulting in premature delivery, and in her death five days after confinement. Father English; mother Spanish."

Changes in the Medical Corps of the U. S. Army, for the week ended September 16, 1899:

LOMMEL, NICOLAS, hospital steward, will proceed to Fort Reno, for duty,

KIEFFER, Captain CHARLES F., assistant surgeon, granted leave for seven days is extended 23 days.

EGAN, Captain P. R., assistant surgeon, is assigned to duty in the medical supply depot, San Juan, P. R, and disbursing officer of the medical department.

REYNOLDS, Captain F. P., assistant surgeon, is relieved from duty at the medical supply depot, San Juan, P. R.

THOMASON, Major HENRY D., surgeon, is relieved from further duty in the department of Santiago and Puerto Principe, and will proceed to New York City, and report by telegraph to the Adjutant General of the Army for further orders.

MEACHAM, Major FRANKLIN A., surgeon, now in New York City, will proceed to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

HOWARD, Captain D. C., assistant surgeon, is granted leave for 7 days from September 9.

GIBBENS, GEORGE, hospital steward, medical supply depot, Savannah, Ga., will be sent to Fort Leavenworth.

CABELL, Major JULIAN M., surgeon, will proceed from San Francisco, Cal., to Washington, D. C., and report to the Surgeon-General of the Army for further instructions.

WILSON, First Lieutenant JAMES S., assistant surgeon, now under orders to proceed to Manila, P. I., will upon his arrival at that place report to Major WILLIAM R. HALL, surgeon, president of the examining board, for examination as to his fitness for promotion.

KILBOURNE, HENRY S., surgeon, will make not to exceed two visits to Philadelphia, Pa., for the purpose of inspecting the hospital on the transport "Thomas."

WILSON, Captain WILLIAM H., is relieved from further duty with recruits at the Presidio and will proceed to Angel Island for duty at that post, and he is also assigned to additional duty as commanding officer of the school of instruction for the hospital corps to be established at the same post.

BRADLEY, Major ALFRED E., surgeon, U. S. V. (captain and assistant surgeon, U. S. Army), is honorably discharged from the volunteer army only, to take effect October 1, upon his tender of his resignation as major and surgeon, U. S. volunteers.

HOYT, Major HENRY F., surgeon, ordinary leave granted, is changed to leave on account of sickness.

COX, First Lieutenant WALTER, is relieved from further duty in the department of Porto Rico and will report at the expiration of his present sick leave at Fort Leavenworth for duty.

BOURNS. Major FRANK S., surgeon, is granted leave until September 30.

BOURNS, Major FRANK S., surgeon, is honorably discharged the service on tender of resignation, to take effect September 30.

CRAIG, CHARLES F., acting assistant surgeon, is relieved form duty at Camp Columbia, Cuba, to take effect upon the expiration of his present leave, and will report at Fort Hamilton for temporary duty.

MULLINS, THOMAS K., acting assistant surgeon, will proceed from Troy, Ala., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

PALMER, FRED W., acting assisting surgeon, will proceed from Jackson, Mich., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

The following-named medical officers, having arrived at Manila, P. I., on the U. S. transport "Sheridan," will proceed to the stations of the regiments indicated below for duty: First Lieutenant CLYDE S. FORD, assistant surgeon, to the Twelfth Infantry, San Fernando, Luzon; First Lieutenant JOSEPH H. FORD, assistant surgeon, to the Thirteenth Infantry, near Pasay, Luzon, relieving G. W. ROBERTS, acting assistant surgeon, who will report to the surgeon in charge of the First Reserve Hospital, Manila, for duty; First Lieutenant EDWARD R. SCHREINER, assistant surgeon, to the Fourteenth Infantry, Imus, Luzon.

KIRKPATRICK, First Lieutenant T. J., assistant surgeon, is granted leave for one month on surgeon's certificate, to take effect upon arrival in the United States, with permission to apply for an extension of two months.

GREENLEAF, Colonel CHARLES R., acting assistant surgeon, medical inspector of the Army, will proceed to Honolulu, H. I., for the purpose of inspecting the medical department and the sanitary condition of the post and camps in that vicinity.

GODFREY, Captain GUY C. M., assistant surgeon, is temporarily relieved from duty in the department of Havana and will proceed to Qaemados, Cuba, for assignment to duty at Pinar del Rio during the absence of Major WILLIAM F. DE NIEDEMAN, surgeon.

LEAHY, MICHAEL, hospital steward, now at the camp of recruits, Presidio, will be sent to Angel Island for duty with the hospital corps school of instruction.

POWELL, WELCOM N., acting hospital steward, now at the U. S. General Hospital, Presidio, will be sent to Angel Island for duty with the hospital corps school of instruction.

DE SALAZAR, WILLIAM E., acting assistant surgeon, now in New York City, is relieved from further duty in the department of the Province of Havana and Pinar del Rio, and will report by letter to the Surgeon-General of the Army for annulment of his contract.

Changes in the Medical Corps of the U. S. Navy, for the week ended September 16, 1899:

CRAWFORD, M. H., surgeon, detached from the marine recruiting rendezvous, Chicago, Ill., and ordered to the marine recruiting rendezvous, New York, N. Y.

BOGERT, E. S., passed assistant surgeon, detached from the marine recruiting rendezvous, New York, N. Y., and ordered home and to wait orders; directed to be ready for orders to sea duty.

MOORE, J. M., passed assistant surgeon, detached from the "Vermont" and ordered to the marine recruiting rendezvous, Chicago, Ill.

ELLIOTT, M. S., assistant surgeon, detached from the marine recruiting rendezvous, New York, N. Y., and ordered to the "Vermont."

GARTON, W. M., assistant surgeon, detached from the "Franklin" and ordered to the Washington Navy Yard.

LEVERING, P. A., surgeon, ordered to duty at the recruiting rendezvous, Buffalo, N. Y.

ARNOLD, W. F., passed assistant surgeon, ordered to the Pensacola Navy Yard.

HARRIS, H. N. T., passed assistant surgeon, detached from the Pensacola Navy Yard and ordered home to wait orders.

CHEFFEE, J. S., assistant surgeon, resignation accepted.

TRYON, J. R., medical director, detached from duty as general inspector of naval hospitals and ordered home to wait orders.

PARKER, R. C., detached from the "Pensacola" and ordered to the "Hartford."

TRYON, J. R., medical director, retired. September 24.

VON WEDEKIND, L. L., granted sick leave for 3 months, when discharged from naval hospital, Mare Island, Cal.

Changes in the U. S. Marine-Hospital Service, for the fourteen days ended September 7, 1899:

WHITE, J. H., surgeon, directed to proceed to National Soldiers' Home, Va., for special temporary duty. September, 1.

MAGRUDER, G. M., surgeon, to proceed to Port Tampa, Fla., for special temporary duty. September 1.

WERTENBAKER, C. P., passed assistant surgeon, granted leave of absence for 14 days on account of sickness. September 8.

SMITH, A. C., passed assistant surgeon, to proceed to Tortugas Quarantine, for special temporary duty. September 4.

GARDNER, CHARLES H., passed assistant surgeon, granted leave of absence for 1 day. September 5.

WICKES, H. W., passed assistant surgeon, leave of absence extended 4 days. September 1.

FRICKS, L. D., assistant surgeon, to proceed to Key West, Fla., for special temporary duty. September 4.

CORPUT, G. M., assistant surgeon, relieved from duty at Egmont Key Detention Camp, Fla., and granted leave of absence for 30 days on account of sickness. August 30.

KING, WALTER W., assistant surgeon, relieved from duty at Reedy Island Quarantine, and directed to proceed to New Orleans, La., and report to the commanding officer for duty and assignment to quarters. September 4.

THORNBURY, F. J., assistant surgeon, relieved from duty at Baltimore, Md., and directed to proceed to the Immigration Depot, New York and report to the commanding officer for duty. August 25.

TROTTER, F. E., assistant surgeon, relieved from duty at Immigration Depot New York, and directed to proceed to Mullet Key Detention Camp, Fla., and assume command. August 25.

BEAN, L. C., acting assistant surgeon, granted leave of absence for 1 day. August 26.

BROWN, B. J., Jr., acting assistant surgeon, granted leave of absence for 3 days. September 1.

DUFFY, FRANCIS, acting assistant surgeon, granted leave of absence for 2 days. September 2.

GOLDSBOROUGH, B. W., acting assistant surgeon, granted leave of absence for 1 day. August 30.

SMITH, A. W., acting assistant surgeon, relieved from duty at Cape Charles Quarantine, and directed to rejoin station at Baltimore, Md. August 25.

PECK, F. H., hospital steward, relieved from duty at Hampton, Va., and directed to proceed to Mullet Key Detention Camp, Fla., for special temporary duty. September 1.

OLSEN, E. T., hospital steward, to proceed to Tortugas Quarantine, for special temporary duty. September 4.

Appointment.

Agnelly, Edward J., of New York, to be junior hospital steward. September 1.

Board Convened.

Board convened to meet at New York, N. Y., October 4, 1899, for the examination of candidates for appointment as assistant surgeon in the Service and officers for promotion. Detail for the board: Surgeon H. W. Austin, Chairman; Surgeon G. W. Stoner; Surgeon C. E. Banks, Recorder.

Changes in the U. S. Marine Hospital Service for the week ended September 14, 1899:

Carter, H. R., surgeon, to proceed to Key West, Florida, for special temporary duty, September 1; to proceed from Key West, Florida, to New Orleans, La., and assume charge of service matters. September 11.

Magruder, G. M., surgeon, to proceed to New Orleans, La., for special temporary duty. September 4.

Perry, T. B., passed assistant surgeon, relieved from duty at San Francisco, Cal., and directed to proceed to Stapleton, N. Y., and report to the commanding officer for duty and assignment to quarters. September 11.

Eager, J. M., passed assistant surgeon, to proceed to Saginaw, Mich., as inspector. September 12.

Rosenau, M. J., passed assistant surgeon, detailed as temporary quarantine officer at Havana, Cuba, September 13.

Nydegger, J. A., passed assistant surgeon, relieved from duty at Marine Hospital, New Orleans, La., and directed to report to Surgeon Magruder for temporary duty. September 11.

Blue, Rupert, passed assistant surgeon, granted leave of absence for 1 month and 8 days from October 6, 1899. September 14.

McMullen, J., assistant surgeon, to proceed to Memphis, Tenn., for special temporary duty. September 13.

von Ezdorf, R. H., assistant surgeon, relieved from duty at Hampton, Va., and directed to rejoin station at New Orleans, La. September 11.

Adams, F. B., acting assistant surgeon, granted leave of absence for 10 days. September 11.

Foreign News and Notes.

GREAT BRITAIN.

Calmette's Antivenene.—The *British Medical Journal* quoting the *Pioneer*, states that Surgeon-General Taylor is taking steps to have a supply of Calmette's antivenene issued to all military hospitals throughout India.

Prisoners in Scotland.—It is announced that the Secretary for Scotland has appointed a departmental committee, consisting of the Earl of Elgin (chairman), Sir Thomas David Gibson Carmichael, Sir Colin Campbell Scott Moncrieff, Sir John Batty Tuke, M.D., and Mr. James Parker Smith, M.D., with Mr. J. H. Gascoigne, of the Scottish Office, as secretary, to inquire into the following matters connected with prisoners in Scotland: (1) The provision for the nursing and accommodation of sick prisoners. (2) The sufficiency of the accommodation provided for ordinary prisoners. (3) Juvenile and first offenders, and to what extent they should be treated as classes apart. (4) The sufficiency of prison dietary. (5) Prison labor and occupation, with special reference to the physical condition and of the moral improvement and training of prisoners.

CONTINENTAL EUROPE.

Congress of Deaf-Mutes.—Among the innumerable international congresses to be held in Paris in 1900, the most curious and quiet will be the congress of deaf-mutes.

University of Königsberg.—Professor Pfeiffer, director of the scientific department of the Institute for Infectious Diseases in Berlin, has been appointed ordinary professor of hygiene.

Remarkable Divorce Suit.—A rather rare and remarkable divorce suit is now pending in a Paris court. A wife brings suit against her husband because he became pregnant and gave birth to a child at full term. Investigation proved the supposed husband to be a female hermaphrodite.

The German Public Health Association was announced to meet in twenty-fourth annual session at Nuremberg, September 13 to 18. Among the subjects set for discussion were: The hygienic aspects of the different kinds of artificial illumination; The duties of medical officers of schools; The smoke nuisance in towns.

Congress of Italian Alienists.—The tenth congress of Italian alienists will be held in Naples from October 10 to 14, under the presidency of Professor Tamburini. The following are the subjects proposed for discussion: Practical methods of individual psychologic investigation in asylums and clinics; The light which has been, and may be, thrown by anatomic data on normal and pathologic psychology; Psychiatry and the study of the individual and his activity in social relations; Intoxications and infections in the pathogenesis of mental diseases and neuropathies.

Plague Commission at Oporto.—The commission appointed by the French Government to investigate the epidemic of plague in Portugal consists of Dr. Albert Calmette, Director of the Pasteur Institute at Lille, and Dr. Salimbeni, preparateur in the laboratory of Dr. Roux, Pasteur Institute, Paris. The commission has arrived at Oporto and has reported that every precaution is being taken to prevent the spread of the epidemic. The Government of Portugal has authorized the distribution of the anti-plague serum of the Pasteur Institute.

Baby-Shows.—According to the *Lancet*, in the next session of the Municipal Council of Paris, attention will be given to baby-shows and prize competitions for infants. Reports recently prepared by hygienic commissions go to prove that these competitions are attended by many dangers. Dr. Dufournier and Dr. Vallin have informed the Council that in order to enable the infants to win medals, the nurses feed them in a manner which is not conducive to their health. The infants, in fact, are greatly overfed, and at a later stage, after their undue plumpness, they suffer from serious disorders of digestion. The two medical men above named are in favor of prohibiting these baby-shows, which too closely resemble exhibitions of fat animals.

The Destruction of Mosquitos.—The Rome correspondent of the *British Medical Journal* writes a very interesting letter detailing some experiments undertaken by Professor A. Celli and Dr. Casagrandi with a view of ascertaining the germicidal properties of various substances with respect to the mosquito. The substance of the letter follows:

The experiments were made with the larvae and nymphae of *Culex pipiens* and *Culex annulatus*, with the eggs of *Culex pipiens*, and with the perfect *Culex annulatus*, *Culex pipiens*, *Anopheles claviger*, and *Anopheles bifurcatus*.

Professor Celli and his colleague have taken specially into consideration the stage of development—the egg, the larva, the nympha, or of the perfect mosquito. In the last stage the mosquitos live in the air, in the other stages in water. The authors made the following classification of culicidal substances:

1. Substances which kill the eggs.
2. Substances which kill the larvae.
3. Substances which kill larvae and nymphae.
4. Substances which kill the perfect mosquitos.

As the criterion for judging the larvicidal action of a substance, they took the time necessary to kill the larvae, considering any substances inefficacious which did not kill within at most 3 days (72 hours).

Larvicidal Substances.

The results of the action of the substances that kill the larvae are given in three tables, which show that:

1. Among the mineral substances potassium permanganate, even in the considerable dose of 5%, acts slowly; lime, copper, and iron sulphates and ammonia, even in very large proportions, act rather slowly; sulphurous water, even when not saturated with sulphurous oxid, is one of the most active larvicidal substances; corrosive sublimate, even when as strong as 1%, kills the larvae slowly and does not kill the nymphae.

2. Among the vegetable substances very potent poisons to the larvae are those of the leaves of strong tobacco, and some of the insecticide powders of commerce, which are obtained from the unexpanded flowers of chrysanthemums. Other insecticide powders are either less active or altogether inefficacious. Then comes the commercial extract of tobacco, and finally a saturated aqueous infusion of quassia, of solanum nigrum, and of daphne quidium.

3. Of the anilin dyes (blue, violet, red, yellow, and green), the two that have the most energetic action are the gallol of Weiler-ter-Meer, of Uerdingen, and the green malachite of the Actiengesellschaft für Anilin Fabrikation of Berlin. The larvicidal dose of gallol is 0.0062%; of the green malachite 0.0125; the minimal larvicidal dose of the first may descend to 0.0007, while the second is never less than 0.0031.

In regard to the substances which kill larvae and nymphae the authors come to the following conclusions:

1. The destruction of the nymphae is in general rather difficult; oily substances alone, which float where the nymphae generally come to breathe, kill the nymphae before or at the same time as the larvae.

2. Classifying the substances employed according to the time required for killing the larvae, water saturated with sulphurous oxid occupies the first place; then comes potassium permanganate mixed with hydrochloric acid. The action of the permanganate alone is much weaker even in greater proportions (2%—1%). The slightly oily substances, among which is petroleum, are very efficacious. At the ordinary temperature petroleum must be present in the proportion of at least 0.10 c.cm. per 100 cm. of surface. Oil has an analagous action. Salt water, which at 5% to 10% kills the larvae in 15 hours, in concentrated solutions kills them in 30 minutes and the nymphae in an hour. The commercial insecticide powders obtained from chrysanthemum flowers are also very active. Caustic lime, ammonia, and chlorid and carbonate of lime only act in very high proportions.

3. Of the more powerful bactericidal substances formalin and lysol are not very efficacious, and corrosive sublimate is even less so.

4. The nympha stage being very transitory, it may be neglected in practice in the destruction of mosquitos.

The use of mordants is of little advantage in practice, though in many cases they augment the larvicidal action of the substances. Direct sunlight does not diminish the larvicidal efficacy of the substances, and it retards the putrefaction of the waters.

THE CHEMICAL CONSTITUENTS AND TEMPERATURE OF WATER.

The influence of the physical and chemical properties of a water and temperature are more important. With a rise of temperature the time of the destruction both of the larvae and of the nymphae by different substances is shortened, except in the case of petroleum, which acts mechanically by forming a stratum impermeable to air. The chemical properties of a water have an influence on the mode and time of destruction of the larvae. For example, potassium permanganate is destroyed in marshy water having to oxidize the organic substances, and it is destroyed in sulphurous waters. Directly putrefaction begins it arrests the larvicidal action of gallol and malachite green, insecticide powders, petroleum, and, as a rule, of other larvicidal substances.

In waters contained in a vessel with earth at the bottom the soluble larvicides, such as gallol, maintained their action for a longer time in proportion to the height of the stratum of water above the earth. In the case of those substances which act on the surface, if the stratum does not protect the whole surface from contact with the atmosphere, their action immediately ceases. The young larvae are much more easily killed than the older.

DURATION OF LARVICIDAL ACTION.

Of the various substances observed for several days in succession, the first to lose its larvicidal action was petroleum, which evaporated and no longer covered the whole surface of the water. In the proportion of 0.20 ccm. per 100 cm. of surface it lasted only two days at 18° C.

PRACTICAL APPLICATION AND PRICE.

Sulphurous oxid is the least practical of the larvicidal substances, owing to the difficulties of its production and its dearness. Petroleum is relatively easily used, even in ponds and large lakes. It does not kill the fish or the inferior animals. Its action, however, is proportional to its diffusibility on the surface of the waters, therefore the lighter the petroleum the better it acts.

The insecticide powders are easily used, and when swallowed even in large doses are not poisonous to herbivora, but they are poisonous to some worms, molluscs, and fishes.

The use of staining substances when, like the two cited, they are very soluble and diffusible in water, is easy and practicable. Very concentrated solutions should be made and added to the water containing the larvae; the proportion can be determined by the color produced. They destroy also all animals in the water.

The cost of all the mineral substances, including chlorid of lime, in the necessary larvicidal dose, is too great. The vegetable powders, staining substances, and petroleum are the cheapest for use on a large scale. In calculating the price it must be remembered that the action of its staining substances is of greater duration.

SUBSTANCES WHICH KILL THE PERFECT MOSQUITO.

From a practical point of view the substances used are divisible into three categories: (1) odors, (2) fumes, (3) gases.

The odors were tested under a bell-glass, which was contained in a glass capsule covered with gauze; for fumes and gases a wooden and glass chamber of the capacity of about 100 liters, invented by Rosenthal for the demonstration of the ventilation of rooms, was used. After each experiment the mosquitos were collected in recipients to ascertain whether death was real or apparent.

Among the odors which caused death were turpentine, iodoform, menthol, nutmeg, camphor, and garlic; among the fumes, tobacco, chrysanthemum flowers, fresh eucalyptus leaves, quassi wood, pyrethruni, and also simple wood smoke; among the gases, the most practical and efficacious was sulphurous oxid.

The best time for destroying mosquitos is the winter, when they are in least number in the waters and new generations do not appear. It is always possible to destroy mosquitos in houses, and this may be done with greatest effect in the winter, when the insects take refuge in houses. Better knowledge of their habits—that is, of the place and time of breeding—will render their destruction easier. Even in the most favorable cases, when drainage shall have done all that is possible, this will not be so easy as many believe. Nevertheless, after the treasury spent by nations and private individuals for preserving the vine from oidium, permospora, and the phylloxera, it is to be hoped that something will be done to protect man from the malarial mosquito.

MISCELLANY.

The Intercolonial Medical Congress of Australasia was announced to meet in Brisbane, September 18 to 23.

Obituary.—JOHN DUNCAN, M.A., M.D., LL.D., F.R.C.S.E., F.R.S E., consulting surgeon to the Edinburgh Royal Infirmary, August 24, aged 60 years.

Insanitary Chinese Ports.—The *British Medical Journal* states that the reports by the Customs medical officers to the Inspector-General of Customs on the nature and prevalence of diseases among the foreigners and natives at different Chinese ports throw some light on sanitary conditions in the ports where Europeans live and die. Dr. Rankine, of Ichang, reports on the prevalence of various forms of bowel-complaint, dysentery, diarrhea, etc., and fevers of malarial and typhomalarial types. Dr. Clindening reports on the health of Kiukiang, and notes an absence of sickness attributed to climatic or surrounding influences; the only epidemic was one of chickenpox. Besides the ordinary forms of illness, such as pneumonia, bronchitis, rheumatism, etc., some cases of enteric fever and malaria contracted elsewhere came under his treatment. At Chinkiang, in the early spring, typhoid fever and smallpox were prevalent, the outbreak of the latter, according to Dr. Lynch, being more widespread and virulent than in previous epidemics. In the autumn, malaria and typhoid prevailed. In Ningpo, Dr. Hickin reports an absence of epidemics, the most prevalent disease being malaria and bowel-complaints. Dr. Roderick Macdonald's report on Wuchow is of special interest, dealing, as it does, with many important sanitary questions. He shows that a large amount of disease is to be attributed to the sanitary defects of the residences, and the milk-supply is bad, the milk being largely diluted with impure water. The meat is sometimes unfit for human consumption, diseased animals being at times slaughtered by the butchers. The water for drinking-purposes is derived from various sources, the purest (?) being that from the Icy Well, which, in its chemical and microscopical characters, resembles diluted pond-water, and is polluted with sewage-matter. In conclusion, Dr. Macdonald describes the state of the town as execrable, and points out the urgent need of sanitary reform in various directions.

The Latest Literature.

British Medical Journal.

September 2, 1899. [No. 2018.]

1. Discussion on the Medical Tests for Admission to the Public Services. SIR DYCE DUCKWORTH, WILLIAM OSLER, E. J. WALLACE, WILLIAM TURNER, T. D. SAVILL, WILLIAM SYKES, JAMES BARR, SURGEON-GENERAL H. S. MUIR, SURGEON GENERAL CUFFE, WILLIAM CALWELL, and SURGEON-COLONEL WELCH.
2. A Discussion on Recent Vaccination Legislation and the Prevention of Smallpox. EDWARD C. SEATON, C. R. DRYSDALE, JOSEPH GROVES, J. BRASSEY BRIERLEY, T. GARRETT HORDER, and HENRY MAY.
3. The Technic of Vaccination. COLIN CAMPBELL.
4. Meat Inspection and the Abolition of Private Slaughter-houses. E. PETRONELL MANBY.
5. A Discussion on the Personal Communication of Tuberculosis, and the Measures Available for its Prevention. JOSEPH GROVES, ARTHUR NEWSHOLME, EDWARD C. SEATON, SIDNEY DAVIES, FREDERIC ALDERSON, and GEO. WILSON.
6. Overcrowding in Secondary Schools. R. SYDNEY MARSDEN.
7. Death Certification. J. BRINDLEY JAMES.
8. Reform in the Coroner's Court. J. BRINDLEY JAMES.
9. The Bacillus Diphtheriæ in Milk. J. W. H. EYRE.
10. The Disinfection of Books and other Articles Injured by Steam. W. H. SYMONS.
11. A Discussion on the Means of Preventing the Spread of Infection in Elementary Schools. ARTHUR NEWSHOLME, SYDNEY DAVIES, H. R. KENWOCD, A. MEARNS FRASER, J. ROLSTON, WALTER SMITH, and JOSEPH GROVES.
12. The Early Decay of the Teeth in Britain. JAMES CANTLIE.
13. The Frequency of Sick-Room Infection in Typhoid Fever. HERBERT PECK.
14. The Influence of Prolonged Standing in the Production of Women's Diseases; an Analysis of 100 Cases taken Alphabetically from the Records of St. Margaret's Home, Glasgow, re the Parliamentary Bill for Shop Girls' Seats (Scottish Section). J. STUART NAIRNE.
15. An Investigation into the Bacteriology (Aërobic) of the Air as Found in Schools. R. ATKINSON DOVE.
16. Preliminary Note on Some Experiments to Determine the Comparative Efficacy of the Different Constituents of Haffkine's Plague Prophylactic. C. BALFOUR STEWART.
17. On Medical Reform; A Brief Retrospect and Prospect. Presidential Address Delivered at the Jubilee of the North Wales Branch. W. JONES MORRIS.

1.—The general opinion of those taking part in the discussion was that **the physical examination should precede the literary.** Osler found three common causes of unnecessary rejection: (1) The presence of a cardio-respiratory *bruit;* (2) the systolic murmur at the pulmonary area which is frequent in young men with thin chests; (3) adolescent albuminuria. [A.G.E.]

2.—In discussing **recent smallpox legislation** the point of attending to sanitation as well as vaccination, was made. Some urged the isolation of cases by removal to smallpox hospitals maintained by the State. The German method, vaccination in infancy and revaccination at the age of 12, was commended. This has practically wiped out the disease in that country. [A.G.E.]

4.—The **method of meat inspection in Leipzig** is given in detail. Points are: (1) No private slaughterhouse exists; (2) All slaughtering is carried on in the public slaughter-halls, under sanitary surroundings, and the work of meat-inspection is enormously facilitated thereby; (3) All meat brought into the town has to be taken to the central office for inspection before being sold; (4) Microscopic and other examinations of meat are carried out; (5) All meat passed as sound is stamped in several places with the official stamp, showing that it is fit for human food; (6) bad meat is taken away and destroyed by the municipality. Compensation is made for the closure of private slaughterhouses. [A.G.E.]

5.—The question of **notification of cases of phthisis** was discussed. General opinion was against making it compulsory. Official sanitary organization and inspection is necessary. Newsholme would not wait until after a patient's death to disinfect and clean a house, but would do this before. [A.G.E.]

6.—Marsden suggests that health-officers be given the same **supervision and authority over schools** that they have over workshops as regards ventilation, drainage, etc. [A.G.E.]

7.—The French method of appointing in every district **a medical magistrate,** who must view every corpse and give the death-certificate, is commended. [A.G.E.]

9.—Eyre obtained the **bacillus diphtheriæ from samples of the milk-supply of a large school** where a number of cases of diphtheria had occurred. Staining, cultural, and pathogenic characters seemed to leave no doubt of the identity of the organism. [A.G.E.]

10.—Methods of **disinfecting by means of formalin** are described. Formalin is not considered satisfactory but is believed to be better than hot air. [A.G.E.]

11—Newsholme believes in **medical visitation of schools.** This might also be extended to visitation of absentees at their homes. This would be for diagnostic purposes and treatment until the case could be transferred to the family practitioner. [A.G.E.]

12.—Cantlie does not **ascribe carious teeth to the developmental changes of civilization** but considers causes which are capable of demonstration and arrest. Infants fed on bottles often get too hot food, thus making the gums sodden and withdrawing nutrition from the dental sacs. Letting the child suck a piece of rubber after withdrawing the bottle is pernicious. The muscles employed in sucking become hypertrophied and the upper jaw and hard palate are deformed, causing nasal obstruction. To preserve the teeth great care is needed during the first two years of life. [A.G.E.]

13.—Of 206 cases of **typhoid fever** investigated, 28 were found to be **derived from previous cases by actual sick-room infection.** The conclusions reached are: (1) that sick-room infection is more common than is supposed, and that the danger of it does not receive the amount of attention it deserves; and (2) that sick-room infection is much commoner in the small and often crowded houses of the poor than in the larger houses of the well-to-do. [A.G.E.]

14.—A study of **the effects of prolonged standing by girls** gives the following summary: (1) Seven per cent. of unmarried shop girls only come for medical attendance, but (2) 40 % of married women who have been shop-girls come under medical attention at a very early period in their married life, mostly under 30 years of age. (3) Out of the 7 % of single woman, 3 come with diseases special to women, and out of the 40 % of married, 27 come with the (4) same class of disease, so that we have a clear 30 % of women who are or have been shop-girls suffering from these special diseases. [A.G.E.]

16.—The results of experiments seemed to show that both the **filtrate** and the **sterilized sediment possess prophylactic properties.** [A.G.E.]

17.—A liberal preliminary education is urged and the necessity of but one portal, a thorough examination, for entrance to the profession. [A.G.E.]

Lancet.

Sepember 2, 1899. [No. 3966.]

[This number is devoted entirely to editorial and other articles relating to educational institutions and methods of study.]

New York Medical Journal.

September 16, 1899. [Vol. lxx, No. 12.]

1. Atypical Forms of Pneumonia. A Clinical Study. E. PALIER.
2. Hysterical Blindness. ARTHUR T. MUZZY.
3. Seasickness. J. CARLISLE DE VRIES.
4. Epiphyseal Separation of the Ends of the Humerus. MICHAEL LUCID.

5. Clinical Report of an Epidemic of Infantile Diarrhea. ISAAC J. JONES.
6. Epileptic Eye-strain. C. M. CAPPS.
7. Glaucoma following Supraorbital Neuralgia of Malarial Origin. LOUIS A. BIZE.

1.—Under the head of **gastric pneumonia** Palier describes a case in which **abdominal disease was so strongly simulated** that the diagnosis of peritonitis was made by a consultant, and an operation for appendicitis was done. No lesion was found. Autopsy showed an empyema in addition to the pneumonia. The abdomen was normal. Palier believes the abdominal symptoms in such cases to be due to a deficiency in nerve-force, transmitted to that region because the pneumogastric center is disturbed by the altered respiration. Abdominal pain is thus explained on the same basis as pain in the knee accompanying hipjoint disease. This seems more plausible than the toxemic theory. He also states that when the severity of the symptoms are out of proportion to the extent of lung involved, an empyema may be suspected, and puncture should be made. Treatment of pneumonia is discussed, but he interferes with the course of the disease as little as possible. [A.G E.]

2.—Some **phenomena of hysterical blindness** are discussed, with notes of cases. Muzzy does not find that girls are the most frequent victims. The commonest form of hysterical affection is concentric contraction of the visual field. Treatment is unsatisfactory, improvement of the general condition serving best. [A.G.E.]

3.—DeVries asserts that **seasickness is not beneficial** and should not be sought any more than should diphtheria. To prevent it he advises a purge before sailing, and 20 grains of sodium-bromid at 7 A.M., this dose being repeated one hour before sailing. Persons should remain on deck constantly except for meals and bed. Cold food should be avoided. [A.G E.]

4.—Lucid reports three cases of **epiphyseal separation of the ends of the humerus,** one occurring in a boy of 13, who fell, striking his left shoulder and producing separation of the upper epiphysis, which was not recognized and treated until 12 days after the accident. The other two cases were of separation of the lower epiphysis. In the treatment of this injury the use of the Esmarch bandage to reduce the swelling is recommended, then anterior and posterior angular splints are applied with pressure pads over the site of separation. Passive motion is begun in about 7 days and is resorted to every other day. Excellent results were obtained in all of the cases. [M.B T.]

5.—Jones writes of **an epidemic of infantile diarrhea** in Austin, Texas, caused by exceedingly dry weather and accumulated dust. Great difficulty was met in getting parents to give sterile food. Relapses in many cases were caused by giving food in glasses exposed to the fine dust. Food should always be prepared from hot water. He gets good results from the use of lacto-somatose as a food in these cases. [A.G E.]

6.—Two cases of **astigmatism causing epileptic convulsions** are reported. [A.G.E.]

7.—Periodic attacks of **glaucoma** caused suspicion of a malarial origin. A course of quinin caused complete cessation of the trouble. [A.G.E]

Medical Record.

September 16, 1899. [Vol. 56, No. 12.]

1. Floating Liver and its Clinical Significance. MAX EINHORN.
2. The Practical Treatment of Typhoid Fever. BASIL M. TAYLOR.
3. Facts and Fallacies in Urinalysis. THEODORE WILLIAM SCHAEFER.
4. Demonstration of Two Cases of Exstrophy of the Bladder with Suggestion for a New Operation. J. H. BRANTH.

1.—Einhorn defines **floating liver** as a liver which has fallen downward and can usually be restored to its normal position by manipulation. As pathologic factors he mentions tight lacing, frequent pregnancy, which often produces pendulous abdomen, lifting, carrying heavy burdens, falls, etc. As to its frequency he states that he has seen 30 cases out of 804 patients that have come under his observation during the past 5 months; approximately 3 7% of all persons suffering from digestional disorders; it is relatively more frequent in the female. The condition may be divided into 5 groups according to the symptomatology; cases unaccompanied by symptoms, cases with indefinite digestive disturbances, cases of hepatalgia, of hepatic colic, and asthmatic cases. A number of histories are given illustrating these various conditions. [M B.T.]

2.—Taylor contributes an article on the **treatment of typhoid fever.** He divides his patients into those who are healthy before the attack, and those who have suffered with chronic disease for some years. In the former case, it is important to give the patient food at longer intervals than are usually employed. He believes that the administration of milk every two or three hours gives the stomach constant work and gradually exhausts it. He does not believe in the use of stimulants, particularly whisky, and purgatives should be absolutely avoided. In regard to the diet, he does not object to solid food taken in proper quantities and at proper intervals. Juice of oranges and lemons should be frequently given; antifebrin may be employed to reduce the temperature. If the tongue is dry, turpentine, creasote, or carbolic acid may be administered, the two latter in association with tincture of iodin. The colon should be irrigated two to three times a day, and once or twice per day the entire body should be sponged with warm water. If the stomach refuses to absorb water, hypodermoclysis may be employed. In cases of long standing chronic disease, the important thing is to watch the stomach, otherwise the treatment is about the same. [J.S.]

3.—Schaefer **discredits the boiling-test for albumin** for the reason that in many conditions other substances present in the urine may be precipitated. The amount of phosphate excreted does not appear to depend entirely upon conditions that are well known, even increased brain-activity will not produce. If the urine is highly acid and contains few mineral salts and a small quantity of pigment, and has stood for any length of time, there is marked tendency to the deposition of urates or uric-acid crystals. In summer, this deposit does not occur so constantly on account of the increased temperature of the atmosphere. The quantitative estimation of uric acid is of doubtful value clinically. The importance of calcium oxalate as an indication of disease is also questionable. Fehling's solution is not a certain indication of sugar. Casts do not necessarily mean the presence of Bright's disease, and Ehrlich's diazo-test is practically valueless. [J.S.]

4.—Two cases of **exstrophy of the bladder** are reported, both occurring in boys, one of whom was 9 years old, the other 9 months. Branth operated upon the elder patient three years ago. The ureters were catheterized, and the thin rubber drainage-tubes were brought out of the wound. By a mishap one became dislodged and urine infiltrated the operative field and prevented the success of the operation. [M B.T.]

Medical News.

September 16, 1899. [Vol. lxxv, No. 12.]

1. Röntgen-ray Examinations in Incipient Pulmonary Tuberculosis. FRANCIS H. WILLIAMS.
2. Climate and Renal Diseases. J. B. WALKER.
3. A New Operation for Inguinal Hernia. CARL BECK.
4. Concerning Colorado. SAMUEL A. FISK.
5. The Occurrence of Cheyne-Stokes Respiration During Sleep a Diagnostic Symptom in the Early Stages of Interstitial Nephritis. CHARLES O'DONOVAN.
6. Esophagotomy for the Extraction of an Impacted Tooth-plate of Six Years and Four Months' Standing. G. G. EITEL.

1.—Walker contends that it is frequently possible to obtain as good effects from the dry sandy soil and equable climate of the New Jersey coast in cases of chronic interstitial nephritis, as from a sojourn in the West or the South. He considers the nature of the soil of at least as great, if not more importance, than the climate itself. [J.S.]

3.—Beck proposes a new radical **operation for inguinal hernia.** The lower third of the rectus abdominalis

having been exposed, it is cut obliquely across ⅓ of its width and split longitudinally so that a muscle-flap may be turned down and fastened to the conjoined tendon on one side and Poupart's ligament on the other. The cord is placed externally so that it rides on the flap. The gap in the rectus is closed by suturing the cut edge of the rectus to the broad abdominal muscles. Three cases were thus operated on and the operation seems a perfect success up to the present writing. [G B.W.]

4.—Fisk calls attention to the climate in Colorado, particularly the amount of sunshine, the slight humidity, and the dryness of the soil. He also urges, as contributory advantages, the excellent food supplied, and the opportunities for work. He reports 2 patients who were cured of pulmonary tuberculosis and able to return East and resume their ordinary life. [J S]

5.—O'Donovan reports the case of a man, about 54, without bad habits, or important previous history. He was, however, a smoker. His urine was negative; all the organs appeared to be sound; the only symptom being the occurrence of **Cheyne-Stokes respiration** at night, particularly after severe labor or excitement. This continued for about 7 years. He died of renal insufficiency; the diagnosis of Bright's disease was made only a few months before his death. In the latter stages of the disease, Cheyne-Stokes respiration appeared also in the daytime. The second patient, a woman of 52, also developed nocturnal Cheyne-Stokes respiration. No albumin was found in the urine, but she subsequently developed Bright's disease and died in uremic coma. The third patient, a man of 72, developed Cheyne-Stokes respiration, also exclusively nocturnal, 4 years before his death. O'Donovan believes that the occurrence of this symptom may frequently aid in clearing up an obscure diagnosis. He thinks it would be valuable to make observations on a considerable number of hospital patients, and to have the nurses instructed for this purpose. [J S.]

6.—A woman, 27 years of age, had swallowed, 6 years and 4 months previously, a portion of her **tooth-plate,** which had lodged **in** her **esophagus.** From that time to the present she had gradually increasing difficulty in swallowing. Attempted removal by forceps failed, and esophagotomy was carried out. The plate was found and removed, and a very tight stricture dilated. The wound healed by granulation, leaving a large ugly scar, which was cut out later. A large-sized bougie was passed once a week for about 2 months. [G.B.W.]

Boston Medical and Surgical Journal.

September 14, 1899. [Vol. cxli, No. 11.]

1. Intussusception. John C. Munro.
2. The Growth and Extension of Carcinoma. William T. Councilman.
3. Two Cases of Injury of the Cord Resulting From Fracture of the Spine. John Jenks Thomas.
4. Growth and Sociological Conditions. Arthur MacDonald.
5. An External Application in Scarlet Fever to Shorten the Period of Desquamation and Diminish the Danger from It. Francis H. Williams.

2.—Carcinomas are tumors composed of epithelial cells growing from spaces called alveoli, which are in a connective tissue containing bloodvessels. The characteristics of these tumors are, that they are capable of attracting to themselves a supply of nourishment at the expense of the surrounding tissue. To this is due in part their rapid extension. Because the blood-supply comes from the periphery this region is more vigorous, and better developed, and grows more rapidly. Metastases may occur either by route of the blood or lymph-channels. Particularly metastasis to the adjacent lymphatic glands is almost universal and occurs very early in the course of the tumor. In regard to etiology Councilman discusses four theories: (1) That of trauma, which does not hold because carcinomas do not grow most frequently on the parts most exposed, as the hands; (2) the theory of the degeneration of the connective-tissues, with relative and later absolute increase in the epithelial tissues, as a result of the loss of resistance; there is no evidence to support this; (3) a theory supported by Cohnheim, of embryonal residues; subsequently modified by Ribbert who suggested that the source of carcinoma was dislocated epithelium; (4) the theory of the parasites. In favor of these, are first, the apparent increase in the number of deaths caused by malignant tumor. Councilman believes that this increase is really apparent and due partly to more accurate statistics. Secondly, the cachexia. Third metastases resembling those of chronic infectious disease. As a matter of fact, however, in the latter, the changes are a combination of proliferation and degeneration, essentially similar in type in all these forms of disease; whereas, in carcinoma, a definite form of tissue is produced that may be reproduced in distant organs. It is difficult to understand how parasites could cause this. The curious cell-enclosures that have been described by many authors in cancer-cells have never been identified. Councilman, however, does not wholly discard the parasitic theory. He calls attention to the very slight progress that has been made in the knowledge of malignant tumors in the last 25 years. [J.S]

3.—(Conclusion.) Thomas says favorable results cannot be obtained by operation, in **total crush of the spinal cord.** It is only in cases where the lesion of cord is a partial one, that we can hope for relief. Pressure on the cord from fragments of bone exists practically only where the arches are crushed in by direct violence. Fragments of the bodies of the vertebra being supported by the strong anterior ligament are prevented from pressing on the cord. Pressure, however, may be caused by the displacement of one vertebra upon another, but this may be relieved by extension and by forcibly flexing the spine. Therefore practically the only cases in which operation offers any reasonable amount of hope of relief are those where from direct force or otherwise the arches of the vertebras have been crushed in. And in these cases the surgeon is often baffled by the finding of irreparable damage to the cord. [G.B.W.]

4.—MacDonald has compiled a number of tables with the object of showing the influence of **sociologic conditions** upon the growth of children. These show that poor people, particularly in the Continental countries of Europe, are less in height and weight than the wealthy classes. Certain modifications of growth, as excessive size of the head, are often associated with deficient growth in other parts of the body. In England there is a difference of 5 inches in the average stature of the best and worst nourished classes in the communities. In Germany the difference is about 4 cm. Defective children, curiously enough, sometimes are heavier and taller than the average of their comrades of the same age. [J.S.]

5.—Williams advocates a mixture of 1 part of glycerin and 7 parts of hydrogen dioxid, with the addition of a little hydrochloric acid, for the purpose of **anointing the skin in scarlet-fever patients** during desquamation. This application diminishes the duration of the desquamative stage and prevents infection. [J.S.]

Journal of the American Medical Association.

September 16, 1899. [Vol. xxxiii, No. 12.]

1. Profitable Medical Education. Henry O. Walker.
2. Gall-Stones. Joseph Ransohoff.
3. Gall-Stones. Andrew J. McCosh.
4. Our Tubercular Patients. J. Frank McConnell.
5. Treatment of Endometritis by Drainage and Irrigation. Augustin H. Goelet.
6. The Importance of a Knowledge of the Development or Evolution of the Child in the Prevention of Children's Diseases. E. Stuver.
7. Prognosis of Laryngeal Tuberculosis. Robert Levy.
8. Relation of Uterine Disease to Some of the Insanities. C. C. Hersman.
9. Treatment of Chronic Croup. Edwin Rosenthal.
10. What are Antitoxins? R. G. Eccles.
11. Condensation and Preservation of Milk by Refrigeration. Henry O. Marcy.
12. Non-Malignant Strictures of Rectum. Joseph B. Bacon.

1.—In discussing **medical education** Walker points out the necessity for making the instruction suited to turn out practising physicians who are more needed than scientists. Even with our higher entrance requirements the student is only an average man and the teaching should be suited to his needs. There is danger of the enthusiasm over labora-

tory methods leading to a crowding out of other important training. Instruction in physics, botany and zoology, general chemistry, embryology and elementary physiology and bacteriology might well be relegated to preparatory schools. The didactic lecture, quiz, laboratory and clinic, each has its place, but the clinical teaching is most important. The adoption of the metric system is advocated and to hasten its introduction it is suggested that no other system be taught in medical colleges. [M B.T.]

2.—See this JOURNAL, Vol. III, p. 1271.
3. " " " " " " 1271.
4. " " " " " " 1329.
5. " " " " " " 1277.
7. " " " " IV, " 16.
9. " " " " " 16.

12.—Bacon believes that the prognosis for the cure of **stricture of the rectum** by the usual methods is very poor. Divulsion is followed by an alarming death-rate, and dilatation by bougies, proctotomy and end-to-end anastomosis often give only temporary relief. These methods fail to meet approval, because of new fibrous tissue forming and reuniting the severed stricture-bands; because of incontinence; because of the high death-rate, or because of contraction of the lateral anastomosis opening. The following operation has been devised, and has thus far proved successful in cases in which it has been used. For high stricture first intestinal anastomosis is done between the sigmoid flexure and the rectum below the point of stricture. To sever the stricture a clamp forceps with a lock similar to an obstetric forceps is inserted, one blade through the anus and into the sigmoid through the buttonhole, and the other blade through the stricture along the rectal wall. The forceps are now locked and a rubber ring drawn over the handle so as to clamp the septum gradually for two days; then the handles are firmly compressed as an ordinary catch forceps and left to produce pressure-atrophy of the septum until they completely sever it. [M.B.T.]

Archives of Pediatrics.

July, 1899. [Vol. xvi, No. 7.]

1. Acute Inflammation of the Middle Ear, Complicating Scarlet Fever and Measles. CHARLES H. MAY.
2. Acute Middle-Ear Inflammation as a Complication of Scarlet Fever and Measles. DAVID NEWTON BLAKELY.
3. An Old Method for the Home Modification of Milk. JOHN LOVETT MORSE.
4. Treatment of Pneumonia by the Ice-Pack. FLORENCE BRANDEIS.
5. Unusual Persistence of the Infective Principle of Measles. J. HOWE ADAMS.
6. On Antenatal Therapeutics. J. W. BALLANTYNE.

1.—May finds that **otitis complicates measles less frequently than it does scarlet fever,** and in the former is more apt to be catarrhal in form and mild in its course. Aural complications occur in about 20% of all cases of scarlatina and are more common during the colder months. There are two forms of otitis, the catarrhal and purulent. The symptoms are ordinarily milder in the catarrhal form. The difference in the character of the inflammation depends upon the nature of the infection—the microorganisms which seem responsible for the invasion of the tympanum. While bacteriologic investigations have not given us sufficiently definite knowledge regarding the variety of microorganisms giving rise to these inflammations, it seems likely that the streptococcus is the cause of the very severe forms of acute purulent otitis. The condition results from an extension of the inflammation of the throat and nose through the eustachian tube; hence its severity usually corresponds to that of the throat symptoms. A rise in temperature accompanied by an increase in the constitutional symptoms occurring at the end of the first week of scarlatina suggest the complication under consideration. The temperature rises to 102° or 103° F. This is followed by intense pain, referred to the depth of the ear, and often radiating to the branches of the fifth nerve, a feeling of fulness and throbbing, various noises, deafness and sometimes vertigo. These symptoms are continuous, but worse at night. In children too young to describe their symptoms, the condition is suggested by seeing the hand frequently placed on the affected ear or corresponding side of the head, and by the affected side being rolled into the pillow. Examination of the membrane shows in the early stages some redness, general or confined to a portion of the membrane. When limited to the upper part, the inflammation is likely to be purulent in form and severe. In this latter form the constitutional and local symptoms are more severe than in the catarrhal form, and the membrane usually perforates later with the escape of pus. After the early stages, examination of the drum shows local or general bulging. Sometimes it is possible to note the level of the secretion in the tympanum, or a yellowish or greenish-yellow discoloration, indicating the existence of pus. Resolution sometimes occurs during the early stage, the products escaping through the eustachian tube; this is more common in the catarrhal form. Perforation is more apt to occur, usually through the posterior part of the membrane; it may occur in any portion. The symptoms usually abate following such an occurrence, although the fever may persist for a day or two. In the mild catarrhal cases the perforation soon closes, and recovery follows without damage to the ear; in some of these cases, however, a chronic purulent inflammation of the middle-ear succeeds; less often a chronic catarrhal otitis media. In the minority of cases the opening may close after perforation in the purulent form and perfect hearing remain. Often chronic purulent inflammation of the middle-ear succeeds with some sloughing of the lining of the tympanum and caries of the ossicles and bony walls. This, of course, causes impairment of function and menaces the general health, and creates the possibility of extension of the inflammation to the mastoid and meninges, and the formation of cerebral abscess and thrombosis.

The treatment is divided into (1) preventive, (2) abortive, (3) paracentesis of the drum. The first involves swabbing the throat and nose with a ¾ of 1 percent solution of sodium chlorid. If the condition develops, the abortive treatment should be commenced promptly, and consists of absolute rest, an opiate to obtain sleep, acetanilid and caffein to relieve pain, evacuation of the bowels, light diet, and even room-temperature. Locally dry heat should be applied, or hot water (115° F.) be allowed to run into the canal. The application of leeches is useful. The author advocates inflation in the eariy stage by the Politzer method, or preferably by means of the catheter. The throat and nose should receive a thorough preliminary cleansing, and inflation should be done very gently.

Suction of the tube and tympanum is also useful. It consists in the employment of a current of air in the reverse direction to that used in inflation. If the symptoms continue for 12 hours, or if they are less during the day and worse at night, the drum-membrane should be opened at the point of greatest bulging by means of the Graefe cataract-knife. The incision should be bold. It is often necessary to enlarge spontaneous openings. After the incision, a little absorbent cotton should be put loosely in the meatus and the child laid on the affected ear. No irrigation is needed if the secretion escapes freely; otherwise, a warm antiseptic irrigation is indicated. In many properly treated cases the discharge will cease in a day or two and the opening close. In some cases the relief from this procedure is temporary, and the operation must be repeated. Aural complications in scarlatina and measles are less frequent than formerly, and fewer cases of chronic middle-ear disease follow them. This improvement is due to (1) a milder type of scarlet fever in recent years, (2) the earlier removal of adenoids, (3) a more careful treatment of the nose and throat during the progress of the disease, (4) the more frequent and earlier resort to paracentesis. [S M.H.]

2.—Blakely concludes from a study of **acute middle-ear disease as a complication of scarlet fever and measles** that: (1) The condition occurs frequently in both scarlet fever and measles; (2) a little oftener in measles than in scarlatina; (3) in scarlatina, though a frequent complication in children it is rare in adults; (4) in measles, though more frequent than in adults, it is not uncommon in the latter; (5) it may begin at any time in the course of the disease; (6) all grades of severity are met; (7) early treatment tends to shorten the course of the inflammatory process; (8) so far as danger to life is concerned it is not a serious complication. [S.M H.]

3.—Morse relates **a method for the home modifica-**

tion of milk which originated with a Paris physician some forty odd years ago. The percentages obtained from the formulæ are not very different from those in use today. [S.M H.]

4.—Brandeis successfully treated an attack of pneumonia in a boy aged 8 years by the application of ice-bags. [S.M H.]

5.—Adams relates the following circumstance showing **an unusual persistence of the infective principle of measles:** Four children in the same family had measles—all recovered. Their clothes, the bedding and apartments were carefully disinfected. Another child, born to the mother 13 months later, was wrapped, at birth, in one of the blankets which had been used during the outbreak of measles, but which had been stored away during the interval. On the tenth day the infant developed typical measles, from which it recovered. There was no other possible means of infection. [S.M.H.]

American Gynecological and Obstetrical Journal.

May, 1899. [Vol. xiv, No. 5.]

1. The Consideration of Vaginal Fixation in the Treatment of Retroversion. E. E. MONTGOMERY.
2. Alexander's Operation. CHARLES P. NOBLE.
3. Suspensio-Uteri and Intraperitoneal Shortening of the Round Ligaments. RICHARD C. NORRIS.
4. The Non-operative Treatment of Retrodisplacements of the Uterus. F. HURST MAIER.
5. The Causation of Uterine Retrodisplacements. WILMER KRUSEN.
6. Diagnosis of Retrodisplacements of the Uterus. JOHN M. FISHER.
7. Presentation of a New Ecraseur: Its Advantages over Ligatures and Clamps in Intrapelvic Surgery. J. DOUGALL BISSELL.
8. Imperforate Anus, with Report of Cases. V. A. ROBERTSON.
9. Early Diagnosis of Cancer of the Pelvic Organs. C. C. FREDERICK.
10. The Management of Labor Cases in Private Practice. ALLEN M. THOMAS.

Nos. **1** to **6,** inclusive, see PHILADELPHIA MEDICAL JOURNAL, March 11, 1899, pages 523 and 524.

7.—Bissell describes a **new écraseur** working upon the same principle as Doyen and Tuffier's instruments. The écraseur and angiotribe are identical in purpose. The vessels at the point of greatest pressure have their inner tissues ruptured, which incurvate, resulting in the formation of a clot. The écraseur is more easily handled, weighing only a pound and a half, and can be used in a very limited space and in any direction. The angiotribe is broad and straight, weighing over three pounds and is difficult to manipulate. The ideal method is one which will act immediately, insure hemostasis, reduce to a minimum pain and the possibilities of introducing sepsis, and which leaves nothing to be subsequently removed. [W.K.]

8.—Robertson describes **imperforate anus** and its **treatment,** and reports 3 cases which he has seen. He advises that operation should be performed without delay, although some writers advise waiting until the rectum becomes distended and thus more easily discovered. When after a diligent search the rectal pouch cannot be found by the dissection in the median perineal line over the anal site, the gut should be sought for elsewhere, and opened preferably in the left groin. Vanburen advises that dissection should not be carried beyond 1½ inches depth in the perineum. [W.K.]

9.—Frederick discusses the **diagnosis of cancer of the pelvic organs,** and calls attention to the significance of hemorrhage from the genital tract. Pain is not an early symptom and in cancer of the uterus occurs only when the tissues outside of that organ have been invaded, and the possibility of complete removal of the malignant growth is past. In all cases of suspicious cervical growth microscopic examination of a piece of the suspected tissue should be made. If the cervical canal is involved, a sharp curet may be used to procure scrapings for diagnosis. Early diagnosis and early operations are the watchwords, if we are to save these women. We must teach American women that too frequent and too profuse bloody discharges from the genitals mean danger, and educate them to consult the doctor early. [W.K.]

10.—Thomas details the **management of labor cases** in private practice. The care of the pregnant, parturient, and puerperal woman and the newborn child is described. He pleads for the conscientious, serious performance of our work on all occasions, and the cultivation of a habit of watching closely, ever caring for, and never disregarding, the "little things." [W.K.]

Deutsche medicinische Wochenschrift.

July 27, 1899. [25. Jahrg., No 30.]

1. Is Sorrel (Rumex acetosa) a Poison? A Contribution upon the Diagnosis of Poisoning, L. LEWIN.
2. A Case of Diffuse Scleroderma of the Legs with Sharp Spinal Segmentation-Boundary. L. BRUNS.
3. A Universal Coloring-method for Blood-preparations. L. MICHAELIS.
4. Experiences in the Treatment of High-grade Myopia through Lens-extraction. VELHAGEN.

1.—Lewin complains that unless one is trained in the study of toxicology, he is likely to err seriously in reporting cases of poisoning. This statement was aroused by the recent report by Eichhorst in the same journal of a case of fatal acute nephritis in a boy, which he attributed to eating sorrel. Lewin considers that there is no proof that the sorrel caused the attack, since other plants may have been mixed with it, and there is no good evidence reported of actual poisoning through this plant. [D L E.]

2.—The case occurred in a man who had been well until 7 years before, when he noticed the appearance of a bright-red swelling on his right foot, which was at first thought to be erysipelas. This had spread, however, instead of disappearing, involving the whole right leg, and then appearing on the left side. Both legs and the lower part of the buttocks were affected, the most striking thing being the peculiar limitation of the swelling. Posteriorly, it began at the spine of the second sacral vertebra, and ran at this level toward each side for 12 cm.; from this point it became elevated somewhat toward the crest of the iliums, and the highest point was about a finger's breadth above the great trochanter. Then the line began to fall until it ran somewhat below Poupart's ligament to the inner side of the thigh. The genitalia were entirely normal. The condition of the skin varied. On the right foot, and on the lower third of the right leg, where the disease began, the skin was like parchment and thin; in other portions it was very greatly thickened and hard, and felt like dense leather, or gave the impression of being edematous. In some places it was bluish red in color; in older places, white. The motion of the knee and hip-joint was uninvolved, but the toes were immovable. There were notable trophic alterations in the skin on the right foot. Three nails were lost, there were numerous rhagadae, an ulcer had recently developed, and the sweat-secretion had disappeared, while the hair had grown excessively. As to the stages of scleroderma, Bruns divides his case into, first, a hyperemic stage or one of vasomotor paralysis; second, an elevated stage which may perhaps also be called the stage of edema; and third, the atrophic stage. He considers his case of much importance in the discussion of the **origin of scleroderma,** and believes that it speaks emphatically for a dependence upon nervous changes. There is fairly satisfactory testimony that the vessels of the skin are supplied by the same nerves that provide sensation to that portion of the skin, and the limitation of the disease in this case corresponded closely to the distribution of the nerves to the skin, so that he thinks that the only satisfactory explanation for this case is an origin in spinal changes. Further testimony for this belief is found in the fact that marked trophic changes were present. [D.L.E.]

3.—Michaelis's object has been to provide **a stain that will give a good picture of the nuclei of the leukocytes,** will stain the red blood-corpuscles and blood-plaques satisfactorily, and at the same time bring out the neutrophiles, eosinophiles, and basophiles, obviating the necessity that has previously existed of making at least two preparations in order to study the different points in the morphology of the blood-cells. He believes that he has

satisfactorily accomplished this by the following method: The dry smears are placed for one-half hour to 24 hours in absolute alcohol, or better, are fixed on a copper plate if the leukocytes are very numerous. The following solutions are then prepared: (1) 1% watery solution of absolutely pure methylene-blue; (2) 1% watery solution of chemically pure eosin. The distilled water used should be perfectly fresh, and not alkaline. A drop of hematoxylin introduced into it should give it only a yellowish tinge. If the hematoxylin gives the water a purplish tinge, freshly distilled water should be secured. Then from these solutions the following are prepared: (*a*) 20 cc. of absolute alcohol and 20 cc. of stock solution No. 1. (*b*) 28 cc. of aceton and 12 cc. of stock solution No. 2. The solutions (*a*) and (*b*) should be mixed only immediately before using. In that case they will keep well, excepting sometimes the methylene-blue solution. If any change occur in them they should not be used in carrying out this stain. Then for staining, one mixes 1 cc. each of (*a*) and (*b*), pours the mixture into a glass and covers the glass at once. The dry and fixed blood-preparation is then sunk to the bottom of this solution with the smeared side down, in order that no precipitate may form on the smear, and it must be carefully seen that the cover-glass does not float upon the top. The staining takes from a ½ to 10 minutes, and must be tested for each preparation. The first color noticed is pure blue. After a little time this gradually becomes red, and the staining should be stopped immediately if the red color has entirely replaced the blue; and if there are many leukocytes the stain should be stopped before this, otherwise one will find that the nuclei will be decolorized. If it is found that the methylene-blue has had too energetic effect the staining is done again and continued for a somewhat longer time. If, on the contrary, the methylene blue has been decolorized, the stain is carried out once more, but over a shorter period. [D.L.E.]

4.—Velhagen says that the study of the histories of certain cases of myopia, has shown that the lens does not become sclerotic by age, but rather, that through discission there is produced cloudiness and swelling of that body. This condition is the strongest indication for extraction of the lens in cases of marked myopia, and the results following this operation are very satisfactory. [G.B.W.]

Berliner klinische Wochenschrift.

May 29, 1899. [36. Jahrg., No. 22.]

1. Tabetic Club Foot with Spontaneous Fracture in the Röntgen Skiagraph. SCHULZ.
2. Upon the Secretion of Sugar, Following the Use of Copaiba. BETTMANN.
3. Concerning Hemolysin. P. EHRLICH and J. MORGANROTH.
4. Concerning Tanocol. ROSENHEIM.

1.—The case reported was one in which the skiagraph showed a fracture in a patient having a club-foot in conjunction with tabes. The rarefied structure of the bones of the foot was previously noted by Charcot. These fractures are readily understood when one realizes the alterations that take place in the cellular structure of the tarsal bones. There was no pain attending the fracture, and the deformity was first brought to the notice of the patient. At first he could walk about, but gradually a disability became manifest. [C L.L.]

2.—A patient with **gleet** had taken enormous doses of **copaiba balsam** (240 grains a day). On admission to the hospital he had polyuria and **glycosuria.** His father suffered from diabetes. To determine whether the use of the copaiba had had anything to do with the glycosuria, the drug was readministered after a period of abstention and under a strict diet. The quantity of sugar was noticeably augmented. When copaiba is taken normally a reducing substance appears in the urine, which responds to Trommer's test, but not to Nylander's or the fermentation-test, and deflects polarized light to the left. This levorotatory substance belongs to the paired glycuronic acids, and may easily be mistaken for sugar, the more so as free glycuronic acid is dextrorotatory like glucose. But glycuronic acid is not fermentable with yeast. Bettmann allowed the urine of his patient to ferment—all the dextrorotatory substance disappeared. The urine showed a slight reducing power and levorotation. From this it may be concluded that there was, under the use of copaiba, an increase of true sugar in the urine. In another case of diabetes, copaiba also augmented the sugar in the urine. Turpentine likewise produces an increase of sugar in diabetic urine. Bettmann found that copaiba was capable of provoking in certain cases an alimentary glycosuria. The already known diuretic properties of copaiba were confirmed. Regarding the pathogenesis of the glycosuria after the use of copaiba, the author makes the suggestion that it may be dependent on renal irritation. With regard to the first patient, the possibility of the excessive doses of copaiba-balsam having produced the diabetes, suggests itself. The history throws no light on the matter, but it is possible that as a predisposition existed, the balsam acted as the exciting cause. [D.R]

3.—In a previous article [see PHILADELPHIA MEDICAL JOURNAL, February 18] the authors had shown that by the subcutaneous injection of sheep's serum into goats the serum of the latter became endowed with the property of dissolving the blood-corpuscles of sheep's blood. Continuing these researches, they have now immunized two male goats with defebrinated sheep's blood, and find that the serum of these animals is strongly **hemolytic** for the corpuscles of sheep's blood. The solution of the corpuscles is due to the action of two hypothetic substances—the **immunkörper,** which is specific, and the so-called **addiments.** That the sheep's corpuscles fix the immunkörper of the goat-serum was proved as follows: The serum was allowed to act upon the sheep's blood for 24 hours at 0° C.—no dissolution occurred under such circumstances. The corpuscles were then separated by centrifugation, and it was found that they did not dissolve when taken up with salt-solution, but dissolved readily on the addition of addiment in the form of normal goat-serum. At room-temperature the blood-corpuscles rapidly fixed both the immunkörper and the addiment, so that the centrifugated corpuscles, washed free from serum with salt-solution, were abundantly dissolved when suspended in salt-solution and placed in the incubator. Differing from the serum of the first goat immunized and from that of other animals studied by Buchner and by Bordex which lost their hemolytic property when heated to 56° C., that of the two present goats suffered scarcely any change when warmed for ¾ hour to 56° C. This resistance is ascribed to a peculiar type of addiment which was not present in the other series hitherto examined. To study this question fully, it was necessary to isolate the immunkörper and the addiment separately. Ordinarily this is not difficult, as the latter is destroyed by moderate heat. This method was, however, not applicable to the serum of the two goats. It was found that by treating the serum with hydrochloric acid, the addiment could be destroyed, the serum losing its hemolytic power. That the immunkörper was still present, was proved by the fact that the serum could be reactivated. Tests with the isolated immunkörper showed that the red corpuscles of the sheep fixed exactly the quantity that in the active state was necessary completely to dissolve them. The addiment necessary for reactivating the hydrochloric-acid serum is contained in normal goat-serum. The addiment in the immunized goat was, it will be remembered, resistant to heat; the serum of several normal goats investigated contained a similarly resistant addiment; that of others contained one that was non-resistant to heat. Hence, there must be two kinds of addiment, either being capable of activating the immunkörper. The authors also take up the subject of the hemolytic properties of normal blood-serum. The normal hemolysins are probably of a complicated nature. They are readily destroyed by heat. Normal serum contains a substance (Zwischenkörper—intermediate body) analogous to the immunkörper, and like the latter, possessing two affinities—one for the corpuscles and one for the addiment. To the addiment of normal sera the authors apply the general term, **complement.**

It is not easy to separate the Zwischenkörper from the complement. It is only possible when the affinity of the former for the red corpuscles is greater than for the complement. At 0° C. the two, Zwischenkörper and complement, remain separate, and it is possible to eliminate the Zwischenkörper from such a mixture by the addition of red corpuscles which fix it. The authors then detail experiments which clearly show the existence of the two bodies—the Zwischenkörper and the complement—and prove that both are necessary to produce hemolysis. The hemolysins of normal serum are multiple; thus dog's serum dissolves the corpuscles of guinea-pigs' and rabbits' blood. By injection of hemolytic

serum in ascending doses, an antibody—**antilysin**—can be produced, which prevents hemolysis. Sometimes the injection of one hemolysin produces several antilysins. The origin of these bodies, as well as of the hemolysins, agglutinins, etc., is the same as that postulated by Ehrlich for the antitoxins—the bodies represent **lateral chains** given off by the cell-protoplasm to the blood. In view of the complexity of the chemistry of protoplasm, the great number of these substances present in the blood is not surprising. [D.R.]

4.—Tanocol is a compound of tannin and gelatin, which is but little altered by the gastric juice, and in doses of 1 gram (15 grains), several times a day, is a valuable astringent in irritation of the small intestine and in diarrheas. [D.R.]

June 5, 1899. [36. Jahrg., No. 23.]

1. Operative Treatment of a Case of Otitis Meningitis Purulenta. A. LUCAE.
2. Concerning Traumatic Tabes. A. ADAMKIEWICS.
3. Concerning Familiar Cystinuria. J. COHN.
4. A Modified Cauterization of the Prostate in Bottini's Operation. A. FREUDENBERG.

1.—The case reported of **purulent meningitis** had developed from a chronic otitis media. The operation disclosed a basilar meningitis confined to the temporal region. Only a slight amount of pus was discovered at the time of operation. The symptoms, however, did not subside till after a larger amount of pus discharged itself through the wound. The fact that impaired hearing is present on the other side in a case of otitis media he believes is due to hyperemia of the labyrynth and demands immediate and careful examination of the other ear. [C.L.L.]

3.—Cohn reports the case of a girl of 7½ years, from whom a grayish-yellow, friable, walnut-sized **cystin-stone** was removed by suprapubic lithotomy. The patient's family consisted of 12 persons, of whom the urine was examined in 10—7 had cystinuria; 3, the father and 2 sons, never had cystin in their urine. Careful study of the lithotomized girl's urine failed to corroborate Stadthagen's theory of the infectious origin of cystinuria. [D.R.]

4.—The **cautery** presented was similar in model to the author's modified incisor. It has a larger grip and can be kept cool by the circulation of water through it. It is not generally employed in operations on the enlarged prostate, as the incisor can be used more efficiently. It, however, has its uses as a cautery in attacking the lateral lobes and in the treatment of the incipient stages of prostatic disease. It has also been employed with gratifying results in spermatorrhea, ulceration of the neck of the bladder, or in essential spasms in this region, in incontinence of urine of certain grades, but especially is it useful in checking prostatic hypertrophy. The author believes that its employment in cases where there is irritation and frequent urination, but without residual urine to any great extent, its employment will prevent the onset of all the complications that follow catheterization. [C.L.L.]

June 12, 1899. [36. Jahrg., No 24.]

1. A Zenker's Pulsion-Diverticulum Combined with Intrathoracic Tumor. H. STARCK.
2. Serotherapy. W. KOLLE.
3. Concerning Nasal Lupus. HOLLÄNDER.
4. A Case of "Plaque Indurée" Upon the Penis. C. POSNER.
5. Concerning Traumatic Tabes. A. ADAMKIEWICZ.

1.—[*Continued*]

2.—Kolle's statistics give the results of the **serum-treatment of rinderpest** on South African farms. The recoveries amount to 86.1%, which is truly wonderful when compared with the mortality rate among untreated herds, *viz*, 90–95%. The injections are not only curative, but also prophylatic. Good results can only be anticipated when the injections are made during the first 3 days after the beginning of the fever. [D.R.]

3.—The general conception that **lupus vulgaris** of the nose leads to marked tissue-destruction is, in Holländer's opinion, erroneous. Two forms of nasal lupus are recognizable on the basis of present or absent tissue-destruction. The first, without destruction, is the grave form of dermal lupus which rarely affects the mucous membrane. The interior of the nose remains free, only the orifices of the body being occasionally involved through continuity. Glandular swellings are absent, and there is but little danger of extension to the upper air-passages and the lung. The disease begins sometimes about the face and spreads by accesses in the course of years, with occasional temporary improvement. The second variety is entirely different. The primary seat is in the **interior of the nose**; the destruction results externally and the descent to the upper air-passages are secondary manifestations. In time the nose is converted into a spongy, seeping, tuberculous mass. The distinction between the two groups is therapeutically important. In the first, operative removal is, on account of the great extent of surface affected, rarely possible. Small foci may be excised. In the second, extirpation is contraindicated and impossible. Three methods of **treatment** are applicable: Finsen's treatment with the **ultra-violet rays,** the **Röntgen-ray,** and the author's **hot-air cauterization.** The first is not utilizable as a rule on anatomic grounds; the second deserves a trial. In the third, a current of hot air (300°—400° C.) is directed against the part. The results have been excellent, as the numerous illustrations accompanying the present article show. The details of applying hot air cauterization are not given. [D.R.]

4.—Under the term **"plaque indurée,"** French writers have described a peculiar, hard, cartilage-like induration forming in the penis at its root. The thickening is at first small, the size of a pea, and grows gradually its depth and breadth, in extreme cases finally surrounding the entire penis as with a mantle. Pain is not present, but erection and copulation are impaired or abolished. The condition is incurable. Its cause it not known; syphilis plays no part. Posner reports a case in which the x-ray revealed, apparently, the existence of cartilage in the plaque. He thinks the condition is comparable to the penile bone normally found in rodents. dogs, etc. [D.R.]

5.—The author's theories and speculations culminate in the establishment of three types of tabes dorsalis: (1) The **ordinary** and most frequent type—this is a parenchymatous degeneration of the posterior columns, with ataxia, progressive character, and preservation of coarse muscle-power. Its cause is unknown, and it is incurable; (2) **traumatic tabes**—this resembles the former, but differs in etiology and its nonprogressive character; (3) **syphilitic tabes**—this begins in the bloodvessels of the posterior columns, and may be acute or chronic. The acute form is of endarteritic origin, and is curable; the chronic depends on interstitial changes in the posterior columns, is stationary, and incurable. Both syphilitic forms are characterized by motor weakness, moderate (in acute form), or absent (in chronic form), ataxia, and absence of sensory disturbances. In all forms of tabes, except in acute syphilitic tabes, in which they may vary somewhat, the kneejerks disappear. [D.R.]

Centralblatt für Gynäkologie.

July 1, 1899. [23. Jahrg., No. 26.]

1. An Afterword on the Puerperal Fever Debate of the Last Gynecologic Congress. F. AHLFELD.
2. Angiotripsy with Lever-forceps. LEOPOLD THUMIM.
3. Remarks on the Above Article. THEODOR LANDAU.
4. Entozoa in the Uterus. E. M. SIMONS.
5. On the Subject, Langhans' Cell-layer. HUBERT PETERS.

1.—Ahlfeld insists that the hot water, soap and alcohol **disinfection of the hands** is the only method which results in rendering the deeper layers of the skin sterile, thus preventing the danger of introducing the infectious germs into the vagina during an obstetric examination. He claims that, contrary to the opinion of Kroenig, alcohol is a disinfectant acting on all bacteria when in a moist condition. [W.K.]

2.—In *Centralblatt* No, 5, of this year, Thumim described a new **forceps to prevent hemorrhage in vaginal extirpation of the uterus.** In the present article he mentions the favorable results which he has since had from using his forceps in 63 cases, and describes a few changes he has made in the instrument. He says that he never has had a postoperative hemorrhage nor any injuries to surrounding tissues. Landau used the instrument in a nephrectomy and in an operation for appendicitis with good results. Thumim even believes that the angiotribe might be used in the ab-

dominal total extirpation of the uterus for myoma. He states that it is important that the ligaments grasped by the forceps should not be drawn too far out of their natural situation. [W.K.]

3.—Landau, in discussing the previous article by Thumim, after mentioning the brilliant results obtained by using the **angiotribe** in 103 cases of vaginal extirpation, goes on to comment on 9 of the cases in which the results were more or less doubtful. In 4 of these it was decided not to use the instrument; in 5 others it was necessary during the operation to use some other method of stopping the hemorrhage. [W K]

4.—Simons reports the case of a woman in which he found as a **cause of endometritis** the presence of oxyuris vermicularis in the vagina and uterus. [W.K.]

5.—After discussing the subject Peters comes to the conclusion that Langhans' cell-layer is developed, not as hitherto believed, from the mesoderm, but from the ectoderm, and is the remains of the trophoblast covering of the ovum. [W.K]

July 8, 1899. [23. Jahrg., No. 27.]

1. A Case of Repeated Fundal Incision. H. LUDWIG.
2. Injury to the Child's Eye During Delivery. HEINRICH CRAMER.
3. On the Thermophore in Obstetric Practice. LUDWIG KNAPP.
4. Plastic Closure of a Ventral Hernia by Means of a Myomatous Uterus. C. H. STRATZ.
5. On the Automatic Action of the Heart in the Human Fetus. E. OPITZ.

1.—Ludwig reports a case of a woman, 28 years old, with a rachitic pelvis, upon whom the **Cesarean section** with transverse fundal incision was twice performed with good results. [W.K.]

2.—Cramer reports a case of **delivery by forceps** in which the frontal bone of the child and the orbital arch were crushed and the cornea and sclera injured. He claims that the forceps were applied correctly and that the pressure which caused the injuries must have acted from both sides of the head. [W.K.]

3.—Knapp claims that the **thermophore** has the same future in obstetric practice that it has in gynecologic practice. The substance used to generate heat is sodium acetate, which in changing from a fluid to a solid state gives off considerable heat. The sodium acetate, or heating substance, is contained between the double walls of a cylinder. To set the apparatus in action the cylinder is placed in boiling water for 8 minutes, after which fluids in the central cavity of the cylinder will be kept warm for several hours. Knapp is constructing a thermophore irrigator according to plans of his own. [W.K.]

4.—Stratz reports a case of **ventral hernia** in a woman, 46 years old, multipara, who had undergone laparotomy, 8 years before, for left-sided pyosalpinx. He operated upon the case by loosening adhesions, replacing intestines, and sewing the myomatous uterus into the wound, passing deep sutures through skin, fasciae, abdominal muscles and uterus. [W.K.]

5.—An answer to the article by F. Neugebauer, in No. 17 of the *Centralblatt*. [W K]

Deutsches Archiv für klinische Medicin.

February 9, 1899. [Bd. lxii, Heft 3–4.]

7. Contribution to the Knowledge of Meningotyphoid Fever. LOEB.
8. The Action of the Preparation of Salicylic Acid, Particularly upon the Uric Acid and the Leukocytes. SCHREIBER and ZAUDY.
9. The Occurrence of Bence-Jones Substance in the Urine in Cases of Tumors of the Medulla of the Bones, and its Diagnostic Significance. ELLINGER.
10. Casuistic Contribution to the "Thorax on en-bateau" in Syringomyelia. KATTWINKEL.
11. The Color Reaction of the Blood in Diabetes Mellitus. (Bremer's Reaction.) HARTWIG.
12. Leukemia. HIRSCHLAFF.
13. Contribution to the Pathology of Measles. STEFFENS.
14. A Case of Multiple Melanotic Sarcoma with General Melanosis. HENSEN and NÖLKE.
15. The Character of the Urine in Intermittent Fever. HITZIG.
16. The Amount of Fat and Calcium Contained in the Arterial Walls in Atheroma and Arterial Sclerosis. GAZERT.
17. A Pedunculated Intratracheal Tumor Giving Rise to a Respiratory Flapping Murmur over the Lungs. BRAUER.

7.—Loeb reports an exceedingly interesting case. The patient, a boy of 18, was brought to the hospital with a history of having been sick for several days. He had become partially comatose, the limbs were spastic; their movements uncertain, but there was no roseolar eruption. The spleen was considerably enlarged and quite hard; the pupils reacted well, and vision was apparently good, but an ophthalmoscopic examination revealed papillitis of the right side. There was no tenderness over the spinal column. Both kneejerks were exaggerated, and there was also ankle-clonus. All the other reflexes were apparently slightly exaggerated. The urine did not contain albumin, and the Widal reaction was negative. The temperature showed a slight evening elevation. A lumbar puncture failed to obtain any cerebrospinal fluid. In the course of 2 or 3 days, intelligence returned; there was a miliary eruption; the spleen retracted, then reenlarged, and papillitis developed also on the right side. There was also later a slight pharyngitis. On the twelfth day of his stay in the hospital, the Widal reaction was positive. During convalescence, the patient complained occasionally of headache, but finally recovered entirely. The interesting features in this case are the differential diagnosis from meningitis; the existence of papillitis, and the exaggeration of the reflexes. Loeb collects the opinions of a number of observers who have found changes in the eye-grounds during typhoid fever. He believes that it is very probable that the papillitis that occurs depends ultimately upon meningitic changes. A number of authors appear to have observed the exaggeration of the reflexes, but it does not appear possible at present to state why this occurs. Many of these symptoms, however, are probably due to an increase in the intracerebral pressure, possibly the result of an increased amount of cerebrospinal fluid. It is, of course, not possible to decide whether this increase is due to a meningitic or to an angioneurotic process. The best method of making a **differential diagnosis between meningotyphus and meningitis** is manifestly the Widal reaction. It is also possible, however, to detect the bacilli either by a splenic puncture or by a lumbar puncture. Other aids are, of course, the diazo-reaction, the ophthalmoscopic examination, which may reveal miliary tubercles in the choroid coat, and a marked swelling of the spleen, although when this does not occur typhoid fever is not excluded. These cases should, of course, be treated as ordinary typhoid fever. A very full literature is appended to the article. [J S.]

8.—Schreiber and Zaudy have made a series of investigations upon the action of the preparations of salicylic acid upon the excretion of uric acid and upon the number of the leukocytes. The patient was kept on a normal diet for 6 days, and then received daily 3 grams of sodium salicylate. This experiment showed that there was a considerable increase in the excretion of uric acid after the administration of this drug. It was, of course, necessary to determine whether this was due to an increased leukocytosis. It appeared from some experiments upon a boy of 14, that the increase in the leukocytes preceded the increase in the excretion of the uric acid under the influence of the salicylic preparations. Finally, one of the authors performed a series of experiments upon himself, taking after the third normal day, 3 grams of sodium salicylate for 5 days, and 6 grams on the sixth. The leukocytes did not apparently maintain the same number throughout the day. There was, however, a slight leukocytosis, caused by the salicylate, which was always followed by an increase in the excretion of the uric acid. A comparison of the amount of uric acid secreted, and the acidity of the urine showed that the two were inversely proportionate to one another. Schreiber and Zaudy conclude that the effect of salicylic acid is due to the increased amount of antitoxins formed by the increased number of leukocytes. The **uric acid,** therefore, **is purely a degeneration product,** occurring in the course of the breaking down of the leukocytes. [J.S.]

9.—Ellinger reports the case of a man, 45 years of age, who had had attacks of chills and fever, recurring almost daily. There was gradual loss of strength, and the skin became somewhat yellow. The temperature, after admission to the hospital, was of a rather hectic type. About 4 weeks after admission, it was noticed that the urine became turbid when heated to 60° C., and became clear when boiled. This peculiar characteristic indicated the presence of **Bence-Jones' substance,** which was present in every specimen examined. The patient developed edema and died of exhaustion. At the autopsy, the only important changes were the presence of tumors in the ribs, the sternum, and the vertebra. The skull was apparently normal. Microscopically, these tumors showed the characteristics of the so-called myeloma or multiple lymphomata. Ellinger calls attention to the fact that it is almost impossible to diagnose diseases by mere examination of the urine, unless they are in the genitourinary tract itself. He therefore believes that the presence of Bence-Jones' substance only in cases of multiple myelomas of the skeleton, is exceedingly important, and of almost unique pathognomonic significance. Altogether, 16 cases of these multiple myelomas have been described, in 6 of which Bence-Jones' substance was observed. At the autopsy Ellinger was able to detect it in the blood and ascitic fluid, and found something that resembled it in the substance of the tumor itself. Injected intravenously into animals, it produced a diminution of the coagulability of the blood. It is not possible to ascribe to it the fever that occurred in the case, because its elimination had no relation whatever to it. The chemistry of this material is as follows; The urine is usually acid; when heated it becomes turbid at 50° and this increases to 62°; over 74° the turbidity decreases, but does not entirely disappear on boiling. The addition of nitric acid causes a strong turbidity and ultimately the formation of flocculent precipitate which is dissolved by heating. Neutralization has no effect. According to Esbach's urinometer from $\frac{1}{4}$ to $\frac{1}{2}$ per mille of Bence-Jones' substance was present in the urine. The Bence-Jones bodies are easily separated by precipitating them with 96% alcohol. In this condition they contain a large amount of phosphorus, which is probably due to the presence of nucleo-albumin. When burnt, the ash equals 0 2%. They give the biuret reaction, react to Millon's reagent, and show the characteristic albuminoid reaction with tannin, picric acid, etc. In fact, they behave in all respects as albumoses. Physiologically, they have about the same effect as Whitte's peptone, and produce narcosis and depression of the arterial tension. [J.S.]

10.—Kattwinkel calls attention to a **peculiar form of thorax that occurs only in syringomyelia,** and apparently in about one-fourth of all cases. This consists in a depression of the upper portion of the anterior wall of the thorax while the lower part remains almost normal. The division corresponds to a line drawn through the lower edges of the pectoralis major. The deepest point of this concave surface is usually placed slightly to one side. He reports a case of a man, 55 years of age, the symptoms of whose disease had commenced at the age of 36. The deformity was exceedingly pronounced. The head was bent slightly forward; the hands were held in the pronation position; the shoulders were elevated; the clavicles prominent and oblique, and the upper portion of the chest was flattened and hollowed from right towards the left. In regard to the nature of this deformity, Kattwinkel quotes Astié, who states that it cannot be due to atrophy of the pectoral muscles, because it occurs when these are not atrophied, and does not occur when they are absent for some other reason. Neither is it produced by deformity of the spinal column, and it therefore seems likely that it is in some way caused by a disturbance of the trophic centers. [J S]

11.—Hartwig has undertaken to test the accuracy of Bremer's statements regarding the **color-reaction of the blood in diabetes.** The first solution suggested by Bremer consisted of a mixture of a slightly acid and a slightly alkaline solution of methylene-blue and eosin; a later stain was formed by the alcoholic solution of the precipitate produced by the mixture of the watery solutions of the two stains, and the addition to it of eosin and methylene-blue; two modifications of these suggested by Goff, and finally consecutive staining by the two reagents. Altogether, 10 cases of diabetes were tested, in only two of which the blood reacted to the stain in the same manner as does normal blood. The first was an exceedingly mild case, and the second an accidental glycosuria following etherization. The reaction was also obtained in the case of a dog in whom alimentary glycosuria had been produced. These changes were not found in blood from cases of various other diseases with the exception of one case of leukemia, and one case of acute nephritis. Another case of leukemia showed a diminished tincturability to eosin. Normal blood mixed upon the cover-glass was not affected in its staining-reaction if treated by solutions of grape-sugar. The effects of alkalin or acid-solutions was not constant. Grape-sugar, however, invariably produced the diabetic color-reaction when mixed with fresh normal blood. Paloridzin, that produces a form of diabetes without increase of the sugar in the blood, does not cause the reaction. The sugar-solut on appears to have a dissolving action upon the hemoglobin of the blood, and the stronger it is the more intense this is, and the more characteristic the color-reaction. In conclusion, Hartwig believes that Bremer's reaction is constant in diabetes, and may occur occasionally in other conditions; that it is due to some reaction of the chemical substance hemoglobin with grape-sugar, but that the latter must be present in quantities of at least 0.15% to 0 2%. [J S.]

12.—Hirschlaff reports 2 cases of **leukemia** with the following peculiarities: The first was in a woman of 47 who had been healthy until 3 weeks before her admission to the hospital, when she had a severe cold with pains in the breast, and cough. She rapidly became weaker, had nightsweats and severe thirst, and occasionally attacks of dyspnea. When admitted, she was profoundly anemic, the red cells being less than a million, the hemoglobin being 25%; there was leukocytosis, and about 90% of the white cells were mononuclears. In the course of 10 days the proportion of cells changed slightly, the polynuclears amounting to 30%. Later there developed hemorrhagic diathesis, and the polynuclears gradually increased until they formed 60%. Death occurred from exhaustion. At the autopsy, aside from profound anemia and fatty infiltration of the organs, there were only punctiform hemorrhages. The case represents one of acute lymphemia, in which a change in the proportion of the white cells occurred coincidently with the development of the hemorrhagic diathesis. A second case occurred in a woman, 58 years of age, who, 4 years before death, had suffered from furunculosis with enormous enlargement of the spleen. She did not complain of weakness until about a year before death, and when examined, the liver extended 6 inches below the ribs and the spleen to the small pelvis. The white cells amounted to about one fourth of the red, and consisted almost entirely of lymphocytes. In spite of a severe phlegmonous inflammation of the thigh, the proportion of white cells did not change until symptoms of insufficient oxygenation appeared. The polynuclears then rapidly increased to 75%. At the autopsy the organs were anemic, and contained multiple punctiform hemorrhages. The spleen was hard, dark-red, and contained an infarct that had been diagnosed during life. Microscopically, it showed proliferation of the small cellular elements. The liver was also hard. This is a case of chronic lymphocythemia, and when compared with the other, showed that the type of the blood-changes does not appear to be of any prognostic importance. [J.S.]

13.—Steffens reports the **statistics of an epidemic of measles** that occurred in Tübingen and the surrounding vicinity. Altogether 322 were observed, of which 301 were under observation either before or immediately after the occurrence of the eruption. The interval between this and the preceding epidemic, 223 weeks, was exceptionally long, and explains the great number of cases that occurred. In regard to the immunity of infants, 41 cases in childen less than a year old were carefully studied, all of them being in families in which one or more members had been attacked by the disease; of these, 16 were infected, and 25 remained healthy; 23 less than 5 months old were not affected; 1 of 3 between 5 and 6 was affected, and all above this age acquired the disease. The youngest child, 5 months and 6 days old, had an extraordinarily mild case. 111 patients had temperature-measurements taken for some days before the appearance of the eruption, and 40 of these were already in the initial stages. Of the remaining 71, in 57 the temperatures were taken for some days before the prodromal stage, and in 33 the interval between the commencement of observa-

tion and the appearance of the eruption was at least 9 days. Careful measurements every 5 minutes on apparently healthy children showed that 33° C., or more, should always be regarded as a febrile condition. Of the 57 cases 36 showed no temperature until the eruption occurred. 11 showed a morning temperature of 37.6, or more; 10 showed from time to time distinct febrile reaction; and in 6 of the febrile cases all other irritants could be excluded. In these the temperature rarely attained 40°. Steffens, therefore, concludes that as a rule the incubation stage of measles is usually completely latent, but that there are occasional exceptions. In the 71 cases measured from the beginning of the prodromal stage, 69 showed the characteristic febrile elevation for 3 to 4½ days, before the eruption appeared. In most of these cases there was a distinct remission when the spots developed. Among the complications were varicella, scarlatina, pemphigus acutis, and diphtheria. In a number of cases there was croupous pneumonia, and in several otitis media. Ten cases died, a mortality of 3.1%. Of these 10 cases 8 had papillary bronchitis, and one acute gastroenteritis. In 2 cases the sections showed the presence of capillary tuberculosis, and in 5 rachitis, as complicating conditions; that is to say, in 19 cases of pure uncomplicated capillary bronchitis, only one death occurred, This Steffens ascribes entirely to the treatment, which consisted of placing the children, several times in the course of the day, in a hot bath, and then removing them and douching them with cold water, particularly in the region of the medulla. This had the effect of causing the children to take deep inspirations, and to cough, thus relieving the bronchial tubes of considerable mucus. [J.S.]

14.—Hensen and Nölke report the case of a peasant, 21 years of age, who had had a **melanotic sarcoma** removed from the skin. Shortly after this, he developed general pigmentation of the skin, nodules could be felt upon the liver, and death occurred from exhaustion. At the autopsy, not only in the skin, but in all the organs of the body, there was a distinct deposit of melanotic pigment in the connective tissue and in the connective-tissue cells. An exception was found in the kidneys, where the parenchymatous cells contained more or less pigment, that they were evidently in the act of excreting. The central nervous system was relatively immune, although the choroid plexus showed a moderate pigmentation, and pigmented emboli were found in the brain. The tumors were essentially sarcomatous in structure. In the skin, they were distinctly alveolar in type. The embolic foci showed proliferation of the cells through the walls of the bloodvessels. The pigment appears to have been distributed either in the form of granules or in a solution. The latter appeared to be dissolved in the blood-serum, and was in part excreted by the urine. Six rabbits were inoculated with portions of the tumor, but remained healthy. The urine was deep brown in color, but did not contain albumin, indican, or urobilin. The pigment was precipitated by baryta. Some of it was soluble and some insoluble in acid mixtures. Preparations were also obtained from portions of the tumors. The proportions of various elements of the tumors were C, 59.4; H, 6.16; N, 11.16; S, 7.57. These results correspond quite closely to those obtained by other investigators. Iron could be detected in the ash. An effort to estimate the amount of melanin contained in the urine gave the result of about 1%.

15.—Hitzig has carefully investigated the **constituents of the urine in** 6 cases of **intermittent fever** before, during, and after the attacks. He finds that the quantity of urine is increased during the fever, its specific gravity is decreased, and its color lighter. The maximum quantity is excreted during the pyrexic stage and was fairly constant throughout. During the period of perspiration, an increase occurred only very rarely. The total quantity of nitrogen was also increased during the fever. Its variations corresponded closely to the variations in the quantity of urine, and it seemed to change before the temperature. The urea varied closely in accordance with the changes in the nitrogen. The ammonia increased during the fevers, but not altogether in accordance with the increase of the nitrogen. It often continued in excess, however, after the fever had disappeared. Occasionally, the ratio of the ammonia to total nitrogen was increased as much as 25 to 100. The uric acid altered exactly as the total nitrogen, the sodium, and potassium were both increased during the fever, sometimes to 10 or 16 times the normal quantity. The chlorids were also greatly increased, but during apyrexia diminished. The phosphates were greatly diminished during the fever; the disappearance beginning before the temperature began to rise. [J S]

16.—Gazert has carried out a number of experiments upon 33 aortas which were removed as soon as possible after death. In 16 of these, he estimated the dried substance, the total nitrogen, the ash, and the calcium. In 17, in addition to these, he also made an estimation of the amount of fat. The results are given in a number of tables, and platted in two diagrams. The first 12 were practically normal, and showed a variation in the dried substance of from 20 to 24. The presence of nitrogen varied from 15 to 16.5; of fat from 2 to 5; of ash from 3 to 6; and of calcium from 0.25 to 1.22. Variations in the quantity of water contained were slight. In the pathologic aortas, that is, those with microscopic atheromatous lesions, the amount of nitrogen was increased. The amount of calcium showed the greatest alteration, being 15 to 20 times as much as was found in the normal specimens. There was also a great increase in the amount of fat, but this, curiously, did not hold good of those cases in which the greatest amount of change was evident. It appeared therefore, that **the fatty infiltration in the later stages of atheroma begins to diminish slightly.** Notwithstanding the variation in size and the difference in the length of the aortas removed, there was such a general increase in the dried substance of the pathological specimens as to indicate a pathological process. In conclusion, Gazert calls particular attention to the tendency of calcification to appear around the depression, indicating the ductus Botalli. [J.S.]

17.—Brauer reports the case of a woman, 48 years of age, who for some time had had difficulty in respiration. There was severe coughing apparently due to some irritation in the throat. Breathing was accomplished only by the aid of the accessory muscles, and a peculiar flapping murmur was heard during inspiration all over the thorax. Examination of the throat showed a **tumor of the trachea** that was removed by tracheotomy. This was apparently a fibroadenoma springing from the mucous membrane. In addition to the peculiar flapping murmur, there were present a diminished descent of the trachea during inspiration, and a cramp-like protrusion of the head, both indicating intratracheal obstruction. [J.S.]

Archiv für experimentelle Pathologie und Pharmakologie.

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1. The Behavior of Hamamelitannin in the Mammalian Body. STRAUB.
2. Contributions to the Pharmacology of the Curare-alkaloids. JAKABHAZY.
3. Concerning Urine-secretion and Glycosuria After Poisoning with Protocurarin and Curarin. MORISHIMA.
4. Experimental Parenchymatous Changes in the Liver. HENSEN.
5. Contribution to the Subject of Uric-acid Excretion Under Physiologic and Pathologic Conditions. SCHREIBER and WALDVOGEL.
6. Lime and Magnesia Excretion in Diabetes Mellitus, and its Relation to the Elimination of Abnormal Acids (Acidosis). GERHARDT and SCHLESINGER.

1.—Hamamelitannin is the active substance of the bark of hamamelis virginica, and chemically is a derivative of gallic acid. It is crystalline, and has the formula $C_{14}H_{14}O_9 \cdot 5H_2O$. In its chemical properties it resembles tannic acid. In the animal body, after introduction into the stomach, it is readily absorbed and oxidized, gallic acid appearing in the urine. Only when injected intravenously does it appear unchanged in the urine. During its administration the ethereal sulfates of the urine are increased. [D R.]

3.—It had been asserted so early as 1855 by Claude Bernard, and subsequently by others, that **sugar appeared in the urine in curarized animals.** To test the truth of this, Morishima has made some experiments on frogs and rabbits, using curarin and protocurarin. He found that **glycosuria was not constant** in either animal. The appearance of glycosuria bore no relation to the amount of

glycogen in the liver or in the muscles. In the beginning of the curare-poisoning, there is in frogs a diminution in the secretion of the urine, or even anuria. Later, marked polyuria follows, which, however, is entirely independent of the elimination of sugar. [D.R.]

4.—In order to study experimentally-produced **parenchymatous changes in the liver,** Hensen injected into the gallbladder of cats, having previously ligated the common duct, various irritant solutions. In 6 cases, a $\frac{1}{25}$ normal sulfuric-acid solution was employed; in 4, chloroform in olive-oil; and in 13, formalin in $\frac{1}{2}\%$ to 4% solution. The biliary passages were not much injured by the procedure, nor were circulatory disturbances produced. Even in animals that lived for a time, there was no noteworthy increase of connective tissue. The absence of inflammatory reaction is remarkable, and is best explained, Hensen thinks, by assuming that the liver-tissue was so altered that it was not capable of producing an active reaction. The principal changes affected the liver-cells, and were in part diffuse, in part circumscribed. The results may be summarized as follows: (1) chloroform produces fatty degeneration, which may disappear without leaving any marked changes; (2) sulfuric acid and formalin produce necrosis; (3) when the dose is small, the individual liver-cells become diseased and their function disturbed; (4) the injury to the liver-cells may directly lead to death; (5) the cells may recover, but often die; (6) the death and the absorption of the necrotic material proceeds very slowly; (7) the inflammatory reaction is very slight; (8) in addition to the degeneration of the liver-cells there is a marked regeneration and occasionally some hyperplasia of the connective tissue. [D.R.]

5.—Schreiber and Waldvogel have made some interesting studies on the **excretion of uric acid under physiologic and pathologic conditions,** using the Ludwig-Salskowski method, for the estimation of the acid. Two students of medicine fasted 3 days, taking only Sauerbrunnen. On the third day both excreted about the same amount of uric acid, one 0.197, the other 0.205 grams. This quantity, about 0.2 grams, is the amount of uric acid which, independently of the food, a normal man forms out of the disintegrating nucleins of his body. This amount of uric acid is independent, not alone of the food, but also of the nitrogen excreted in the urine. The observations on the fasting individuals also show that it is absurd to place the uric acid elimination in relation with that of the total nitrogen or the urea. In the first subject, there was an increase in the elimination of phosphorus. If this were connected with destruction of leukocytes, then, according to Horbaczewski, there should have been an increase of uric acid also. But as this was not the case, it is probably wrong to assume that the phosphoric acid elimination is produced by the destruction of leukocytes. In the second series of experiments, two clinical assistants, having a similar occupation and the same food, showed a difference in the excretion of uric acid amounting to as much as 4 decigrams. This same individual excreting the excess of uric acid also eliminated 3 or 4 grams of nitrogen more than the other. These differences probably depend on individual variations in the utilization of the food. Another observation showed that while 140 cc. of urine, with an acidity of .48, was capable of holding 0.549 uric acid in solution, another portion of 590 cc., with an acidity of .28, was not capable of holding in solution 0.768 of the acid, the temperature being the same in both cases. It seems, then, that despite the increase in quantity and the diminution in acidity, a plus of 0.3 of a gram of uric acid could not be held in solution. This suggests that the acidity, as it is determined at the present day, plays only a small part in the solution of uric acid. The authors next took up the question whether every destruction of tissue-albumin produced an increase in uric acid or whether other factors were also concerned, such, *e. g.*, as the general oxidizing power of the body. In a case of exophthalmic goiter and in one of obesity, they endeavored to produce a destruction of tissue-albumin by administering thyroid extract. They found an increase in the phosphoric acid, and connected with this, probably, an increase in ammonia. The acetone and xanthin-bases were increased; **the urea and uric acid were not augmented,** despite an evident albumin-destruction. The leukocytes were slightly increased after the ingestion of the thyroid tablets. The influence of vegetable diet on the excretion of uric acid was tested. It was found that about .2 of a gram was eliminated, coinciding practically with the amount found during starvation. The xanthin-excretion does not run exactly parallel with the uric acid. The lowest amount of xanthin-excretion on a vegetable diet coincided with the amount excreted during starvation, and was 0.04 of a gram. This would, then, seem to be the amount which the body makes daily. One of the authors for 5 days lived on meat and eggs exclusively. The acetone was .05 of a gram; the **uric acid was not materially increased;** the **xanthin-bases,** on the other hand, **were greatly increased.** The influence of several substances on the uric acid excretion was tested. Urea had no special influence, nor did uric acid when ingested increase uric-acid elimination. Salicylic acid produced an increase in the uric and the xanthin-bases and a slight rise in total nitrogen. Sometimes, when salicylic acid was taken, the uric acid alone was increased; at others, the xanthin-bases alone; and at still others, both together. After a time, salicylic acid lost its powers in this respect. The increase in uric acid is probably dependent upon the leukocytosis produced by the drug. Haig has asserted that chorea is produced by retention of uric acid. Corroborative of this, the authors found that, as compared with a healthy boy, a choreic boy excreted less uric acid. In a case of diabetes with gout, and one of diabetes with exophthalmic goiter, the highest amount of uric acid excreted coincided with the highest amount of sugar. The authors conclude their article as follows: (1) It is improper to bring the excretion of uric acid, on the one hand, in relation with the excretion of total nitrogen, of urea, and with the acidity of the urine, on the other; (2) in the amounts of uric acid furnished by the food, individual conditions play a prominent role. In those resulting from tissue-destruction, the values are under normal condition nearly constant; (3) increased albumin-destruction is not always followed by an increase in the uric acid; (4) a purely vegetable diet does not abolish uric acid secretion; and a purely animal diet, when not causing a rise in uric acid excretion, leads to an increase in the xanthin-bases; (5) excesses in eating and drinking may lead to a marked increase in the uric acid and to its precipitation in the urine; (6) salicylic acid causes either an increase in uric acid or in the xanthin-bases, or in both. [D.R.]

6.—It has long been known that there is an **excessive excretion of lime in the urine in diabetes.** Assuming that this excess was connected with the excretion of large quantities of acids, Gerhardt and Schlesinger endeavored to determine whether the lime and ammonia-excretion ran parallel, inasmuch as the quantity of the latter, the ammonia, is a good index of the degree of acidosis. Their conclusions are: (1) The elimination of lime in the urine, both in health and in diabetes, runs parallel with that of ammonia, and like the latter, can be reduced by the administration of alkalies. (2) Under the influence of excessive acid-formation (acidosis), the lime-elimination reaches especially high values. (3) In the diabetic patient studied, the acidosis of the system led to bone-destruction and thus to an increased elimination of lime and magnesia. (4) Under the influence of an abnormal acid-formation, the usual relation between the lime excreted in the urine and that passed with the feces is disturbed in such a manner that the larger quantity is eliminated in the urine. [D.R.]

The Late Professor Bunsen.—It is stated in the *Berliner Börsen-courier,* that the late Professor Bunsen thought more highly of his scientific discoveries than he did of the many orders and other tokens of honor that were showered on him during his long life. He was apt to forget to put on his crosses and ribbons when invited to official ceremonies, and his housekeeper tried to remind him of his duty by putting his various orders in the pockets of his dress-suit trousers. On one occasion he was invited with the other Heidelberg professors to dine with a Baden prince. He entered the room late, after the guests had assembled, and one of his colleagues turned to him and said: "Excuse me, Herr Geheimrath, but what have you done with your orders?" Bunsen was taken aback; he thought for a moment, and then, plunging his hand into his left trousers pocket, pulled out a fist full of stars and crosses. As soon as they recovered from their astonishment every one began to laugh, but Bunsen said good-naturedly, "O! I have a lot more," and pulled another handful out of the right-hand pocket of his trousers.

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.

Dry Antitoxin—a Clinical Study of its Value in Diphtheria.—Louis Fischer (*Pedriatics*, July 15, 1899) reports five cases of diphtheria treated with dry antitoxin. Two of these were very malignant, one very severe, and two mild. Case 2 necessitated intubation about six hours after first seen. A very important point, and one worth noting, is that there was no distinct reaction immediately following the injection, nor was there any later in the disease. In one child the temperature remained stationary, did not rise or fall on the first day of the injection, but fell by lysis the following day and the succeeding days until the child recovered. This was true in all other cases; the temperature went down slowly by a process of lysis from the first day of the injection until the final recovery. The pulse behaved similar to the temperature, the number of beats going down from 120 to 80 in one case after several days of treatment, and in the case which necessitated intubation, the pulse went down from 108 to 80 in two days after the intubation. The respiration went down in 24 hours from 48 at the time of the intubation to 28 in one day. All 5 patients recovered without any sequels. A noticeable point was that not one of the children complained of pains in the joints following injection. In none of the cases injected was there an antitoxin rash following the injection of the dry antitoxin. It has frequently been claimed, and by some very good observers, that one of the main reasons for the appearance of an occasional exanthem following the injection of the liquid antitoxin was because the latter contained either trikresol or carbolic acid for the preservation of the same. Some chemists have stated that in some instances when toxic symptoms have been observed, that the latter were produced by the small quantity of carbolic acid present in the serum. If this is true, then one of the most objectionable features added to the antitoxin has been removed. Antitoxin is no longer an experiment, and therefore, without wishing to overestimate this new product, Fischer feels warranted in advocating its use in every form of diphtheria, and more especially in very malignant forms. No more than 2,000 units, or the contents of two bottles, each containing 1,000 units, was necessary to effect a cure. Dry antitoxin is a golden-yellow crystalline substance quite readily soluble in sterilized water, and containing no foreign antiseptic. The remedy must be dissolved immediately before use by adding from 1 to 4 cm. cold sterilized water by means of a sterilized pipet into a bottle of antitoxin. The solid serum dissolves slowly; the greatest caution must be used not to contaminate the solid serum, as it contains no antiseptic, nor should any be added to the water used for dissolving the serum.

Ovarian Neuralgia.

℞.—Extract of belladonna ..... 3¾ grains.
Extract of stramonium ..... 4½ grains.
Lactophenin ..... 1½ drams.

Divide into 20 pills. Two or three to be taken daily.—*Practitioner.*

The Surgical Treatment of Perforation of the Intestine in Typhoid Fever.—Waring (*Quarterly Medical Journat*, April, 1899) draws the following conclusions from a study of the recorded cases:

1. That an operative procedure ought to be carried out in all cases of perforation of typhoid ulcers when the patient is not moribund, or so seriously ill from the primary affection that he is not likely to stand a somewhat severe operation.

2. That the operative procedure should comprise opening the abdomen either in the right linea semilunaris or the linea alba below the umbilicus; locating the seat of perforation; suture of the perforation by the insertion of a series of fine silk sutures applied after Lembert's method; sponging the affected portions of peritoneum, and freeing them from all traces of contamination by intestinal contents; partial closure of the parietal wound and insertion of a gauze drain, which is passed down to the region of the sutured ulcers. (In searching for the perforation, the lower portion of the ileum should be examined, next the region of the vermiform appendix and cecum, and finally that of the sigmoid flexure.)

Peritonitis of sudden onset may come on during the course of typhoid fever, owing to the rupture of a gallbladder which has become infected and filled with pus, or the rupture of a suppurating lymphatic gland in the mesentery. These possibilities should be borne in mind if any difficulty be experienced in locating the perforation after the abdomen has been opened.

Venereal Warts.

Silbermintz extols resorcin in the treatment of venereal warts. He uses the following preparation:

℞.—Flexible collodion ..... 80 parts.
Resorcin ..... 20 parts.

Dry the warts with alcohol and ether and apply freely.—*Revue Pratique d'Obstetrique et de Gynécologie.*

Static Electricity and Hydrotherapy in the Treatment of Insomnia.—Hance (*Therapeutic Gazette*, July 15, 1899) deprecates the routine use of hypnotics in the treatment of insomnia, and calls attention to the value of hydrotherapy and electricity. In all cases, he contends, there exists some disturbance of two of the chief systems of the body, the nervous and the circulatory, and that therein lies the main indication for treatment—improvement of the cutaneous circulation and of the nerve-cells. At the same time each case must be carefully inspected for any local cause that may produce reflex nervous conditions, and by appropriate treatment these must be lessened and eradicated if possible. In so far are drugs and a proper diet powerful agents for good. To secure the best results it is wisest for the patient to change his environment, allow himself physical and mental rest. Exercise out of doors only to the point that he is not unduly fatigued, abstain from all varieties of food that produce indigestion, and regulate the bowels. The treatment which has been found most efficient by the author consists in a hot-air bath to perspiration, a needle spray, and a general fan douche, a jet along the spine, followed by general static electrization (positive). He states that good effects are often felt after the third bath.

Insomnia of Acute Alcoholism.—

℞.—Sodium bromid } of each.....15 grains.
Chloral hydrate }
Tincture of hyoscyamus.....15 minims.

To be taken at a dose and repeated in an hour if necessary.—BROWER, *Journal of the American Medical Association.*

Insomnia in the Failing Heart of Mitral Insufficiency.—Agents for producing sleep or calming nervous agitation are of high importance in the treatment of the failing heart of mitral insufficiency. In some cases *chloralamid* has been useful, as it is always a harmless hypnotic. It may be given in doses of from 20 to 50 grains in wafer cachet or in weak spirituous or acidulated solutions. Each draught should be made up separately. I prefer a combination of 20 to 30 grains of chloralamid with 30 minims of dilute hydrobromic acid with a dram of sirup of orange-flowers and an ounce of pure water, administered at bedtime. Another harmless agent is *urethane* (ethyl carbonate), which is freely soluble in water, the solution having a saline but by no means unpleasant taste. In doses of 15 to 20 grains at bedtime I have found it induces a calm, natural sleep, lasting in a case of severe cardiac failure for more than five hours, the patient being manifestly refreshed on waking. *Paraldehyd* is perhaps a little stronger as a hypnotic. It may be administered in doses of from 30 to 90 minims in diluted sirup or in almond mixture, or in capsules (each containing 40 minims); it has a powerful and unpleasant taste.

In a considerable number of cases of manifestly distressful symptoms of dyspnea and insomnia no agent succeeds so well as *morphia*. By far the best way of administering it in case of cardiac disease is by hypodermic injection. The solution of the acetate or the hydrochlorate or the solution of morphia and atropia may be used. The first dose should be small—one-sixth or one-fourth of a grain—but this may be increased subsequently to half a grain. Care should be taken that the administration shall not become habitual.—SANSOM in *Allbutt's System of Medicine.*

Original Articles.

TUBERCULOUS PERITONITIS; GASTROSTOMY; ACUTE APPENDICITIS.[1]

By FREDERIC S. DENNIS, M.D.,
of New York City.

Mr. President and Gentlemen of the Hartford Medical Society:—

My first and pleasing duty this evening is to acknowledge, with a deep sense of gratitude, the honor which you have conferred upon me. To be invited to address this Society is, indeed, a distinction which only those who are familiar with the scientific work of this Association can fully appreciate. No one who has studied the history of the progress of surgery in this country, and, I may add, in the world, can fail to realize the great work which this Society and this city have contributed towards the advancement of medical knowledge. With the inspiration for work which you have here; with the advantages of a commodious building erected through the munificence of one of your colleagues; with the rich clinical material at your disposal; with your excellently equipped hospital-facilities; with the character and earnestness of the members of this Society, and, above all, with the past history of a great discovery, and the initiative of a great operation, you have an impulse for work accorded to no other association.

The two great factors that have influenced the advancement of surgery are, first, the introduction of anesthesia, and secondly, the discovery of the germ-theory of inflammation.

To the first great factor, viz., the discovery of anesthesia by nitrous-oxid gas, this beautiful city is entitled to all honor and glory. Here was the birthplace of one of the greatest discoveries of the world, and without which surgery could have made but little progress. To Hartford belongs this honor; to her belongs the credit of this great discovery. The nations of the world bow in humble thanks and generous gratitude to your fellow-townsman, the immortal Wells, for his beneficent, far-reaching, and life-saving discovery. All this brings with it great responsibility, which the members of this Society must assume. It devolves upon you not to lower the standard but to maintain it, and, if possible, hand down to future generations discoveries of the same exalted character. Surely, no medical society has ever had such an incentive for work; no medical society has ever had such an inspiration for effort, and no medical society has ever been called upon to maintain such a prestige. The responsibility devolving upon you is great; the duty incumbent upon you is imperious, and no member of the Hartford Medical Society can evade his share in the accomplishment of the grand work which is expected of you. The physicians of Hartford have already realized this duty by erecting a statue to perpetuate the memory of the great discovery. Sir Edward Jenner, the discoverer of vaccination, was awarded by an Act of Parliament $225,000 for his discovery, while by no act of the United States Government has anything ever been done to perpetuate the memory of the men who made the greatest contribution to medical science. I hope the day is not far distant when the State of Connecticut will appropriate a large sum of money towards the establishment in your city of some enduring monument to commemorate the discovery of anesthesia by nitrous-oxide gas. The discovery is too grand to be lost sight of at this period in the history of the world; the discovery is too important to be overlooked by the State of Connecticut; the discovery is too far-reaching throughout the civilized world not to be remembered by the State in some way that will forever keep fresh in the memory of the generations to come the fact that here was the place from which emanated the greatest discovery of the century. The State cannot afford to let such an opportunity pass unnoticed, and as years go on the magnitude of the event becomes greater and greater. The State should erect a monument which should be scientific in character, and which should afford opportunities for investigation and work. It should be some scientific institution from which all classes could derive benefit, and an institution to which the pilgrims of science from all over the world could resort as a Mecca.

England has recently elevated to the peerage Mr. Joseph Lister, the surgeon who made the practical application of antiseptic surgery, which forms the second factor that made surgery to-day what it is; and it now behooves the State of Connecticut to take public recognition of the first factor, which has so largely influenced the progress of surgery in America and in the world.

Hartford affords a still further inspiration for work to the members of this Society, in the fact that within your own domain another fellow-townsman, Dr. Mason F. Cogswell, ligated, in 1803, for the first time successfully, the primitive carotid artery for primary hemorrhage. The great Abernethy is accredited with the initiative in this procedure, but to him chronologically, as a successful operation, and to England, as a nation, the credit does not belong; it is yours, and yours alone; and when it is considered what this operation meant in pre-anesthetic and in pre-antiseptic days; and when it is also considered what influence Cogswell's success had upon the surgery of the arteries in general, this achievement is, indeed, an honor of which this New England city may justly be proud.

The name of Dr. Mason F. Cogswell is also associated with an educational movement that places your fellow-townsman and the city of Hartford in a most enviable position before the world. The honor of establishing

[1] Read at a meeting of the Hartford Medical Society, June 19, 1899.

the first institution for the education of the deaf and dumb in the United States belongs to you. This movement began in 1811, and in 1817 the first permanent school for the education of the deaf and dumb was started in America in Connecticut and at Hartford. From this beginning, educational institutions for this purpose have been established in almost every State in the Union. To Hartford also belongs the credit of establishing the American system of education, which is a great improvement upon the old French system, and which was elaborated largely through the influence of Rev. Thomas H. Gallaudet. From this city there emanated a system of education now universally considered the best in the world.

We live in an age that is marvelous for its discoveries, and in no department of science have greater changes been wrought than in surgery. It would seem that we have reached almost the limit. There are few surgical diseases which our art does not cure. There are few operations in point of number that remain for succeeding generations to discover. There is still little to gain in the technique of asepsis, and beyond the improvement of existing methods there is little to expect. The science of surgery has achieved a great work, and when we consider the number of surgical diseases amenable to cure, and the limited number of diseases to which surgery in the future could be of benefit, we can realize that we belong to a great profession, which but a century ago was crude, undeveloped, and uncertain. We are, indeed, fortunate to live at a time when pain is annihilated, when disease is curable, when the results of operations are no longer uncertain, painful, and fatal. To a large share in bringing about this great Utopia the world acknowledges its indebtedness to you. That other cities may have had a part no one denies, but to you is traced back the *foundation-stone* upon which this grand superstructure has been raised. Without anesthesia what would surgery be to-day? A mere trade like that of the barber from whose handiwork surgery has by evolution sprung. Anesthesia has permitted us to do operations which without it were impossible. It has permitted us to perform operations without shock and pain; it has enlarged the domain of our work; it has broadened the field; it has widened the horizon; it has saved human life. This is what you have done, and as a city and an association you deserve all the glory which this great discovery has brought you.

In the daily routine of professional life much help is derived by a contribution of some special experience, which in part is familiar to all. With this introduction, and with this congratulation I shall proceed to invite your attention to some points in abdominal surgery, and shall illustrate what I have to say by specimens and by patients.

The subject of abdominal surgery is so vast that no one could even briefly discuss it within the limits of a single address. I have, therefore, selected three operations upon which to base a few remarks. In connection with each subject I shall present a case to illustrate the value of the operation, and which will serve as a type to impress the result which can be expected in reference to each operation.

The subjects which I have selected for discussion are:

1. Tuberculous peritonitis.
2. Gastrostomy.
3. Acute appendicitis.

I shall first invite your attention to a consideration of tuberculous peritonitis. It has recently become a well-known fact that tuberculous peritonitis has been taken out of the realm of internal medicine and transferred to clinical surgery. It is a fact also well known, that this radical method of treatment has been the outcome of errors in diagnosis. It is also an equally well known fact, that a correct diagnosis of tuberculous peritonitis cannot always be made, except by a laparotomy. It has now become an established routine of practice that laparotomy is justifiable in cases of ascites in which the etiology does not depend upon disease of the liver, kidney or heart. With these facts before us, the study of tuberculous peritonitis forms a most interesting chapter in surgery. The different manifestations of tuberculous peritonitis are manifold. The disease may appear in the form of miliary tuberculosis of the peritoneum with ascites. It may present as an infiltration in the omentum or mesenteric nodes, accompanied by a chronic inflammation in which the coils of intestine are matted together, forming a large tumor. It may even appear in the form of an encapsulated abscess of a tuberculous origin.

The *method of invasion* of the bacilli in their attack upon the peritoneum varies in different cases. The bacilli in rare instances may gain entrance through the circulatory system, or through a perforation from a tubercular intestinal ulcer, or from a purulent tuberculous vaginitis. Again the peritoneum may become infected through a perforating tuberculous appendicitis or from a tuberculous ovary or fallopian tube. Williams, of the John Hopkins University, has shown that from 40 to 50% of the cases of tuberculous peritonitis can be traced to this origin. Abbe has demonstrated that about 66% of the cases of tuberculous peritonitis are due to infection of the thoracic lymph-nodes, and in only 16% is entrance gained by the mesenteric glands. It is thus evident that while 16% of the cases of tuberculous peritonitis can be explained by infection through the alimentary canal from milk or other kinds of infected food that the great proportion is due to infection from the thoracic lymph-nodes. These two authorities thus differ slightly as to the percentage of cases due to one or the other method of invasion, and a comparison of both statements enables us to view the subject upon a more extensive scale. There is little doubt but tuber-

culous peritonitis may arise as a secondary affection following tuberculosis of the intestinal canal. Here again the inhibition of infected milk and meat play an important role. The entrance of tuberculous sputa into the stomach in those affected with pulmonary tuberculosis explains intestinal and peritoneal infection. This latter method of invasion is considered a frequent cause of peritoneal tuberculosis. The presence of tuberculous ulcers in the stomach in phthisical patients who subsequently suffered from intestinal tuberculosis has been thus explained by the investigations of Klebs. Many experiments upon lower animals, which were fed by food containing tuberculous sputa and fragments of tuberculous lung, have proved beyond doubt that intestinal and peritoneal tuberculosis can arise in this way. The age at which tuberculous peritonitis appears is an interesting subject. Osler collected 357 cases of this disease with the following result:

27	cases were	under		10	years.
75	"	"	between 10 and	20	"
87	"	"	" 20 and	30	"
71	"	"	" 30 and	40	"
61	"	"	" 40 and	50	"
19	"	"	" 50 and	60	"
4	"	"	" 60 and	70	"
2	"	"	" 70 and	80	"

Thus it is evident that the greatest number of cases occurred between the years of 20 and 30, and that the next decade in point of frequency was between the years of 10 and 20, and that the third decade was between the years of 30 and 40. In regard to *race*, it has been shown that the negro is more frequently affected than the white; and in regard to *sex*, the female is more frequently affected than the male.

The *symptoms of tuberculous peritonitis* are in many cases very obscure, and often misleading. The gradual onset of the disease, the marked discomfort rather than acute pain in the early stages, the irregularity of temperature, especially when accompanied with subnormal temperature, the gradual enlargement of the abdomen due to ascites, the pressure of a tumor due to matting of the coils of intestine, or to exudations in the cavity, the marked disturbance of the digestive apparatus, the loss of appetite, the presence of nausea and vomiting, the existence of constipation from paresis of the bowel, the loss of weight and of strength, the rapidity of the pulse, and the embarrassment of respiration are symptoms which point to the presence of a tubercular peritonitis.

The *diagnosis of tuberculous peritonitis* is a subject that requires special consideration. It is a well established clinical fact to which reference has already been made, that many of the cases of tuberculous peritonitis are never diagnosed before operation. Morris, of London, reports 3 cases that were operated upon in which not one was correctly diagnosed. Osler states that of 96 cases, 30 were diagnosed as ovarian disease. The presence of tuberculous nodules in the rectum, also in the sacro-uterine ligaments, is pathognomonic. In any inflammation around the fallopian tube, Morris has shown that if abortion and gonorrhea can be excluded tuberculous peritonitis is most likely present. Under an anesthetic these nodules can be felt, and, according to Osler, are caused, first by a puckering of the omentum, secondly, by sacculated exudations, thirdly, by matted intestinal coils, and fourthly, by indurated mesenteric lymph-nodes. Intestinal obstruction is a sign of great value, since this condition is likely to be present owing to the mentioned changes in the viscera of the abdominal cavity. Another diagnostic sign of importance is the simultaneous presence of pleurisy with effusion, the fluid of which is bloody; in fact, bloody fluid in the pleural cavity, if traumatism can be excluded, indicates tuberculosis or carcinoma. In arriving at a diagnosis, the personal and family history should never be overlooked, since great importance is attached to this link in the chain of evidence. In tuberculous peritonitis, the general signs are much more prominent than the local signs, the reverse of which is true in other forms of peritonitis. The fallopian tubes, the ovaries, the spermatic cord, the lungs, the pleurae, the sputa should be carefully examined in every case before arriving at a diagnosis. Cirrhosis of the liver is to be considered, since this disease has been shown to be a predisposing cause of tuberculous peritonitis. Beck calls attention to the fact that a difference of 2° between the axillary and rectal temperatures indicates a purulent collection in the peritoneal cavity. In such a case, of course, a differential diagnosis must be made between a tuberculous and a septic peritonitis due to other causes. Still another sign of great diagnostic value is found in the repeated attacks of peritonitis. In all cases where mild recurrent attacks of peritonitis occur, the evidence becomes very strong in favor of the peritonitis being of tuberculous origin. It is often impossible to diagnose a tuberculous peritonitis without an exploratory laparotomy, since only by this means are the tuberculous nodes visible, and the bacilli found imbedded in them. Finally, the presence of a tumor in the abdomen composed of coils of intestine is pathognomonic. This mass may be of such a size as to produce pressure-symptoms, among which may be mentioned jaundice, intestinal obstruction, dyspnoea, dysuria, and varicosity of the superficial veins. In some cases the viscera and the organs are even displaced.

Finally, the diagnosis of tuberculous peritonitis has been, according to some authorities, made absolutely certain by the use of tuberculin. From 5 to 8 mg. have been employed daily for one week in doses of from $\frac{1}{12}$ to $\frac{1}{8}$ mg. If no reaction takes place the tuberculous character of the peritonitis is excluded. This conclusion, however, must not be based upon a single trial; but after an interval of rest the tuberculin should be again administered for another week, beginning with the maximum dose of the last administration.

The reaction establishes the certainty of the diagnosis, and will even enable the surgeon to differentiate between tuberculous and other affections of the peritoneum and intestine. It has been claimed that tuberculin thus administered for the purpose of diagnosis has been known to effect a cure.

Tuberculous peritonitis must be differentiated from typhoid fever. The slow onset, the slight local tenderness, the headache, the continuance of fever, the diarrhea, the tympanites, the gastric irritation, the petechiae, the blood-analysis, the application of Widal's test, will suffice to enable the surgeon to prevent this error in diagnosis.

Tuberculous peritonitis must also be differentiated from subphrenic abscess. In this condition the line of flatness is curved with the convex upwards. In aspiration of the fluid in subphrenic abscess the flow from the canula is most free during the inspiratory act; there is also absence of gas and the presence of oscillation of the needle. Subphrenic abscess must not be mistaken for an empyema, which has a line of flatness with the concave upwards. Further, in empyema, aspiration of the fluid will cause the contents to flow most abundantly during the expiratory act; gas also escapes from the canula, which can even be ignited, and the needle instead of oscillating is observed to be stationary. The presence of leukocytosis points to the presence of pus, and is therefore not diagnostic of either of these conditions since pus is present in both diseases.

The *prognosis in tuberculous peritonitis* depends largely upon the age of the patient, the advanced state of the disease and the character of the operation. The cases which are likely to do well are those in middle-aged patients with considerable exudation either free or encysted in the abdominal cavity. The cases which are likely to do badly are those in which the intestines are matted together by adhesive inflammation and with little or no serous exudation.

Before discussing the *operative treatment of tuberculous peritonitis*, it is only just to consider the question of cure without surgical intervention. Osler claims that a large number of cases of tuberculous peritonitis terminate in recovery if left to nature. The important clinical fact must not be overlooked that, in this large percentage of cures left to nature the errors of diagnosis must be considered, since it is often only possible to arrive at an absolutely certain diagnosis by an exploratory laparotomy. Boullard collected 82 cases of tuberculous peritonitis and in 25% of these recovery was spontaneous. The theory of cure by laparotomy is still held sub judice. Some surgeons have ascribed the cure to mere traumatism of the serous membrane, which caused a fibrinous peritonitis that encapsulated the bacilli of tuberculosis; others to the exposure of the peritoneum to the air; still others to the relief of abdominal pressure, thus affording an opportunity for peritoneal absorption, and for the stimulation of the cardiac and pulmonary functions. Koch has attributed the cures to the efficacy of radiated sunlight, which has the power of destroying the bacilli of tuberculosis. Surgeons have also advanced the theory that the cures were to be attributed to the entrance of air filled with bacteria which produced a toxalbumin that was antagonistic to the bacilli of tuberculosis. The theory that the cures were due to the use of chemical disinfectants is not tenable, since the percentage of cures is higher when no germicides were employed. The same thing may be said of drainage, since many of these cases recover in the absence of it.

The *operative treatment of tuberculous peritonitis* varies according to the special methods of different surgeons. It is a strange clinical fact, that laparotomy for the cure of this disease has become established as a recognized procedure through errors of diagnosis. Sir Spencer Wells cured a case of tuberculous peritonitis by a laparotomy performed under the supposition that it was ovarian disease. Laparotomy, however, as a curative measure, was first introduced by Dr. Van de Warker, of Syracuse, N. Y. He blundered upon a case of tuberculosis of the peritoneum, under the supposition that he was operating for the cure of a case of hydrops of the peritoneum. Dr. Van de Warker presented this case at a meeting of the New York State Medical Association in 1883. From this time on, the operation of laparotomy for the cure of tuberculosis of the peritoneum has been practised. The operation has, however, been modified from year to year; but most surgeons still adhere to the simple operation as first devised by our American surgeon.

It is interesting to note the various changes to which the operation for the relief of tuberculous peritonitis has been subject. The first operation consisted of simple laparotomy, with immediate closure of the abdomen without evacuation of the fluid, or drainage. This operation was the outcome of errors in diagnosis. Many cases treated in this simple way recovered. From this simple laparotomy surgeons began to enlarge the technique, so that, subsequently, the operation consisted of laparotomy with evacuation of the fluid and immediate closure of the abdominal wound. A little later surgeons added to this technique that of lavage of the peritoneal cavity; closure of the abdominal wound both with and without drainage. The lavage of the peritoneal cavity was made with a solution of bichloride of mercury and followed immediately by a thorough washing with sterilized water. The question of drainage in these cases demands consideration, since it has been amply shown that drainage does not afford any special benefit, and, in addition, leaves the patient exposed to the risks of permanent abdominal fistula. The ideal operation is laparotomy, the evacuation of the fluid and lavage of the entire cavity with warm sterilized water, and immediate closure of the peritoneal cavity without draining. In the *purulent* variety it is, without doubt, best to evacuate the fluid, wash out the abdomen with

an antiseptic fluid, and, in addition, to mop out the entire cavity, and then to perform lavage with sterilized water, and drain only in cases in which there are encysted pockets of pus. Still another operation has been suggested, but it is one that fails to receive the approval of surgeons: this operation consists of tapping the abdomen for the purpose of withdrawing the fluid, and the immediate inflation of sterilized air through the same canula which was used for the paracentesis. Instead of sterilized air, iodoform-powder has been used in the cavity, and drainage by means of iodoform-gauze. This procedure is only advisable when there is a purulent collection, and pockets of pus are found here and there in the abdominal and pelvic cavities.

(To be continued.)

THE RELATION OF HEADACHE TO AFFECTIONS OF THE EYE.[1]

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Gentlemen:—I am not unmindful of your courtesy in requesting me to speak to the Neurological Section on the ocular phases of headache. I have not accepted the honor, however, without many misgivings. The ophthalmologist, in common with a large portion of the profession, holds his breath and treads with great circumspection, as he approaches the mysterious precincts of the nervous system, that region in which his neurological colleagues hold high carnival, and disport themselves in lighter vein.

The subject chosen for your symposium, however, is one of great interest to the ophthalmologist, since so large a percentage of his patients suffer from headache.

In the last 1,000 private eye patients applying for treatment for all causes, 50% of them complained of this symptom, and a considerable percentage of this number came by the advice of their physician, or through the persuasion of some friend, complaining of headache alone, and were unconscious of any ocular defect. It would not be surprising, therefore, if the ophthalmic surgeon should be in danger of overestimating the significance of the ocular apparatus as a factor in the etiology of pain in the head.

It is now very generally recognized that eye-strain and certain diseases of the eye are, in a large number of persons, the sole and sufficient cause for headache. It is probably less generally recognized that ocular affections may be the unsuspected cause. Extended experience, however, has shown that, in other groups of patients who suffer from headache, there may be no necessary relation between existing ocular defects and the pain in the head. It is not an unusual experience to remove the eye-strain by glasses to the great relief of ocular symptoms, without any appreciable result in relieving the headache; or, certain kinds of pain in the head may be relieved, and others still persist. Moreover, it is quite common to find patients who suffer greatly from impaired vision, chronically inflamed and painful eyes, who never have headache or other reflex symptoms. Therefore I esteem very highly this opportunity to discuss with you the possible relations between the ocular conditions and headache together with certain other associated phenomena. The subject should be approached with a feeling of marked conservatism. It is not unusual to have under treatment, at one and the same time, two patients with similar or identical ocular defects, one of whom has no symptoms other than weak, painful, or inflamed eyes, lowered sharpness of sight, and a blurring page; while the other is constantly in the slough of semi-invalidism from constant pain in the head and other reflex symptoms, which, from exposure to light or persistent use of the eyes, or after some unusual exertion, culminate in more or less frequent and violent explosions of so-called "sick or nervous headache," both of whom find complete and lasting relief from glasses so nearly the same that they might be used interchangeably.

It is obvious, therefore, that in searching for an explanation of such phenomena we must look for individual pecularities not directly referable to the eyes. It is true that difference of vocation or environment may, in such instances, be a sufficient explanation. That is to say, in one case persistent use of the eyes may be unnecessary, and in the other compulsory. One patient may be in good general health, the other the victim of some complicating diathesis, as, for example, lithemia. Ambition to excel or the sanguine temperament may drive one into constant activity in spite of the pain occasioned by the use of the eyes, while the other rejects the goad of ambition, unwilling to secure success, or to woo fame at the sacrifice of pain. But even here we see indications of difference in temperament; a suggestion of the phlegmatic individual in the one, and the neurotic in the other. I do not wish to trespass upon the domain of the neurologist at this point, but simply to state the proposition that given certain abnormal ocular conditions causing eye-strain, other things being equal, the neurotic individual is more likely to suffer from headache and associated phenomena than those who cannot be called nervous people.

Although it is now quite generally recognized that eye-strain may be the cause of headache, the truth that ocular affections may be the unsuspected cause still stands in need of wider recognition. I am still seeing patients who have passed into middle life, having from youth been the victims of headache, who are cured from their life-long malady by the correction of ocular defects, the real cause of their suffering never before

[1] Read by request before the Section on Neurology of the American Medical Association, held at Columbus, Ohio, June, 1899.

having been suspected by themselves or by their physician. It is an interesting fact in this connection that in a large number of eye-strain patients, the symptoms fall with great stress upon the eyes without giving rise to headache or other reflex symptoms. That is to say, the eyes are painful, vision is more or less defective, they have blepharitis ciliaris, symphathetic conjunctivitis, styes, partial lacrimal retention, etc., but do not suffer from headache. It is true that pain in the head may also be present, but these patients do not, as a rule, belong to the headache-group. I take it, however, that this group of patients is not the one which will most interest you as neurologists, since they so obviously fall into the hands of the ophthalmic surgeon. Those who suffer most severely from headache, demonstrably due to ocular defects or disease, are often quite free from local symptoms, and frequently suffer for years without suspecting their eyes as the source of their trouble. If there are ocular symptoms, they occur *pari passu;* or come on after the reflexes, and are regarded by the patient as due to the headache. Patients have often told me that "their eyes were weak because they had a bad head," and submit quite reluctantly to eye-treatment since they recognize no primary ocular disturbance.

The location of the pain in the head is usually suggestive. Vertex pain, *e. g.*, is comparatively rarely due to the eyes. In optic-nerve disease, as in retrobulbar-neuritis and atrophy, there is, in many cases, pain in front of the head, on top, but it is not a vertex pain. The pain when associated with eye-affections occurs in the brow, occiput, back of the eyes, as a hemicrania, or in the temples, and in point of frequency in the order named. Simple eye-strain due to error of refraction, particularly in children, will usually give rise to brow-pain. If associated with some abnormality of ocular balance, as insufficiency of the interni, esophoria, or a hyperphoria, there will usually be occipital pain also. If there is at the same time marked turgidity or inflammation of the choroid, with retinal irritation, or macular disease of the retina and choroid, there will be a tense postocular pain which shoots to the occiput, nape of the neck, even down the spine, and radiating to the shoulders. Temple-pains are not infrequent. I have in a number of instances witnessed the relief from pain in the region of the heart, which had caused much anxiety, follow the prescribing of glasses, or the tenotomy of an ocular muscle.

There is a wide variety of manifestation in different patients. Many suffer almost constantly from brow-pain and occipital pain. It disturbs their rest at night, and they awake in the morning with a dull pain in the occiput or nape of the neck. One patient remarked that he always awoke in the morning feeling as though he had had a billet of wood for a pillow. Although rarely free from pain, they suffer more or less acute exacerbations produced by exposure to light, from prolonged use of the eyes, or by general fatigue, but the symptoms are never violent. Others, while like the first, are rarely free from pain are subject to a steadily progressive aggravation of all the symptoms until they culminate in violent onsets of "sick, or nervous headaches" which drive them to bed in a darkened room, from which they emerge after 12 or 24 hours with a dull, sore head, red and weak eyes, which are tender to palpation, and unduly sensitive to light. The explanation for the advancing symptoms, up to the point of crisis, is found in the steadily-increasing hyperemia and turgescence of the uveal tract of the eyes coming on under use, or by exposure to light. The relief comes from the subsidence of the congestion which results from the confinement in a darkened room, the emesis, the administration of saline cathartics, the cold compresses over eyes and brow, etc., which are the means of treatment ordinarily adopted by the patient. They return to their usual vocations, only to pass again through the inevitable cycle of suffering. Many persons through a large part of their lives suffer these constantly recurring torments once a week, or more or less frequently. Some recognize the effect of exposure to strong light, or the extraordinary use of the eyes, as factors in causing these violent onsets of pain, but others never do, and ascribe their suffering to "biliousness," to overfatigue, hunger, and many other things, never suspecting their eyes as the cause.

Many regard their recurring sick headache as hereditary, since one or both parents and other members of the family suffer in the same manner. They think that therefore it is useless to seek permanent relief. While it may be true that the neurotic tendency is a family trait, it is equally true, even more probable, that the anatomic defects upon which errors of refraction or ocular imbalance depend are hereditary. The regularity with which defective eyes, *e. g.*, hypermetropia with astigmatism, are handed down from parent to child is one of the most striking facts in ophthalmology. It is highly probable that the defective form of the eyeball which produces both the ametropia and the abnormal attachment of the ocular muscles to the globe, and is the cause of faulty binocular balance, are the direct result of defects in the shape of the bony orbit, and this in turn is due to distortion in the skull. It is to the form of the skull that family resemblances are largely due, hence the great frequency of heredity also in ocular defects. It is in a word another example in which disease and impaired function have a congenital anatomic basis for its existence.

While the nausea and emesis together with the ensuing general relaxation seem to afford more or less speedy relief in the cases of so-called "sick headache," there are others who suffer what they call "nervous headache" who are rarely nauseated, but have violent pain, and find the coveted relief only in opiates, or analgesics. I recall the case of a merchant, the head

of a large mercantile establishment, who had a high degree of hypermetropic astigmatism, and right hyperphoria, who was rarely free from a dull occipital pain. Suddenly, while at his place of business, he would be attacked by a right hemicrania, preceded by phosphenes. Taught by many experiences, he would summon a cab to take him to his home. His wife described to me one of these exacerbations. Arrived at home, his fortitude entirely exhausted, he would ring the door-bell violently, enter the house holding his head between his hands, and unable to reach his bed throw himself upon the parlor or hall floor in despair, perfectly beside himself in an agony of suffering, in which he would burst into a flood of tears, roar with pain, making the most violent manifestations, alarming wife, and children, and servants, until the doctor came and relieved him by a hypodermic of morphia. These attacks were relieved by the correction of his refraction error, and a subsequent tenotomy of the right superior rectus, but he still suffers from dull occipital pain "after a hard day." Since the attacks often came on after some fancied indulgence at the table, or at his club, or after an evening at the theater followed by a supper, he ascribed them to deranged stomach and liver, and was, as a consequence, a victim to the cathartic habit.

Another illustrative case of this type was sent to me by the late Dr. William Pepper, under whose care he had been for "epileptic seizures." He also suffered the sudden violent onsets of headache very similar to those suffered by the case just related, but the paroxysms culminated in loss of consciousness, convulsions, frothing at the mouth, and wounding of the tongue, after which he would fall into a profound sleep, often lasting for several hours, from which he could not be aroused. I found a hypermetropic astigmatism with exophoria, and marked choroidal disease due to eye-strain. He received suitable correcting glasses after the prolonged use of a mydriatic, and returned to his home in one of the interior cities of Pennsylvania. I heard no more from him for eight years. He then returned for some change in his glasses, and much to my surprise related that he had not had a single return of his headache or convulsions after the treatment of his eyes.

There is a group of patients, of which I have seen many examples, who suffer attacks of severe headache after journeying by rail, or in a carriage, or after a shopping expedition, the unsuspected cause of which is some ocular defect. They are usually women, and the paroxysm is ascribed to fatigue. I recall the case of a lady, who wrote by the advice of her physician from a distant city for an appointment for the examination of her eyes, stating that she would not be able to come to my office for a day, or possibly two days, after her arrival in Philadelphia, as she would be compelled to pass that time in bed in a dark room, suffering from "sick headache." Would I not see her at her hotel? I did so, and found her as she had predicted, in the throes of a violent headache; nervous, exhausted, suffering from nausea and fruitless attempts at emesis. I instilled a mydriatic immediately, directed cold compresses to the eyes and brow, and gave her potassium bromid. She was completely relieved in an hour, rose, ate a hearty meal, and came to my office the following day. She had a very high grade of hypermetropic astigmatism, which was corrected by glasses. She returned to her home wearing them, and on her arrival at once wrote to me that for the first time in her experience she had been able to enjoy a railroad journey, and had reached home in perfect comfort.

The facial twitchings of school-children, with brow-pain, irritability of temper, restlessness, inability to sit quietly for a moment, disturbed sleep, precarious appetite, all of which makes them the despair of their mothers or teachers, I have many times seen relieved by a pair of glasses. Whether these cases are to be classed as petit chorea or not, it is certain that the eye-strain was for them "the thorn in the flesh," which produced a constant irritation of the nervous system.

Ocular symptoms or headaches not infrequently manifest themselves for the first time after an attack of acute illness, *e. g.*, measles, scarlatina, or pertussis, and are not infrequently ascribed to the lowered vitality consequent upon disease. The ocular participation is therefore overlooked. Observation shows that even in adults the eye-strain consequent upon a congenital defect of refraction may be borne without recognized symptoms up to a certain day which the patient fixes quite definitely as the time of break-down. Not infrefrequently the break comes with the depressing influence of an acute cold, after which the eyes and head are never comfortable without correcting glasses, notwithstanding the fact that no trouble had before been experienced; or, he has his first headache after some extraordinary strain upon his physical endurance, and never finds relief except in a pair of glasses.

There is a considerable group of patients, usually men of affairs, between the ages of 40 and 50, who suddenly develop headache. As representing this group I recall the case of an eminent clergyman, aged 50. He not only had the care and responsibility of a large and influential parish, but often occupied the lecture platform, was the author of a number of books, and a frequent contributor to religious periodicals. He began to suffer from insomnia, and almost suddenly became the victim of severe occipital pain for which he sought the advice of his physician. He received a grave prognosis based upon the theory of "cerebral hyperemia"; was advised to abandon his work for a year and seek relief in foreign travel. Quite disheartened, he called upon me socially and related his condition. In detailing his symptoms it occurred to me that his occipital pain might be due to his eyes. He was to all appear-

ances in perfect health, and was a remarkable example of stalwart manhood. At 50 years of age he had never worn a glass, notwithstanding the enormous amount of his literary labor. He received a pair of working glasses. His headache and insomnia disappeared at once, and although arrangements had been made for a long vacation, they were cancelled, and he went on with his work. In this case there could be no suspicion of a neurotic element entering as an etiologic factor. His symptoms were unquestionably the result of his neglect to neutralize by glasses the physiologic loss in his range of accommodation. A less vigorous man would have recognized the need of reading glasses at 43 to 45, instead of 50 years of age.

There are many persons who have violent headaches not due to eye-strain, but associated with pathologic conditions of the fundus oculi, as for example, cases of *retinitis macula luteae*, hemorrhagic retinitis, or optic neuritis. It is not always clear in these patients whether the disease is a purely local one. That is to say, the condition seen with the ophthalmoscope may often be regarded as an indication of intracranial disease, to which the headache may be reasonably ascribed.

Standing in marked contrast to the groups of patients already described is another group, members of which wander from one consulting-room to another, receiving slight changes in their glasses, each time enjoying temporary relief from their complaints. It is quite true that many persons with delicately poised nervous systems are greatly benefited by the correction of very low degrees of astigmatism, since any attempt to abandon their glasses leads promptly to a return of their headaches, but I am convinced that in others the glasses afford relief by a species of suggestion, precisely as they would be relieved by the mummeries of a bone-setter, a christian scientist, or an osteopath. As an illustration of this class of patients I recall the history of a patient referred to me by Dr. H. C. Wood, who displayed marked reflex phenomena apparently due to eye-strain. She had a nearly emmetropic right eye and a significant degree of astigmatism in the left, which I sought carefully to correct. During one of her consultations, in which she had made the most of her symptoms, she claimed such a dread of light that she could not bear to look at the table of test-letters. This I knew was not true, and simply directed her positively to open her eyes and look at the letters, that there was no sufficient reason for her not doing so. She obeyed at once, and the subjective examination was made without further difficulty. This over, she took a chair near me as I sat at my desk to write a prescription for glasses. She placed herself on the very edge of the chair, sat erect while a tense expression came into her face, a faraway look in her eyes. Her fingers were clenched tightly into the palms of her hands, every muscle was rigidly fixed, and she said, "Doctor, don't you think it would be a good thing to send me away from home on a journey? somewhere, anywhere! I am oppressed, I am stifled at home. My husband is an excellent man, but plain, stolid and matter of fact. He can't comprehend me. I am not like other women! I am like a delicate, tightly-strung harp, the vibrations of every string causing the most exquisite sensations. A beautiful poem or painting, the odor of flowers, the stars at night, an exquisite strain of music, drive me wild with a delight that borders on pain!" She received a pair of glasses which she has not been able to neglect, but I am convinced that the relief she experienced was not so much due to her glasses as to a few weeks of "rest-cure" in the hospital. Certain it is that she returned to her home with the tightly-strung "harp strings" relaxed to such a normal tension that their vibrations gave only such sensations as cause pain or pleasure to ordinary mortals.

The following conclusions may be regarded as established by clinical experience:

1. That abnormalities of the ocular apparatus are in a large group of patients the sole and sufficient cause of headache.

2. That these abnormalities of vision may be the unsuspected cause, and, therefore, that the absence of symptoms obviously referable to the eyes does not exclude them as an etiologic factor in headache, insomnia, vertigo, petit chorea in children, and certain stomach-derangements.

3. That the recent or sudden development of symptoms, *e. g.*, after attacks of severe illness, as typhoid fever, the exanthemata, etc.; or in association with more or less acute exacerbation of some general dyscrasia, is not sufficient evidence against ocular participation in causing the symptoms.

4. That the participation of the eyes as an etiologic factor in headache can be positively excluded only in the absence of ocular disease, or after the most painstaking correction of any existing error of refraction or abnormality of binocular balance.

5. That for the relief of reflex symptoms accurate corrections are essential, and these can be secured only by the more or less prolonged use of a strong cycloplegic.

6. That immediate relief by these corrections in a large group of patients is not to be expected, since the pain is frequently due to associated pathologic conditions of the fundus oculi, and these require time for cure.

International Electrotherapeutic Congress.—The French Electrotherapeutic and Radiological Societies have decided to organize an International Congress, with an exhibition of new apparatus, to be held each year. The organizing committee is composed of Drs. Apostoli, Boisseau de Rocher, Branly, Oudin, and Moutier, of Paris, and Doumer, of Lille. All communications should be addressed to Dr. Doumer, 57 Rue Nicolas-Leblanc, Lille.

PRIMARY CARCINOMA OF THE OVARY AND SIGMOID FLEXURE.*

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WARTHIN has recently reported two cases of multiple primary carcinoma from the Pathological Laboratory of the University of Michigan,[1] and has cited the literature up to the present. His cases presented coexistent primaries of the ovary and gallbladder in one case, and of the gallbladder and sigmoid flexure in the other, combinations not previously described. Since his paper another case, here reported as an addition to Warthin's series, has been studied at this laboratory, presenting, so far as I have been able to determine, another hitherto undescribed combination of primary carcinomas, namely, of the ovary and sigmoid flexure.

The patient, Mrs. J. H., aged 45, was admitted to Dr. Martin's clinic in the University Hospital, September 24, 1898. Family history negative as regards cancer. Health good up to present sickness, which began a year ago. At that time the patient had frequent pain in her abdomen and was easily exhausted. Then she noticed a slowly increasing distention of the abdomen. This was gradual up to the middle of August, 1898, then increased rapidly, the pain at the same time becoming more intense and the exhaustion more marked. Her bowels were regular. Physical examination showed fluid in the abdomen, which was aspirated, permitting the palpation of a large, irregular mass. Urine-examination negative.

Laparotomy was done on September 27. The abdomen contained much free fluid and two large multilocular ovarian cysts, which were removed. No evidence was found of growths elsewhere. The patient made an uneventful recovery and was discharged in five weeks. An examination made just prior to her discharge showed enlarged liver-dulness, the exact limit of which was not recorded. Improvement continued until early in December, when gradual failure began, death finally occurring on April 15, 1899.

The patient had three or four diarrheal stools each day for three months preceding death, and about six weeks antemortem the stools contained small dark particles resembling iron dust. Three weeks later she passed some blood-streaked fluid from the rectum, and a week before death vomited some similar fluid in the course of a severe vomiting paroxysm lasting half an hour and only yielding to half a grain of morphia. Abdominal distention began to be marked three weeks before death.

On the invitation of Dr. Lahuis and Dr. Lynds, the autopsy was conducted by me four hours after death. The findings were as follows:

Body of medium size; muscles small and flabby; panniculus scant; skin sallow and dry; icterus slight; a linear scar extends from just below the umbilicus nearly to the pubis, in the median line; there is moderate hypostasis in dependent parts; considerable edema of the left leg, also of labia, especially the left labium; abdomen considerably distended; walls tense; rigor mortis absent; body-heat present; head not opened; thorax not opened; spinal cord not examined.

The main incision was made from ensiform to pubis to the left of the old operation scar.

There are about two liters of straw-colored fluid in the peritoneal cavity; omentum contains little fat and shows no abnormality; intestines in normal position and markedly distended; distention of large intestine very marked. From the posterior surface of the transverse colon, near its middle, a strong band of adhesion passes over the gut, causing considerable constriction, and becomes attached to anterior wall about level of navel. Between the coils of intestine are numerous adhesions and also many between the small intestine and the operation scar. On the coils of intestine lying in the pelvis are occasional small, subserous, grayish-white nodules. On the right side, a loop of the jejunum is firmly adherent to the ovarian amputation-stump without narrowing of its lumen. The sigmoid flexure is firmly bound down by strong adhesions; it is distended by a mass of foul-smelling, superficially necrotic tumor-growth, which occupies it, almost completely occluding it for about six inches. The rectum contains a considerable amount of very foul sero-purulent fluid.

The appendix is normal, but adherent to it is a nodule of about its own diameter, and similar to those previously described. Otherwise the intestines show no changes. The abdominal vessels are negative. The mesenteric glands are enormously enlarged and hard, and on section are dry, white and shining, resembling the section of the small subserous nodules.

The Liver.—The liver is greatly enlarged, especially the right lobe; weighs 5 pounds; projects far into the left hypochondrium and about a hand's breadth below the costal margin in the right nipple line. The right lobe measures $9 \times 8 \times 5\frac{1}{2}$; color yellowish-purple. The liver-tissue is very friable and granular, more especially that of the right lobe. The left lobe contains two hard nodules about the size of hickory-nuts, and the inferior surface also presents a few smaller nodules. In the falciform ligament is a small nodule similar to those described as occurring in the intestine. On section, the right lobe is grayish-yellow, apparently containing no liver-tissue, is fairly firm, and exudes on pressure a thin, grayish fluid. The left lobe is pale-brown, dry, and shows a fatty shine. The lobules cannot be made out.

The gallbladder contains a small amount of thick bile, and two small, very irregular pigment and cholesterin stones.

Spleen.—The spleen is slightly enlarged and soft. On section the follicles are visible and the pulp somewhat edematous. There is no evidence of new growth.

Adrenals.—The adrenals present the usual postmortem degeneration, but no new growth.

Kidneys.—The kidneys are of normal size and shape. The fibrous capsule is not adherent. No pathologic condition is present save a small superficial depression on the convex surface of the right kidney. There is no new growth.

Pancreas.—No changes are noted in the pancreas.

Stomach.—The stomach shows no changes.

Uterus.—The uterus presents no morbid appearances except the subserous nodules previously mentioned.

The thorax was examined through the diaphragm.

Each pleural cavity contains about a half-liter of serous, straw-colored fluid; there are numerous pleural adhesions on each side; the right lung contains, near its base, several hard nodules of varying size; the largest about that of a hazel-nut, which on section are white, shiny and dry; the left lung contains several smaller, but otherwise similar nodules; the heart and vessels are negative.

MICROSCOPIC EXAMINATION.

A section made through the intestinal wall and new growth at the margin of the latter, shows very clearly the transition from intestinal to tumor-structure. The growth is mainly toward the lumen of the gut, the muscularis being but slightly infiltrated. The first change from the normal is to the adenoma, which gradually becomes carcinomatous. In sections made through the growth farther from the edge, the whole mucosa is replaced by malignant growth, the adenomatous condition having passed over entirely into carcinoma. Sections made through the growing edge of the tumor show, at their outer edge, normal intestinal glands. Progression toward the lumen shows next, adenomatous hyperplasia, the glands being more numerous and occupied by cells somewhat larger than normal, with nuclei staining more deeply than normal. The first areas of adenocarcinoma encountered, border on the lumen, being superimposed upon the adenomatous structure described and evidently developing from it. The transition stages are clearly marked out. The adenoma cells and nuclei gradually become larger, the cells more irregular, and their nuclei more and more hyperchromatic, until large cells with large, very deeply staining round or oval nuclei, characteristic of rapidly growing, malignant, intestinal tumors, are produced.

* From the Pathological Laboratory of the University of Michigan, Ann Arbor.

[1] *Journal of the American Medical Association*, May 6, 1899.

The changes in the gland-ducts keep pace with the cellular changes. The round or oval alveoli of the adenoma change, as the lumen of the bowel is approached, into the large, irregular, and often branched alveoli of the adenocarcinoma. In some areas of the malignant portion the picture is more that of a medullary carcinoma than of an adenocarcinoma. Almost no trace remains of alveolar structure, the cells occupying the scant interstitial tissue with no attempt at arrangement.

The interstitial tissue, near the lumen of the intestine, is rich in young bloodvessels, and in one or two places small hemorrhages have occurred. The muscularis shows a considerable small-celled infiltration, as does also the stroma of the new growth. The older parts of the growth show a decided tendency toward necrosis, and contain large spaces filled with albuminous debris.

Liver.—Sections from the left lobe show advanced fatty degeneration and infiltration. Taken from the right lobe they show nothing but adenocarcinoma possessing the arrangement and the large columnar cells with very hyperchromatic oval nuclei of the intestinal growth. There are also large areas of necrosis and disintegration which match those of the primary.

Retroperitoneal Glands.—The lymphoid structure is almost entirely replaced by new growth having the same characteristics as the intestinal tumor. The subserous nodules from the intestinal wall, appendix, uterus, and pelvic peritoneum, all correspond in structure and cell-type with the tumor of the sigmoid.

Lung.—The larger secondaries are encapsulated; the smaller ones appear as groups of alveoli surrounding the bloodvessels, the metastasis evidently having been lymphogenous. All reproduce the structure and cell-characters of the intestinal growth Except in the neighborhood of the secondaries, where an inflammatory reaction with localized atelectasis is found, the lung presents no further morbid changes.

Spleen.—Simple atrophy; marked edema; hyaline thickening of vessels.

Kidney.—Occasional areas of interstitial increase; slight cloudy swelling and atrophy of tubule cells; hyaline degeneration of vessel-walls.

Heart—Brown atrophy; slight increase of subpericardial fat.

DIAGNOSIS.

Primary adenocarcinoma of intestine obstructing lumen of sigmoid flexure; secondary adenocarcinoma of liver; retroperitoneal glands, peritoneum, and lungs; arteriosclerosis of splenic and renal vessels; edema of spleen; slight diffuse nephritis.

A possible relationship between the ovarian tumors removed six months previously, and the postmortem findings immediately suggested itself, and, through the kindness of Dr. Warthin, recourse was had to the records of the Pathological Laboratory for data concerning the former. But one of the tumors removed was sent for examination. It was about the size of a man's head. The outer surfaces presented numerous adhesions, but no evidences of malignant growth. There was no breaking down of the cyst-wall. Section showed one very large cyst and many small ones, filled with a mucous fluid of varying color and consistency. Some was clear, some cloudy, some brownish, and some purulent. The walls of many of the smaller cysts contained distinct papillae. Near the central part of the growth was a solid mass the size of an orange. On cross-section this showed a distinct stroma, and on scraping yielded an abundant cellular exudate. Portions of the growth were examined microscopically, and showed the greater part of the tumor to be a papilliferous multilocular cystoma. Sections of the solid part showed cysts partly or entirely filled with cells arising from an overgrowth of the papillae lining them, so that in some cases the picture of a medullary carcinoma was produced. The cells in these areas were less distinctly columnar than in the nonmalignant, cystomatous portions, were more irregular, not attached to the basement membrane, and showed a hyperchromatosis. From these appearances the growth was diagnosed by Dr. Warthin as a papilliferous multilocular cystoma, containing carcinomatous areas.

A comparison of the intestinal growth removed at autopsy with the malignant portion of the ovarian tumor leads me to the conclusion that no relationship exists between them. My reasons are based on both microscopic and clinical features, and are as follows:

1. The ovarian tumor has a much less adenomatous structure than the intestinal the cells show much more tendency to grow free from the basement membrane; the cells are smaller and more irregular, and their nuclei are smaller and stain much less deeply; there is less tendency toward necrosis in the carcinomatous part of the ovarian growth.

2. The histogenesis of the sigmoid flexure tumor is shown by the transition from adenoma to carcinoma, and the histogenesis of the ovarian tumor is shown, with equal clearness, by the development of the carcinomatous areas from the proliferating cell-lining of the cysts.

3. Experience has shown that the sigmoid flexure is one of the favorite seats of primary carcinoma of the intestine, while metastatic carcinoma in this region coming from a primary of the ovary, is practically unknown. Clinical evidence would therefore negative any relationship between these tumors, even though their structure were similar, which is not the case.

On the other hand, a primary in the intestine may give rise to secondaries in the ovary, but does so very rarely, as metastasis is usually through liver and lungs. When this does occur there is usually widespread metastasis in the peritoneal cavity, and the ovarian growth is external, and not in the internal portion of the organ, metastasis being by way of the peritoneum. The subserous nodules on the intestines, uterus and pelvic walls, in this case, are to be looked on as the results of metastasis through the mesenteric lymph-spaces. They are not in the peritoneal cavity, but underneath the peritoneum. By "metastasis in the peritoneal cavity," and "metastasis by way of the peritoneum," is meant the breaking through of the growth into the peritoneal cavity, and the implantation of cells directly on the serous surfaces.

Experience, therefore, in so far as the predilection-seats of primary growth and metastasis are concerned, would militate against either the intestinal tumor being secondary to a primary ovarian, or the ovarian being secondary to a primary intestinal growth.

4. The clinical history of the case shows that the

ovarian tumor developed first, and that at the operation for its removal no evidence was found of growths in any other location. It is, of course, possible that the intestinal tumor was in existence at this time, and that the enlargement of the liver observed soon after the operation may have been the result of metastasis from that tumor. Indeed, the slow course observed in a majority of carcinomata of the intestine would indicate that it did exist at the time of operation, though it was impossible to detect it.

From the points above mentioned, and chief among them, that the histogenesis has been proved in each case, I look on these tumors as coincident primary carcinomata.

This case is another example of the development of malignant growth from adenoma. Warthin traces the carcinomata in his cases "to a carcinomatous proliferation of the epithelial cells of adenomata." The intestinal tumor in his Case II is exactly similar in location, structure, and development to the intestinal growth in this case.

In this connection Quenu and Landel have published a very important communication in the *Revue de Chirurgie*, Paris, April 10, 1899. They have analyzed 40 cases of polyadenomata of the large intestine, the adenomata consisting of hyperplastic mucosa and connective tissue, from the size of a pea to that of a pigeon's egg, and show the presence of one or more cancers in nearly 50% of the cases. The polypi may exist as such for a long time, and then one or a number may become carcinomatous, the transition being easily discernible in many cases. A majority of the cases were males under 31. Persistent diarrhea and occasional hemorrhage were the main symptoms, sometimes also pain. The polypi are most numerous in and near the rectum and diminish toward the cecum. Occasionally the small intestines and stomach are involved.

This report notes a far greater tendency toward malignancy on the part of intestinal polypi than do previous statistics. Hauser's[2] percentage of malignancy was only 20 as against nearly 50 in the observation here quoted.

The importance of these observations in connection with the etiology of carcinoma is very great. That simple adenomatous hyperplasia underlies many cases of cancer there can be no doubt. This fact might be taken as an argument against the existence of a special cancer parasite. An overgrowth of normal structure, so far as appearance is concerned, such as is presented by a simple adenoma, can hardly be laid at the door of any special irritant. Too many kinds of irritation are capable of stimulating cell-activity. Moreover, in some cases, the evidence does not permit us to introduce positively any form of irritation as the causal factor. Cases of polyposes of the large and small intestine and stomach, and of the intestine, gallbladder and uterus, as reported by Quenu and Landel and Warthin, suggest a widespread cell-anomaly, as obscure, perhaps, in its nature, as are the factors underlying the segmentation of the ovum.

[2] Hauser. Das Cylinderepithelcarcinom des Magens und Dickdarms, Jena, 1890.

X-RAY EXAMINATIONS OF THE CHEST AS ILLUSTRATED BY TWO CASES OF PNEUMOHYDROTHORAX AND TWO OF PNEUMOTHORAX.

By FRANCIS H. WILLIAMS, M.D.,
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X-ray examinations have now been in use for more than three years; their value to surgeons was quickly demonstrated and appreciated, but their usefulness to physicians was at first not so apparent, as better apparatus was needed for careful work than was at first to be obtained. Now in this field also it has been demonstrated that x-ray examinations are of service, especially in diseases of the thorax. By their means we can recognize early certain abnormal conditions of the lungs; in pulmonary tuberculosis, for instance, this departure from the normal can be *seen* on the fluorescent screen in some cases before there are râles, or marked physical signs, or even before there is cough. In a word, the x-ray examinations can be classed as one of the methods for detecting signs of pulmonary tuberculosis early in the disease. They also indicate readily and easily emphysema of the lungs; they enable us to see some aneurysms before there are physical signs by auscultation and percussion; they give us a way of determining the size, position, shape, and mobility of the heart more accurately than ever before, and an exact knowledge of these conditions is very important in diseases of this organ. I have shown elsewhere that percussion answers in most cases for determining the size of the normal heart, but that it fails in a considerable proportion of cases where the heart is larger or smaller than normal. In pneumohydrothorax and pneumothorax the x-ray examinations are not so important, but they are helpful, and the following cases, chosen from several that I have seen in the past two years, offer some points of interest either of diagnosis or of treatment.

They were all examined by me with the Röntgen light, but only one of the patients was in my service; for the others I am indebted to Drs. Buckingham, Cushing and Sears:

Pneumohydrothorax.

Case 1.—C. P. W., 36 years old. X-ray examination, June 5, 1897. When he was examined in a sitting position, the fluoroscope showed fluid in the lower part of the left chest, the surface of which was level, demonstrating that there was air above. The level of the fluid on the left side changed as the patient bent backward or forward; when he was gently shaken the splashing of the fluid was clearly seen, and when quiet the waves made on its surface by the heart-beat were visible. The x-ray examination suggested that the patient had also a tubercular infiltration of the right apex. This

was confirmed later by the finding of tubercle-bacilli. It is necessary to place the Crookes tube and the patient in a proper position in order to show the presence of both air and fluid, for when this patient was examined lying down with the Crookes tube under him, the appearances seen in the fluoroscope were similar to those found in pleurisy with large effusion, because in this position the fluid gravitated to the back of his chest.

On June 17, Dr. Buckingham withdrew 39 ounces of fluid from his chest; on June 29, 45 ounces; on August 6, 64 ounces. He was discharged from the hospital September 25, 1897, improved. He had gained 15 pounds.

CASE 2.—The second case of pneumohydrothorax was a patient of Dr. H. W. Cushing—A. B., a boy, 14 years old, who was injured in the chest He entered the hospital in a state of collapse. X ray examination, 2 days after entrance, showed, when the patient was in a sitting position, signs similar to those shown in the diagram (Fig. 1), but a little more of the heart could be seen on the left side, and a movement of the diaphragm of about half an inch could be followed indistinctly through the fluid, and above the nipple on the left side the chest was darker, due probably to the shadow cast by the collapsed left lung; on the right side, although the lung-area was somewhat darker than normal, the movement of the diaphragm of one and a quarter inches could be readily followed; the right border of the heart was seen distinctly nearly in the right nipple line.

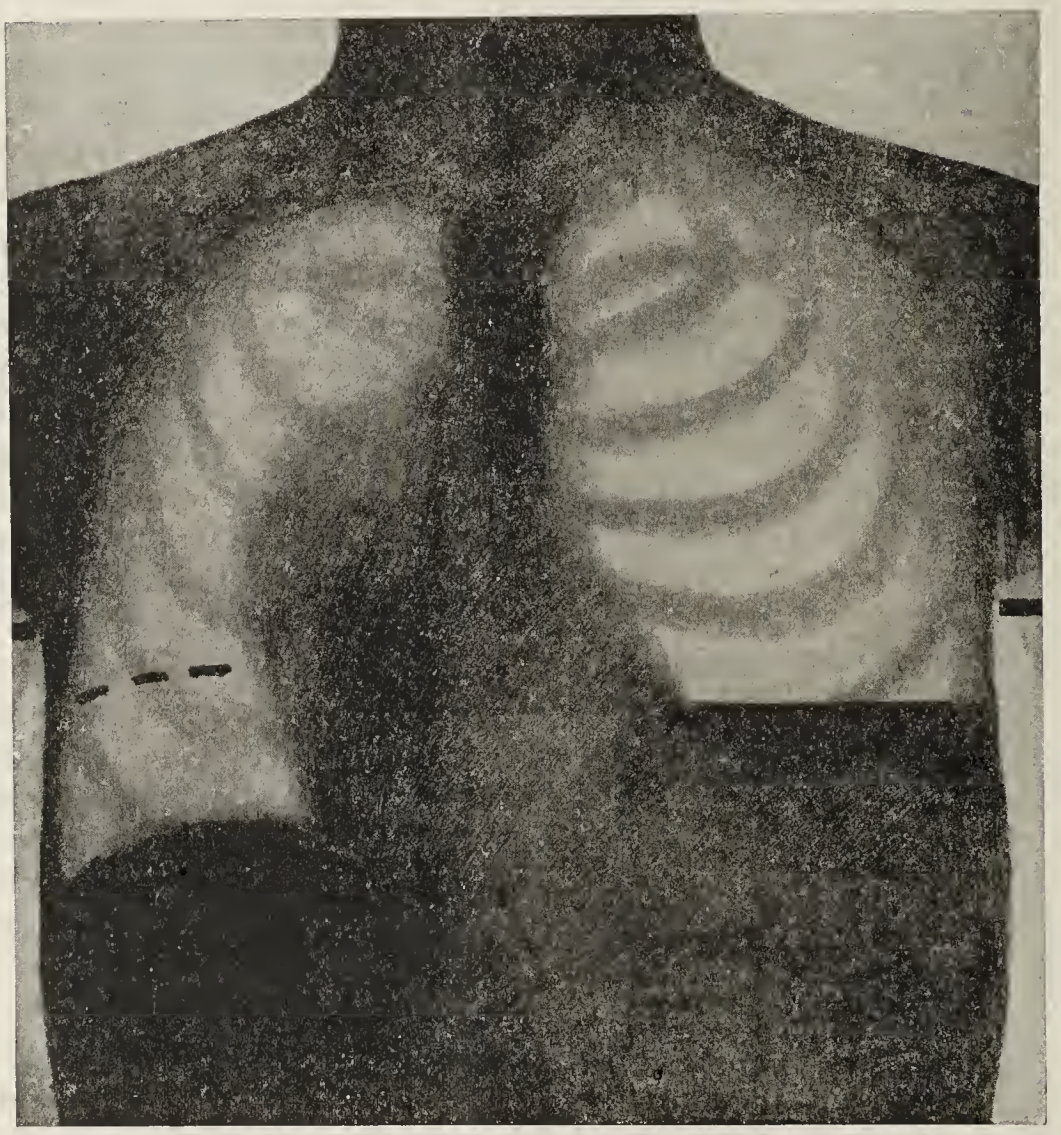


FIG. 1.—Pneumohydrothorax on left side. This diagram was made from a patient not described in this paper, but the appearances in Case 1, C. P. W., were similar to it, except that in Case 1 the right apex was darker because of a tubercular deposit; the appearances in Case 2 were also similar to those seen in Fig. 1, except for the differences noted in the description of that case.

PNEUMOTHORAX.

CASE 3.—This patient entered the service of Dr. Sears August 30, 1896.—D. C., 28 years old. Alcoholic. On August 29, 6 P.M., he felt a sudden pain in the left side, no dyspnea. On August 30, slight dulness all over right back and axilla. Respiration nearly absent. Fremitus and voice-sounds not increased. Left lung negative. Heart, apex, area, and sounds normal.

September 2. In upper and lower thirds of right chest front there was tympany and marked amphoric respiration. In middle third there was an area of very distant indistinct respiration. Right supraspinous fossa markedly amphoric.

Physical examination on September 3: Tympanitic note over the whole of right front, amphoric respiration marked at right base with metallic tinkling. Over upper and lower thirds of right front, axilla, and right base marked amphoric voice and whisper. Edge of liver could not be felt. Heart-dulness a finger's breadth to left of sternum apex beat in the fifth space one and one-half inches outside nipple line.

X-ray examination September 4: Whole of right side, a clear and bright area which extended far down and over to the left side. Diaphragm on right side extended nearly to the lower costal border; its motion on inspiration and expiration was much limited; its median end had more motion than the outer end. The appearances on the left side were unusual, there were two bright areas divided from each other by a vertical dark area. The heart was pushed far to the left with the lung and vessels. The examination was not complete, as the patient was not strong.

September 5. Physical examination showed that the apex-beat was in the fifth space, one and three-quarter inches outside the left nipple line. Patient rather cyanotic, respiration somewhat hurried. Right chest somewhat more prominent than left, but moved well with inspiration. Metallic tinkling was absent. Edge of liver could not be felt, as patient held himself very rigid.

September 6. The patient had been more delirious since last note; had required constant restraint. Heart's action tumultuous; cyanosis had increased; had been rapidly failing since morning; respiration was more hurried. Pulse failed and the patient died at 3.10 P.M.

The displacement of the heart and lung was so much greater in Case 4 than is found in patients with a permanent opening in the chest, as after an operation for empyema, that the air in the right side of the thorax was probably under more than the atmospheric pressure, and had been pumped into the pleural sac through a valve-like opening.

CASE 4.—Delia H., 25 years old, entered my service at the hospital, April 3, 1898. Alcoholic. Had had much cough and expectoration. One week ago she had suddenly a sharp pain in the left side, which increased. She was unable to take a deep breath. Physical examination: cardiac area not determined, chest hyperresonant. Apex not determined. No cardiac sounds heard to the left of sternum. On right of sternum heart-sounds are heard indistinctly, loudest in fifth space at sternal border, no murmur detected.

Lungs.—Resonance increased over entire left lung, front and back. Tactile fremitus and voice-sounds were decreased over this area. Over right back there was marked resonance, and respiration was broncho-vesicular. Many crackling râles were heard. Over right front resonance was fair. Respiration was here accompanied by many râles.

April 4, physical signs the same as on April 3.

X ray examination was as shown in Fig. 2. After this examination I immediately decided to draw off a part of the air, knowing how much relief is obtained in cases of pleurisy with effusion when the first part of the fluid is withdrawn, and a quart seemed to me a suitable amount, for to take out too much might cause the opening from the lung to the pleural sac to open again, and thus require a repetition of the operation. The method adopted was as follows: I sent

for a large bottle and a stopper with two holes in it. The bottle was then filled with water and placed on a table near the patient. Through one of the openings in the stopper a glass rod was inserted which reached to the bottom of the bottle, and to whose upper end was attached a rubber tube long enough to connect with a measuring glass on the floor. This tube acted as a siphon to suck the water out of the bottle. The other opening in the bottle was connected by means of a rubber tube with a small hollow needle. The sterilized needle was inserted into the left pleural cavity in the sixth space in the mid-axillary line, and as the water was drawn out of the bottle by the siphon, air from the patient's chest was drawn in. When a quart of water had been thus withdrawn from the bottle and a quart of air taken out of the patient's chest, I lifted the siphon tube until water no longer flowed through it, and, as at this height the siphon had some suction power, I knew that there could not be a free opening between the pleural sac and the air in the lung. The immediate improvement in the patient's condition was very marked. Just before the operation the breathing was shallow and rapid (44 per minute); when the aspiration was stopped it was slower and deeper (35 per minute), and soon after this the respirations had come down to 28 per minute. Not only was her breathing made easy but her color and circulation were improved. Her change for the better was very prompt and permanent, so far as concerned the pneumothorax.

On April 8, a second x-ray examination showed a respiratory excursion of the diaphragm of $1\frac{1}{4}$ inches, and the left border of the heart $1\frac{3}{4}$ inches to the left of the median line. On April 13 a third x-ray examination showed a further improvement, especially on the right side, where the right border of the heart and movements of the diaphragm could be dimly seen.

On April 20 and 28, x-ray examinations showed still further improvement.

On April 28 she was discharged from the hospital. The right side of the chest remained always much darker than normal, owing to an extensive tubercular deposit in that lung.

On May 16 she returned to the hospital, and reported that she had been feeling very well up to May 13.

Physical examination showed dulness and many râles of every variety over entire right chest; over lower part of left chest there was dulness and absence of voice-sounds. Upper part of left chest was hyper-resonant, but respiratory sounds were present and distinct. Tubercle-bacilli found in sputum.

May 17, an x-ray examination showed a dark right chest and signs of pleurisy with some effusion in the left chest; a little clear fluid was withdrawn from the left side.

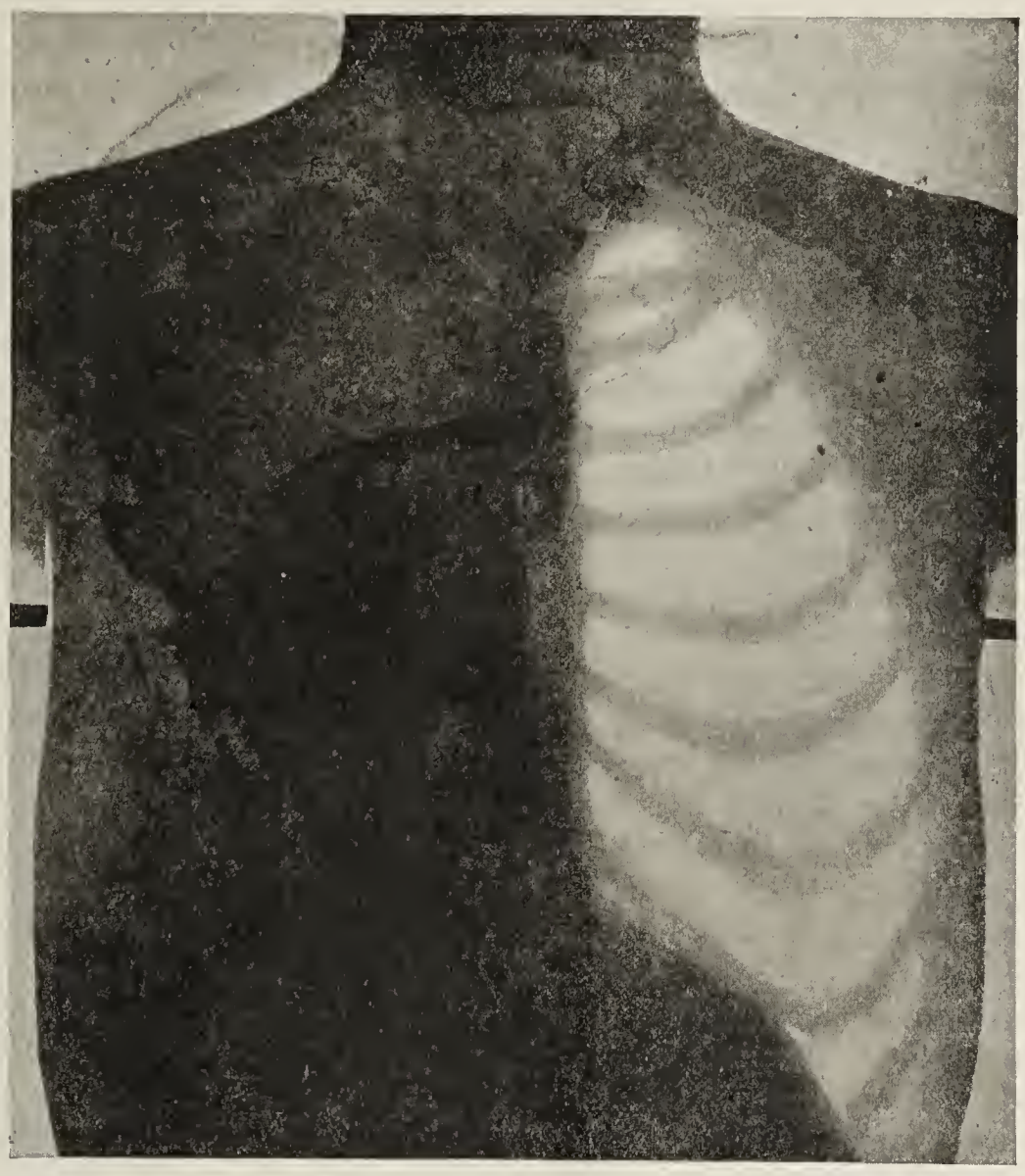


FIG. 2. Pneumothorax, left side. Tuberculosis right side; heart displaced to the right.

These patients show, I think, that the x-ray examinations may assist us to determine the exact conditions present in this class of cases. I have never appreciated them so clearly, especially in pneumothorax, as by means of an x-ray examination. In treating pneumothorax, where there is much displacement of the thoracic contents owing to the drawing in of air through a valve-like opening in the pleura, two things may be done. First, a suitable and measured quantity of air may be drawn off; second, the integrity of the pleural sac may be tested; if it is not intact it may be necessary to repeat the operation, or an opening may be made in the thoracic wall.

INTUSSUSCEPTION.[1]

BY

J. C. MUNRO, M.D.,

of Boston, Mass.

OVER 500 cases of intussusception have been reported during the last 25 years, three-fourths of them occurring in infants. All cases should be considered as surgical from the beginning. As in appendicitis, every case may not demand operation, but the responsibility should be placed in the hands of one ready and able to operate at the earliest opportunity. The invagination in over half the cases is in the ileocecal region, the stomach very rarely and the jejunum rarely being affected. Spontaneous recovery may take place by disinvagination or separation of the inner tube, but in many such cases the patients die later of perforation, stricture, etc.

Treatment by injection is justifiable in chronic cases, when the patient refuses operation in acute cases, when beyond surgical aid, and within a few hours after the onset of the attack. All authorities urge operation as early as possible in acute cases, and at once after trying a simpler procedure, such as injection. In chronic cases it is unwise to delay over a week, watching the patient

[1] Author's resume of paper read at Annual Meeting of the Massachusetts Medical Association, Surgical Section, on June 13, 1899.

carefully meanwhile. The supplying of an artificial anus has very little to recommend it with scarcely a recorded recovery in an acute case. Enteroanastomosis has but little more in its favor, less than a dozen recoveries being reported in acute cases. Disinvagination is the ideal operation. Chronic cases are not necessarily difficult to reduce. With adhesions, tumors, necrosis, etc., partial resection by the method of Maunsell or that of Rydygier, or complete resection is in order.

As most data are based on intussusception in infants, a consideration of the cases reported in adults, especially when in the jejunum, is made. In addition to Braun's table (1885) and Rydygier's table (1895), 14 more cases of resection or reduction have been reported, making a total of 72.

Of 21 recoveries after reduction—including cases of Perceval, Stretton and Barker—13 were ileocecal or colic, 4 iliac, 1 jejunum and 3 unknown. Thirteen were chronic, 7 acute, and 1 unknown. Of 13 fatal reductions, including cases of Davies-Colley, White and Richardson, 9 were ileocolic, one each iliac and jejunal, and 2 unknown; 7 were acute and 6 were chronic. Of 17 recoveries after resections, including cases of Hartley, Wassiljew and Munro, 14 were ileocolic and 1 each iliac, colic, and jejunal. Six were acute and 9 chronic, with 2 unknown. Of 21 fatal resections, including cases of Abbe, Senn, Robson and Munro, 9 were ileocolic, 7 iliac, 1 colic, 2 jejunal, and 1 unknown; 14 were acute, 5 chronic, and 2 unknown.

The jejunum was involved in only 5 cases, as follows:

1. White, acute, died on table.

2. Stutsgaard, died of peritonitis after resection of 128 cm.

3. Robson, died after resection of 4 feet, and end-to-end anastomosis.

4. Borch, acute ileojejunal, recovered after disinvagination.

5. Munro, chronic with acute exacerbation, recovered after resection of 32 inches.

The earlier recoveries were almost all easy reductions. The early resections were almost uniformly fatal, but with improvement in technic, etc., the mortality has fallen nearly half and in all probability it will never be much less, because with earlier diagnosis and operation resection will be replaced by reduction.

Two cases occurred at the Boston City Hospital in patients under my personal charge. One, resection in an acute invagination of the lower ileum, with end-to-end anastomosis, a man 37 years old, died in 60 hours of rupture of intestine proximal to the joint.

The other, an acute exacerbation in a chronic intussusception in a Chinaman, 21 years old, ended in recovery after resection and end-to-end anastomosis. Six days after the first operation leakage of bile and pancreatic fluid took place from an opening proximal to the joint. A second anastomosis was made at the point of rupture, but again 6 days later leakage occurred. The fistula finally closed in about 5 months and the patient was discharged fat and well.

A CASE OF TYPHOID FEVER WITH ULCERATION OF THE ESOPHAGUS, AND COMPLICATED WITH CROUPOUS PNEUMONIA.*

By DAVID RIESMAN, M.D.,

Professor of Clinical Medicine, Philadelphia Polyclinic; Demonstrator of Pathology, University of Pennsylvania; Assistant Pathologist to the Philadelphia Hospital.

THE rarity of ulceration of the esophagus from any cause, and from typhoidal infection in particular, prompts me to put on record the following case of ulceration in that part of the body occurring in typhoid fever. The discovery of the ulcers was accidental and was made at autopsy, there having been no symptoms indicating involvement of the esophagus during life.

The patient was a young farmhand, 17 years of age, who had tramped from Baltimore to Philadelphia, having been two weeks on the road. On arriving in this city he was arrested as a vagrant and taken to a police station, where it was recognized that he was critically ill. He was transferred to the Philadelphia Hospital, December 22, 1898, and came under the care of Dr. R. G. Curtin, to whom I beg to express my thanks for the privilege of reporting the case.

On admission, the patient presented all the signs and symptoms of typhoid fever, including the Widal reaction. Moist rales were present over the right lung posteriorly. From the beginning the heart's action was very feeble; and this feature seemed to be the chief factor in his death, which occurred December 30, 1898.

The autopsy was made twelve hours after death. There was very little subcutaneous fat; the recti muscles were brownish and somewhat shiny. The intestines were greatly distended with gas, but the serous surface was moist and glistening, and there was no excess of fluid in the abdominal cavity. The appendix was unusually long, measuring $15\frac{1}{2}$ cm. There were some adhesions between the gallbladder and the stomach.

Chest.—A small amount of thymus-tissue remained. Delicate adhesions bound the right lung to the chest wall. The heart was of good size, but flabby; the muscle had a peculiar brownish-red color and was somewhat waxy in appearance. The aorta was preternaturally small, measuring only $4\frac{1}{2}$ cm. in circumference, against $6\frac{1}{2}$ cm. for the pulmonary artery. The pulmonary valve consisted of *four* distinct leaflets nearly equal in size. There was beginning atheroma at the sinuses of Valsalva of the aorta, and a few yellow patches were seen in the intima of this vessel. The endocardium was opaque in places. A delicate curtain was stretched over the opening of the inferior cava into

* Substance of a paper read before the Pathological Society of Philadelphia March 9, 1899.

the right auricle, looking somewhat like an auriculo-ventricular valve. Scattered through the left lung were numerous consolidated areas, dark-red in color, firm, slightly elevated, somewhat granular, and sinking in water. The weight of the lung was 550 grams. The upper lobe of the right lung, with the exception of the anterior margin, was consolidated, enlarged, and dark-red in color. On section, the surface was grayish-red and granular, and the tissue friable; on pressure a thick, bloody, and slightly frothy fluid exuded. The pleura over this lobe was covered with recent lymph. The bronchial mucous membrane was injected. The weight of the lung was 660 grams.

The *spleen* was somewhat enlarged (15 x 10 x 4½ cm.), dark in color, and quite firm. The Malpighian bodies were not prominent.

The *kidneys* were considerably enlarged, but soft and flabby; the capsule stripped with some difficulty. The stellate veins were prominent. On section, the structural markings were indistinct; the color was slightly yellowish, and in places the cortex was reduced in thickness. The *suprarenal glands* presented nothing abnormal macroscopically.

The *intestines* contained a pint of opaque, yellow, "pea-soup" fluid. The mucous membrane of the small bowel was slightly injected and pinkish. The upper Peyer's patches were elevated, and presented a latticed appearance. The first ulcerated plaque was 8 cm. long and 2 cm. wide, pinkish-red and velvety. The second was in a similar state, but more excavated, and 6½ cm. long. Then came several that were slightly excavated, and one that was still in the stage of medullary infiltration. In addition, there were in this region a number of irregular, small, follicular ulcers. The lowest Peyer's patch was sloughing and was of enormous size (9 cm. long and 3 cm. wide), had a hacked-up appearance, and was covered with long finger-like shreds of tissue. The necrosis had in places extended down to the serous coat. There was some ulceration at the ileocecal valve, and a few follicular ulcers were seen in the large bowel. There was some loss of substance in the mucous membrane at the base of the appendix, probably from typhoid ulceration.

The Esophagus.—Situated in the upper part of the esophagus, on the anterior wall, to the right of the median line, was a chain of four ulcers, extending perpendicularly downward from a point 2½ cm. below the base of the pharynx. The four ulcers together, including the intervening tissue, measured 23 mm. in length. The first and largest was elliptical, 7 mm. long and 4 mm. wide. The second was 2 mm. in length, the third of the same length, and the last was just forming. The ulcers were elevated above the surrounding surface and had sharply defined, pale edges; the center was slightly depressed below the margin. Opposite the ulcers, on the left side, was a prominent collection of lymphoid follicles; and all along the esophagus, the lymphoid nodules were well marked as small, whitish, nonulcerated points. On the anterior wall, at the base of the pharynx, the lymphoid follicles were also prominent. The ventricles of the larynx presented a rough appearance, but were not ulcerated. The faucial and lingual tonsils were enlarged, as was also the middle lobe of the thyroid gland.

The *liver* presented nothing abnormal externally. On section, the surface had a dull hue, and the outlines of the lobules were indistinct. The color was pale, grayish-brown. The gallbladder was free from ulcers. The mucous membrane of the stomach was thickened and mammillated. The pancreas presented nothing abnormal. The *mesenteric glands* were greatly enlarged and soft. On section, they were reddish-pink in color and showed no actual breaking down. Nothing significant was discovered in the brain.

It has long been known that other mucous membranes besides that of the intestine are subject to ulcerative processes in the course of typhoid fever; thus, for example, that of the gallbladder, of the pharynx, of the larynx, and, possibly, of the stomach. The majority of textbooks, however, are silent with regard to lesions of the esophagus. The earliest reference to involvement of this part of the digestive tract I have found in the writings of Chomel,[1] who mentions one instance. The ulceration was discovered at the autopsy on the body of a young man of 20 years, who had died on the thirty-second day of the fever. The ulcers extended

from the pharynx to the cardia, and were from 4 to 8 lines in length, shallow, and slightly raised above the surface. The upper part of the esophagus was almost occluded by a pultaceous, grayish-white material.

Louis,[2] who examined the bodies of typhoid-fever patients with wonderful, painstaking thoroughness, found ulceration of the esophagus in 7 out of 46 cases. It was not present in the bodies of those that had died before the sixteenth day. The ulcers were generally more numerous at a distance of from 12 to 23 lines from the base of the pharynx, and increased toward the cardia. Perforation was never observed. Jenner[3] found ulceration in 1 out of 17 cases in which the esophagus was examined. Roederer and Wagner[4] met with several instances in the Göttingen epidemic. In Curschmann's[5] elaborate monograph, just published, the condition is mentioned, but no cases are cited.

Early last year Dr. Packard[6] read before the Section on Medicine of the College of Physicians a paper on a case of stricture of the esophagus that had followed typhoid fever. He collated the principal statistics in the literature (those of Hölscher, Berg, Dopfer, Studer, and Hoffmann) and found that in none of the 5,000 cases (the number collected) had ulceration of the esophagus been observed, although there was sufficient evidence in all of the records that this part of the body had been examined. Brouardel[7] mentions the condition, and refers to Louis's observations, but cites no cases of his own. Chantemesse, in his elaborate article in the "Traité de Medecine," is silent on the subject. Osler[8] refers to a case of stricture of the esophagus following typhoid fever, that came under his observation at the Johns Hopkins Hospital and was reported by Mitchell. In a comprehensive article on ulceration of the esophagus, recently published by Beatrice Russell,[9] very little is said about ulceration in typhoid fever, the author merely quoting Osler.

It is apparent from a perusal of the clinical histories of the recorded cases of typhoid ulceration of the esophagus that the condition as a rule produces no characteristic symptoms. This, as has been stated, was also the case in the present instance. The absence of conspicuous signs attracting attention to the esophagus in part accounts for the fact that this section of the digestive tract is so rarely examined at autopsies on typhoid fever. If it were inspected in every case, it is highly probable that ulceration would be discovered more frequently. It would, indeed, be a wise practice to note the condition of the esophagus at every autopsy. The recent report of Rosenheim,[10] of a case of stricture following diphtheria, suggests that in this disease, too, we might discover lesions, if we should systematically look for them.

There was, in our case, a small ulcer at the mouth of the vermiform appendix. Typhoid lesions in this process are not very rare. Carter,[11] several years ago, reported an instance of typhoid perforation of the appendix and, in his excellent monograph on the medical complications and sequelae of typhoid, Hare[12] mentions a number of such cases, and quotes the statistics of Fitz, Kelynack, and others.

Olga Hopfenhausen[13] recently studied the condition of the appendix in 30 cases of typhoid fever, and found that inflammatory changes in this part were almost constant, but that specific ulceration, such as is seen in other parts of the bowel, was rare, and that typhoid fever played but a small role in the production of the genuine symptoms of appendicitis.

The croupous pneumonia which was present had all the features of the ordinary lobar pneumonia due to the pneumococcus. The pneumonia developing in the late stages of typhoid fever is generally due to this microorganism, and not to the typhoid bacillus.

There is one other point concerning which I wish to say a few words, and that is the hypoplasia of the aorta. A great deal has been written of late about a condition, designated "constitutio lymphatica," which anatomically is characterized by a general hyperplasia of the lymphoid tissues, by a small aorta or a small vascular system, and frequently by an undersized heart. Individuals with a lymphatic constitution are liable to sudden death from causes that often appear inadequate or are undiscoverable. They bear infectious diseases badly and readily succumb to anesthetics. Those tragic deaths that occur unexpectedly in patients convalescing from typhoid fever and, especially, from diphtheria, apparently in consequence of cardiac paralysis, are generally connected with the fundamental vice of constitution, the partial expression of which is the "constitutio lymphatica."[14] I know of no satisfactory explanation of the relationship between the lymphatic constitution and the liability to sudden death. It is probable, however, that the nervous mechanism of the heart is chiefly concerned.

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South African Medical Congress.—The proposed Congress has been postponed, in deference to the almost unanimous opinion of the medical practitioners of the Cape Peninsula, until a date to be determined upon later—probably next year.

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See Advertising Page 44.

VOL. IV, No. 14 — SEPTEMBER 30, 1899 — $3.00 PER ANNUM

At Last, Filtration for the Water-supply of Philadelphia.—Now that the commission of experts appointed by Mayor Ashbridge has reported in favor of slow sand-filtration as the best remedy for the purification of the water-supply of the city of Philadelphia, Councils should lose no time in putting into speedy and active operation the recommendations proposed, thus at once freeing the city of the stigma that it has so long borne, and stopping the destruction of life that its citizens have so patiently and so meekly endured. Councils have had many opportunities of doing in the past what now circumstances will not permit them to escape or shirk, and the least that they can do to redeem themselves is to act promptly in the matter, in order that the people may be allowed at the coming election, by almost unanimous vote, to reiterate their desire that the water they drink shall be filtered, and that the ways and means may be provided for the carrying out of a project than which no more important has ever been before a community. Let us have filtered water, and let us have it without delay. Stop the carnage; spare the suffering.

Buying instruments seems to be a favorite pastime with many members of our profession. They certainly have no use for much that they buy, hence it is inferred that they buy simply for the pleasure of it. Many young graduates spend hundreds of dollars on instruments which only cumber the office, and the physician is an exception who does not continue this policy, to a greater or less extent, through life. They look so bright and shiny, and many think that their showiness attracts patients, but we question if enough are deceived by this half quackish bid for practice to make the expense worth while. It is a fairly safe rule to buy in the beginning only those instruments that are absolutely certain to be needed, and to buy the other essentials as occasion requires. The simpler models that have stood the test of years are more likely to prove serviceable than the showy, complicated, costly "latest thing out," in spite of its apparent advantages. And it is safer to buy of the intelligent, reliable, well-established maker. Money invested in carefully selected books or periodicals is certain to give a fair return in valuable hints, even if you only pick them up at odd moments and do not read them from cover to cover; but money invested in useless or needless instruments is surely sunk beyond hope of recovery.

Multimillionaires and Their Cerebral Hemorrhages.—When a millionaire dies of a cerebral hemorrhage the newspaper pathologists make haste to tell us that the weight of his millions burst one of the blood-vessels in his brain. When a pauper—or even an ordinary gentleman—dies from the same accident, the newspaper fraternity have nothing to say; and never inform us why a poor man's artery should give way without the strain of bloated opulence to account for it.

The recent death of a highly esteemed and benevolent millionaire in New York, from apoplexy—from which also his father died before him—is all explained cocksure in the newspapers as a logical sequence of his having much money. We have always thought, in our ignorance, that cerebral hemorrhages were due to disease of the coats of the arteries, and that this disease in turn was due to irritant or morbid states of the blood. A million of money is not one of the things that circulate in these channels, and a millionaire has no more monopoly of atheromatous patches in his arteries than a beggar. All the worry for gold imaginable could no more produce such a patch than it could cause a wart on a man's nose.

Let money bear its fair share of responsibility in the world, but let us not load it down with too much pathology. Its possession and proper use tend to health and prolongation of life rather than the contrary. It is poverty and privation that are of close kin to disease—and even newspaper reporters might recognize the fact that a more even distribution of wealth would not be injurious to the health of many of us.

American Medicine vs. Foreign Medicine—The Course of Study.—A comparison is difficult because of the great differences existing between the various schools both at home and abroad. It is quite evident that standards must vary between the large schools of London and Queen's College at Cork; between the University of Berlin and that of Erlangen; between the well-established school of our large Eastern city and the small school of the far West. It is of course inevitable that the standards of the older countries are more uniform than with us, and that on the whole the average is higher. As to the length of time devoted to a medi-

cal course, five years is demanded in Great Britain, and while not demanded in Germany, few students go through with less time; but it should be remembered that one year is devoted to chemistry, physics, and biology, so that at the American school in which college degrees are demanded for entrance, the time required is about equal. The cost of medical study at London is estimated by the *British Medical Journal* to be about £700 ($3,500) for the course, certainly as expensive, if not more so, than our most expensive schools, and decidedly more than at our more moderate-priced institutions. With regard to the quantity and quality of work demanded, it is probably about an even thing in the best schools of Great Britain and America; theoretically the German and French student may do about as he pleases, but practically he has to do plenty of hard work. The requirement of a course including thorough laboratory instruction in physics and biology, as is the case in all European schools and the best of our own, should be demanded in all our schools as the next step in the steady advance which is being made. Another improvement which we need is the introduction of the system of service as clinical clerks and surgical dressers, as is almost universal among students in Great Britain.

Toleration of Quackery Should End.—The question as to what to do about the awful craze of quackery with which the American people seem to be seized is one of the most serious things in our public life. Millions upon millions of dollars are spent each year to enable many thousands of young men to learn the science of medicine, a science linked with all the other sciences, and the outcome of centuries of patient effort to learn the mystery and cure of disease. A success in reducing the death-rate to a marvelous degree is the unquestioned result of this long and great intellectual, civilizing labor. In this result the entire people should be profoundly interested, because nothing comes home to each so closely as his health and that of his family and friends. The very infectiousness of disease should teach every citizen the imperative duty and necessity of communal action and of strengthening all the agencies that work to the lengthening of life and making it healthy. Every death and case of illness is a most burdensome expense upon the community. And yet, in the face of the simplest common sense and the great instinct of self-preservation, we find the most mandatory laws as to medical practice ignored, and the people almost as a body rushing pell-mell into the worship of the most shameless ignorance. Faith cure, christian science, osteopathy, and all the rest are building churches, dominating legislatures, and their adherents are everywhere swarming with wild and alarming enthusiasms reckless of the baldest dictates of acquired experience and logic. It is a veritable public calamity that must be grappled with or the progress of medicine and sanitation will be turned into a harvest of death and reaction most deplorable to contemplate. Already the needless deaths of hundreds of victims give the plainest warnings. It can no longer be a question of cynical tolerance smiling its confidence that the delusions will wear themselves out. Science, knowledge, and civilization are in many respects fundamentally endangered. The voice of every sanitarian, of every physician, of every medical society should be heard, and systematized action should be resolved to stay this rising flood of ruin. Every medical organization should go to work in downright earnest. The treatment of disease is legally the work of qualified medical men. Those acting as physicians without the legal qualification should be prosecuted by the agents of medical societies employed to see that this medical and public criminality is stopped. If the community will not act then in its interest we must act. For a time and in part our efforts to advance our science should give place to a resolve that all professional progress shall not be drowned in this appalling deluge of popular ignorance and delusion.

Wounds of the Heart.—In these days of removal of the entire stomach, and amputation of the entire lower extremity including the adjacent parts of the pelvis, it is getting to be generally recognized that very little is impossible in modern surgery. In 1897, Rehn, of Frankfort (*Archiv f. klin. Chir.*, 1897, lv, p. 315), and Parozzani, of Rome (*Lancet*, 1897, ii, p. 260), first taught the world that wounds of the heart, which up to that time had been considered inevitably fatal, are by no means beyond the pale of successful surgical intervention, and indeed are not so hopeless as at first would seem. Pagenstecher, of Elberfeld (*Deutsche med. Wochenschrift*, August 10, 1899), has just added one more to the number of successful cases, having successfully sutured a stab-wound 3½ centimeters long, near the apex of the heart of a boy of seventeen years. The literature on wounds of the heart is not so meager as might be supposed. Loison (*Revue de Chirurgie*, February 10, 1899), has tabulated ninety cases of wounds of the heart and pericardium in which the diagnosis was established either by operation or necropsy and in seventy-eight cases the heart itself was injured. In eighty-seven per-cent. of these seventy-eight cases death followed, but in most cases without surgical intervention. Suture of the heart was practised in only five cases, with two recoveries and three deaths, so it is seen that the results of early intervention are by no means unfavorable. In one case recovery followed without operation; the healed wound, a half centimeter long, was found at the necropsy after the man's assassination some time later. But these recoveries represent by no means all; in many cases persons have not only survived a wound of the heart, but have lived for a considerable time with a foreign body in the heart. Loison reports a case

in which he drained the pericardium after attempting to remove a bullet which he had located by means of the x-rays. His patient made a good recovery with the bullet in his heart. Ophuls (*Occidental Medical Times*, San Francisco, 1899, xiii, p. 426) also reports the case of a patient who had lived for some time with a foreign body in the heart, and has collected from literature forty-seven other cases, in some of which the patients lived for many years. In the case of such severe wounds as those of the patients of Rehn and Parozzani there can be no question but what death would have followed without operation. They teach us clearly that in these cases, as in so many other conditions demanding surgical treatment, bold and prompt intervention offers the only hope. "*L'audace, plus de l'audace, toujours plus de l'audace*" well deserves to become the motto of every modern surgeon.

The Association of Medical Librarians, either directly or by representatives, is now composed of members acting in the interests of the following organzations:

1. Library of the Surgeon-General's Office, Washington, D.C.
2. Cleveland Medical Library Association, Cleveland, O.
3. Library of the Medical Department of McGill University, Montreal, Canada.
4. Library of the Medical Society of the County of Kings, Brooklyn, N. Y.
5. Treadwell Library, Massachusetts General Hospital, Boston, Mass.
6. Library of the Ramsey County Medical Society, St. Paul, Minn.
7. Library of the Johns Hopkins Hospital, Baltimore, Md.
8. Medical Department of the State Library, Albany, N. Y.
9. Library of the University College of Medicine, Syracuse, N. Y.
10. Library of the Medical Department of Buffalo University.
11. Library of the College of Physicians and Surgeons, Chicago, Ill. (University of Illinois).
12. Library of the Medical and Surgical Faculty of Maryland, Baltimore.
13. Library of the College of Physicians, Philadelphia.
14. Medical Department of the Free Public Library, Decatur, Ill.
15. Medical Department of the Public Library, Indianapolis, Ind.
16. Library of the Luzerne County Medical Society, Wilkes-Barre, Pa.
17. Medical Library, Winnipeg, Canada.
18. Library of the Medical Department of the University of California.

By the kindness of the publishers or editors the following journals are now sent gratis to the foregoing libraries:

Journal of the American Medical Association.
PHILADELPHIA MEDICAL JOURNAL.
Albany Medical Annals.
Index-Lancet of Kansas City.
Brooklyn Medical Journal.

The Association would be glad if other journals would donate copies to these libraries, notifying the executive committee of their action.

Besides the foregoing gifts, which alone far more than equal the annual dues of the constituent members, a not inconsiderable number of books valued at several hundred dollars have been given and distributed by the committee, without other expense than the express or freight charges.

The executive committee are making efforts to secure an annual contribution of at least $25.00 from the members for the purpose of establishing permanent "exchange" for the reception of gifts of books and journals and to forward them to the libraries in need of them. There is no doubt that many thousands of books and volumes of journals may thus be secured and distributed.

A meeting of the Association is to be held in Philadelphia on October 5.

We wish that the profession could be made to realize the profound need and benefit of properly stocked medical libraries. We know of no movement in which greater professional good and more immediate results could be obtained from a small amount of money supported by a genuine missionary spirit and used by a little foresighted energy. A few hundred dollars would enable the Association to inaugurate a great work which would at once demonstrate its own value.

An Improvement in Methods of Studying Brain-Localization.—For some time it has been recognized that the results obtained by experiments in cerebral localization, which are carried out on animals under anesthesia, are not altogether reliable or accurate. It is not possible to say that the results obtained by stimulating the cerebral cortex of an animal benumbed by an anesthetic and more or less bound to an operating-table are the same that would result from the application of the same stimuli to the brain of an animal in its normal condition and free to move in any way at will; in fact an animal under anesthesia is in many respects entirely unsuitable for any exact experimentation in cerebral localization. To overcome this difficulty Professor Richard Ewald, of Strasburg, has devised an ivory plug which can be screwed permanently into the skull of the animal upon which it is desired to experiment, and in these plugs are fastened electrodes which rest upon the brain and which may be at any time connected with a battery. The insertion of the plugs is a comparatively simple matter; the animal is anesthetized, trephining is performed under the usual aseptic precautions, the plug carrying the electrodes is screwed in place, and the muscles and skin are sewed over the plug, leaving only the small wires protruding which are to be connected with the battery. The animal is soon up and about and apparently as comfortable and as happy as ever. As would be expected from the well-known use of ivory pegs in bone surgery and the filling of defects with bone chips, the ivory plugs produce absolutely no irritation and would no doubt in time become incorporated into the skull, as is seen in the changes which take place after they are left in position for some time. Talbert, an American student in Hermann Munk's labo-

ratory, at Berlin, is carrying on an extensive series of careful experimental studies in this line of work, some of the results of which are given in an article soon to be published in the PHILADELPHIA MEDICAL JOURNAL.

One great advantage of this method of study is the ease with which experiments in cerebral localization may be shown to classes of students. Animals, preferably dogs, may be operated upon at the convenience of the teacher, and after their recovery they may be brought at any time before the class for purposes of demonstration, it being only necessary to connect the electrodes in the ivory plugs with a suitable battery. As to the results of experimentation, it has been determined that the animal has no real appreciation of the stimulation, but he reacts only by muscular contraction and in no other way, and as far as can be observed suffers no discomfort from the experimentation. As a second result it seems to be determined that there exists absolutely no area in the cerebral cortex from which it is not possible to get a response to electrical stimulation by muscle-contraction. The location of the most important motor-areas has long been known, but we believe that the fact that every area of the cortex has its connection with some muscle or muscles has not been recognized. Another interesting fact is that the results of stimulation vary with posture of the animal at the time of the experiment. Thus, to bring out a certain contraction of a muscle-group, the strongest stimulus was needed when the animal was lying on the belly; second, in standing; third, in sitting, and the weakest while he was lying on his back. The only explanation thought to be somewhat plausible is, that the contraction of the muscles of the extremity while supporting the body may act in some way to inhibit the motor impulses.

A number of other questions of interest have come up during this series of experiments which it is impossible to consider in this place. It may be said that while there seems to be no prospect that this improvement will revolutionize the present knowledge, there can be no doubt that it is a valuable addition to our methods of study in this interesting and important field of investigation.

Postgraduate Study.—The yearly increasing number of graduates in medicine who are seeking further instruction in various branches of the medical curriculum is one of the most hopeful signs of the present active progress in American medicine. Those seeking such instruction may be roughly divided into two classes: The practising physician who feels that his many duties have not given him sufficient time to keep up with the times, and the young graduate who feels that he needs the greater breadth which comes from travel and the contact with many master minds before he begins his life's struggle in earnest. For members of either class much depends on the amount of time and money at their disposal, and upon individual aims and needs. The man who feels that he is not as well posted as he should be in physical diagnosis, operative surgery, or one of the specialties, for example, and who can afford to spend only a month, or at the most a few months, in postgraduate study, will find exactly the courses he wants in Philadelphia, New York, Boston, Baltimore, Chicago, New Orleans, or Montreal. The courses for postgraduate study in the United States are probably better systematized and suited to the needs of the man who wants much in a special line, and in a short time, than in any country in the world, and we believe that a man best gets his fundamental knowledge and training in his own country and in his native language. But there should be other considerations besides special knowledge. Travel and association with people and things outside of one's narrow home-circle are capable of doing much, if rightly used, to give depth and breadth of character. The Westerner does well to come East to study; the New Englander (perhaps even the New Yorker) will find that he can get the best of instruction, and, thrown into the bargain, an idea of a section of country where they do things differently but still well, by coming to Philadelphia or the Johns Hopkins University; and the same is true of Boston's classic Harvard and hustling New York or Chicago, for the man from the Middle States or from the South.

Foreign study cannot be too highly commended, but not for every man nor without conditions. In the vast majority of cases it is not the best thing for the general practitioner who wants to brush up his dull points. It is decidedly advisable for the young graduate who intends to settle among the foremost of his guild; he needs all the stimulus and inspiration which come from contact with the profession's acknowledged leaders, as well as the broader view of life. And as to the claims of the different countries, Germany, Great Britain, and France come first. Italy, the Scandinavian countries and Russia are doing much good work, but not enough to claim attention from the average postgraduate. Germany with its horde of active workers is unquestionably doing more to push forward the boundaries of scientific knowledge than any other country, but it is a great mistake for many American physicians who go there for postgraduate study to do so. Unless one has a good knowledge of the language of a foreign land, or is willing to devote himself to the hard, persistent study which it takes to acquire it, it is useless to expect to gain medical knowledge to any advantage or to get an adequate idea of the life of the people. Many men, with a smattering, which they mistook to be a knowledge of a foreign tongue, have come out of the clinics of various learned professors, having absolutely misinterpreted what they saw and heard, and with erroneous ideas which were worse than none. The schools of London, Edinburgh, Dublin and many of the less celebrated British schools and hospitals offer excellent

instruction for such men in a language which they can understand. But there is no good reason why nearly everyone should not learn at least the two most valuable foreign languages. While Germany has the most to offer for the student, some of the leading British hospitals and museums should certainly be visited by every American who studies abroad, and a few months should be given to Paris, if possible. We believe that it is usually wiser to remain under the instruction of one competent, reliable teacher, and learn his methods well, than to go everywhere, and dip into everything, as is too much the custom with American students. Just what places should be visited depends upon individual needs, and most of those who contemplate study abroad will know of someone who is competent to advise them. Such advice is invaluable, for only by personal experience can one learn of the real merits of a teacher. Very often the hard-worked, painstaking instructor, who has his reputation to make, is a better teacher than his celebrated chief, who is past the period of his best efforts. The advantages offered both at home and abroad are ever increasing, and the facilities for cheap and rapid transit are such that few need wish in vain for opportunities for study. Our progress as a profession and as a nation is sure to be influenced by the use which we make of these advantages.

Suggestions to Writers, No. 39. Punctuation is a modern invention, and *overpunctuation* of still more recent discovery. We fear that printers are somewhat too prone to this hyper-punctiliousness. In obedience to the sensible law that the tool is made for man, not man for the sake of the tool, it must be admitted that the use of punctuation-marks is to aid in the expression of thought or to obviate doubtfulness of meaning. When the absence of these marks confuses, or when their presence makes meaning more doubtful, they are certainly to be condemned. It is said that at Ramessa once lived a hospitable prior who placed above his door this inscription :

Be open evermore
O thou my door!
To none be shut,—to honest or to poor.

A more selfish successor indicated his feelings merely by changes in the punctuation, as follows:

Be open evermore
O thou my door
To none! Be shut to honest or to poor.

Many such printers' stories illustrate the power of punctuation both for good and ill. In this as in most doubtful cases the best plan is to read aloud what one has written and see if the punctuation follows the inflections of the voice. Thus the church notice, "A sailor going to sea, his wife desires the prayers of the congregation," should have been so punctuated and spoken as to avoid, "A sailor going to see his wife, desires the prayers of the congregation." If the compositor had heard the toast given, "Woman—without her, man would be a savage," he would not, as the story goes, have set it up, "Woman without her man, would be a savage."

There are two methods of punctuation, called the open and the closed; in the former as few stops or marks are used as possible, and in the latter as many, —this seems to be pretty near an accurate statement of the matter. The latter extreme, for extreme we believe it, is altogether too common, and is often the fault of fussy printers and proofreaders. But often it is not in the least their fault, but that of a slovenly slipshod writer who sputters his sentences out with endless subordinate clauses, inversions, interjected and interrupted odds and ends of sentences, etc., into which sorry jumble the printer tries to bring some light by a plentiful peppering of commas and dashes and the like. Strangely enough this choppy, jerky style of sentence-making is more habitual with English than with American writers. It requires a multitude of commas and dashes to keep this epileptoid syntax from falling into grand mal convulsions. It would be good training for schoolboys if they were required to write long accounts or descriptions without a punctuation mark, and yet, when these should be read aloud they should admit of no misconstruction or doubt as to the meaning. This would aid in teaching the art of building sentences so that they shall be clear and logical in and of themselves. The lawyers have found this plan a wise one and write their deeds in this way to obviate errors that would result from reliance upon the little points, subject as they are to misplacing or omission, and hence to doubt as regards meaning with the passing of time. Perhaps as good a rule as one can frame is to shake the punctuation pepper-box as little as possible, and shape sentences so that they will require it as little as may be; but, one way or the other, leave no doubt as to the meaning of what is said. Everyone knows when a period is required, when an interrogation-mark is demanded, and usually when a semicolon is of service. The difficulty lies when we come to commas, dashes, hyphens, and brackets. In such cases when in doubt do not follow Hoyle's rule to play trumps; "pass" and let the printer do the work for you.

Medical Sermonets, No. 8. Secret Commissions to Physicians.—Upon the hearsay report of two men, made by the London Chamber of Commerce, Sir Edward Fry, an English Judge, charges and insinuates charges against the medical profession of a peculiarly odious nature. His discourtesy even goes so far as to dwell upon the fact of secret commissions given us not only by the druggist and the optician, but by the undertaker. In fact, he adopts the principle of the French law, so maliciously illustrated in the Dreyfus case, that a man must prove himself innocent of any charge that may be brought against him. The plaintiff need not prove his charge, but the defendant must prove his innocence. This learned judge, who goes out of his way to fling mud at a sister profession, while stoutly maintaining the

immaculateness of his own, considers the unproved and indefinite scandal-mongering of one chemist and of one instrument-maker sufficient guarantee of the guilt of almost a whole profession. The clear-headed editor of the *British Medical Journal* convincingly disposes of Judge Fry's charges, and, incidentally, of the *ultra crepidam* judge himself, and, while it is probably true that pitiable examples of bribe-taking happen in England in the medical profession, they are precisely those exceptions that test the rule and demonstrate the high standards of honor that actuate ninety-nine one-hundredths of medical men.

It is the same with us. There lies before us the printed circular of a Philadelphia manufacturer of trusses bluntly offering a large percent of the money received from patients recommended by physicians. We also have knowledge of checks given by opticians to an oculist as a percentage on the business sent them. The following is a copy of the original letter in our possession, written by the author of a popular book—supposedly a scientific book :

DEAR DOCTOR:—I have in preparation a volume of —— pages, entitled *The Treatment*, etc. Would you care to have an advertisement of your institution in the work at $25.00 for ¼ of a 5 x 7 inches page, and $10.00 for a mention in the text-body of the book? The intention is to instruct physicians and others where to send —— patients.

Yours sincerely, etc.

From another circular we quote as follows :

—— Mineral water is sold chiefly through the recommendation of physicians. Its merits attract. Note the special composition.

It has been suggested that we make a special proposition to prominent medical men—something like this :

We to pay you fifty cents per case for all orders received through your aid. The average number of cases now being used by patients is about ten each; consequently, you will observe, it will not require many customers to largely increase your revenue.

Please advise us at your earliest convenience if the proposition interests you. You can easily send us the names of people to whom we will send circulars.

The unexampled atrocity of this letter, especially of the words, "and others," concerning a book written ostensibly for the medical profession alone, almost takes one's breath away; it certainly has a most nauseating odor. And yet if all such instances of degeneration and corruption might be gathered, to what would it amount? Simply that a very few out of the entire hundred thousand of American medical men would stoop to such stupid avarice. It is indeed well to root out and hunt out such scoundrelism, but that the scalawags will in limited numbers continue their nefarious practices, is certain, and provided they do not become too numerous, it is, perhaps, well that we should have such warnings before us. The attainment of the ideal is an admirable ideal, but ideal purity and nobility of a large body of men is out of the question in the world. We need not lower our own standards, we need not despair, we need not malign other professions when a bit of shame is turned up. Pessimism is the weakling's disgust with himself. Will any sensible man expect to eradicate evil from the world by tomorrow evening? Or, even from any large body or class of men? When evil shall have been extinguished by this reformer, what in the name of ennui would he do with himself? Not despair or renunciation of hope and effort, but steady and unyielding persistence in our effort to bring about a bettering, should be our own aim. Do not let us be cast down or stampeded either by the scamps or by those who cannot at one charge drive the scamps down the way and over the edge of Avernus.

Correspondence.

THE TRAVELS OF A FOREIGN BODY.

BY WILLIAM N. WINNE, M.D.,
of New Haven, Conn.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

MRS. E. W., aged 35, came to my office, complaining of a sharp pain in her left foot, about 1½ inches below the internal malleolus. She gave the following history: Twenty-five years ago, while in bathing, she stepped on a sharp piece of glass, which broke off in her foot. The glass entered the sole of the foot, just back from the toes. A physician examined the wound, but did not find the glass. The wound healed nicely, but at different times for years she felt the glass working about in her foot. I examined the painful spot, and detected a hard movable body beneath the skin, which, when pressed upon, increased the pain greatly. I made an incision directly over the painful spot, and removed a piece of glass ⅝ inch in length, ⅛ inch square at one end, tapering to a point.

The distance from the wound of entrance to wound of exit, 6 inches; the number of years, 25, occupied by the glass in traveling this distance, and the comparatively slight disturbance it caused, are points of interest in the case.

HOMING PIGEONS.

BY CHARLES L. LANG, M.D.,
of Meridian, N. Y.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

SINCE my letter on "homing pigeons as medical messengers" in your JOURNAL for February 26, 1898, I have used them steadily and with increasing satisfaction and confidence. The wave of smallpox has reached northern New York and has prevailed at Weedsport in a mild form for the past two months. One patient came into my town just across the Seneca River and developed the disease next day. As health-officer I visited her and established a strict quarantine. My homing pigeons had a new field of usefulness here, for the patient was seven miles from my village and my neighbors were naturally averse to my visiting the patient oftener than necessary; so after two days spent in hunting suspects and urging vaccination, I left a basket of birds with a member of the town board of health, who happened to be next neighbor to the quarantined premises. Each afternoon a bird brought me a bulletin, and twice a week I visited the neighborhood personally, thus keeping constantly informed of the state of affairs. The premises have been quarantined more than four weeks. No new cases have developed, the premises are clean and quarantine lifted.

DISPOSAL OF THE DEAD.

BY EFFIE L. LOBDELL, M.D.,
of Chicago.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

IN your paragraph in the JOURNAL of August 5, referring to "Disposal of the Dead," you point out two considerations, *sanitation and sentiment*, which are influential in the choice of methods, material, etc. I believe that the economic will be the *most* powerful factor in this matter, as it is in all affairs of public interest. This was impressed upon me by the following incident, a few days ago :

On accompanying a patient into town on Monday morn-

ing she became very much annoyed about the train being late, as she thereby would miss an important business meeting. She confided to me that she owned a large number of shares of stock in a popular Chicago cemetery. The amount of burial-space was almost exhausted and the stockholders were confronted by the possibility of soon holding stock which no longer yielded interest and would ultimately be hopelessly worthless. The meeting on this particular morning was to consider the building of a crematory with special attractive features as an inducement to patrons. "For," said the lady, "we must make it sufficiently popular to become the rule—otherwise see what we lose!"

Therefore, to insure success of a measure, no matter how rational or beneficial from sanitary or sentiment standpoint, it *must* be commercially valuable.

AN UNUSUAL CASE OF RHEUMATISM.

By R. F. GRAHAM, M.D.,
of Greeley, Col.

To the Editor of The Philadelphia Medical Journal:—

At 2 o'clock on the morning of June 15, last, I was summoned hastily to see K. F., aged 8 years, a healthy boy whom I had always known and whose family and personal history were exceptionally good. He was complaining of great pain and acute sensitiveness in the region of the umbilicus. He laid on his back with his knees drawn up. Temperature 102°, pulse 100. I felt that he must have peritonitis, but was at a loss to determine the source.

I applied cold and gave morphin until the pupils were decidedly affected, with only partial relief. His symptoms continued through the day with little or no change. On the morning of the 17th, after 30 hours of illness, he complained of acute pain and tenderness in the right knee, and before night all the joints of both legs were similarly affected and were red and swollen. He cried out with pain in these joints if anyone touched his bed. By this time the pain in the umbilical region had disappeared.

I now gave him sodium salicylate liberally, and the next day he was much more relieved than he was on morphin. In three days he was entirely relieved without any further change of treatment, and remained free from pain.

A week later he developed a typical case of that first cousin of rheumatism—chorea, which ran a typical course for six weeks. I hunted through a number of modern textbooks on medicine for something similar, but only in Tyson could I find a case of rheumatism simulating peritonitis. He says in his *Practice of Medicine*, page 718, that he treated a case for days for peritonitis when a few doses of sodium salicylate relieved his anxiety by promptly arresting the disease.

As the serous sacs are favorite points of attack for rheumatism, may not so-called cases of simple pleurisy, peritonitis, and meningitis be not infrequently rheumatism without involvement of the joints? This seems to me to be a pertinent question.

RÖNTGEN-RAY INJURIES.

By L. D. JUDD, M.D.,
of Philadelphia.

To the Editor of The Philadelphia Medical Journal:—

In the *New York Medical Journal* of July 22 appeared an editorial worthy of consideration by the profession at large. Unfortunately there has been much ignorance and still more carelessness displayed in the handling of the Röntgen-ray. A continuance of both will sadly cripple the advance-guard in medicine through the baseless fear it creates. It is bad enough to have the laity become fearful on account of the many accidents reported, but worse still to realize that some of the profession also look with alarm upon its use. With a correct knowledge and theory of the condition accompanying the use of the x-ray, and with the proper apparatus for its production there need not be the slightest apprehension in its application.

Both the theory and the experience of an expert in the use of the Röntgen-ray have been given to me, in the application of which I have never seen the slightest burn or accident, nor will I see any so long as his teachings are observed. It is a fact that the majority of physicians and those using the x-ray make the mistake of studying only the technic of its application, and pay no attention whatever to the principles and physics involved. A thorough understanding of these principles would not only enable those utilizing the x-ray to discriminate as to the various methods employed, but would enable them to judge as to the merits of the many and various forms of x-ray apparatus now on the market. And it would also enable them to secure much finer results, bringing the x-ray to a more valuable and broader field for diagnostic and prognostic purposes.

A great many theories have been advanced as to the cause of x-ray burns. The general opinion seems to be that the burn is caused from a penetration of the ray, or a peculiar effect produced thereby, while others advance the theory that they are caused by an inoculation due to a certain action on the surrounding atmosphere of the patient or subject exposed to the x-ray; this peculiar action is supposed to carry into the tissue, by a sort of cataphoric process, septic atmospheric particles, also bacteria and foreign material found upon the clothing and skin of the subject, sometimes setting up under the skin exposed to this phenomenon, an infectious or an inflammatory condition from these force-driven materials. A claim is made that the discharges from a Rhumkorff coil are made effective in producing this cataphoric action, but it is my opinion that the static discharge is the more powerful, so far as the driving of gaseous substances into the tissue is concerned. The theories in regard to the x-ray burn have not been demonstrated satisfactorily, and in trying to avoid burns when working on these lines no doubt some very serious mistakes have been made. The most plausible theory, and in fact what proves to be a solution as to the danger of x-ray burns, is that *the burn is from an electrolytic action of current generated in the tissue by induction from the tube.* When this is once understood by those utilizing the x-ray, burns will be a thing of the past, and the physician or patient will have no cause to fear injurious results from the use of a *properly* illuminated Crookes tube. In order to demonstrate this more thoroughly it may be well to review the principles of induction which are based upon the theory that all matter is composed of molecules which are constantly in motion. All molecules have an affinity for each other and an attractive force, as is evidenced by gravity, cohesion and adhesion. This being true, if the molecular motion in a body is unnaturally influenced, any substance brought near it will be similarly influenced, on account of the affinity or sympathy of the molecules making up its structure. If two magnets were suspended so that their attractive force held them toward each other, or out of plumb, yet not in contact, the movement of one would cause a movement of the

other upon the same principle. Consequently a high motion of the molecules in one substance will excite a similar condition in other bodies by induction.

In the Crookes tube, the x-ray is produced by the molecular motion of the rarefied gases contained within the tube, and the inductive influence surrounding the tube depends largely upon this motion. If the motion is not uniform, or is fluctuating in character, the inductive influence is strongly evidenced by its action upon coils of wire, galvanometers, etc.; and the proper way to avoid it or burns caused therefrom, is to eliminate it from the tube, rather than to protect the patient by sheets of metal or by increasing the distance from the tube, which tends to reduce the power of penetration required for the most perfect x-ray examinations. The reason that Rhumkorff coils are more likely to produce burns is that the current derived therefrom is an interrupted induced current, and must necessarily cause considerable fluctuation in the intensity of the molecular motion, or in other words, an interrupted molecular motion in the tube, the motion being dependent upon and corresponding with the exciting energy. A tube excited from a coil with slow interruptions is more liable to produce burns than one excited from a coil with a higher frequency of interruption. Static machines have a great advantage over the coils in this respect, because the discharge of current is more continuous, especially with large machines capable of being run at a very high rate of speed. The ordinary glass plate static machine may possibly produce an x-ray burn, although I have never heard of an instance, because the speed is comparatively low and the current does not reach a very high vibratory state. With the mica plate static machine, when the plates are running at about 1,000 revolutions per minute, the current becomes perfectly constant and produces a steady light of the very highest penetrating power, so *that there is absolutely no inductive influence surrounding the tube*, and consequently no possibility of producing an x-ray burn.

To further substantiate the claims set forth, that the burn is produced by an inductive influence, I would call attention to the ordinary faradic coil. With a comparatively slow interruption the induction is very great, while as the frequency of interruption is increased to a high rate the induction becomes less, and with a constant current flowing through the primary the induction is not perceptible. The same is true of a Crookes tube, as may be shown by using a sensitive galvanometer in which the exciting coils are not covered by a metal case, and holding the same within a short distance of a tube illuminated from a coil having comparatively slow interruptions; or by holding it close to a tube illuminated from a static machine, in which Leyden jars are connected so as to interrupt the current; it will be noticed that the needle is influenced by the low frequency of interruptions, while as the frequency of interruptions is brought to a high rate, it will be less influenced, until finally with a perfectly constant discharge of current, and the machine running at a high rate of speed so as to produce the highest possible state of vibrations, the inductive influence or effect upon the galvanometer will entirely disappear. A tube illuminated in this manner cannot possibly produce an x-ray burn even if the tissue is exposed for hours.

Compulsory Vaccination in Japan.—The Japanese Government has decided to make vaccination compulsory in Japan, and that all children shall be vaccinated before they reach the age of 10 months. They must be vaccinated when they are 6 and again when they are 12 years of age.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending October 7, 1899:

Monday, October 2—Academy of Surgery.
Wednesday, October 4—College of Physicians.
Thursday, October 5—Obstetrical Society.

Dr. Alonzo Engelbert Taylor, assistant director of the Pepper Laboratory of Clinical Medicine of the University of Pennsylvania, has been elected professor of pathology in the University of California. Having been granted a year's leave of absence, he will shortly proceed to Europe, returning in time to commence his duties in his new field of work at the beginning of the scholastic year 1900–1.

The Jewish Hospital, Philadelphia.—The cornerstone of the Lucien Moss Memorial Home for Incurables was laid with appropriate Masonic ceremonies September 21, under the direction of Acting R. W. Grand Master George E. Wagner. Addresses were delivered by William B. Hackenburg, president of the Jewish Hospital Association, John Samuel, a near relative of the late Mr. Moss, and Moses A. Dropsie. The legacy left by the late Mr. Moss to found a memorial to the memory of his deceased wife amounted to about $200,000.

The Woman's Sanitary League of Pennsylvania, organized somewhat more than a year ago, has filed an application for a charter of incorporation. In the application it is set forth that the organization is to be known as the "Woman's Sanitary League of Pennsylvania," and that the objects of the League will be the advancement of sanitary science and the promotion of the public health and welfare. The officers of the League are: President, Mrs. Joshua R. Jones; treasurer, Mrs. Lizzie I. Decker; secretary, Miss Imogene I. Pierce; recording secretary, Mrs. Charles Taft, and Solicitor, Margaret Center Klingelsmith.

Vital Statistics of Philadelphia for the week ended September 23, 1899:—

Diseases.	Cases.	Deaths.
Total mortality		371
Marasmus 30, inanition 11, debility 12		53
Pulmonary tuberculosis 44, intestinal tuberculosis 2		46
Heart-disease, 38, fatty degeneration of the heart 2		40
Pneumonia		31
Gastroenteritis 19, cholera infantum 11		30
Nephritis 21, uremia 5		26
Diphtheria 18, membranous croup 1	67	19
Carcinoma		13
Inflammation of the brain		13
Apoplexy 6, paralysis 6		12
Casualties 10, burns and scalds 1		11
Typhoid fever	76	6
Scarlet fever	54	3
Cirrhosis of the liver 6, convulsions 6, pertussis 4, cyanosis 3, drowned 3, asthma 2, diabetes 4, epilepsy 2, peritonitis 2, pleuritis 2, appendicitis 2, teething 2, abscess 1, alcoholism 1, parturition 1, dysentery 1, malarial fever 1, homicide 1, senility 1, suicide 1, tetanus 1.		

Woman's Medical College of Pennsylvania.—The introductory lecture of the session 1899–1900 was delivered September 27, by Dr. Emma E. Musson, clinical professor of laryngology. It has been decided by the Alumnæ Association of the Woman's Medical College of Pennsylvania that an effort shall be made to raise a sufficient sum of money to secure the services of a competent artist to paint the portrait of Dr. Ann Preston, a member of the first graduating class

and, subsequently, one of the College Faculty, the first woman to hold the position of Dean, and the moving spirit in the founding of the Woman's Hospital of Philadelphia. It is intended that this portrait be presented to the college on the occasion of the next Annual Commencement. An appeal is made for contributions to the alumnæ, to the many warm friends of Dr. Preston, and to all who are interested in the education of women in medicine. Contributions (which will be duly acknowledged) may be sent to Dr. Clara Marshall, 1712 Locust Street, Philadelphia.

Pittsburg (Pa.) Academy of Medicine.—At a meeting held September 18, DR. W. B. EWING reported a case of **hyperidrosis of the feet** in a young girl of such severity that the parts were almost gangrenous. DR. T. C. CHRISTY requested information concerning the treatment of hyperidrosis of the palms. DR. EWING replied that the condition was quite commonly seen in those who use the hands a great deal in light work—bookkeepers, draughtsmen, etc. Sulphur internally in increasing doses is to be regarded as almost specific. Locally, solutions of formalin varying in strength from 1 to 5%, followed by a mild dusting powder, retained by the use of white cotton gloves at night, gives good results.

DR. R. W. STEWART reported a case of **excision of both knee-joints for tuberculous arthritis.** The first joint was operated upon about one year ago and was fixed in the usual straight position. A few days since the patient presented himself with a similar condition of the other knee. In considering operation the question came up as to how a patient with two stiff knee-joints could mount stairs. After excising the joint the leg was fixed in a slightly flexed position compelling the patient to walk on the ball of the foot. It is believed that, with one leg in this position, the patient can, by tilting the pelvis, mount a flight of stairs.

DR. MEYER reported a case of **polioencephalitis superior** in a boy who had scarlet fever at 3 years. At that time he was said to have had an outward deviation of the right eye. Six months ago his eyesight failed and he began to stagger. Hemiataxia and paralysis of eye-muscles shortly developed with mental confusion. About 300 cases have been reported in literature, but not a half-dozen can be termed chronic cases. DR. ELTERICH asked concerning the possibility of syphilitic infection. DR. MEYER stated that no history of syphilis could be obtained. Wernicke described the first case in 1881. At that time all cases were supposed to follow alcoholism. It was subsequently learned that many followed the infectious diseases, especially influenza.

NEW YORK.

City Care of Tuberculosis in New York.—The State Board of Health of New York last week put itself formally on record as favoring the establishment by municipalities or institutions for the cure of tuberculous patients, and the Board will recommend to the Legislature the enactment of a law putting into effect its scheme, which provides for institutions under municipal control and at municipal expense. The question of quarantine against tuberculosis was not considered.

Dr. Jenkins Returns.—Health-Commissioner Jenkins returned from England last Friday. He has been absent from the city for two months, and has made a careful study of the English methods of disposing of city-waste by cremation, having in mind the necessity of correcting the unsatisfactory sanitary system of Barren Island. The establishment at Yarmouth impressed him as approximating a solution of the problem. Among other subjects which received his attention was the treatment of disease among sailors on the vessels entering port in order to add greater efficiency to the provisions of an existing State law.

Rabies in Erie.—The danger from rabies continues unabated in Erie County, and in the city of Buffalo in particular. The local health-authorities, with the support of the State Roard of Health, have now instituted a close quarantine of 60 days against all dogs and other animals likely to convey the infection. It is hoped that this quarantine will prove effective, and it will be rigidly enforced; but if at the end of the quarantine it is found that further steps are necessary, it is in contemplation to adopt more rigid measures even to the killing of all domestic animals within the quarantined limits. Already there have been two deaths from hydrophobia in the human subject, and a score of people have been bitten by animals identified as infected with rabies. The loss to stock-growers during the summer has been considerable. The people are thoroughly awakened to the necessity of drastic action, and heartily support the efforts of the authorities.

More Bogus Health-Inspectors.—The city is used to the petty criminals who claim entry into the houses under the plea of being connected with the Department of Health. Now a new industry of the same sort has developed in connection with the State Board of Health. The annexation of territory to form the Greater New York has dragged into the city so much good farming and grazing land in the boroughs outside of Manhattan Island that there is a considerable farming population ready to the hand of these swindlers. Owners of cows on Staten Island, civically the borough of Richmond, have been systematically visited by men claiming to represent the State Board of Health, with authority to deal with cases in which the cattle have not been inspected. In case the cowkeepers have no certificate of inspection, the swindlers go through a form of examination and collect the fees under promise to send the certificate from the office. This has been pursued to such an extent that the Board is employing detectives to run down the swindlers.

More Yellow Fever.—Another of the Army transports, the *Buford*, has brought yellow fever to this port. It almost succeeded in escaping the attention of the quarantine officials, for the *Buford* had been passed and allowed to proceed to her dock in Brooklyn before the case was discovered. As soon as the disease was identified the quarantine tug was sent in a hurry to Brooklyn, those on the steamer were bundled off to the wharf, and the work of disinfection was proceeded with. The patient, a private of the First Infantry, was taken to Swinburne Island and died on Friday night. No official statement has been issued as to the use of Dr. Doty's antiamarillic serum in this instance. In the early weeks of the summer the quarantine office exploited its repetition of Sanarelli's work with a great flourish, and that boom lasted over the treatment with the serum of a single mild case. Since that time nothing has been heard of it, not even in the shape of a report from Vera Cruz, to which Mexican focus of the disease a large consignment of the newly manufactured serum was shipped for test.

Treatment for Consumptive Patients.—The State Board of Health took important action at a meeting held at Quarantine, on Staten Island, on Saturday, there being present Drs. Lewis and Doty of New York City, Smith of Syracuse, Jones of Rochester, State Engineer Bond and Secretary Smelzer. Action was taken towards the establishment of hospitals for the treatment of pulmonary tuberculosis. The Legislature has conferred the power on the State Board of Health to establish hospitals outside the city limits, being led thereto by consideration of the crowded condition of the

hospitals in the city, and the general desire to treat consumptive patients apart from those suffering from other diseases, and under conditions more favorable to their cure. The discussion of the subject took final shape in the following resolutions: "That this Board recommend to the authorities of the city of New York, that steps be taken at once, through such departments as may be proper under the authority conferred by the act passed by the Legislature at the last session, to establish and maintain in such locality as may be selected a proper hospital or hospitals for the treatment of patients suffering from said disease. That the attention of the medical profession of New York City be called to the powers conferred upon the City, and the support and cooperation of the medical profession be requested to bring about such action as may result in carrying out the provisions of the act."

Vermont Medical Education.—For a year or more it has been quite generally understood that there was friction in the medical department of the University of Vermont at Burlington, and the interest has been a little more than merely neighborly because New York has been well represented in that medical faculty. The difficulty was brought to a head last year when the medical faculty neglected to reelect Dr. A. P. Grinnell dean, a position which he had held through a long series of years, choosing in his place Dr. H. C. Tinkham, of Burlington. The change gave rise to friction between Dr. Grinnell and other members of the faculty, and the student body showed their sympathy with the ousted dean. These difficulties affected injuriously the welfare of the school. Last June, the same party being dominant in the faculty, the blame for the plainly apparent disorganization was laid upon Dr. Grinnell, and he was formally asked to relinquish his connection with the university by resigning the chair of the Theory and Practice of Medicine. On his refusal to comply with this demand the faculty then preferred charges before the trustees that Dr. Grinnell had been guilty of insubordination and disobedience, and asked for his removal on these counts. A committee of the trustees was appointed to consider the charges, the committee consisting of Dr. W. Seward Webb, Ex-Governor E. J. Ormsbee, Mayor Roberts, Hon. J. F. Fifield, and Judge T. E. Wales. As a step toward the solution of the unfortunate difficulty the committee called for the resignation of the whole faculty so that they might be free to reorganize the department according to their comprehension of the best interests of the university. These resignations have now been given in and the university is for the present without any medical faculty. It is understood that in the reorganization contemplated the trustees will assume full control of the medical department, which has hitherto been practically independent of them. The governing board, which is included in the resignation, has comprised Dr. A. F. A. King, Washington, D. C.; Dr. A. P. Grinnell, Burlington; Dr. J. H. Jackson, Barre; Dr. H. C. Tinkham, Burlington; Dr. J. Q. Jenne, St. Albans; and Drs. R. A. Witthaus and A. M. Phelps, of New York. Of the two New York governors, Dr. Witthaus is associated with the Cornell Medical School, and Dr. Phelps with the Post-Graduate.

NEW ENGLAND.

Tuft's College Medical School.—Dr. Harold Williams has been elected dean of the faculty.

The Annual Meeting of the National Hay-Fever Association occurred at Bethlehem, N. H., recently. Its proceedings, though not of general interest, were "not to be sneezed at."

Tetanus and Antitetanin.—Two patients were treated at the Boston City Hospital this week for tetanus by use of antitoxin. One patient in whom the disease was caused by a rusty nail penetrating the foot died, the other made a recovery.

Fifty Physicians Visit Schools.—In order to more properly enforce the vaccination law and prevent the further recurrence of smallpox cases, the Boston Board of Health this week sent out 50 physicians to inspect all the children who have registered in the schools at the opening of the new year.

The Emergency Hospital Reopens.—On September 20, the Emergency Hospital, which closed a few weeks ago, owing $25,000, and with assets estimated at $5,000, reopened under the name of "The Wage-Earners' Emergency and General Hospital." The creditors remitted their claims against the hospital on the understanding that $50,000 was to be raised by the wage-earners of Boston to put the institution on its feet. To enable them to do this, over 100 representative business firms subscribed for from 25 to 1,000 $1 shares in behalf of their employes, and with their consent will deduct the fee from their wages. A handsome certificate goes to the employe who contributes the $1, and entitles the holder to free treatment at the hospital at any time during the year. The management expect to sell 100,000 of these certificates by January 1. Everyone who applies at the hospital for treatment is expected to have one of these certificates. The new staff of physicians and surgeons is as follows: Dr. George W. Galvin, Dr. B. V. Buehler, Dr. J. L. Koch, Dr. C. M. Casselberry, Dr. C. L. Ogden, Dr. F. Brush. The consulting-surgeons will be Dr. H. O. Marcy and Dr. E. W. Cushing. Miss Jean Taggart is head nurse.

Eyesight of School-Children.—The forthcoming report of the transactions of the New Hampshire Medical Society contains among other things an excellent paper on the "Eyesight of School-Children," by Dr. William R. Varick, of Concord, N. H. In the course of his paper he says that the task of bettering the condition of pupils' eyes meets a serious obstacle in the relapses to unsuitable desks and insufficient light in their home-work. "It would be far better," he says, "if children were not required to do any work whatever outside of school hours until they are old enough to have acquired good habits in studying and until the eye-tunics have become rigid enough to make the development of near-sight improbable." Dr. Varick considers the great safeguard against ocular disease to be periodical examination. Certain simple tests can be conducted by the teacher in person, and if the child fails to meet them the parents should be notified that the child's eyes should be examined. Here the teacher's responsibility would end. Children with red and inflamed eyes should be advised to have proper treatment. Dr. L. J. Rendlett, of Concord, in discussing the paper, said that the time children used their eyes in school was relatively so brief that many of the consequences attributed to school were overestimated. The present methods of blackboard teaching he regarded as a strain on the eyes, especially where the slant system of penmanship was still in vogue. Curtains that would soften the light when too severe, without shutting out too much, should be selected for the school-room.

Boston's Study of Bacteria.—Dr. Hibbert Winslow Hill, director of the bacterologic laboratory of the Boston Board of Health, has reached some interesting and valuable conclusions as a result of the work of his department during

the 9 months since it has been in thorough operation. The diagnostic work in diphtheria was transferred from the Harvard Medical School in May, 1898, to this laboratory. Since then similar diagnostic investigations have been made with reference to typhoid fever, malaria, glanders, rabies, pus-organisms, gonococci, tubercle-bacilli, and the bacillus of influenza. In cases of diphtheria, it has been found that in from one-third to one-half of the cases finally proving positive after incubation, a positive diagnosis can be made from the swab, thus saving from 16 to 18 hours. A negative result from the swab is not, however, regarded as reliable, and the results of incubation must be known before a case can safely be declared noninfective. It has been shown with reference to examination of cases for release from isolation, that two negative cultures do not assure safety. Nearly 30% of positive cases officially released after two negative cultures showed a subsequent positive culture. Bacteriologists will be interested to know that Dr. Hill has discovered a number of branching forms of the diphtheria-bacillus, and he concludes that this bacillus shows evidences of relationship to the streptothriceæ. The small epidemic of rabies which developed during December, 1898, afforded opportunities for studying the disease bacteriologically. Rabies he examines by injecting under the head of a full-grown rabbitt .5 cc. of an emulsion consisting of about one gram of brain-tissue from the suspected animal in 10 cc. of sterile water, filtered through absorbent cotton and paper. Paralysis or convulsions developing after 14 days, followed by death, is good evidence of rabies. Two rabbits at least should be inoculated with the same material at the same time. Dr. Hill made three inoculations, one of which proved to be positive and two negative. Out of 1,747 cases of diphtheria reported upon in 9 months, 395 were positive and 1,326 negative. It was found that of the total cases reported, 27% would have been wrong if they had not been corrected by the work of the city laboratory. Dr. Brough, medical inspector of the health department, summarizes his investigation as to the action of formalin as a house-to-house disinfectant as follows: That formaldehyd gas is the best disinfectant for rooms now known; that its disinfecting power is chiefly superficial, and where deep effects are desired it cannot be relied upon. It is perfectly harmless to all kinds of household goods. The results are obtained from the gas, and any machine that will produce enough gas will prove satisfactory. From the results of many tests the rule here has been made that 20 ounces of the 40% solution of formaldehyd should be used to every 1,000 feet of cubic space in ordinary rooms. The microscopic examination of water to detect the presence of sewage, the coloring matter of sausages and other foods, the quality of vaccine virus, and the question of sterilizing milk for the poor of the city, and that of sterilizing towels and bathing suits at the great public baths, are all matters now before the bacteriological department.

CHICAGO AND WESTERN STATES.

A new City and County Hospital in San Francisco (Cal.) is being considered by the Board of Health and Board of Supervisors. Plans have been prepared and the supervisors have signified their willingness to grant a preliminary appropriation of $50,000. It is possible that work on the new buildings may be undertaken before the end of the present year.

San Francisco County (Cal.) Medical Society.—At the last regular meeting Dr. Albert Abrams read a paper on the **Home treatment of consumption,** which will soon be published in the PHILADELPHIA MONTHLY MEDICAL JOURNAL. Dr. Z. Taylor Malaby read a paper on the subject of **Ligatures and sutures,** in which the various kinds and materials of sutures were discussed. He also exhibited some catgut prepared by the silver-lactate method. Dr. John C. Spencer presented the improved Bottini "Prostatic Incisor" and the Valentine "Urethroscope." Dr. Philip King Brown exhibited a fresh specimen of the parasite of quartan malaria, the patient being present and the blood fresh drawn. Dr. Leo Newmark exhibited the spinal cord of a woman who had recently died. Some 8 years ago he first saw and examined this woman, who then presented a typical case of **syringomyelia.** A large cavity in the cord was very evident, and the specimen was considered a particularly good one.

SOUTHERN STATES.

National University, Washington, D. C.—Dr. J. Carlisle DeVries has been elected professor of pathology.

The Hospital of St. Vincent de Paul, situated at Norfolk, Va., was almost totally destroyed by fire, September 21. Several fatalities are reported, and it is stated that the pecuniary loss amounts to over $100,000.

The Tri-State Medical Society of Alabama, Georgia, and Tennessee will meet in eleventh annual session at Chattanooga, October 24, 25, and 26. Those desiring to read papers should communicate with the secretary, Dr. Frank T. Smith, Chattanooga.

Maryland Medical College, Baltimore.—Dr. Richard L. McNear has been appointed associate professor of histology, pathology and bacteriology; Dr. S. Griffith Davis, associate professor of anatomy and operative surgery; Dr. J. T. Burkhalter, assistant demonstrator of anatomy; and Dr. Alexander McGee, demonstrator of histology and pathology.

MISCELLANY.

Obituary.—DR. A. B. CLEMENT, East Arlington, Vt., September 16, aged 31 years.—DR. SAMUEL H. ROGERS, North Creek, N. Y., September 14.—DR. C. K. HARRIS, Williamson, West Va., September 19.—DR. WILLIAM H. BALTZELL, Frederick, Md., September 19, aged 67 years.—DR. WILLIAM HEMBEL TAGGART, at one time professor of materia medica and therapeutics in the Philadelphia College of Medicine and in the Pennsylvania Medical College, at Wernersville, Pa., September 20, aged 70 years.—DR. EDWARD L. REEVES, Paulsboro, N. J., September 20, aged 63 years.—DR. GEORGE A. HENDRICKS, professor of anatomy in the University of Minnesota, in Minneapolis, September 24.—DR. J. GILBERT YOUNG, Chestnut Hill, Pa., September 26, aged 59 years.

Health Reports.—The following cases of smallpox, yellow fever, cholera and plague, were reported to the Surgeon-General of the Marine-Hospital Service, during the week ended September 23, 1899:

YELLOW FEVER.

			Cases.	Deaths.
FLORIDA:	Key West	Sept. 14–19	164	7
LOUISIANA:	New Orleans	Sept. 2–19	18	2

SMALLPOX.

MASSACHUSETTS:	Fall River	Sept. 2–9	1	
MICHIGAN:	Battle Creek	Sept. 8–16	Present.	
"	Maple Grove	Sept. 8–16	"	
OHIO:	Cincinnati	Sept. 2–9	5	
PENNSYLVANIA:	Allegheny	Aug. 19–Sept. 2	2	

YELLOW FEVER.—FOREIGN.

BRAZIL:	Bahia	Aug. 20–Sept. 3	10	8
COLOMBIA:	Barranquilla	Aug. 12–26	1	1
"	Colon	Aug. 26–Sept. 3	1	1
"	Panama	Sept. 5–12	8	3
"	Port Limon	Aug. 29	1	
CUBA:	Habana	Sept. 3–10	24	3
"	Nuevitas	Sept. 2	1	
"	Santiago	Aug. 29–Sept. 5	3	
MEXICO:	Tampico	Sept. 8–16	2	1
"	Tuxpan	Aug. 29–Sept. 4		2
"	Vera Cruz	Sept. 1–14		21

SMALLPOX—FOREIGN.

			Cases.	Deaths.
BELGIUM:	Antwerp	Aug. 19–26	3	
BRAZIL:	Rio de Janeiro	July 21–28	54	34
CUBA:	Manzanillo	Sept. 5	Several cases.	
EGYPT:	Cairo	Aug. 11–19	4	
GREECE:	Athens	Aug. 22–Sept. 2	14	3
INDIA:	Bombay	Aug. 8–15	11	
MEXICO:	Chihuahua	Aug. 28–Sept. 9		11
"	Mexico	Aug. 13–27	9	6
RUSSIA:	Moscow	Aug. 12–26	4	1
"	Odessa	Aug. 19–26	1	1
"	St. Petersburg	Aug. 19–Sept. 2	11	4
"	Warsaw	Aug. 12–26		3
STRAITS SETTLEMENTS:	Singapore	July 29–Aug. 5		1

CHOLERA.

INDIA:	Bombay	Aug. 8–15		1
"	Calcutta	July 30–Aug. 5		27

PLAGUE.

CHINA:	Hongkong	July 29–Aug. 5	29	29
EGYPT:	Alexandria	Aug. 13–27	5	3
INDIA:	Bombay	Aug. 8–15		71
"	Calcutta	July 30–Aug. 5		52

Changes in the Medical Corps of the U. S. Army,

for the week ended September 23, 1899:

CARLING, JOHN H., acting assistant surgeon, is relieved from duty in the city of Santiago and will proceed to Manzanillo and report by telegraph to the district commander at Bayamo for assignment to station.

VARANES, FELIPE, acting assistant surgeon, upon the recommendation of the chief surgeon, is relieved from duty at Holguin, Cuba, and will proceed to Manzanillo, Cuba, and report to the commanding officer at that place for duty.

TURNBULL, Major WINFRID, surgeon, U. S. volunteers, is hereby relieved from duty in this division and will proceed to New York City, reporting upon arrival thereat by telegraph to the Adjutant-General of the Army, for further orders.

WARE, Captain ISAAC P., assistant surgeon, U. S. A., is relieved from station at the Presidio of San Francisco, Cal., and will proceed to Benicia Barracks, Cal., for station at that post, awaiting result of retiring board in his case.

BRADLEY, HENRY H., acting assistant surgeon, now on duty at the U. S. General Hospital, Presidio of San Francisco, Cal., is assigned to and will report for temporary duty, on the 12th inst., as transport surgeon on the "Sherman."

RONAYNE, J. A., acting assistant surgeon, on account of illness, is relieved from duty as transport surgeon on the "Sherman," and will report for temporary duty at the U. S. General Hospital, Presidio of San Francisco, Cal.

STUEBER, First Lieutenant LOUIS J., assistant surgeon, U. S. volunteers, recently appointed, with rank from August 17, 1899, is assigned to the Forty-second Infantry, U. S. volunteers, and will proceed to Fort Niagara, N. Y., and report to his regimental commander.

ROMIG, Captain EDWARD A., assistant surgeon, Fortieth Infantry, U. S. volunteers, is granted leave for 15 days.

HYSELL, Major J. H., surgeon, U. S. volunteers, sanitary inspector, will proceed without delay from Cienfuegos to Sancti Spiritus and Trinidad, Cuba, to carry out instructions received from the department commander in connection with sanitation at those places.

ESCOBAR, J. A., acting assistant surgeon, is relieved from duty at Rowell Barracks, and will proceed from Paso Caballo and report to the commanding officer, Santa Clara Barracks, for duty.

CABLE, GEORGE L., acting assistant surgeon, is hereby relieved from duty at the medical supply depot at Matanzas.

SIMONTON, A. H., acting assisting surgeon, is relieved from duty at Cienfuegos Barracks, and will report to the commanding officer, Rowell Barracks, Paso Caballo, for duty.

HAMLIN, W. E., acting assistant surgeon, is relieved from duty at Cienfuegos Barracks, and will report to the commanding officer, Rowell Barracks, Paso Caballo, for duty.

GILL, Charles R., acting assistant surgeon, will proceed by the transport "Burnside," now at this port, to Fort Hamilton, N. Y. H., for medical treatment at that place.

HYSELL, Major J. H., surgeon, U. S. volunteers, will proceed from Matanzas to Santa Clara to carry out instructions received from the department commander in connection with sanitation of that place.

FORSYTHE, W. H., acting assistant surgeon, will proceed from Cardenas to Matanzas, Cuba, for the purpose of consulting with the chief surgeon of the department on sanitary matters.

MACY, ROBERT C., acting assistant surgeon, is detailed as member of the examining board convened at Songo, Cuba, by par. 2, S. O. 165, August 1, from these headquarters, vice Major VALERY HAVARD, medical department, hereby relieved.

SIMMONTON, A. H., acting assistant surgeon, is hereby relieved from duty at Rowell Barracks, Paso Caballo, Cuba, and will proceed to Cienfuegos Barracks, Cienfuegos, Cuba, for duty with the depot battalion, Second Infantry.

HALLWOOD, J. B., acting assistant surgeon, is hereby relieved from duty at Sancti Spiritus Barracks, Sancti Spiritus, Cuba, and will proceed to Matanzas, Cuba, for duty with the depot battalion, Tenth Infantry.

BROWN, Major IRA C, surgeon, U. S. Volunteers, leave of absence granted in S. O. 127, July 26, department of the province of Havana and Pinar del Rio, is extended 2 months.

POLHEMUS, Captain ADRIAN S., assistant surgeon, leave granted in S. O. 135, June 10, 1899, from this office, is extended 3 months and 20 days.

THOMASON, Major HENRY D., surgeon, U. S. Volunteers, will proceed from New York City, N. Y., to San Francisco, Cal., and report to the commanding general, department of California, for duty.

EVINS, Major THOMAS E., surgeon, U. S. Volunteers; Par. 30, S. O. 215, September 14, 1899, relating to Major Thomas E. Evans, surgoon, U. S. Volunteers, is amended to read, "Major Thomas E. Evins, surgeon, U. S. Volunteers."

TAYLOR, Major BLAIR D., surgeon, is relieved from further duty at Fort McPherson, Ga., and will proceed to San Francisco, Cal., and report to the commanding general, department of California, for duty.

TAYLOR, HUGH L., acting assisting surgeon, having reported to the the Surgeon-General of the Army, will proceed to Vancouver Barracks, Wash., and report for duty to the commanding officer of the battalion of the Tirty-ninth Infantry, U. S. Volunteers, for duty.

MCCORD, DONALD P., acting assistant surgeon, having reported to Surgeon-General of the Army, will proceed to Vancouver Barracks, Wash., and report to the commanding officer of that post, for duty, and by letter to the commanding general, department of the Columbia.

GONZALES, STEPHEN M., acting assistant surgeon, upon the completion of the duty assigned him by the commanding general, department of the East, will proceed to San Juan, Porto Rico, and report to the commanding general, department of Porto Rico, for duty.

GONZALES, STEPHEN M., acting assistant surgeon, will proceed from Pensacola, Fla., to New York City, and report to the commanding general, department of the East, for duty.

TILTON, Lieutenant-Colonel HENRY R., deputy surgeon-general, is granted leave of absence for 4 months, to take effect on or about October 2.

Changes in the Medical Corps of the U. S. Navy,

for the week ended September 23, 1899:

BARBER, GEORGE H., passed assistant surgeon, detached from the "Monongahela" on arrival at Newport, and ordered to duty at Naval Academy. September 30.

ROTHGANGER, GEORGE, passed assistant surgeon, ordered to duty at U. S. Naval Hospital, New York.

STONE, M. V., assistant surgeon, detached from the "Brutus" and ordered to the Asiatic Station.

BALDWIN, L. B., surgeon, placed on the retired list.

BLAKEMAN, R. S., assistant surgeon, ordered to the U. S. Naval Hospital, Newport, R. I., on completion of preliminary examination for promotion.

SNYDER, J. J., assistant surgeon, detached from the Naval Hospital, Newport, R. I., and ordered home to be ready for further orders.

LEVERING, P. A., surgeon, detached from the recruiting rendezvous, Buffalo, N. Y., and ordered to proceed home as directed in orders of 12th.

MARSTELLER, E. H., surgeon, detached from the recruiting rendezvous, Buffalo, N. Y., and ordered to duty on the "Richmond."

LUMSDEN, G. P., surgeon, detached from the "Richmond" and ordered to the recruiting rendezvous, Buffalo, N. Y.

Changes in the U. S. Marine-Hospital Service

for the week ended September 21, 1899:

BANKS, C. E., surgeon, granted leave of absence for 1 day. September 15.

PECKHAM, C. T., surgeon, to procced to Eagle Pass and Laredo, Tex., as inspector. September 20.

MCINTOSH, W. P., surgeon, to proceed immediately to Meridian, Miss., and report by wire to Surgeon H. R. Carter at New Orleans for special temporary duty. September 18.

WERTENBAKER, C. P., passed assistant surgeon, leave of absence extended 16 days on account of sickness. September 20.

FRICKS, L. D., assistant surgeon, directed to assume temporary charge of the service at Key West, Fla., relieving Assistant Surgeon McAdam. September 20.

MCADAM, W. R., assistant surgeon, relieved temporarily from the hospital at Key West, and detailed for special duty in connection with the yellow fever epidemic at Key West. September 19.

HALLETT, E. B., acting assistant surgeon, granted leave of absence for 1 day. September 16.

DAVIS, H. E., hospital steward, upon the arrival of steward Warhanik, to rejoin station at Boston, Mass. September 18.

WARHANIK, C. T., hospital steward, relieved from duty at Chicago, Ill., and directed to proceed immediately to Baltimore, Md., for temporary duty and assignment to quarters. September 18.

APPOINTMENT.

WOOLGAR, W. J. W., of Ohio, to be acting assistant surgeon, for duty at Cleveland, Ohio. September 8.

Foreign News and Notes.

GREAT BRITAIN.

The plague in India is causing great concern in British medical circles. A new batch of medical men and nurses leave almost immediately for Bombay. The disease has reappeared in Bangalore and Hyderabad, while the recorded cases in Bombay amount to 60 or 80 per week. In Calcutta, a much larger city, the weekly number of cases only amounts to about half that in Bombay, but the disease seems to have acquired firm footing in both cities.

Eulogy of things French has been a little rare in England since the verdict at Rennes, but on the second day of the meeting of the British Association at Dover, Mr. Henry Higgs, the president of the section of Economic Science, gave an address, in which he congratulated England upon having a neighbor like France. His action had a funny origin. He was moved to admire not only French literary and social charms, but the reasonable nature of French *pompes funèbres*. The French system of burial, while preserving the highest respect for the dead, does also respect the pocket of the survivor, while in England it is quite common among the working classes for the widow and orphan to cripple their slender finances by launching out into unnecessary mourning ritual. Over and over again English country-doctors have pointed out to poor communities the absurdity of spending large sums of money upon burying their dead, but the fear of appearing mean in the eye of the neighborhood generally prevails, and leads the survivors into extravagance. Mr. Higgs is asking his countrymen to follow a French example at an unexpected time; but there is no doubt that such a course would be wise.

The Sanitary Association of Scotland met during the second week of September at Hawick, N. B. Dr. A. K. Chalmers, in a valedictory address, on resigning his office as president, made some pertinent remarks upon the effect of tuberculosis on the death-rate. Certainly during the last few years many persons in their enthusiasm for the modern methods of treating phthisis have talked as though until recently tuberculosis was a condition which was little understood and for which, in Great Britain at any rate, nothing was done. Dr. Chalmers pointed out that such views took no notice of the fact that the death-rate from consumption had been steadily going down in England since 1860 and in Scotland since 1870. While he welcomed the new crusade against tuberculosis he considered that undoubtedly good results had been obtained from the medical methods previously employed. An interesting discussion followed upon the advisability of making phthisis a disease that must be compulsorily notified under the Infectious Diseases Notification Act, and a strong opinion was expressed by some weighty members of the Association that the time had now come when phthisis should be so treated. This, however, is not the opinion either of the local government board in its official capacity or of the leaders of preventive medicine in England. To make tuberculosis a compulsorily notifiable condition would be an intolerable cruelty to many people, and could only be carried out by some system of espionage that could hardly be justified by the most powerful arguments in favor of the public health.

Dangerous Trades.—The first report of the departmental committee appointed to inquire into and report upon certain miscellaneous dangerous trades in Great Britain, has been issued and makes interesting reading for all engaged in commercial pursuits. The use of lead in various forms in print and dye works was made the subject of special inquiry, and rules are strongly recommended for use in these factories where it has not been found possible to substitute aniline dye for the yellow chromate of lead, once so generally and so perniciously in use. The rules urge upon the operative the necessity of being absolutely clean in person and clothing, and upon the employer the equal necessity of providing suitable lavatories and suitable hoods or cowls to protect the faces of his men. The danger of feeding in the factory is pointed out to the men, while the employer is recommended to give ample time to them in which to eat their meals, that they may have leisure to wash beforehand. The eighth and ninth rules recommended by the committee deal particularly with the medical aspects of this important social question. The employer is asked to see that no person be employed or reemployed after absence through illness without a medical certificate; while all persons working at these dangerous processes should, in the opinion of the committee, be examined once a month by a medical man who should enter the result of the examination, and to have power to order temporary or total suspension of work. It is a singular thing that resistance to rules such as these is more likely to be met with among the operatives than among their masters. The men look upon regulations of this character as interfering with their liberty, and with extraordinary indifference to their own physical plight often prefer to work on until blindness or paralysis compels them to cease. If the report of the departmental committee passes quickly into law the operatives will find themselves protected against their own foolhardiness, and this is what factory surgeons have for years been asking for.

The British Association for the Advancement of Science.—The annual meeting of this Association was opened at Dover September 13 by the President for the year, Professor Sir Michael Foster, who took as the theme of his inaugural address "The Growth of Science in the Century and its Lessons." The learned physiologist's optimism should prove welcome to those thinking minds that are a little bored with the hopelessness that has become the keynote of the best writing and speaking at the close of the nineteenth century. "Looking back," he said, "in this the last year of the eighteen hundreds on the century which is drawing to its close, while we may see in the history of scientific inquiry much which, telling the man of science of his shortcomings and his weakness, bids him be humble, we also see much, perhaps more, which gives him hope. Hope is indeed one of the watchwords of science. In the latter-day writings of some who know not science much may be read which shows that the writer is losing or has lost hope in the future of mankind. There are not a few of these; their repeated utterances make a sign of the times. Seeing in matters lying outside science few marks of progress and many tokens of decline or of decay, recognizing in science its material benefits only, such men have thoughts of despair when they look forward to the times to come. But if there be any truth in what I have attempted to urge to-night, if the intellectual, if the moral influences of science are no less marked than her material benefits; if, moreover, that which she has done is but the earnest of that which she shall do, such men may pluck up courage and gather strength by laying hold of her garment. We men of science need not share their views or their fears. Our feet are set, not on the shifting sands of the opinions and of the fancies of the day, but on a solid founda-

tion of verified truth, which by the labors of each succeeding age is made broader and more firm. To us the past is a thing to look back upon, not with regret, not as something which has been lost never to be regained, but with content, as something whose influence is with us still, helping us on our further way. With us, indeed, the past points not to itself but to the future; the golden age is in front of us, not behind us; that which we do know is a lamp whose brightest beams are shed into the unknown before us, showing us how much there is in front and lighting up the way to reach it. We are confident in the advance because, as each one of us feels that any step forward which he may make is not ordered by himself alone and is not the result of his own sole efforts in the present, but is, and that in large measure, the outcome of the labors of others in the past, so each one of us has the sure and certain hope that as the past has helped him so his efforts, be they great or be they small, will be a help to those to come." Sir Michael Foster's words make a fine creed for a medical man. By the way, the British Association certainly desire to honor the medical profession, for they have elected as their president for 1900, meeting to be held at Bradford, Sir William Turner, the President of the General Medical Council.

CONTINENTAL EUROPE.

Courses of instruction in cooking for medical practitioners have been established in two schools of cookery in Berlin.

A marble bust of Emil Dubois-Reymond has been placed in the Physiological Institute of Berlin.

Professor Podwyssotzki has been elected president of the Russian section of the International Medical Congress for 1900.

The Council of State, France, upon the advice of the Minister of the Interior, has voted the sum of 300,000 fr. for the defence of France against the plague.

Dr. L. Pereira Marques, of Macao, was some time ago created a Knight of the Town and Sword by the King of Portugal in recognition of his services in the epidemic of plague from which the colony suffered last year.

The Study of Cattle Plague by the Russians.—The Veterinary Department of the Russian Ministry of the Interior has decided to send two veterinary surgeons to Capetown to study the preparation and mode of use of the vaccine employed in cattle plague.

A New Use for Bacteria.—We read in an exchange that a medical student in Gratz, Austria, was recently arrested for attempting to extort money from a rich widow under threat of scattering a number of pathogenic bacteria about in her room and over her clothes.

The Paris Medical Club has just been organized with the following officers: President, Dr. Pozzi; vice-presidents, Drs. Rause and Faisans; secretary general, Dr. Dotéris; secretaries, Drs. LeFèvre, Bonin, and Saint-Léger; treasurer, Dr. Desnos; librarian, Dr. Chassvent. The club has now more than 200 members.

An epidemic of suicides at present exists in Italy. In Milan, where work and wages are relatively abundant, there were, in the month of July, 15 cases of suicide and as many abortive attempts. In Florence, dependent upon the winter visitor, there were, between May 1 and July 31, 1 suicide, either abortive or successful, per day. A similar state of affairs is reported in Palermo and Naples, while it is stated that the statistician is unable to keep pace with the suicides that occur in Rome.

Homeopathy and Tropical Diseases.—A sign of the times is the recent action of the Committee and Medical Board of the Liverpool Hahnemann Hospital in organizing courses of instruction in tropical diseases. They have, as we learn from the *Homeopathic World* of September 1, issued a circular in which they state that, "recognizing the very serious nature of tropical diseases, especially of Africa, and in view of the great mortality under ordinary treatment," they, "knowing the certainly curative power of homeopathic treatment in those diseases, have arranged, etc., etc." The "certainly curative power of homeopathic treatment" is an expression which considerably o'ersteps the modesty of true science.—[*British Medical Journal.*]

University Appointments.—BERLIN: Dr. A Rosenberg, for years assistant to Professor A. Fraenkel, in the laryngologic clinic, has been made professor of laryngology.—Dr. Karl Gebhard, privat-docent of gynecology, has been made professor of gynecology. FREIBURG: Privat-docent Dr. G. Treupel, assistant in the medical clinic, has been appointed professor of internal medicine. CRACOW: Dr. Bronislas Kader, of Breslau, has been appointed professor of surgery, in succession to the late Professor Obalinski. JENA: Dr. Gumprecht has been appointed extraordinary professor of forensic medicine. KÖNIGSBERG: Dr. R. Pfeiffer has been appointed professor of hygiene. LEYDEN: Dr. G. Yelgersma, of Arnheim, has been appointed professor of psychiatry.

Typhus Fever in Russia.—It is stated in the *Lancet* that typhus fever has recently been prevalent in the Government of Kharkof. The *Medical Chronicle of the Kharkof Government* (July) contains an interesting article on the outbreak which is quoted in *Vratch.* The popular objection to any form of isolation of the patients was so great that the measure simply could not be carried out. The author of the article (Dr. Grodzinski) obtained excellent results as regards treatment by the use of hot baths (up to 24° R.) with simultaneous application of cold to the head. Improvement in the patients' diet was of the greatest benefit. The diet taken by the peasants during the great Church fasts seemed to act unfavorably both as to the spread and as to the mortality of the disease.

Pasteur Antirabic Treatment:—The following table gives the results of the antirabic treatment at the Institute Pasteur, Paris:—

Year.	Cases.	Deaths.	Per Cent.
1886–87	2,671	25	.94
1887–88	1,770	14	.79
1888–89	1,622	9	.55
1889–90	1,830	7	.38
1890–91	1,540	5	.32
1891–92	1,559	4	.25
1892–93	1,790	4	.22
1893–94	1,648	6	.36
1894–95	1,387	7	.50
1895–96	1,520	5	.33
1896–97	1,308	4	.30
1897–98	1,521	6	.39
1898–99	1,465	3	.20

Of the three deaths during the year 1898–99, one occurred 15 days after the treatment and two during the treatment.

The Pasteur Institute.—In the Rue Dutot, immediately opposite the Pasteur Institute, building operations were

commenced two years ago on the Biological Institute, a structure which corresponds architecturally to the Pasteur Institute, but extends much farther back. This building, the cost of which came out of the 2,000,000 fr. given to the Pasteur Institute by Baroness Hirsch 3 years ago, has been completed and only requires some finishing touches inside. It includes a spacious amphitheater, numerous laboratories, and what is practically a hospital intended to serve as a clinical department for the Pasteur Institute. Baroness Hirsch, who had announced her intention of making bequests to scientific and hospital establishments, ultimately changed her mind, for her will, published a month ago, dealt with a sum of 315,000,000 fr., of which 200,000,000 fr. were bequeathed to different philanthropic undertakings in France and abroad, all of them, however, being exclusively Jewish.

Combating the Plague.—According to the *Lancet*, the measures necessary to resist plague are receiving careful attention at the Pasteur Institute. Dr. Salimbeni, *préparateur* to Dr. Roux, has been added to the commission sent to Oporto, of which Dr. Calmette is one of the members. The commissioners were accompanied to the railway-station by all their friends at the Pasteur Institute, who went to see them off. The preparation of antiplague-serum is being rapidly proceeded with; up to the present time the institute has supplied it, in response to all the very numerous requests which have come from Portugal, Spain, Italy, and Turkey, without encroaching on the reserve kept in readiness for Paris and the departments. Although it was only a fortnight ago that the Government gave official permission to manufacture and sell this serum, the institute has been preparing it for the last 4 or 5 years, for it is a rule with the institute not to supply sera to the public until their value has been completely proved. Antitubercle-serum, anticholera-serum, and antityphoid-serum have also been prepared, and have yielded gratifying results, but their effect is not sufficiently constant to warrant their being distributed to the public. Antiplague-serum is of undoubted efficacy as a prophylactic, but its curative power is less certain.

Scurvy and Famine.—The *Vratch* (No. 29) publishes from two authentic sources some very terrible details of the suffering now being caused by the famine and epidemics of scurvy and typhus in Southern and Eastern Russia. In one village, in the government of Simbirsk, the village hospital, constructed to hold a maximum of 30 patients, was found to contain no less than 117. But even this was exceeded when the epidemic was at its worst (from January to May); at that time 203 persons were somehow crammed within its walls. They lay in every possible spot, including the entrance portico and staircase. In the Kazan Government scurvy has been excessively rife and the suffering from cold and want of food extreme. In many villages the huts were roofless, the roofs (presumably thatched) having been torn down to feed the cattle. The peasants had passed the winter in *zemlianki*, or hovels dug in the earth and rudely roofed over, which they shared with such of their cattle as survived. Many persons died from scurvy and many others from sheer starvation. The scurvy presented itself either in its typical form with primary softening of the gums and subsequent minute hemorrhages in various parts of the body, or in a form characterized by large hemorrhages under the skin or into the muscles and accompanied by severe pains in the limbs and especially in the knee-jerks, in consequence of which the patients were unable to walk for a considerable period. In one particular district (that of Sviaga) the disease began in most patients with hemorrhages in the popliteal region, or (more rarely) in the neighborhood of the ankle, and the affection of the gums was a later symptom. In some 5% of the total number of patients the gums were entirely unaffected. In a few cases the hemorrhages appeared at the bend of the elbow or at the wrist-joint. Ulcers were occasionally present. The majority of patients who suffered from scurvy were women, apparently because the lack of food fell more directly upon them than upon the men. In every instance the occurrence of scurvy was entirely due to lack of food, and when the relief measures were put in force and food distributed scurvy diminished or disappeared completely. There was no evidence whatever that scurvy could become infectious. Children, it was observed, who were suckled by scorbutic mothers in no instance developed the disease.—[*Lancet.*]

The Paris Municipal Council and the Hospitals.—It is stated in *Lancet* that the increase of the population of Paris, especially in the suburbs, has made it evident that changes are required in the number and apportionment of the hospitals—changes which amount to a complete remodeling of the existing institutions. The Prefect of the Seine has officially recommended the immediate erection of a hospital of 500 beds on the right bank of the river and the reconstruction of several hospitals—namely, the Hôpital de la Pitié, the Hôpital d'Aubervilliers, the Hôpital Broussais, and the Hôpital Broca; he also recommends the combination of the Hôpital Cochin and the Hôpital Ricord in a special hospital for diseases of the skin, syphilis, and ringworm. For the treatment of children the proper course would be the reconstruction of the Hospital for Sick Children and the erection outside Paris of a hospital of 200 beds for patients suffering from tuberculous disease of the bones. With regard to the *hospices*, the Hospice la Rochefoucauld would be enlarged and two pavilions for 1,400 aged persons would be built at Brévannes. The city of Paris would in this way have at its disposal 2,888 new beds, of which 1,088 would be for adults, 200 for children, and 1,600 in the *hospices*. Each bed being estimated to cost 11,000 fr., the total outlay would amount to 72,062,800 fr., not including 1,080 fr. required for the expenses of the loan. The municipal council considers this scheme to be insufficient and inadequate to the steadily growing necessities of the case. The council wishes to have the hospitals in the central parts of the city pulled down and new buildings erected outside the walls, because the hospitals in the central districts are old and do not answer the requirements of modern hygiene and surgery, although money is always being spent in fitting up new and very costly operating theaters in the old buildings. Their situation in the center of the city makes them difficult of access for the working people who form the bulk of the patients, almost all of whom live in distant suburbs. It must also be mentioned that the majority of the municipal councillors are socialists elected by the suburban population, whilst the central districts of Paris elect councillors who hold more moderate political opinions and at the same time form a powerless minority in the council. Moreover, it must be recognized that the city of Paris would benefit financially by the proposed changes, for the old hospitals stand in well-to-do neighborhoods and the sale of their sites would yield a sum probably large enough to cover all the expense of building new hospitals in the suburbs. It is estimated that the site of the Hôpital de la Charité would fetch 4,604,000 fr., that of the Hôpital Beaujon, situated in the *quartier* of the Champs Elysées, 13,925,000 fr., that of the Hôpital Laennec 6,860,000 fr., that of the extension of the Hôtel Dieu 2,710,000 fr., that of the Hôpital Andral 810,000 fr., that of the municipal Maison de Santé (known as the Maison Dubois) 3,100,000 fr. These prices have been calculated on the basis of the present value of the land, reckoned at so much per square meter in the respective localities of these different hospitals. The whole would produce a sum of 32,000,000 fr., which the council

thinks would be sufficient for the building and complete furnishing of new hospitals situated outside Paris with accommodation for 2,888 beds. It is true that the cost per bed is assumed to be 9,000 fr. instead of 11,000 fr. as estimated, and no doubt more correctly, by the Prefect of the Seine. Three entirely new institutions would then be built, one of 800 beds between Saint-Ouen and Aubervilliers, one of 800 beds at Neuilly, and one of 600 beds somewhere to the south; 267 beds would also be added to the Hôpital Boucicaut. In the next place, the children's hospitals would be proceeded with. The closing of the Hôpital Trousseau (Children's Hospital) has now been decided on, and three new hospitals will be built, the cost of which, estimated at 7,714,600 fr., is covered beforehand by the proceeds of the sale of the Hôpital Trousseau added to some other financial resources. From the point of view of medical education this removal of the hospitals to distant localities will probably not be to the liking of either the medical staff or the students. It must be added that if the hospitals in the central localities are abolished it will be necessary to retain or to build receiving houses for injured persons and for urgent cases which are brought every day in great numbers to these hospitals.

MISCELLANY.

Obituary.—DR. CARL STOERCK, professor of laryngology in the University of Vienna, September 13, aged 67 years.

The Plague in India.—In the city of Poona the mortality, in spite of a greatly decreased population, has been over 1,000 weekly. Nearly all of this is due to the plague. The disease has also reappeared in Hyderabad in Sind. Since the beginning of August there have been 50 deaths, and the type of the disease is said to be very virulent. In Bombay the number of cases are between 60 and 80 per week; in Calcutta, 30 to 40 per week. The disease has also reappeared in Bangalore and a panic is feared. The following are the figures of the plague epidemic in the Mysore province, where the disease has been existent during the past 12 months: Bangalore City has had 3,377 cases and 2,787 deaths; the cantonment 4,040 cases and 3,330 deaths; the district, 5,347 cases and 4,746 deaths; Mysore City 2,759 cases and 2,238 deaths; the district 956 cases and 704 deaths; the Kodar district and gold fields 2,303 cases and 1,823 deaths. Other places bring the total up to 19,840 cases and 16,320 deaths.

The Very Latest.—Mrs. Eddy and other "Christian Scientists" will have to take a back seat owing to the advent of one Paul Edwards. According to the *Daily Mail*, who has interviewed this wonder-worker, Mr. Paul Edwards wishes people to understand "that I am not a faith-healer, neither am I charged with electricity nor mechanism. I get there by will-power, or mental concentration, if you like to call it so. My treatment is simple and it rarely fails. Some healers affect to believe that disease and pain do not exist. I know they exist and I get right on to the seat of the trouble at once. Say a man or a woman comes to me with rheumatism, or neuralgia, or epilepsy, or consumption. Well, I just fix my mind on the seat of the disorder, and by a mental effort I rid them of pain in a very few minutes. Contact I don't need. I can cure a patient of pain in the stomach at 4 yards' distance, and I will abolish the worst case of insomnia in 3 visits of 5 minutes' duration each." We remember reading, we think in a book written by a countryman of Mr. Edwards, of a boyish hero who "could snuff a candle with his fingers at 40 paces," but possibly Mr. Edwards' feat *re* the stomach is even more remarkable. Finally, we are pleased to see that faith is a *quantité négligeable.* "A man might think about any old thing while under treatment and be cured all the same."—[*Lancet.*]

Society Report.

AMERICAN ASSOCIATION OF OBSTETRICIANS AND GYNECOLOGISTS.

The Twelfth Annual Meeting, held at Indianapolis, Ind., September 19, 20, and 21, 1899.

THE Association met in the Century Club Room of the Denison House under the presidency of Dr. Edward J. Ill, of Newark, N. J. An address of welcome was delivered by Mayor Taggart which was responded to by the president. After a brief executive session, the reading of papers was begun. We give brief abstracts of the most interesting papers that were read.

DR. JAMES F. BALDWIN, of Columbus, O., reported **three rare cases of kidney cysts.**

CASE 1.—Enormous hydronephrosis simulating ovarian cystoma. The tumor in this case filled the entire abdomen and entered the true pelvis, pushing the uterus to the left. The patient was unaware of the existence of any tumor, but thought that she had been getting stout for 2 years. There was no history whatever of any disturbance about the kidney. The enlargement was much more marked on the left side of the abdomen. At the operation the tumor was found to be hydronephrotic, of the right side, and with entire destruction of all kidney-tissue. The bloodvessels had so far disappeared that the only pedicle was an enormously distended ureter resembling a piece of small intestine. The cyst, which was retrocolic, was enucleated and the cavity closed with temporary drainage. Healing occurred by first intention.

CASE 2.—A large paranephric cyst containing about one and a half pints of straw-colored fluid resembling urine. The cyst-wall was exceedingly thin, but was successfully enucleated and the cavity closed with temporary drainage. Healing occurred by first intention.

CASE 3.—Hydronephrosis of a rectorectal congenitally misplaced and sarcomatous kidney. This tumor filled the pelvis, pushing the uterus up and pressing so firmly upon the urethra as to necessitate the use of a catheter. The rectum was so pressed upon as to render defecation almost impossible. After separating the tissues the cyst was tapped through the vagina and about one quart of urinous fluid drawn off. The completion of the enucleation had to be made through the abdomen. The specimen proved to be a sarcomatous kidney congenitally misplaced in the pelvis. During the development of the disease hydronephrosis resulted, giving rise to the cyst which obstructed the pelvis. The patient recovered without difficulty and continued well at the time of the report.

While hydronephrosis simulating ovarian cystoma is not very rare, paranephric cysts, of any considerable size at least, have been very seldom reported. The case of hydronephrosis of a pelvic kidney is, so far as the reporter could ascertain, after a somewhat extended correspondence, entirely unique.

DR. JAMES F. W. ROSS, of Toronto, read a paper entitled **Rupture of the puerperal uterus,** with cases. The essayist said it is well known that rupture of the uterus might occur before or during labor. To diagnose a rupture of the uterus before labor was extremely difficult. It is a subject about which very little is known. The cases under discussion were not those before labor, but those occurring at the time of labor. Every practitioner should be familiar with the symptoms of this condition, so as to be able to recognize it at as early a date after its occurrence as possible. He then mentioned the different causes of rupture of the uterus that are well known. He stated that the question as to whether rupture of the uterus occurs more frequently in the first or in subsequent labors is still one that has not been settled. Some authorities claim that rupture of the uterus is more frequently met with in primiparous cases than in multiparous cases; others claim it is more frequently met with in multiparous than in primiparous cases. Some state that rupture of the uterus may take place before the membranes have been ruptured. He considers that the duration of labor has a great deal to do with the production of rupture of the uterus, as the organ seems more prone to tear after its structure has become impaired by continual and prolonged contraction. The fundus is less frequently ruptured than the body, and the body less frequently ruptured than the cervix. The posterior wall of the lower segment seems to be the commonest site of rupture and the tear is generally found to run toward the left. These tears usually extend over a distance of three or more inches. He considers that cases of rupture of the uterus might be

ded into four groups. First, those which are beyond e from the first, that have the usual classical symptoms of id pulse, dyspnea, precordial uneasiness, nausea, vomiting, cold perspiration. Second, those cases that have, owing elay, passed beyond the operable stage and have become vith commencing septicemia and peritonitis, the peri- tis and septicemia drawing attention to the case, and extra attention revealing the fact that rupture of the us has been present without giving rise to early symp- s to indicate its existence. Third, a class of cases in ch rupture is not immediately fatal, in which it is early gnized, and in which the patient is in good condi- for operative interference. Fourth, a class of cases may occur in which rupture is never recognized, in which septic symptoms develop without any evident on. In a case in which a very rapid pulse follows a fairly re labor and peritonitis sets in, rupture of the uterus t be considered when endeavoring to discover the cause ie abnormal course of the puerperium. Intraperitoneal orrhage can be diagnosticated by percussion in the loins. essayist stated that he had diagnosed intraperitoneal orrhage in this way on several occasions. The percus- sound may change as a consequence of the changed tion of the clot, and when it does change, it does so ly. He stated that since reading a paper before the alo Academy of Medicine in January, 1898, he had met two cases of rupture of the uterus. These were related etail. One case occurred at full term, and the other ig the fourth month, the latter having been produced by ttempt to empty the uterus. In each case drainage of peritoneal cavity through the rupture and frequent irri- n were adopted. Each patient recovered after a long- inued illness. The rupture was not recognized in either in time for interference by celiotomy. In summing up reatment of these cases he considered that it is neces- to treat the cases according to the class to which they ig. In the first class the patient is practically moribund e the physician in charge can call counsel. In the d class of cases, in which there were no symptoms to ate that rupture of the uterus had occurred, the treat- must vary from that carried out in class three. The ment in the second class was that indicated in the cases ted, namely, thorough drainage and thorough cleansing below. He considered that an abdominal operation r such circumstances would be unfavorable and injurious e patient. Already adhesions have formed to protect eneral peritoneal cavity, and these must of necessity be n down and increase the risk. In the third class of cases ich rupture is recognized, in which the patient is not ound from shock and hemorrhage, there can be but line of procedure to carry out, namely, celiotomy, ugh inspection of the part, removal of blood-clot among the intestines, thorough stoppage of hemor- from the wound either by approximating sutures ize packing, and the establishment of thorough vaginal dominal drainage, or both. In the opinion of the st, suturing the rent was scarcely called for, as s procedure the operation is unncessarily prolonged the length of time consumed by such an opera- s of importance. Any one who has had experience this tragedy of the lying-in ward must have noticed ie edges are so bruised as scarcely to hold a suture. re them off means increased hemorrhage and increased

He prefers packing with gauze and is satisfied that erus afterwards becomes perfectly normal. Hysterec- under such circumstances must prolong the operation, se the shock, and unsex the patient. In the treatment fourth class of cases, or those unrecognized, the ques- f improvement in means of diagnosis must be con- l. How can it be discovered when it presents no oms? When inflammation and septicemia are pres- is too late to make a diagnosis. He has not the fear loration of the interior of the uterus ordinarily taught textbooks. He does not consider this a sort of sacred er into which the finger of the accoucheur should be put. He believes that in all cases of septicemia ng labor in which there is a greatly increased pulse, t any apparent reason, that the interior of the uterus be thoroughly explored with the finger to ascertain sence or presence of a rent.

W. E. B. DAVIS, of Birmingham, Alabama, read an interesting paper on **Wounds of the liver and biliary tract,** in which he said, that penetrating wounds of the liver were not common. The surgeon may inflict such injuries in the treatment of hydatid cysts and abscesses of the liver. Severe wounds usually prove fatal. There is often injury to the biliary canals of the liver and the extravasation of bile contributes to the fatal issue. He reported three cases illustrating injuries produced by the surgeon. One, a man, aged 60 years, in whom there was only one-half ounce of pus found in the right lobe of the liver, but in searching for this small cavity a wound of very considerable depth and great size—perhaps two inches in length—was inflicted. There was very profuse hemorrhage, which was controled by iodoform-gauze packing. Great quantities of bile were discharged for three weeks. Patient made an excellent recovery, and he attributes this result not only to the drainage of pus, but to the opening of some of the biliary canals which resulted in the emptying of the liver. Another case was in a woman, 30 years of age, who had attacks of pain, fever, and jaundice from a movable stone in the common duct; the liver became very much enlarged, and during an attack of peritonitis an incision was made and the right lobe of the liver freely opened and packed with gauze. There was no pus in this case. The patient rapidly recovered. The liver returned to its proper size and the stone was passed some months after, when the patient was being prepared for a radical operation. He also reported the case of a woman, 60 years of age, whose symptoms indicated obstruction of the common duct. The liver extended almost to the umbilicus. No nodules were to be made out on the surface. There being no obstruction in the common duct, it was decided that the obstruction was in the hepatic duct, or its branches. A free incision was made into the right lobe of the liver with the hope of opening some of the biliary canals and thus relieving cholemia. Death occurred a few days after from exhaustion. The patient was almost in a dying condition at the time of the operation. A large malignant nodule was found at the autopsy in the transverse fissure, which completely obstructed the branches of the hepatic duct. Dr. Davis stated that wounds of the biliary tract beyond the liver produced death, not so much from the sudden escape of bile as from the continuous pouring of fresh bile into the peritoneal cavity. Gallons of fluid would not cause death if there were protective adhesions. He reported a case of gunshot-wound illustrating this point, in which the patient was cured by repeated tappings, large quantities of bile being removed at the first operation. He also related experiments on animals where the adhesions had given way after two weeks and death resulted from peritonitis. He said that rupture of the liver might be limited to upper and lower surfaces, or that the organs might be completely torn through, the parts being held together by the veins. In four cases in which he had operated on dogs and had removed more than one-third of the liver, all died. In one case in which he removed the extreme left lobe of the liver the animal made a complete recovery. He detailed six cases of operations on animals, illustrating the fact that small quantities of bile could be injected into the peritoneal cavity without harm. In one case he injected as much as five drams of bile. He reported 23 cases of operations on dogs to demonstrate the effect of bile on the peritoneal cavity. In those cases in which there was only a small escape of bile the animals recovered; in those in which there was considerable extravasation, the animals died in from 1 to 3 days. The omentum and abdominal viscera in these cases were highly bile-stained, but there was not the redness of intestines that is observed in septic peritonitis. The treatment of these cases consists in promtly opening the abdomen, controling the bleeding by gauze packing and drainage. The essayist reported a large number of cases in which he had produced wounds of the gallbladder and ducts of dogs which had been successfully dealt with in this way. The opening in the bladder or duct would close as quickly as the fistula of a cholecystostomy.

The following were elected as officers for the ensuing year: President, Dr. Rufus B. Hall, Cincinnati, Ohio; first vice-president, Dr. L. H. Dunning, Indianapolis, Ind.; second vice-president, Dr. T. J. Crofford, Memphis, Tenn.; secretary, Dr. William Warren Potter, Buffalo, N. Y., and treasurer, Dr. X. O. Werder, Pittsburg, Pa. Place of meeting, Louisville, Ky., 1900.

The Latest Literature.

British Medical Journal.

September 9, 1899. [No. 2019.]

1. A Discussion on Psilosis or Sprue; Its Relations (Etiologic and Pathologic) to Other Forms of Tropical Diarrhea and Its Treatment. GEORGE THIN, EDWARD HENDERSON, JAMES WATSON, W. J. BUCHANAN, JAMES CANTLIE, G. LAMB, PATRICK MANSON, L. W. SAMBON, G. M. GILES, SARAT K. MULLICK, FILIPPO RHO, TURNBULL, and KENNETH MACLEOD.
2. The Part Played by Insects, Arachnids, and Myriapods in the Propagation of Infective Diseases of Man and Animals. GEORGE H. F. NUTTALL.
3. A Case of Bilharzia Hematobia. C. P. CHILDE.
4. On Filarial Periodicity. PATRICK MANSON.
5. Suprahepatic Abscess. JAMES CANTLIE.
6. On Thermic Fever (so-called Siriasis), with Special Reference to Its Alleged Microbic Causation. KENNETH MACLEOD, G. M. GILES, L. W. SAMBON, PATRICK MANSON, J. P. H. BOILEAU, OSWALD WOOD, THE PRESIDENT, FILIPPO RHO, JAMES WATSON, and C. I. MCCARTIE.
7. Dysentery as a Terminal Symptom of Disease in the Tropics. W. J. BUCHANAN.
8. Hemoglobinuric Fever and Paludism. W. H. S. STALKARTT.
9. The Geographical Distribution of Undulant (Malta) Fever. M. LOUIS HUGHES.
10. Malarial or Climatic Neuralgia and Its Treatment. A. S. FAULKNER.
11. A Further Contribution to the Study of Malarial Eye-affections. M. T. YARR.
12. Some of the More Common Forms of Tropical Diseases Met with in General Practice in England. SARAT K. MULLICK.
13. The Life-history of the Free Stage of Ankylostoma Duodenale. G. M. GILES.
14. On the Preparation and Use of Calmette's Antivenene. O. W. ANDREWS.

1.—The etiology and treatment of psilosis is discussed by several physicians. The specific poison (if there be such) seems to be starved by certain kinds of diet, some reporting good success with milk, others finding a meat-diet better. One remarkable case improved on a diet of milk and strawberries. Drugs give unsatisfactory results, but purgatives usually are indicated. [A.G.E.]

2.—Nuttall reviews experiments regarding **the propagation of disease by insects,** and gives a table of animal parasites and their hosts. [A.G.E.]

3.—The patient, a white girl, age 16, had lived until two years ago in Natal. While there she was accustomed to bathe in a fresh water pool and it was thought that this was the source of infection of the **Bilharzia hematobia.** The diagnosis of the case was made by the microscopic examination of the particles floating in the urine. Intermittent hematuria and some irritability of the bladder were the chief symptoms. [G.B.W.]

4.—Manson contributes an excellent article concerning **the appearance of filaria embryos in the cutaneous circulation.** Four questions are considered. (1) What is the object of the nocturnal appearance? This is explained by the fact that the mosquito is the intermediate host, and the parasite adapts its habits to those of the host. (2) Is filarial periodicity constant? It is, unless during fever or when the time of sleep and being awake are inverted. (3) What becomes of the filaria during the day? Autopsy upon a young man who committed suicide at 8.30 A.M. helps explain this. The large majority of the filaria were found in the bloodvessels of the lungs, some in the heart-muscle, and but very few in the liver, spleen, or kidney. (4) What is the mechanism of this distribution, and how do the filaria maintain their different positions? This question Manson is not ready to explain. There may be some physiologic product of waking life which drives or attracts the organism. Attention is called to the fact that the malarial parasite when in the internal organs mainly occupies those organs shunned by the filaria. [A.G.E.]

5.—The commonest cause of **suprahepatic abscess** is a chilling of the body; dysentery plays no part in its pr duction. The position of the abscess is in the space on t upper surface of the liver not covered by peritoneum whe the vena cava lies. The inflammation starts in the lympha ics of this region. From the close relation to the pleur cavity secondary lung-affections are most apt to occur. T symptoms are pain localized at the acromioclavicular angl also there may be pleuritic twinges, and various gastrointe tinal disturbances. There is no enlargement or tenderne of the liver itself, but attempts to move that organ produ excruciating suffering. In some cases, however, pain m be almost absent, and the temperature may be normal. T diagnosis is secured by the exploration-puncture. The trea ment consists in locating the pus by an exploring-need and when found the abscess should be tapped by a lar trocar and canula, and a rubber drainage-tube introduce [G.B W.]

6.—A discussion was had regarding **the use of t term "siriasis" for thermic fever,** and also as to t etiology of the disease. Sambon maintains that siriasis unknown in many of the hottest countries of the world, a adduces other arguments **in favor of the microb origin of the disease.** He believes that many of l critics have confounded the disease with ordinary syncop The destruction of the red blood-cells in siriasis points to toxic element in the blood. [A.G.E.]

7.—Numerous cases are cited to show the frequency dysentery as a terminal symptom in many diseases in t tropics. [A.G.E.]

8.—Conclusions reached by Stalkartt are: (1) **Blac water fever** is only found associated with malaria. The c cumstances under which it occurs, or which appear to be p pagating factors, would indicate this. (2) Blackwater feve not malaria simply, but a distinct disease, possibly malar in nature, due probably to an organism having a speci action, or one of peculiar intensity, in giving rise to gr blood-destruction. (3) Quinin is not the cause of true bla water fever, although in certain cases it may aggravate it. Quinin has been distinctly beneficial in this malady—to wh extent is uncertain, but with mixed malarial infection, or warding off subsequent malaria, it should be given a fo most place. Few, indeed, would care to omit it from th medicinal equipment. Dr. Manson classified the argume for and against the hypothesis which would regard bla water fever as a malarial disease, as follows: *For* (*a*) occurred in malarial—very malarial—districts. (*b*) T malarial parasite was often found in the blood. (*c*) It occu in people who had had many attacks of malaria. (*d*) occurred only after prolonged residence and consequ malarial saturation. *Against.*—(*a*) Its geographical range v limited as compared to malaria. (*b*) The malaria parasi were not always found, and when found they were not alwa of the same kind. (*c*) It was not certain that the fevers p ceding attacks of blackwater fever were really all of th malarial in character. Is was possible they were, so to spe incomplete or abortive hemoglobinuric fever before symptom from which the disease receives its name v developed—a not unusual occurrence in other specific d eases. (*d*) Cases had occurred within a short period arrival in the endemic areas of the disease. (*e*) The epide seasons of malaria and blackwater fever did not always c respond. (*f*) Blackwater fever was not amenable to quin [A.G.E.]

9.—After considering the wide range of **undulant fev** Hughes states that local names such as Malta or Medi ranean fever are misnomers. [A.G.E.]

10.—Faulkner advises **quinin in large doses malarial neuralgia.** This should be given plentif diluted, between meals, and one or two hours before an pected attack. [A.G.E.]

11.—Among some of the **eye-diseases** connected w **malaria** are, of the conjunctiva, (*a*) intermittent ophth mia, (*b*) conjunctival injection due to neuralgia of the f nerve, (*c*) epidemic conjunctivitis; of the cornea, (*a*) dendr keratitis, (*b*) keratitis profunda, (*c*) vesicular keratitis; of iris, malarial iritis. Besides these we may have cataract anomalies of accommodation. [G.B.W.]

12.—Malarial cachexia, dysentery, beri-beri, sprue, hepatitis are considered, with points on the treatmen each. [A.G.E.]

13.—Giles describes the method of cultivating and obs

he changes in the free stage of ankylostoma duodenale. .E.]

t.—Andrews describes **Calmette's method of obning snake-venom and producing antivenene** by nunizing horses. Calmette discourages the use of either hol or ammonia for snake-bites. Experiments show that serum should be injected intravenously to have the best lts. As a further precaution ligatures should be used calcium hypochlorite or gold chlorid injected around seat of the bite. [A.G.E.]

Lancet.

September 9, 1899. [No. 3967.]

Recrudescence of Plague in the East and its Relations to Europe. W. J. SIMPSON.

Mediterranean or Malta Fever, with Special Reference to the Specific Agglutinating Substances which make their Appearance in the Blood in the Course of that Disease. C. BIRT.

A Case of Hydrocele of the Sac of a Femoral Hernia. DUNCAN MACARTNEY.

Guaiacol Carbonate and Creasote Carbonate in Bronchitis and Pneumonia. R. SEIFERT.

On the Construction of Operating Theaters, with a Description of the Operating Theater of the New Glasgow Cancer Hospital. GEORGE THOMAS BEATSON.

The Peculiar Agglutinative Action of Blood Sera upon Live Spermatozoa. ROBERT L. PITFIELD.

A Case of Extrauterine Fibroid; Abdominal Section; Recovery. C. STANSER BOWKER.

Arsenic as an External Irritant. A. MILSON ROBERTS.

A Case of Retention of Urine Caused by Retained Menstrual Fluid. OLIVER SMITHSON.

A Case of Epithelioma of the Conjunctiva; Enucleation. ARTHUR W. WHEATLY.

A Case of Puerperal Septicemia in which Antistreptococcic Serum was Used with Success. T. B. GRIMSDALE.

—The history of **the progress of the present** gue and the commercial conditions favorable to diffuare given. Simpson insists that governments should only combat the plague by every known method, but ld systematically establish laboratories for organized rch into the mode of spread of the disease. **The great e of Haffkine's prophylactic is emphasized.** ould be applied to the crews of all ships coming from ted ports. [A.G E.]

—Birt and Lamb find that the sera of patients suffering Malta fever produce a **more marked agglutinat-action** on the micrococcus melitensis than is obtained e Widal test in typhoid. Dead cultures give the same t as living. One case was found to give the reaction 7½ after recovery. The value of the test as aiding in prog- is discussed. The conclusions are practically the same Gourmont has reached in estimating the Widal test. E.]

—A woman, 56 years old, had suffered about 6 years a **femoral hernia,** when it suddenly became irrele, an operation was advised and accepted. On incision was found a large piece of omentum in the crural ring, also a small sac which tapered toward the ring, and n was filled with serous straw-colored fluid. The sac quite separate from the peritoneal cavity. The sac and tum were ligated and cut away and the operation was leted in the usual way. [M.B.T.]

—Seifert writes of **the effect of creasotal** (creasote nate) **in acute diseases of the lungs.** It has the eptic action of creasote without its dangerous proper- It reduces the temperature in bronchitis and pneumond has a powerful action upon the local pulmonary s. Notes of several cases showing its prompt action ven. [A.G.E.]

—Beatson discusses the construction of operating thea- a thorough and interesting way, and gives a descripf the new operating theater which has just been com- in the Glasgow Cancer Hospital. [M.B.T.]

—Pitfield has studied the **effect of foreign blood- upon the spermatozoa of different animals.** bing is caused and leads to the conclusion that live motile animal-cells act toward foreign sera as typhoid bacilli act toward typhoid serum. [A.G.E.]

7.—Bowker reports a case of operation for a subperitoneal **uterine fibroid** during pregnancy. Operation was performed and the tumor removed, but miscarriage occurred two days later. Patient made uninterrupted recovery. [W.K.]

8.—A case of great irritation of the legs was found to be caused by the using of a weedkiller containing large quantities of arsenic. [A.G.E.]

9.—Smithson reports a case of **imperforate hymen.** Patient was a girl of 16 years, and the chief symptom was retention of urine, evidently caused by the great pressure of retained menstrual fluid. Under strict antiseptic precautions the hymen was incised and a large quantity of menstrual fluid of dark color and extremely viscid was evacuated. [W.K.]

10.—A man, aged 70, had a warty growth of triangular form in the outer fourth of the corneo-sclerotic region of the left eye. The growth was triangular in shape, its base limited behind by the insertion of the external rectus, above by the superior rectus, below by the inferior rectus, and its apex extended from the cornea and pupil. Enucleation was advised and performed. On pathologic examination the growth was found to be squamous-celled epithelioma. [M.B.T.]

New York Medical Journal.

September 23, 1899. [Vol. lxx, No. 13.]

1. Fracture of the Lower End of the Radius. (*Concluded.*) CARL BECK.
2. The Physiological Action and Therapeutics of Guaiamar, a Derivative of Guaiacol. GEORGE F. BUTLER.
3. The Compulsory Reporting of Tuberculosis. S. A. KNOPF.
4. Exhibition of a Case of Stammering, with Demonstration of the Methods Employed in Treatment. G. HUDSON MAKUEN.
5. The Early Recognition of Kidney Disease, Especially in its Reference to Life Insurance. T. H. ROCKWELL.
6. Foreign Bodies Lodged Within the Eyeball. EDWARD JACKSON.
7. Pistol-shot Wound of the Abdomen Perforating the Stomach. Recovery. J. N. LE CONTE.

1.—Beck believes that the treatment of **fractures of the lower end of the radius** should be varied according to the kind of fracture and the deformity. He uses a long wire splint which reaches from the tip of the fingers to the elbow. If the displacement is upward, with the typical silver-fork deformity, a pad of adhesive plaster is attached to the skin over the fragment, then a narrow wood-splint is placed on the dorsal aspect of the arm, the wire splint on the palmar surface of the arm and pressure is made by the application of a gauze bandage. If there is downward displacement the wire splint is applied on the dorsal side and the wooden splint and pad on the palmar side of the arm. In case there is lateral displacement, as is often the case if there is simultaneous injury to the ulna, the adhesive-plaster pad must be applied laterally, and two long narrow wooden splints are used, beginning at the metacarpophalangeal joint and extending to the elbow. After the dressing is applied it is determined whether the fragments are in proper position by means of the x-rays. After a week the dressing is removed and short wood-splints are applied extending from the metacarpophalangeal joint to the middle of the forearm; for another week a bracelet of adhesive plaster is applied, and after the third week passive motion is begun. [M.B.T.]

2.—Butler strongly recommends **guaiamar, a reaction product of guaiacol and anhydrous glycerin, as an intestinal antiseptic.** He has used it in 20 cases of typhoid fever and is satisfied that the general symptoms were less severe than in those cases where it was not given, systematic cold bathing being employed in both series. An ointment of guaiamar with lanolin lessens the joint suffering of rheumatism. An advantage of the drug over creasote, guaiacol, and other of their derivatives, is that it possesses marked stomachic properties, stimulating the appetite and digestion. If no irritation of the genitourinary tract occurs the drug can be given in 10 or 15-grain doses three times a day. [A.G.E.]

3.—Knopf comments upon the arrest of Shurly, of Detroit, for **failure to report a case of tuberculosis,** and thinks that such measures will not increase the respect of the laity for the profession. In view of the uselessness of reporting cases in many instances, the difficulty of having it done with tact when it might do some good, the injustice that may be done to the healthy relatives of the patient, and the well-nigh impossible task of reporting all cases, he believes in leaving the matter in the hands of the medical practitioner, especially the family physician. Health authorities may give these instructions, may furnish disinfectants, etc., at cost, and may visit sanatoriums, etc., but not residences. The health authorities and the family physician must work in unison and learn of each other. [A.G.E.]

4.—In the case of **stammering** described the **respiratory muscles were at fault** and breath was not supplied synchronously with the articulatory effort. To remedy this, resort was had to what is called direct nerve-muscle training. The patient was taught to make voluntary movements of the diaphragm and also of the levator and depressor thoracic muscles. The next step was to combine this power with the vocal mechanism, and thus have them act in unison. This was done first with elementary sounds and afterward with syllables. Persistent practice effected complete recovery from the difficulty. [A.G.E.]

5.—Rockwell believes that **a perfectly healthy man never passes albumin in the urine.** He does not accept such cases for life-insurance. They may live long, and many such individuals do, but an acute disease at any time may be fatal because of the previous lesion. A man who is passing albumin is living over a volcano. The great value of careful and persistent search for casts in the early diagnosis of kidney inflammation is emphasized. [A G.E.]

7.—A man, 44 years old, entered the hospital with a gunshot wound of the abdomen. Celiotomy was performed and two penetrating wounds were found in the stomach. The edges of the punctures were pared and they were closed by silk Lembert sutures. Convalescence was uneventful. [M B T.]

Medical Record.

September 23, 1899. [Vol. 56, No. 13.]

1. The Legal vs. the Scientific Test of Insanity in Criminal Cases. CARLOS F. MACDONALD.
2. The Present Status of Appendicitis; with Report of 45 Cases. FRANK LEMOYNE HUPP.
3. On the Prevention of Tuberculosis. CARL STRUEH.
4. Removal of Exostoses of the External Auditory Canal by a Hook. GEORGE B. MCAULIFFE.
5. Nephrorrhaphy and Stripping of the Appendix through a Lumbar Incision, for Right Floating Kidney and Painful Appendix. J. COPLIN STINSON.
6. An Improvised Vaccine Expeller. ARTHUR IRVING BOYER.
7. A Typical Case of Vaccinella. W. E. FOWLER.
8. A Pipe-Stem in Utero. WILLIAM J. GREANELLÉ.

1.—MacDonald urges the importance for revising the law concerning the trial of lunatics more in accordance with our increased knowledge of insanity. He holds that it is impossible to make a positive diagnosis of the **degree of mental unsoundness** that will absolve the criminal from responsibility. The most difficult form of insanity in which to determine responsibility is paranoia. These patients may have no defect of intellect, but, nevertheless, suffer from an irresistible impulse to commit crime. He therefore suggests the following questions to be presented to the jury: (1) whether the defendant could appreciate the nature and consequence of his crime, and whether he could voluntarily choose to do it or not; (2) if unable to refrain from committing this particular act, was his loss of will-power the result of disease, passion, intoxication, or other temporary mental disturbances. [J.E.]

2.—Hupp has sent a list of questions to a number of leading surgeons asking their opinion in regard to the symptoms, time for operation, percentage of recoveries, and ocurrence of foreign bodies in **appendicitis.** In most of the replies stress was laid upon the rise of temperature, rapidity of pulse, the severity of pain, and the fact that the symptoms became progressively worse. Most of the writers were not in favor of operation in nearly all cases as soon as th diagnosis was made; the frequency with which patients re covered without operation was variously estimated at fron 50 to 75%. When an opinion was expressed there was general belief that foreign bodies in the appendix, besid enteroliths, are very rare. Hupp has personally seen 4 cases within three years. Operation was performed in 2 cases with 3 deaths; of the 23 patients treated without opera tion 5 died. Brief histories of the operative cases are give together with the opinions of the medical directors o various insurance companies, most of whom were of th opinion that a person who had had appendicitis was not in surable and that after operation sufficient time should elaps to see whether ventral hernia was likely to occur befor granting insurance. [M.B.T.]

3.—Strueh repeats the old argument that in addition t the microorganism, it is necessary to have a favorable soil i order that disease may occur. He, therefore, suggests that in the place of attempting to struggle against the **tubercle bacillus,** we should endeavor to discover the nature of th soil favorable to its growth, and then to render this soil un favorable. [Unfortunately, there is no likelihood that w will ever become sufficiently familiar with the soil required or sufficiently master of the metabolism of tissues to carr out Strueh's suggestion. On the other hand, we are fairl well acquainted with the tubercle-bacillus, and it is probabl a good thing to do all that we can to discourage it. [J.S.]

5.—Stinson reports a case in which he performe **nephrorrhaphy** for floating kidney on the right side. Dur ing the operation he examined the appendix by direct pal pation through the lumbar incision and found that it con tained a small semisolid mass. The contents of the appendi were pushed into the cecum by stripping it from the dista to the proximal end. The appendix was not removed; goo recovery resulted. [M.B.T.]

6.—Boyer uses a hand bicycle-pump for blowing vaccine lymph through the tubes. [J.S.]

7.—Fowler reports a case of **varicella** occurring in negro 30 years of age, who had recently been vaccinated The patient was also suffering from tertiary syphilis. Abou 3 weeks after the vaccination, a number of blebs or vesicle appeared about the vaccinated area, and then there was a eruption of papulae upon the face and neck that rapidl spread over the entire body. Later, these vesicles becam pitted pustules, and emitted the odor characteristic of small pox. It is possible that the presence of syphilis had some thing to do with the development of the condition. [J.S.]

8.—Greanellé reports the case of a colored woman wh had introduced a pipestem into the uterus, evidently to pro duce abortion. The foreign body was removed. and th further observation of the case was not detailed. [W.K.]

Medical News.

September 23, 1899. [Vol. lxxv, No. 13.]

1. The Bacillus Icteroides: A Reply to Dr. Sanarelli. F. G Novy.
2. Inoculation through the Digestive Tract: A Contributio to the Yellow Fever Discussion. FELIX VITALE.
3. Some Surgical Aspects of Syphilis. FRANK HARTLEY.
4. Bottini's Operation and Other Treatment of the Enlarge Prostate. ROBERT NEWMAN.

1.—Novy reiterates his dissatisfaction with the argument advanced by Sanarelli in favor of the specific relation of th Bacillus icteroides to yellow fever. He quotes a number o ancient writers to prove that the American epidemics wer always arrested by cold. He can only discover one instanc in which a vessel that had been subjected to cold below zer during the winter, still contained the infectious element, an in this case it was probably preserved in the clothing of th crew. He admits, however, that in some cases of **yellow fever** the germ has apparently survived a winter to reap pear in spring. As the gonococcus is killed in a few hour at a temperature below 15° F., he sees no reason why th Bacillus icteroides might not be equally susceptible. Nov then discusses briefly the question of agglutination, the ex istence of a toxin, and makes a few personal remarks regard ing Sanarelli. In conclusion he states that the recen investigations on the subject, particularly those of Wasdi

and Geddings, tend to prove that Sanarelli's claim is correct. [J.S.]

2.—Vitale attempts to answer the arguments of Reed and Carroll regarding the **identity of the Bacillus cholerae suis and the Bacillus icteroides.** In the first place he calls attention to the marked difference in the results obtained by the writers mentioned and by Wasdin and Geddings; the former finding that pigs were susceptible, and the latter that they could not be infected. He ascribes this to the different methods of inoculation employed, believing that the Bacillus icteroides can only rarely produce infection through the digestive tract. In proof of this, he quotes a number of experiments upon rabbits, which are peculiarly susceptible to the disease, to whom he fed large quantities of warm cultures without even making them sick. He suggests that probably some of the results obtained by Reed and Carroll were due to symbiosis, that is to say, it is probable, that as the Bacillus icteroides favors the growth of the colon-bacillus, it also favors the growth of the bacillus of hog cholera, and might even render a nonvirulent colony malignant. He concludes, therefore, that the statement of Reed and Carroll, regarding the identity of the two germs which appears to be accepted by Sternberg, is not based upon sufficient evidence. [J.S.]

3.—Hartley calls attention to the difficulty of recognizing some of the forms of **tertiary syphilis.** Gumma and other syphiloma often resemble most closely both carcinoma and sarcoma and at times only the iodids and mercury will clear up the diagnosis. Syphilitic endarteritis may require a surgical interest in two ways: (1) by obliterating the artery and causing gangrene of the part supplied by the occluded artery. Hartley also reports 2 cases, both women, in one of which a syphilitic gumma closely resembled carcinoma. In the other a tuberculous lesion showed a picture very much like that of syphilis. (To be continued.) [G.B.W.]

4.—Newman has devised a new **cautery** for the **treatment of hypertrophy of the prostate** and which he claims is superior to Bottini's. The instrument is catheter-shaped, of smooth, polished metal, with a short curve at one end. At this end is a fenestrum in which is placed the platinum wire, the burner to be heated. The handle and rest of the instrument are made on proper electrical principles. The object sought for with this instrument is not so much the destruction of tissue as to produce a "tonic and astringent" effect. The treatments should take place every second or third day until a cure is effected. [G.B W.]

Boston Medical and Surgical Journal.

September 21, 1899. [Vol. cxli, No. 12]

1. Correction in Lateral Curvature. E. H. BRADFORD and E. G. BRACKETT.
2. The Struggle Against Tuberculosis. EDWARD O. OTIS.
3. The Use of Astringents in Intestinal Catarrh. G. C. H. MEIER.
4. Syphilis and the Parasyphilitic Affections: Two Cases. E. W. TAYLOR.

1.—In those cases of **lateral curvature** in which there is limited flexibility of the spine, with structural changes of the ligaments and cartilages, exercise and massage alone will accomplish little and mechanical apparatuses are called into requisition. The best of these is a plaster-of-paris corset properly applied. In the ordinary lateral curvature the patient lies on his or her back, supported at three points, (1) on the projection of the shoulder, (2) on the opposite side above the scapula, and (3) in the lumbar region on the opposite side from the prominent shoulder. Then 3 points of pressure are exerted in front, (1) on the prominent part of the thorax, (2) on the opposite head of humerus, and (3) projecting anterior superior spine of ilium. These various pressures tend to straighten the curvature and the plaster cast is put on while the patient is thus held. The cast should be continued up on the side of the projecting neck, in order to keep the corset from slipping. [G.B.W.]

2.—Otis reiterates the dangers from consumption, and calls attention to the fact that in case of accident or injury the provisions made for the care of the poor are much better than for those suffering from tuberculosis. In conclusion he describes the following plan for the **systematic prevention of phthisis:** (1) The report of all cases to the Board of Health; (2) instruction of the public; (3) the compulsory disinfection of premises employed by the consumptives; (4) hospital accommodation for poor consumptives; (5) sanatoria in the country for the open-air treatment of incipient cases; (6) free examination of the sputum for tubercle-bacilli; (7) regulations against spitting in public places; it is desirable to provide numerous spittoons; (8) the establishment of special dispensary-service for consumptives; (9) supervision of the milk-supply; and (10) of the animals slaughtered for food. [J.S.]

3.—Meier has had good resuls in various forms of **intestinal catarrh** from the administration of calomel or some other laxative, followed by tannopin. He reports 8 cases in which this drug checked the discharge, when given in sufficient doses, in two days or less. [J.S.]

4.—Taylor reports the case of a man, 38 years of age, who had contracted **syphilis** at the age of 30, with the characteristic **secondary symptoms.** Almost immediately, he developed delusions of grandeur, and it was necessary to admit him to an insane asylum. Some years later, he had complete loss of memory, was unable to walk without assistance, and usually spent his time sitting placidly in a chair. There was exaggeration of the reflexes and some contraction at the knees. The speech was that characteristic of **progressive paralysis.** Upon active treatment with potassium iodid, he recovered very rapidly. His mental condition became normal, and the only symptom left was a slight spasticity of the gait and ataxia of the arms. Interruption of the treatment led to a relapse which was speedily cured by the same measures. In this case the difficulty of diagnosis was the discrimination of syphilitic cerebrospinal meningitis from general paresis. He also refers to a case of a man, 52 years of age, who contracted syphilis at the age of 35. He became a syphilophobiac and showed some of the symptoms of early tabes. Then a sudden change took place in his condition. He became extravagant, had delusions of grandeur, and manifested a great interest in all religious subjects. Taylor regards the stage of hypochondriasis as the prolonged depressive stage of the subsequent dementia. The two cases call attention to the importance of accurate diagnosis in these conditions. [J S.]

Journal of the American Medical Association.

September 23, 1899. [Vol. xxxiii, No. 13.]

1. Does the Removal of the Ovaries Exert Beneficial Influence on the Subsequent Progress of Malignant Diseases? E. E. MONTGOMERY.
2. Clinical and Microscopic Differentiation of Sclerocystic and Cirrhotic Degeneration of Ovaries and Chronic Ovaritis. WM. H. HUMISTON.
3. Relations of Headache to Affections of the Eye. S. D. RISLEY.
4. Headaches of Gastrointestinal Disorders. FRANK BILLINGS.
5. Quantitative Estimation of Albumin in the Urine. CHAS. W. PURDY.
6. Accidental or Spurious Albuminuria. CHARLES G. STOCKTON.
7. Observations on Tonsillectomy. J. HOMER COULTER.
8. Diseases of the Antrum of Highmore; a Study of 150 Cases. L. C. CLINE.
9. Operation for Undescended Testicle and Congenital Inguinal Hernia. ARTHUR DEAN BEVAN.
10. Chloretone: A new Hypnotic and Anesthetic. E. M. HOUGHTON and T. B. ALDRICH.
11. The Douche. FRANK A. STAHL.

1.—See this JOURNAL, Vol. III, p. 1335.
2. " " " " III, p. 1278.
3. " " " " IV, p. 569.
4. " " " " III, p. 1338.
5. " " " " III, p. 1328.
6. " " " " III, p. 1328.
7. " " " " IV, p. 16.
8. " " " " IV, p. 16.
9. " " " " III, p. 1272.

10.—As the result of a series of clinical and experimental researches, Houghton and Aldrich find that as a **hypnotic chloretone** is frequently efficacious in various conditions.

Especially good results have been obtained from the exhibition of the drug in cases of persistent insomnia of the aged and in cardiac disease with renal complications accompanied by high arterial tension. In many instances where morphin, chloral, trional, etc., have been unsatisfactory, chloretone has been successful. It does not depress the heart's action, and is not irritating to the stomach. Its action on the central nervous system is similar to the anesthetics and hypnotics of the fatty acid series without depressing the centers of the medulla; locally, it acts like cocain, as a peripheral anesthetic.

Annals of Surgery.

August, 1899. [Vol. xxx, No. 2.]

1. Two Cases of Traumatic Rupture of the Colon, with Some Remarks on the Cases of Rupture of the Intestine Treated in the Wards of St. Thomas's Hospital, London, between the Years 1889 and 1898, Inclusive. GEORGE HENRY MAKINS.
2. The Treatment of Injuries of the Spinal Cord. PERCIVAL R. BOLTON.
3. Observations on the Detection of Small Renal Calculi by the Röntgen Rays. ROBERT ABBE.
4. Observations on Nephralgia, with Report of Cases Simulating Stone in the Kidney, Occurring at the Massachusetts General Hospital. JOSHUA C. HUBBARD.
5. Chondrocarcinoma of the Testicle. ARNOLD CADDY.
6. Anterior Dislocation of the Carpal Scaphoid Bone; Congenital Malformation of the Clavicle. ALFRED KING.

1.—Makins reports two interesting cases of **rupture of the colon,** both of which were due to traumatism localized in the lower part of the abdomen. This, the author believes, is an essential to rupture, as the force must be applied in that part of the abdomen in which there is a rigid wall, as that of the bony pelvis on the opposite side. The indications for exploration were the nature and history of the injury, frequent and early vomiting, early development of rigidity of the abdominal walls, local tenderness, and impairment of resonance in the right iliac region, the absence of definite signs of injury to the urinary bladder or solid viscera, combined with the evidence of serious injury, as indicated by the degree of shock, abdominal pain, rising pulse, general pallor and perpiration. The diagnosis in the majority of cases must be made by exclusion, and often, on account of the urgency of the condition, can only be confirmed by operation. Injury to solid viscera and rupture of the bladder must be excluded. The history and localized marks of injury may aid. The symptoms detailed above are all helps. Special signs, as cellular emphysema, localizing the injury to the uncovered portions of the duodenum and colon, or possibly free gas in the peritoneal cavity, may be present. The presence of any of these signs with a rising pulse above 100 will form indications for abdominal exploration. [C.L.L.]

2.—Bolton, after studying the condition of the cord and of the spinal column and pointing out the fact that neither the cord nor the vertebra should receive special stress in the study of these conditions, summarizes his views as follows: **Extradural hemorrhage** does not give rise to cord lesions or symptoms, and requires no treatment. Total lesions of the cord are irremediable, because the cells and fibers of the entire thickness of the cord are destroyed, are never regenerated, and are replaced by cicatricial tissue. The lesion thus is permanent and requires no treatment. In hematomyelia the clot is absorbed, its site persists as a cavity or is filled by newly formed tissue; irregularities of circulation in the surrounding portions of the cord adjust themselves. There may be great amelioration of the symptoms. There is therefore no therapeutic indication, and no remedial treatment is possible. In partial contusion of the cord the lesion results in permanent destruction of cells and fibers; disturbances of circulation adjust themselves. Repair is accomplished by cicatricial tissue. No treatment is available. In open injuries of the cord there are destruction of cells and fibers, and disturbances of circulation. In addition, infection may occur or a foreign body be introduced and left in or lodged against the cord, and by its continued presence produce great disturbance of circulation and consequent extensive degeneration and necrosis of cells and fibers. Repair occurs by cicatricial tissue as before. But here active operative interference is indicated to remove the foreign bodies, to facilitate disinfection, to prevent further necrosis and facilitate drainage. [C.L.L.]

3.—Abbe reports two personal cases in which he has been able to **locate renal calculi and remove them by the aid of the Röntgen-ray,** and tabulates 18 additional cases which he has collected from literature. In the two personal observations the calculi were small and encysted in the tissue of the kidney more or less completely. He thinks that to appreciate a negative and make a diagnosis from it requires as much experience as does the technic of taking them. The only technic he has found necessary is a fresh fast plate, protected from perspiration, and an exposure that will detect bone-shadows. He has not learned the value of the less penetrating rays and therefore says that the skiagraph should not show detail of soft structures, as kidney outlines or lumbar muscles or intestines. It is probably for this reason that he is unable as yet to make an absolute negative diagnosis. [C.L.L.]

4.—Hubbard reports a series of 5 cases which were operated upon for renal calculus, in which calculi were not detected, and in which the subsequent diagnosis of **nephralgia** was made. Of the 5 cases, 3 have been cured; though they have since operation exhibited some of their old symptoms, they are now free. Two cases were relieved temporarily, but the final outcome is still in doubt. In 4 of the 5 cases the capsule was divided by the exploratory incision in the kidney. Of these 4, 2 have been relieved and 2 cured. In the fifth the kidney was only freed sufficiently to palpate. The result was a cure. In two of the operations resulting in a cure the kidney was incised and one not. Nephralgia is a symptom and not a disease. In many cases, no doubt, it serves as a cloak for ignorance, yet in a few it seems to have a more or less definite and proper use. [C.L.L.]

5.—Caddy reports a rare and interesting case of **chondrocarcinoma of the testicle,** resulting from a traumatism. It was 4 years under observation before it began to develop so rapidly as to indicate operation. [C.L.L.]

6.—King reports a case of **anterior dislocation of the carpal scaphoid bone** in a gymnast who fell with the hand extended, so that it struck upon the edge of a mattress. The swelling was so marked that the condition was not detected and finally had to be reduced by operation. The bone was found to have rotated in being displaced. It was readily replaced after severing some firm adhesions, and a good functional result obtained. He also reports the case of a mother, who has an ununited fracture of her right collar-bone, caused by accident in childhood. She has two living children, born after normal pregnancies, of natural size, in natural labors, who have never met with any accident, and have apparently ununited fractures of the collar-bone on the same side, in the same place, and with the same appearance as that of their mother. [C.L.L.]

Bulletin of the Johns Hopkins Hospital.

April, 1899. [Vol. x, No. 97.]

1. An Analysis of the Cases of Tabes in the Johns Hopkins Hospital and Dispensary from its Opening in May, 1889, to December, 1898. H. M. THOMAS.
2. Typhoid Septicemia, with the Report of 2 Cases, one of which was a Typhoid Infection without Intestinal Lesions. AUGUST JEROME LARTIGAU.
3. Cavities in the Brain, Produced by the Bacillus Aerogenes Capsulatus. ROBERT REULING and ARTHUR P. HERRING.
4. Acute Fibrinopurulent Cerebrospinal Meningitis, Ependimitus, Abscesses of the Cerebrum, Gas-cysts of the Cerebrum, Cerebrospinal Exudation and of the Liver, Due to the Bacillus Aerogenes Capsulatus. W. T. HOWARD.

1.—Of 111 cases of **tabes dorsalis** analyzed by Thomas, 106 were in whites, 5 in negroes; 70 patients were natives of this country, 17 were German, 6 were Irish. The negroes represented 10% of the dispensary cases, but in the cases of tabes their percentage was only 4.5. This difference is of interest when the question of the relation of syphilis to tabes, admitted by the majority of authors, is considered. Syphilis is very common in the negro—5½ times as frequent in men of the black race, than in men of the white. Notwithstand-

ing this, tabes is rare in the former. Of the 111 patients, 14, or 12.6%, were women. Five of these were from the higher social strata. The **time of onset** of the tabes occurred most frequently between the ages of 30 and 50; the youngest case was 25, the oldest 66. The duration at the time of examination in 104 cases was as follows: 1 year or less, 18 cases; between 1 and 3 years, 34; between 3 and 5 years, 17; between 5 and 10 years, 24; between 10 and 20 years, 10; 30 years, 1 case. Regarding etiology, Thomas, who is a believer in the syphilitic origin of tabes, found certain syphilis in 42.1%; possible or probable syphilis in 63.1%. On this point he enunciates the following conclusions: (1) In a large proportion of cases of tabes, a history of syphilis can be obtained; (2) in a not inconsiderable number of cases there is no history of a venereal sore or other syphilitic manifestations; (3) in negroes, tabes is relatively uncommon, whereas syphilis is much more common in them than in the white population; (4) the partial immunity of women is greater than can be satisfactorily accounted for by the relative infrequency of syphilis among them. The following occurred as **initial symptoms:** Pain, 57 times; ataxia, 24 times; numbness, extremities, 6 times; eye-symptoms, 20 times; nausea and vomiting (gastric crises), 4 times; paralysis of bladder, 5 times; loss of sexual power, 1 time; paralytic attacks, 2 times; mental symptoms, 1 time; neurasthenia, 1 time. Among the subjective sensations pain was prominent; girdle-pain was present in 27; gastric crises in 9; laryngeal in 2, rectal (and penile) in 1; optic atrophy was found in 11; eye-muscle paralyses in 33; Argyll-Robertson pupils in 70; in 8 slight reaction to light was present, and in 21 the pupillary reflexes were normal. Ataxia was present in 91, absent in 8. The kneejerks were normal in 4 cases. Objective sensory disturbances were present in 78 of 90 cases; typical arthropathies occurred in 5, and perforating ulcer in 5. Mental symptoms were present in 7; in one, epilepsy had lasted from the fourteenth year up to the time of onset of tabes, at 44. [D.R.]

2.—A young woman of 20 years was taken sick with nausea and vomiting; fever developed and ranged from 102° to 106° F.; the spleen and liver were enlarged; there was no diarrhea; delirium occurred and death ensued on the tenth day of the illness. At the autopsy the lesions of typhoid fever were found; cultures from the spleen, liver, mesenteric glands, bone-marrow, and **heart's blood** yielded the **typhoid bacillus.** The second case is that of a man, 36 years of age, who was taken ill with headache, fever, pains in the limbs, and a slight chill; nosebleed also occurred. The temperature ran from 99 8° F. to 105.2° F.; delirium, splenic enlargement, and constipation were present. The Widal-test was apparently not made. The patient died, and at autopsy there was no evidence of swelling or ulceration of Peyer's patches; the mesenteric glands were not enlarged. Nevertheless, bacteriologic examination, by culture, of the heart's blood, lung, liver, gallbladder, spleen, kidney, and urine showed the presence of the typhoid bacillus. [D.R.]

3.—The authors make an interesting report. It concerns a colored woman of 35 years, who had received a **gunshot wound of the abdomen.** Laparotomy was performed, and several perforations in the intestines sutured. On the third day after the operation the patient died without any apparent cause. At the autopsy gas was found in the uterus; there was no peritonitis, and the perforations were healing nicely. The brain was thrown into a 4% solution of formalin and examined in a few days. A large smooth-walled cavity, 5x1x2 cm., was found in the right hemisphere—it contained a little bloody serum; numerous small cavities were found in the lenticular nucleus and in the internal capsule; one also in the optic thalamus. Cavities were also found in the left hemisphere. Microscopically the cavities were surrounded by a zone of advanced cellular degeneration, and contained dense aggregations of bacilli; bacilli were also found at a distance from the cavities, especially in the capillaries. The organisms stained by the ordinary methods; also by Gram's. There were no hemorrhages in the brain-tissue and no evidences of inflammatory reaction. The authors are of the opinion that the bacillus was the Bacillus aerogenes capsulatus. [D.R.]

4.—While in the preceding case **the Bacillus aerogenes capsulatus** produced no inflammatory reaction whatever, the present instance, it is maintained by Howard, is illustrative of the possession of **pyogenic properties** on the part of this bacillus. The patient, a man of 31 years, had suffered from postgonorrheal perineal fistula. Under ether-anesthesia the fistulous tract was cureted and the urethra dilated. A few days later the patient became unconscious, developed symptoms of meningitis, and died. At autopsy an acute fibrinopurulent **cerebrospinal meningitis** and ependymitis, with abscesses in the cerebrum, was found, together with gas-cysts in the cerebrum, in the cerebrospinal exudation and in the liver. Gas was also found in the heart and bloodvessels and all the organs. Bacteriologic examination both by coverglass-preparation and by anaerobic culture showed the presence of the **Bacillus aerogenus capsulatus** in the lungs, heart, vena cava, portal vein, pelvic veins, liver, the cerebrospinal exudation, and the brain abscesses. No other bacteria were found in the meningeal exudate. Microscopic examination of the organs also revealed the presence of the gas-bacillus. In the absence of other microorganisms, the author is convinced that the inflammatory lesions are to be attributed to the pyogenic action of the Bacillus aerogenes capsulatus, the point of entry having been the perineal wound. [D.R.]

Edinburgh Medical Journal.

June, 1899. [N. S. Vol. v, No. 6.]

1. The Treatment of Renal Dropsy. NESTOR TIRARD.
2. An Outbreak of Typhus Fever. HARVEY LITTLEJOHN and CLAUDE B. KER.
3. The Hygienics of Milk. W. LESLIE MACKENZIE.
4. Erasion *versus* Excision in Childhood; or, the Remote Effects of Excising or Erasing Tuberculous Joints in Children. A. ERNEST MAYLARD.
5. Puerperal Hyperpyrexia, with an Illustrative Case. J. LAMOND LACKIE.
6. Asthma Sexualis and its Occurrence in the Insane. F. GRAHAM CROOKSHANK.
7. Chloroform Sickness. T. A. Ross.
8. Case of Locomotor Ataxia, with Cancrum Oris as a Fatal Complication. Postmortem Examination. R. BARCLAY NESS.
9. A Case of Renal Sarcoma Successfully Removed by Lumbar Nephrectomy. THOMAS JONES and T. N. KELYNACK.

1.—Tirard considers the degree of **edema in acute nephritis** an indication of the probable extent of the engorgement of the kidneys. In dealing with this disease the treatment must be primarily directed to the relief of the dropsy. In acute nephritis the three dangers to be considered are (1) the immediate danger of suppression of urine; (2) the danger of interference with the respiration and circulation, and (3) the possibility of resulting chronic renal changes. All of these are best obviated by a plan of treatment which reduces the dropsy most rapidly. Suppression is prevented by restoring as soon as possible the interrupted functions of the kidneys and thus favoring the elimination of nitrogenous waste. The arrested action of the kidneys being associated with extreme engorgement of the renal vessels one must aim to relieve this and at the same time to remove the existing overdistention of the renal vessels. The three main channels for the removal of fluid from the bloodvessels are the skin, the intestine, and the kidneys. Diuretics are contraindicated in the early stages of acute nephritis since they increase the caliber of the renal vessels and thereby promote rather than relieve the renal engorgement. Drugs intended to render the urine alkaline should not, on account of their diuretic action, be used before the initial engorgement is relieved. After this condition has subsided they are useful. Measures calculated to increase the action of the skin are most valuable. Vapor baths, hot and cold packs, the warm bath accompanied by the drinking of large quantities of water and sometimes the administration of liquor ammonii acetatis are best adapted to this end. When these measures fail to induce diaphoresis, pilocarpin may be given hypodermically. As it stimulates the action of the salivary glands and those of the bronchial mucous membrane it should never be given to patients too comatose to be able to expectorate, nor to those suffering from edema of the lungs or cardiac weakness. When diaphoretics fail, hydrogog purgatives, such as compound jalap powder, or a mixture of

jalap and scammony powder, may be given. Diaphoretics are even more imperative in subacute attacks occurring in the course of chronic disease than in the acute cases. Mercurials should not be given in acute cases until the renal engorgement is lessened, since through their diuretic action they augment this condition. In the more chronic cases, when the dropsy persists after the urine has returned to its usual pale color, they are useful. Edema of the glottis may sometimes be relieved by scarifying the aryteno-epiglottidean folds. If this fails, intubation or tracheotomy must be done. In cases where the edema of the respiratory apparatus is not limited to these areas these measures fail. Edema of the lungs, hydrothorax and pericardial effusion increase the dangers of renal dropsy. The measures above advised often relieve these conditions, but it is advisable to resort to operative interference early in cases of hydrothorax and pericarcardial effusion. The removal of the effusion from the extremities is sometimes necessary. For this purpose Southey's tubes are to be preferred to all other measures. Cardiac failure should be combated by the administration of stimulants by the mouth or hypodermically. [S M.H.]

4.—A. Ernest Maylard states that the collection of the remote results in cases in which he has performed **erasion or excision for tuberculous disease of the various joints,** and the study of the comparative merits of these operations leads the author to prefer erasion to excision whenever the progress of the disease permits of the choice. In operating upon these cases no law can be laid down regarding the proper line of excision. Each case is a law unto itself, and in each individual judgment is required regarding the extent of the operative interference indicated. The incisions should be sufficiently free to permit the removal of all tuberculous foci. In erasions, after all the diseased tissues have been methodically excised, any pockets or spaces left are stuffed with sterilized gauze, all bleeding vessels having, of course, been previously secured. The skin incisions are stitched up to variable extents and the limb fixed in the proper position. If the temperature keeps normal, and there is freedom from pain, nothing should be touched for a week, 10 days or even a fortnight, when the stuffing is removed, and properly applied pressure substituted. He found that in no case of erasion was the subsequent growth of the limb interfered with, while in excision, retardation of growth in remote parts of the limb was noted. Thus after excision of the elbow the hand was often small and lacking in strength, while after erasion, although the amount of ankylosis was greater and more frequent, the hand was developed and the arm was therefore more useful than it otherwise would have been. He unhesitatingly advocates erasion in cases of tuberculous disease of the joints in children; the younger the child the more imperative the practice. He believes erasion can be applied to the shoulder. With the elbow, care must be taken to fix the limb at the time of the operation in the position which would be best should firm ankylosis occur; this he considers to be an angle of about 130°. In the knee, care must be taken to prevent subsequent flexion, the reapplication of splints is the best means. In the ankle, care must be taken not to permit the child to walk too soon. Freedom of movement will come when the limb is used, but to allow it to attempt to walk before the deep parts are soundly healed will only be too likely to light up some fresh foci of disease. Erasion produces less shortening after ankylosis than excision, and is consequently to be preferred. It also is less likely to be followed by alteration in the development of growth and function in other parts of the limb. [C.L.L.]

6.—Crookshank adopts the views of Peyer that asthmas, whether diaphragmatic or bronchial, are frequently the result of catarrhs and hyperemias dependent upon perversities of sexual function and practice. He suspects the existence of sexual asthma when asthma occurs in the absence of bronchial, cardiac, gastrointestinal, or nasal excitation: (*a*) In young neurasthenic men given to sexual perversions or excess; (*b*) in middle-aged women having uterine catarrh, especially in single women; (*c*) in young women and girls who have given away to sexual irregularities. The author briefly reports a case occurring in a newly married young man who confessed to sexual excess. The condition is not uncommon among the insane—several such cases are related. This form of asthma is best relieved by controling the sexual excesses and treating local inflammatory lesions. [S.M.H.]

7.—Ross divides **chloroform sickness** into (1) that occurring during the administration of the anesthetic and (2) that coming on after the patient has fully recovered consciousness. The first form is due to the patients being permitted to come partially out of the anesthetic. In mouth operations, where it is difficult to preserve complete anesthesia, vomiting is not common, a fact which is probably accounted for by the reflex-inhibitory action of the vagus, which supplies the stomach and posterior third of the tongue and pharynx, induced by the constant swabbing out of the throat. The partial anesthesia of midwifery practice is rarely complicated by vomiting, the escape in this instance probably being due to the hypertrophy of the heart, which is present in pregnant women. In the first class of cases the act of vomiting is preceded by great pallor; the pulse-tension falls and the heart beats freely. The sickness is of short duration, the patients recovering almost at once, regardless of treatment. The danger attached to these cases is the possibility of sucking foreign matter into the air-passages, and thereby causing asphyxia or septic pneumonia. The postchloroform sickness is very likely to occur in patients anesthetized on an empty stomach. The condition is in part due to circulatory depression, for the following reasons: (1) circulatory depression precedes the vomiting; (2) when the operation is prolonged, *i.e.*, where there is more circulatory depression there is more vomiting; (3) in midwifery where the heart is hypertrophied and where shock is usually little as compared to that after operation, there is little tendency to sickness; (4) an empty stomach augments depression, and is more commonly accompanied by sickness; (5) a circulatory stimulant diminishes the sickness. The local irritant effect of the chloroform upon the mucous membrane of the stomach probably acts as a cause of the vomiting. In the light of these facts Ross advises giving the patient a breakfast before administering chloroform. To prevent the illness, local anesthetics are useful. If the sickness begins, lavage of the stomach should be done. Stimulants, rightly given, are very beneficial. Morphia is of questionable value. When there is a tendency for the vomiting to persist, evacuating enemas may be given. Sinapisms over the epigastrium are of great help. [S.M.H.]

8.—Ness reports **a case of locomotor ataxia** presenting several points of interest. The patient was a female. In addition to all the important symptoms of the disease there existed at one period greatly exaggerated reflexes and occasionally involuntary spasmodic movements of the legs. Their presence, associated as they were with slight tremor in the hands and a fine degree of nystagmus, suggested the possibility of the cord being affected more widely than in locomotor ataxia. The postmortem findings did not confirm this suspicion. Burdach's columns were partially involved in their whole length corresponding with the clinical fact that the arms were involved as well as the legs. The columns of Goll were involved in their whole length, the result of an ascending degeneration. The anterior cornua were normal. The kidneys showed an interstitial nephritis which explained the presence of albuminuria during life and probably also the existing retinal hemorrhages. One of the points of especial interests was the occurrence of **cancrum oris** with extension of the gangrenous process to the skull and the base of the brain. This condition is unusual as a complication in locomotor ataxia, and Ness suggests the possibility of its having supervened in an area already susceptible, through involvement of the fifth nerve. [S.M.H.]

9.—Jones had under his care a male patient, aged 50 years, who, 18 months before coming under observation, twisted himself while carrying a plank. He had quite a severe attack of hematuria, blood continuing in the urine for several days, immediately following the accident. For the last 3 months he had had much pain in the left side of his back which he took to be lumbago. Later this became more severe and nearly permanent, and he began to void blood in his urine. The urine was neutral, its specific gravity 1.012, and it contained blood and albumin. The patient was anesthetized and an examination of the abdomen revealed an enlargement of the left kidney with a distinct nodular mass at its lower part. A nephrectomy was performed and the patient made an uninterrupted recovery. The kidney weighed 7 ounces. The lower 2¼ inches was made up of a growth of a more or less solid nature showing a slight tendency to cystic softening in the center. It was pinkish-yellow and yellowish-white in color, having some reddish-brown, very vascu-

lar areas. The growth extended to the capsule, which was elevated into irregular nodules. The capsule was not penetrated. At its upper part the growth gradually merged into the normal-looking renal tissue. The tumor was made up of embryonic connective-tissue cells separated and surrounded by newly-formed fibrous tissue-like elements. Many of the cells were round or slightly oval, others were elongated and distinctly spindle-shaped. In some places the cells were collected into dense masses, while in others they were separated by strands of fine embryonic connective tissue which formed a delicate stroma in which the cells appeared in a somewhat alveolated form. In large areas the supporting tissue had undergone myxomatous change, and in some parts even the cells seemed to participate. The vessels looked like mere spaces lying in the tumor-tissue and without distinct walls. The kidney-tissue in the region of the growth was very vascular, the epithelium swollen and in a condition of early fatty degeneration. There was much fibrous tissue between the tubules and around the glomeruli. [S.M.H.]

Centralblatt für Gynäkologie.

July 15, 1899. [23. Jahrg., No. 28.]

1. Treatment of Inflammation of the Uterus and its Adnexa by Means of Intrauterine Injections. G. J. LEBEDEFF.
2. Spontaneous Rupture of the Uterus. H. THOMSON and A. SCHWARZ.
3. Angiotripsy. E. M. SIMONS.
4. Nephrorrhaphy and Simultaneous Removal of the Appendix by Means of Lumbar Incision in Right-sided Wandering Kidney and Painful Appendicitis. J. COPLIN STINSON.

1.—Lebedeff, after discussing the technic and statistics of **intrauterine injections** and reporting 2 of his own cases, concludes that intrauterine injections of an alcoholic solution of iodin with alumnol have the best possible effect on the diseased and inflamed mucous membrane of the uterus. Repeated injections cause the mucous membrane to become necrotic and to be thrown off, after which it is regenerated. Gonococci are killed by the iodin-injection and disappear from the secretion. Menstruation, which often ceases during the 2 or 3 months of treatment, reappears and becomes normal, and the inflammation of the adnexa diminishes. Lebedeff thinks that intrauterine injections are especially indicated when inflammation and infection have not passed beyond the uterus. [W.K.]

2.—Thomson and Schwarz report a case of **spontaneous rupture of the uterus** during the confinement of a woman 38 years old, who had always before had normal deliveries. Laparotomy was performed and supravaginal amputation. The rupture occurred in the cervical region and microscopic preparations therefrom showed an increase of connective tissue, rarefaction of the bloodvessels, and in spots small-cell infiltration. [W K]

3.—Simons reports a case of **total extirpation of the uterus** for ovarian hematoma and salpingitis, which he performed by the aid of angiotripsy. He reports the case merely to show that even with this method one should always wait a short time to observe the field of operation to be sure that no postoperative hemorrhage occurs. [W.K.]

4.—Stinson reports a case of **nephrorrhaphy** and removal of the appendix by means of lumbar incision in a woman 22 years old suffering from a right-sided wandering kidney and appendicitis. Recovery. [W.K.]

July 22, 1899. [23. Jahrg., No. 29.]

1. Notes on the Etiology, Symptomatology, and Therapy of Puerperal Tetanus. W. PIT'HA.

1.—Pit'ha states that there are three kinds of **infection in puerperal tetanus:** (1) endometritic, either with the simple or the mixed infection; (2) vaginal or perineal; (3) endometritic and vaginal. He reports 18 cases, in most of which Tizzoni's serum was used with varying results. [W.K.]

July 29, 1899. [23. Jahrg., No. 30.]

1. On the Use of Protargol in Place of Argentic Nitrate in Credé's Treatment. FRITZ ENGELMANN.
2. The Avoidance of Preventive Ligatures in Celiotomy. A. VON GUBAROFF.
3. Conservative Operative Treatment of Chronic Puerperal Inversion of the Uterus. J. BORELIUS.
4. A Toothed Forceps for Tubular Speculums. F. SCHOPF.
5. Perforation of the Uterus by Curet. SCHWARZ.

1.—In a series of 100 cases Engelmann used a 20% solution of **protargol,** which proved to be less irritating and to be a better bactericide than argentic nitrate. According to Cramer, in his series of 100 cases treated with argentic nitrate, 96 showed more or less secretion, sometimes even to the fifth day. In Engelmann's series, 80% showed none or very little irritation, which lasted at the most 1½ days. There was no secondary catarrh. [W.K.]

2.—Von Gubaroff **condemns ligatures en masse,** ligating the larger and smaller arteries separately. By this method one is always in a condition to know what is cut through, since the tissues and their anatomic relations are not altered, which does not obtain after drawing them together by means of preventive ligatures. Only that which really bleeds is ligated, and not that which might bleed. Von Gubaroff believes that by this method all possibility of postoperative bleeding is eliminated. [W.K.]

3.—Borelius describes another case of **chronic puerperal inversion of the uterus** treated by his conservative operative method. The posterior wall of the cervix was split from the transverse incision in the vagina downward. The incision was continued upward to the fundus; the uterus was inverted, so that the serosa was external and the mucosa internal. The incised posterior wall which now looked forward was sutured. The uterus was now pushed in a half-circle backward and replaced through the incision in the posterior fornix. [W.K.]

4.—Schopf describes a forceps so constructed that tubular speculums may be changed while the forceps is in situ. [W.K.]

5.—Schwarz reports a case in which a curet was accidentally passed through the uterus, and the condition was diagnosed by means of the hand laid on the abdomen. The patient recovered. [W.K.]

Sundry French Journals.

1. Fractures in Children. BROCA (*Sem. Méd.*, March 15, 1899. 19me Année, No. 11).
2. The Acute Accidents of Tuberculosis of the Suprarenal Bodies. PIERRE COUSIN (*Paris Thesis*, 1898-99, No. 229). (*Gaz. Heb. de Méd. et de Chirur.*, March 19, 1899. 46me Année, No. 23.)

1.—Broca points out that **fractures in children** are peculiar on account of the following facts: anatomically the bone is flexible, is surrounded by a thick periosteum that is easily dissected up, and is provided with intermediate plates of cartilage; physiologically, osteogenesis is active and rapid, and the joints preserve their activity in spite of severe injuries. These facts account for many of the peculiarities of fractures during childhood, particularly those known as greenstick fractures. Fracture of the clavicle, fracture of the inferior extremity of the humerus, fracture of the forearm, fracture of the thigh, and fracture of the leg are the most common during childhood. The anatomic characteristics of the periosteum, previously mentioned, account for the subperiosteal variety of fractures. After fractures in children, there is frequently a well-marked degree of pyrexia, that may lead to a suspicion of the occurrence of osteomyelitis, syphilis, or tuberculosis. The activity of osteogenesis during childhood results in the rapid union of fractures, whether they be simple or complicated, and, furthermore, accounts for the rarity of ununited fractures. [J M S.]

2.—Cousin has reported 10 cases of **tuberculosis of the suprarenal bodies** in which the clinical manifestations were acute or fulminating. The symptoms were: sudden and uncontrolable vomiting, lumbar or abdominal pains, anesthesia, sometimes alternating, convulsive and comatose attacks, with or without a fall of temperature. All of the cases were of short duration, and it is interesting to note the complete absence of pigmentation. The symptoms closely resemble those seen after the removal of the suprarenal bodies from one of the lower animals, and the cases go to show that the symptom-complex, described by Addison, is not the only manifestation of the disease of these organs. [J.M.S.]

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.

The Treatment of Hydatid Cysts of the Liver.—At the meeting of the Academy of Medicine, Paris, held on May 30, 1899, Dieulafoy (*Lancet*, June 17, 1899) related two cases of cure of hydatid cyst of the liver. The first case, in which suppuration had occurred, was treated by abdominal section and incision of the sac; the second, in which the fluid was in a normal condition, was simply aspirated. Dieulafoy had brought forward these two cases in order to compare the two methods of treatment and to study the indications for preferring the one to the other. According to Dieulafoy, those cases of death which occur within a few minutes of the puncture of the sac are due to the escape into the peritoneal cavity of hydatid fluid which is extremely toxic. The most minute precautions should be observed to prevent such a thing happening, and the chief point is to empty the sac as completely as possible and not simply to partially evacuate it, as has been the case nearly every time that death has followed. A very fine needle should be used and never touched after insertion. If by some misfortune this should become blocked it is better to leave it alone and insert another. The two needles must be removed together as soon as the fluid ceases to flow. No pressure must be made on the abdomen with the idea of helping the escape of the fluid, for such pressure is very likely to make the needle come out of the liver and so escape of fluid into the peritoneum is not unlikely to happen. Aseptic puncture aided by aspiration and with observation of the above-mentioned precautions is applicable, according to Dieulafoy, to about half the cases seen, especially to those cases where the cyst is not very old or very large and where there is an absence of symptoms indicating infection, such as pain and rigors. Abdominal section with incision and removal of the sac should be reserved for cases in which the cyst is very large and has existed a long time, in which adhesions are present, and in which infection of the sac has taken place.

Premature Alopecia.

℞.—Resorcin ..... 45 grains.
Chloral } of each. ..... 1½ drams.
Tannin }
Tincture of benzoin ..... ½ dram.
Castor oil..... 75 minims.
Alcohol to make 8 ounces.

—GESSNER in *Revue de Therapie.*

The Prevention and Cure of Tuberculosis.—Braine-Hartnell *Birmingham Medical Review*, July, 1899) gives the following as the essentials for a sanatorium:

1. The air must be pure and as free from contamination as possible, and therefore no sanatorium should be built near any town or factory. An elevation of some hundreds of feet is desirable, though not absolutely necessary.

2. The site is important. The chief rooms must face south, and there must be protection from the north and east winds. The soil should be gravel, and must be well drained. It is essential that the foundations should be dry.

3. There must be free access of sunlight.

4. There should be facilities for walking, preferably through woods, and, if possible, up a slight incline from the sanatorium, so that the homeward journey be always downhill. Seats should be placed at easy distances.

5. The diet should be carefully regulated, and the food plentiful, good, and well cooked.

6. Within the house there must be free ventilation and the free admission of sunlight. The walls should be varnished, or covered with washable paper; the floors with linoleum. Carpets and curtains should be dispensed with. A uniform temperature may be maintained by means of hot-water pipes. The lighting should be by electricity. Cleansing the furniture with a damp cloth should be substituted for dusting.

7. Every patient must be provided with a Dettweiller's flask, and forbidden on pain of dismissal to spit anywhere else.

8. In small sanatoriums earth closets may be used.

9. All cattle used in connection with the sanatorium should be tested with tuberculin every six months, and only those that do not give the reaction employed. All milk should be sterilized.

Pruritus Ani.

After thorough cleansing and drying the following ointment should be applied not only to the external parts but also to the interior of the bowel:

℞.—Creolin ..... 20 grains.
Resorcin ..... 20 grains.
Lanolin..... 1 ounce.

—MAGUIRE in *Therapeutic Progress.*

Sodium Sulphocarbolate in Severe Chorea.—Wilson (*Birmingham Medical Review*, July, 1899) relates the case of a girl, aged 22, who had had chorea at 7 years, after an attack of scarlet fever; when 21 she again had an attack of chorea which lasted 8 months, and 4 months later the disease returned with great severity. She was given ascending doses of Fowler's solution, and occasional doses of chloral by the mouth or rectum. Nothwithstanding this treatment her condition became critical. The choreic movements were incessant, at times she was delirious, for a day or two she could not make herself understood. She could not drink anything on account of the movements of her head unless some one held it. The skin was dry and blue, the limbs were cold, the temperature was subnormal, and the lips and teeth were covered with sordes. It was evident that she could not live more than two or three days without prompt relief. At this time she was given 20 grains of sodium sulphocarbolate every 2 hours and 1 grain of quinin every 2 hours, to be taken alternately. Chloral in doses of 30 grains was continued, and also hot packs. For the first 36 hours improvement was very slight, but 48 hours after the antiseptic treatment had been instituted the improvement was striking. She now slept very well after taking the chloral. After the fourth day her mind became quite clear and she slept most of the day and night. She made a rapid recovery. In another case, somewhat severe, the sulphocarbolates also gave a very satisfactory result. In a third case, however, a very severe case in an adult, they did not succeed so well, death resulting from exhaustion.

Treatment of Paralysis Agitans.—R. T. Williamson (*Medical and Surgical Review of Reviews*, London, June, 1899), in a paper read before the Manchester Therapeutic Society, admits that at present all that can be done is to make life more tolerable. The tremblings and the constant restlessness of the muscles are very troublesome, and the sufferer is often tempted to think death a release. Something, however, can be done to relieve these symptoms and to improve the patient's condition. To secure sound sleep is important, as a restless night makes the symptoms worse on the following day. Sulfonal, or whisky and hot water, at bedtime are often useful in this connection. The bed should not be too soft. Though whisky at bedtime helps to procure sleep, and does good, alcohol taken during the day seems to increase the tremblings; strong tea and coffee is said to have the same effect. Needlework and writing often seem to diminish the tremblings. Holding the arms above the head for some time might also cause the tremblings to cease for a while. A warm bath has often a good effect. The patient's living room should be well ventilated and not too warm. Systematic open-air treatment is valuable, carriage drives are very advantageous, and railway journeys are often beneficial. Williamson tried strychnin, arsenic, potassium-iodid and bromid, calabar bean, gelsemium, cannabin tannate, etc., without any good result. Morphin hypodermically certainly gave relief, but this treatment is objectionable in such a chronic disease; morphin or duboisin by the mouth seems to have little effect. Hyoscin is the only drug which Williamson found really useful, and he feels certain of its power to relieve many of the troublesome symptoms. He prescribes ¼ gr. in 6 ounces of chloroform water, the dose of the mixture being 2 teaspoonfuls, corresponding to $\frac{1}{96}$ grain of hyoscin hydrobromate. The dose may be increased to $\frac{1}{75}$ grain. In these doses hyoscin seems to diminish the trembling and the uneasiness and the restlessness of the muscles. After some weeks the drug seems to lose its good effect, when it is best to stop it for a time; on recommencing the good results are again obtained.

Original Articles.

EXCISION OF HIGH RECTAL CARCINOMA WITHOUT SACRAL RESECTION.

BY N. SENN, M.D., PH.D., LL.D.,

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SINCE Lisfranc introduced his operation of excision of the rectum for malignant disease as a legitimate surgical procedure, a number of modifications have been devised by different surgeons for the purpose of perfecting its technic and of enlarging its sphere of application. Experience soon demonstrated that in the removal of a high carcinoma of the rectum, Lisfranc's incision did not furnish sufficient room to render the operation safe and effective. With a view of bringing the upper portion of the rectum, when the seat of malignant disease is within the reach of radical removal, Kocher advised and practised excision of the coccyx as a preliminary step in performing the operation. Emboldened by the greater safety attending all operative interventions brought about by the general adoption of antiseptic and aseptic precautions, more extensive resections of the posterior bony wall of the pelvis were planned and carried into effect, for the purpose of securing additional room in the removal of malignant disease involving the upper portions of the rectum. Kocher was followed by Kraske, who first suggested partial resection of the last two sacral vertebrae. Kraske's sacral resection consists in cutting through the left half of the last two sacral vertebrae in the form of a curve inward and downward from the third to the fourth sacral foramina, and from here to the body of the sacrum. The sacral route to the rectum is generally known as Kraske's operation, although sacral resection has been carried much further by Bardenheuer, Volkmann, and E. Rose. Bardenheuer resects the sacrum from below as far as the third sacral foramen. Volkmann and E. Rose divide the sacrum transversely on a level with the second sacral foramen, and claim that opening of the spinal canal, which takes place in performing this operation, has seldom been followed by serious results.

Temporary resection of the lower portion of the sacrum was first introduced by Heineke as a preliminary step to the operation of excision of the rectum. This has been variously modified by different surgeons, but for obvious reasons has never become popular with the profession. Kraske's method, which found ready introduction in Germany, is almost unknown in England, and has never been extensively practised in France. In America the sacral route has had a fair but not extensive trial. Opinions in this country are somewhat at variance in reference to the advantages offered by this method. The writer has resected the carcinomatous rectum by the sacral route in 25 to 30 cases. He has never resorted to temporary resection of the sacrum, and has always performed either the typical Kraske operation, that is, partial resection of the left half of the last two sacral vertebrae, or total resection of the last two sacral vertebrae. After an extensive experience with Kraske's method, the writer has become satisfied that the room gained by this operation is an inadequate compensation for the additional danger to life incurred. I have often been greatly disappointed at the gain in space furnished by the Kraske method in the removal of a high rectal carcinoma, and recent experience has convinced me that sacral resection is not only unnecessary, but absolutely harmful in all operations for malignant disease of the rectum.

I wish to place myself on record as being absolutely opposed to the sacral route in all operations for the radical removal of the carcinomatous rectum. The sacral route has been selected, of course, only in cases in which the carcinoma involved the upper portion of the rectum, but I am fully convinced by ample experience that radical operations can be performed in all cases justifying such a procedure without this additional trauma and mutilation. I have become satisfied that sacral resection constitutes an important item in determining the high mortality of operations for high rectal carcinoma. I have become equally well convinced that all legitimate and well-grounded indications for the radical removal of high rectal carcinoma can be met and ample room for performing the operation secured by a preliminary excision of the coccyx. In extirpation of the rectum below the peritoneal reflexion even the removal of the coccyx is superfluous. In excision of the upper portion of the rectum the peritoneal cavity must be freely opened, and in such cases ample space is secured by removal of the coccyx. If excision of the coccyx does not furnish the necessary space it is much safer to resort to the combined operation than to persist in creating additional space by sacral resection. I hope and trust that, at least in this country, the Kraske operation will soon become obsolete.

With the intention of placing my objections to the sacral route on a clinical basis I have selected from my practice two cases of rectal carcinoma representing the two principal pathologic varieties of this affection as a text for this paper. Both of these cases were operated upon during the same week, more than two years ago. Both patients were females less than 40 years of age. In one case the disease involved the lower portion of the rectum primarily, and in the course of time involved at least $5\frac{1}{2}$ inches of the rectum, without causing any serious mechanical obstruction. In the other case the disease had a high primary origin and was characterized clinically by symptoms which pointed to mechanical obstruction in the lower portion of the intestinal tract. In the first case the excision necessarily included the sphincters of the rectum, and during the operation it was found impossible to bring the

proximal end down to the level of the anus, and I had to establish a sacral anus not as a matter of choice but of stern necessity. In the second case the lower portion of the rectum remained intact, the disease had a high origin enabling me to preserve the sphincters by making a circular resection and suturing the proximal to the distal end to the extent of uniting the anterior two-thirds of the circumference of the bowel. The detailed account of these two cases ought to satisfy any unprejudiced surgeon that sacral resection is destined to become an obsolete procedure in the near future in operations for malignant disease of the rectum.

A few words in reference to contraindications to radical operations for high rectal carcinoma. I regard as legitimate contraindications to such operations all cases in which the proximal limits of the tumor are beyond the reach of the index-finger, extensive involvement of the retroperitoneal glands and marked extension of the disease beyond the rectal wall, that is extensive infection of the pararectal connective tissue. In the absence of such positive contraindications I deem it probable that a radical operation can be performed without sacrificing any portion of the sacrum by limiting the resection of the posterior bony wall of the pelvis to removal of the coccyx.

RESECTION OF FIVE AND A HALF INCHES OF LOWER END OF RECTUM FOR CARCINOMA, INCLUDING SPHINCTER; PERMANENT COCCYGEAL ANUS; RECOVERY WITH PARTIAL CONTROL OVER RECTUM.

CASE 1.—Patient is a married woman, 36 years of age, of German parentage, and housewife by occupation. Family history negative. She has passed through the usual diseases of childhood, but otherwise has always enjoyed good health. She was married at the age of 18, and is the mother of four children, of whom three are living, aged respectively 15, 13 years, the youngest 3 months. Menstruation has always been normal, no indications of previous pelvic disease of any kind. She dates her present illness back to the summer and autumn of 1895, when she suffered from an attack of typhoid fever which kept her confined to bed for 6 weeks.

Some time previous to this illness she was subject to occasional attacks of constipation which were relieved by the use of laxatives. After she recovered from the typhoid fever these attacks became aggravated, and about one year and three months ago she discovered traces of blood and mucus in the fecal discharges. Pain which appeared about that time was most severe during defecation. The symptoms gradually increased in severity, the quantity of blood in the feces increased, being at times of a bright arterial hue, at others in the form of clots, variable in size.

A physician who was consulted made a diagnosis of hemorrhoids without making a rectal examination, and prescribed a course of treatment based on such supposition. For the last six months her general health has failed, and from that time a marked emaciation developed.

She entered St. Joseph's Hospital November 2, 1897. Examination of chest, abdomen and urine revealed nothing abnormal. Uterus and adnexa healthy. A rectal examination left no doubt as to the malignant nature of the rectal affection. From the margin of the anus the whole circumference of the rectum was studded with papillomatous masses to a distance of about five inches. Healthy mucous membrane and a normal rectal wall was within reach of the index-finger. The lumen of the rectum was somewhat diminished by the fungous masses, but there were no indications of cicatricial stenosis.

The carcinoma seemed to permeate nearly the entire thickness of the rectal wall and a few small indurated lymphatic glands could be felt in the mesorectum and between the rectum and the anterior vaginal wall. The surface of the affected part of the bowel was extensively ulcerated. With the exception of a few lymphatic glands the pararectal tissue appeared to be intact, a condition which encouraged me to recommend and perform a radical operation.

After thorough preparatory treatment the operation was performed November 5. A cot was used in place of an operating table. When completely under the influence of ether the patient was placed in the ventral position with the pelvis well elevated and the thighs and legs flexed and wrapped in a warm flannel blanket. It was the intention to remove the rectum completely at least an inch beyond the macroscopic limits of the disease. The operation was commenced by making an incision from the sacrococcygeal joint to the margin of the anus. The coccyx was next disarticulated and removed. After exposing the rectum the anus was circumscribed by two semilunar incisions which included the sphincter muscles. The rectum was lightly tamponed with iodoform gauze during the enucleation. As soon as the lower end of the rectum with the sphincter muscles was liberated the lower end was tied with a strip of iodoform gauze for the purpose of preventing the escape of feces and to facilitate manipulation of the bowel during the remaining steps of the operation.

The separation of the surrounding structures and the vaginal septum was effected largely by resorting to blunt dissection.

Hemostatic forceps were used in arresting hemorrhage temporarily. Vessels of considerable size were secured by the same means before cutting them. No ligatures were applied before the excision was completed. After liberating the rectum from the vaginal septum as far as the peritoneal reflection from rectum to uterus, usually a distance of about two and a half inches, the culdesac of Douglas was opened freely, when it was found that the disease extended at least an equal distance above this point. The enlarged lymphatic glands behind the rectum in the hollow of the sacrum were carefully included in isolating the rectum by dividing the mesorectum near the sacral surface. The peritoneal cavity was protected against infection by the insertion of a dry gauze compress which at the same time prevented all possibility of prolapse of the small intestines. As soon as the upper limit of the disease was reached the rectum was tied with a strip of iodoform gauze above the proposed line of resection. By making traction upon the gauze ligature the rectum was brought down as far as could be done without creating harmful tension.

The rectum was then removed by making a transverse section at least an inch above the tangible proximal limits of the tumor. The prolapsed mucous membrance of the rectum below the ligature was carefully disinfected. All vessels of sufficient size requiring ligation were tied with catgut ligatures The tampon was removed from the peritoneal cavity and the parietal peritoneum was carefully stitched to the rectum with four or five fine catgut sutures. The proximal end of the resected rectum was stitched to the skin at a point about two inches below the sacrum after having reduced the lumen of the bowel to the desired degree by pursestring catgut suture.

The wound-cavity behind the rectum was tamponed with a long strip of iodoform gauze which was brought out to the surface and properly secured with a safety-pin immediately below the sacrum, and the wound below it sutured with silkwormgut as far as the artificial anus, the last suture being made to include a part of the posterior wall of the rectum minus the mucous membrane. The cavity and wound in front of the rectum were treated in a similar manner

The patient did not lose more than two ounces of blood during the operation, which lasted a little over an hour. At the completion of the operation the pulse was 115 per minute with great diminution of its volume, a condition which necessitated the employment of cardiac stimulants. Brandy was given by the stomach and strychnia every 4 hours subcutaneously in doses of $\frac{1}{32}$ of a grain. Dry, external heat was also used in an endeavor to reestablish in as short a time as possible the normal peripheral circulation. Under this treatment the patient soon recovered from the immediate effects of the operation, Thirty-six hours after the operation the temperature after a slight rise was normal.

On the fourth day a sudden rise in the temperature led to the suspicion that the drainage was not satisfactory. The gauze

tampons were removed and a copious discharge of pus followed. The cavities were flushed with a saturated solution of acetate of aluminum every 3 hours and tubular was substituted for capillary drainage. The next day the temperature was normal, after which flushing was practised only once daily. An attack of diarrhea yielded promptly to opium and astringents.

The patient made a rapid and uneventful recovery. The rectum became attached to the skin, the cavities rapidly diminished in size so that the patient was able to leave the hospital at the expiration of four weeks. During this time her general health improved materially, and when she left the hospital only a small fistulous tract remained behind the rectum, and she had recovered partial control over the rectum, being able to retain solid fecal stools the usual length of time. I have recently been informed by the family physician that so far there has been no recurrence.

CIRCULAR RESECTION OF THE RECTUM, SUTURING OF THE PROXIMAL TO DISTAL END; TEMPORARY COCCYGEAL ANUS; RECOVERY WITH PRESERVATION OF FULL USE OF SPHINCTER MUSCLES.

CASE 2.—This patient was a married woman, only 29 years of age, American by birth, and housewife by occupation. Family history in reference to tuberculosis, syphilis and malignant disease negative. With the exception of the usual diseases incident to infancy and childhood the patient has always been in good health until about 6 years ago, when she commenced to suffer from constipation and painful defecation; the pain being particularly severe at times when constipation became most obstinate. Since that time the solid fecal masses have been gradually diminishing in size, and during the last year diarrhea has been a conspicuous clinical feature with absence of any well-formed stools. For a long time mucus in greater or less quantity has been observed constantly in the stools.

Symptoms pointing to chronic intestinal obstruction have been gradually increasing in frequency and intensity during the last 6 months. The patient's general health has been gradually failing, and the various kinds of treatment resorted to at different times have proved unavailing in affording anything but temporary relief. The last diagnosis made based on a rectal examination was cicatricial stenosis of the rectum.

The patient was admitted into the Presbyterian Hospital October 31, 1897. At the time of her admission she was anemic and considerably emaciated. The abdomen was tympanitic, and during the paroxysmal abdominal pains the intestinal coils, in a state of violent peristalsis, could be distinctly outlined on the surface of the abdomen. Examination of the urine and organs of the chest revealed nothing abnormal. Uterus, tubes and ovaries healthy. Digital examination of the rectum disclosed a tight circular stricture about 4 inches above the anus. The lumen of the bowel at this point did not much exceed the size of an ordinary leadpencil. It required a good deal of patience to pass the tip of the index-finger through the stricture sufficiently far to determine the extent of the disease. The stricture was surrounded by a solid, firm mass, which involved the entire thickness of the rectal wall and included the whole circumference of the bowel. Above the stricture the rectum was dilated; the mucous surface was the seat of a catarrhal inflammation.

The tumor, which involved about three inches of the rectum, was spindled-shaped, the center corresponding with the location of the stricture. The affected portion of the rectum was freely movable. Behind the tumor, and firmly attached to it, could be felt two hard lymphatic glands, considerably enlarged. By making a vaginal examination the tumor could be traced above the pouch of Douglas. The carcinomatous lymphatic glands could be felt most distinctly by dragging the tumor down and palpating its posterior surface. The examination left no doubt as to the carcinomatous nature of the stricture. The mobility of the rectum and the limited regional infection induced me to advise a radical operation.

The patient was prepared in the usual way for the operation, which was performed November 3. The first step in the operation consisted in removing the coccyx and in exposing the rectum below the stricture. At this point the rectum was separated from the vaginal septum. A gauze ligature was applied at least an inch below the tumor, and the bowel divided transversely below the ligature and about 2½ inches above the anus. Enucleation of the rectum was continued from below upward.

Gentle traction upon the ligature facilitated the procedure materially. Before the tumor could be reached the peritoneal cavity was freely opened, when the exact location of the tumor was indicated by a marked retraction of the peritoneal coat of the anterior surface of the tumor well up in the culdesac of Douglas. In isolating the bowel posteriorly the sacral curve was closely followed in order to include in the excision all of the infected glands. As soon as the bowel was sufficiently liberated to bring the tumor within easy reach, the peritoneal opening was tamponed with plain sterile gauze held in the grasp of a large hemostatic forceps. A strip of gauze was tied around the bowel above the proposed line of transverse section and the amputation made through healthy tissue.

The section of rectum removed measured five and a half inches in length and included three or four carcinomatous glands. The peritoneal cavity was closed with a number of catgut sutures, including the seromuscular coat of the rectal wall and the parietal peritoneum. Vessels requiring ligature were next secured when the two ends of the rectum were united with two rows of catgut sutures over the anterior two-thirds of their circumference, after which the gauze ligatures were removed and the remaining portion of the resected ends were sutured to the skin at a point about two inches below the sacrum, thus creating a temporary coccygeal anus. The cavities were packed with iodoform gauze and the incision sutured in the same manner as in the first case.

Sections of the specimens removed were later examined and the clinical diagnosis verified by the use of the microscope. In this case the operation was followed by little or no shock. Not a single untoward symptom appeared during the whole course of after-treatment. The iodoform-gauze tampons remained in place for a week, and at the time they were removed the cavities were found lined with a pavement of vigorous granulations. Four weeks after the operation the lower cavity was completely healed, the upper contracted to a narrow fistulous opening.

For four weeks all of the feces escaped through the artificial anus, after that time progressive contraction of the opening directed the fecal current toward the natural outlet guarded by the intact sphincter muscles. Two months after the operation the entire wound was healed and the artificial anus closed. The functional result in this case was perfect, and the patient left the hospital much improved in her general health. As I have heard nothing from the case since, the result of the operation remains uncertain, but I have reason to hope that no recurrence has occurred to date.

Suturing of the resected ends proved entirely satisfactory in this case, as the sutured part united by primary intention. The experience with these two cases has satisfied me that a radical operation for carcinoma of the rectum can be successfully performed without sacral resection in all cases in which the extent of the disease warrants operative intervention. I am equally convinced that sacral resection greatly adds to the mortality of the operation without furnishing an equivalent in space or without increasing materially the prospects

for more lasting results. The combined operation is destined to take the place of sacral resection in all cases in which excision of the coccyx does not afford the required space to reach the proximal limits of the disease with safety.

TUBERCULOUS PERITONITIS; GASTROSTOMY; ACUTE APPENDICITIS.[1]

BY FREDERIC S. DENNIS, M.D.,

of New York City.

[Continued from page 569.]

AS REGARDS the result of laparotomy for the cure of tuberculous peritonitis, surgeons differ largely in their statistics. Parker Syms shows that some claim 80% of cures while others 24%. Marked improvement follows in 80% of the cases, and the mortality of the operation is only about 3%. Syms concludes that it is safe to estimate that 30% of the cases of tuberculous peritonitis are permanently cured by laparotomy. Laparotomy is an operation that should always be resorted to in cases of tuberculous peritonitis, because the prognosis is usually unfavorable without surgical intervention, and the operation itself is attended by a mortality of only 3%. Laparotomy should be employed as a curative measure in these cases, since septic inflammation is less likely to follow than in other varieties of peritonitis, and there is little, if any, danger of tubercular infection of the wound. The following deductions may be made from what has been learned as regards the operative interference in tuberculous peritonitis up to the present time.

Certain cases of tuberculous peritonitis, especially of the fibrous form, may occasionally recover without surgical intervention. The majority of the cases of tuberculous peritonitis require laparotomy, since the mortality of the operation itself is practically nothing, and the operation rescues the patient from a general tuberculosis of which the peritoneal invasion is only a local manifestation.

Laparotomy, to be a life-saving measure, should be resorted to early in the history of the disease, since late operations show less favorable results. Laparotomy is not contraindicated when only a slight invasion exists in the lungs and pleurae, since the operation often cures the pulmonary infection. Laparotomy is contraindicated, however, when acute miliary tuberculosis is present, also when the viscera are extensively involved. Laparotomy is called for as a further curative measure if ascites develops following the first operation. The following case illustrates the value of laparotomy for the cure of tuberculous peritonitis:

D. McC., aged 27, was admitted to St. Vincent's Hospital, February 14, 1897, suffering from acute pain in the abdomen. His temperature was 101.5° F., his respirations 36, and his pulse 108. Upon palpation his abdomen was tense and tympanitic. Acute appendicitis was at first considered, but in a few hours the condition of the patient showed that this disease could be eliminated. He ran a temperature for many days, ranging from 101.5° to 104° F. with a corresponding pulse and great distress in the abdomen. March 11 he began to suffer greatly from dyspnœa, and complained of pain in both sides of his chest. Percussion and auscultation revealed the presence of fluid in both pleural cavities. I removed half a pint of tuberculous broken-down material from the left pleural cavity, and six ounces from the right side. The patient became quite comfortable, and during the 5 following days showed signs of improvement. March 16 he was attacked with severe pain in his abdomen; and March 17 I performed laparotomy, and withdrew several quarts of bloody fluid from the peritoneal cavity, and injected sterilized saline solution into the peritoneal cavity, and closed the wound without drainage. His condition gradually improved, but still his temperature kept up for two weeks when it fell to normal. He gradually grew stronger, and gained about 35 pounds during the summer. He is now at work, and apparently has no signs of his old trouble either in the chest or abdomen. This case is interesting on account of the desperate condition of the patient and the almost hopeless prognosis.

Gastrostomy.—In a recent address Keen has shown that the surgery of the stomach has claimed attention for the past 25 years only. Previous to that time it was practically unknown. The unsatisfactory state of the surgery of the stomach previous to 1875 is best illustrated by reference to statistics. It has been shown that of 28 operations attempted upon the stomach, there were 28 deaths. From 1875 to 1884 an improvement took place, in that 163 operations were performed with 133 deaths, or nearly 82% mortality. To be sure the reduction of the mortality of 100% to 82% was a gain; but it left much to be desired. Mikulicz has recently performed 10 gastrostomies for the relief of nonmalignant strictures of the esophagus with no death, and 34 gastrostomies for malignant stricture of the esophagus, with only 7 deaths, or a mortality of about 20%. The rapid strides which scientific surgery has made in the operations upon the stomach illustrate forcibly what can be expected in the future in this department. There are at present about 12 recognized operations upon the stomach, and in 7 of these there is practically no mortality, while in the remaining 5 it has been reduced to about 25%. Keen predicts that as technique improves, the mortality in the most difficult operations ought not be higher than 10%. Gastrostomy is an operation employed for the relief of stricture of the esophagus either benign or malignant, or for certain lesions connected with the stomach itself. It has for its prime object the prevention of death by starvation.

In the early days of gastrostomy, the operation was performed in two stages. The first stage consisted in opening the abdomen and drawing out the stomach, and the second stage consisted in opening the stomach several days after the first operation at the time when it was expected that firm adhesion had been formed. The results of this dual operation were uniformly unfavorable, since the adhesions often gave way and there was extravasation of the contents of the stomach into the

[1] Read at a meeting of the Hartford Medical Society, June 19, 1899.

general peritoneal cavity and death resulted. At the present time, all the operations aim to make the permanent gastric fistula at once, and instead of waiting for several days until nature had formed the expected necessary adhesions, these adhesions are mechanically formed by securely suturing the stomach-wall and thus shutting off any possible chance of leakage. This modification was a great step toward the perfection in he technique of the operation. This one change mitigated the sufferings of the patient and deprived the operation of its mortality.

The technique of gastrostomy, therefore, has been improved upon from year to year, until at the present time it is an ideal operation. This great improvement has been by a series of evolutions. Hahn suggested that the eighth intercostal space be utilized; Witzel recommended cutting through the rectus muscle by an incision 4 inches long running to the left from the middle line just below the border of the ribs; von Hacker suggested cutting through the left rectus across the fibers of the muscle, for the purpose of producing an artificial sphincter. Fenger recommended an incision along the costal border. It matters little which of the superficial incisions are made, as the result is practically the same, since the external wound seems to have little influence upon the mortality.

It is the management of the stomach-wound that has made the difference in the comfort and convenience of the patient and in the mortality of the operation. The deaths in the early operations were attributed to the leakage from the stomach into the general peritoneal cavity, thus establishing a fatal peritonitis. This objection having been overcome by an operation, presently to be described, the unpleasant consequences dependent upon the closure of the fistula by contraction had to be remedied, since this distressing symptom made life unbearable to the patient. This also having been accomplished, still another objection had to be overcome, viz., the digestion of the external wound by the gastric contents, thus establishing a most painful excoriation of the skin which annoyed the patient to such a degree that life was intolerable. To overcome the leakage, Witzel suggested placing a rubber tube upon the anterior wall of the stomach, and stitching the folds of the stomach-wall over it. This was an improvement, but soon the fistula contracted, and the patient was left in a most distressing condition. Sbanajew-Frank performed two incisions, the first along the left costal border through which the stomach-wall is drawn and sutured. A second incision is now made, one to two inches to the left, and a piece of the stomach-wall fastened to this wound, and the opening into the stomach is made at the place, when the stomach is fixed by the second sutures and the first wound closed. In cases of long-continued starvation this method is inapplicable, because the stomach is contracted and cannot be drawn out sufficiently to secure a prolongation to bring it out through the second wound and thus insure absence of distressing complications.

Kader, of Breslau, has invented a very ingenious operation which, in the hands of many surgeons, has given satisfaction. The preliminary steps of the operation, as regards the abdominal wound, are similar in many respects to von Hacker's and Witzel's method. The special point in Kader's operation has reference to the management of the stomach-wall. Kader makes an opening at once into the protruded portion of the stomach, and inserts a rubber tube, which is fastened by catgut sutures to the opening in the stomach. Two or more rows of stitches are then placed above the tube, so that when they are brought together, a straight funnel-shaped canal is formed by the peritoneal coat of the stomach. The entire exposed portion of stomach-wall is now stitched around the wound so as to shut off the peritoneal cavity. The tube now goes straight back into the stomach. This operation has an advantage over Witzel's method, in that the canal thus formed is straight and not oblique, and hence there is less likelihood of its contracting. It is claimed by the advocates of Kader's method that, as a matter of fact, the fistula does not become stenosed; but it is hard to explain why the straight canal will not eventually contract and its lumen become narrow, just as in the case in Witzel's operation, though, perhaps, not to the same extent. Marwedel has invented an operation which seems to overcome all the objections to the others, and which is so simple. and so ingenious, that it appeals to every practical surgeon. It is the one that I recommend as the best. It matters little what external incision is made; the chief point is the opening in the stomach. Having opened the peritoneal cavity, the stomach is now drawn and stitched to the sides of the external wound in such a manner as to completely shut off the peritoneal cavity. When this is accomplished, the exposed stomach-wall is incised for several inches. The incision, however, reaches down only to the mucous membrane dividing the peritoneal and muscular coats. In this way a gutter is formed, the floor of which consists of the outer surface of the mucous membrane of the stomach. Into this gutter a rubber tube is laid, and the peritoneal and muscular coats are now stitched together over the tube, thus a canal is formed of tissue into which the peritoneum does not enter, since the posterior part of the canal is formed of the mucous lining of the stomach, and the anterior and lateral surfaces by the muscular coat of the stomach-wall. A permanent fistula is now formed of tissue which shows no tendency to contract and no inclination to close on account of peritoneal adhesions. This canal remains permanently patent, and the tube can be withdrawn by the patient himself for purposes of cleansing, and reintroduced without the slightest difficulty. There is no leakage in the fistula, and the external orifice is as free from irritation as the

lips in the normal mouth. The safety of Marwedel's operation, the simplicity, the easy execution, the freedom from contraction, the absence of leakage, the presence of an orificial opening free from stomach-digestion, and finally the absence of any appreciable mortality, make it an ideal operation, which has been evolved, after a quarter of a century, from a crude, distressing, and fatal procedure. Thus, at last, an operation has been invented by gradual steps and modifications until a perfect one has been attained.

Surgery has achieved perfection in this operation, which is only one of the many advances made along the line to which reference has already been made this evening. The case which I shall present to you for demonstration is one of unusual interest, since it is one of stricture of the esophagus caused by cicatricial contraction due to inflammatory new formation, the result of typhoid ulcers in the esophagus. There are only two cases of the kind, of which this is one, known in the archives of medicine. The distressing condition of the patient, the great rarity of the lesion, the absolutely fatal termination, except by the relief afforded by gastrostomy, make it a subject of great clinical interest both to the physician and the surgeon.

A brief history of the case is as follows: T. K., aged 34, was admitted to St. Vincent's Hospital in March, 1898. His personal and family history affords nothing of special interest. In July, 1897, he was ill with typhoid fever, which continued for about three months, at the expiration of which time he noticed a burning sensation in the lower part of his esophagus. For a period of two weeks he suffered from hæmatemesis and expectoration of bloody mucus. Difficulty of deglutition soon followed, and in a short time he was unable to swallow solid food. He visited a hospital in Philadelphia, where gradual dilatation by means of bougies was practised on him for three months. This gave him temporary relief, but very soon the stricture increased and all attempts at swallowing were futile. He was then nourished entirely by rectal enemas. He began to lose weight, and in March, 1898, he weighed less than 100 pounds. His entire body became cyanotic, his temperature was only 96° F. and his pulse from 48 to 50 beats per minute. He suffered severely from cold due to the loss of bodily heat, and his physiognomy told of the intense suffering to which he was subjected. The sight of food and of water was unbearable, even the odor of food was so painful to him that he threatened to kill himself unless some help was proffered him. In his pitiable, bed-ridden condition, he pleaded for an operation, whether it held out any hope or not, and was willing to have anything done rather than live in this continual state of unmitigated agony. At the time of the operation in April, 1898, there had been a period of three months during which time not a single morsel of food of any kind passed into his stomach. I performed Marwedel's operation according to the manner already described, and immediately after the introduction of the tube, fed the patient while still under the influence of the anesthetic. During the afternoon his temperature rose from 96° F. to 99.5° F., his pulse from 48 to 68 beats per minute, and his respiration 20 per minute, his cyanosis disappeared and his general condition improved from the day of the operation. He made an uneventful recovery, and gained steadily in weight, until from less than 100 pounds he weighed over 170 pounds.

He feels as strong at he ever was; can do a day's work without fatigue, and can walk 10 miles without the slightest difficulty; in fact, he is perfectly well, and enjoys his meals through the rubber tube, and has only a natural sense of hunger which is appeased by food. He is nourished by milk and eggs, minced meats, and any form of food that can be reduced to a pulp, so as to pass through the tube into the stomach. He can distinguish the difference between milk and whisky taken into the stomach, and enjoys smoking, and in fact, is in good spirits and contented with his lot. Gastrostomy has offered him the only hope he had, and affords a good illustration of what surgery can do in these hitherto absolutely fatal cases.

Finally, I desire to call attention in a few brief remarks to the question of the time for operation in acute appendicitis. It is now well established that operative interference is called for in those cases of appendicitis in which after 48 to 72 hours the patients are not progressing favorably. After a large experience in the operation of appendicitis, I am inclined to hold the view that an operation within the first few hours is the ideal one. The surgeon, however, seldom sees a case as early as this, and the patient under the direction of the family physician is treated medically. The diagnosis within the first 10 hours is often impossible, and for this reason the ideal operation is seldom performed. If, after 72 hours, the patient is progressing favorably, I believe that the best prospect of permanent cure is by delay for a suitable season, until all inflammatory action has subsided, and the appendectomy can be performed in the interval between attacks. If instead of the cases progressing favorably after 72 hours they show signs of an acute character, the operation should not be delayed. It is just at this point the vital question arises as to what constitutes the proper indication for operative interference. I believe no reliance can be placed upon the temperature as a guide. Only recently I have seen a boy with a temperature of 99.5° F., upon whom I operated, and I found the cecum and appendix completely gangrenous. This same experience I have verified over and over again, and therefore temperature does not offer an indication for operative interference. On the other hand, I saw a patient with a temperature of 105.5° F., who rapidly recovered. In a few weeks he had the appendix removed, and the operation showed simply a distended appendix. Variations of temperature are thus great, and depend often upon the special character of the microbic infection.

The technic of the operation for the removal of the appendix in the interval between the attacks is familiar to all. The management of those cases in which pus is found in a circumscribed cavity, is likewise well understood. The cases in which pus is free in the abdominal cavity, and the cases in which gangrene of the appendix and cecum is present, present some points about which discussion is pertinent. It is generally conceded that pus is found free in the peritoneal cavity, when the infection has been so rapid that sufficient time has not elapsed to wall in the pus by an abscess-wall or by adhesions; these cases are almost univer-

sally fatal. Richardson, of Boston, whose experience in appendicitis is, perhaps, larger than that of any other surgeon, informed me recently that he never saved these cases. My experience has been different, since in five recent and consecutive cases of appendicitis pus was free in the peritoneal cavity, and in two of these the appendix was gangrenous and perforated. They have all recovered without even a fistula. It is marvelous to what extent nature will bring about a cure in gangrenous appendicitis, if only an outlet is made externally, and the parts disinfected and drained.

In one case within a month, I found the cecum black with gangrene, and the appendix necrotic. I removed the appendix and adopted the more conservative method by disturbing the parts as little as possible, and recovery followed. If an attempt had been made at resection of the gangrenous section, death would have quickly followed. In this case, which I will present this evening, a section of the bowel came away in the form of a cast of the canal consisting of the peritoneal coat only. During the process of separation healthy granulations were continually springing up in the wound until they had formed a wall against the gut, and not even a fecal fistula remained, so complete was nature's method of repair. I cannot emphasize too strongly the necessity of noninterference, so far as the gut itself is concerned, in these cases.

It has been my practice to wash out thoroughly the abdomen with hydrogen dioxid, and then with a saline solution, and finally pack the wound with gauze, and have it kept well open for drainage. In the cases in which gangrene is found, not only of the appendix, but also of the cecum, it is best to do as little as possible in the way of disturbing the parts. These cases require but little handling, but a great deal of irrigation and free drainage. It is the handling of the gangrenous gut that makes the difference between life and death. By handling the gut, infection is carried to other parts, the adhesions are torn, the intestine ruptured, and the dangers arising from septic thrombi increased. The gangrenous mass should be walled around by antiseptic gauze, and the necrotic area thoroughly irrigated and rendered as harmless as possible. Nature will now take care of the condition, provided the surgeon will not practise meddlesome interference.

The pulse is also an unreliable guide as to an indication for operation. It is, however, of much more clinical value than temperature, and therefore is of some aid when taken in connection with other indications. I have seen many cases with a pulse but little above normal terminate fatally, and many with very rapid pulse terminate favorably. The temperature and pulse are, therefore, unreliable guides. The three indications that seem to me to be of signal aid in deciding the question as to the time of operation in doubtful cases, are: (1) the distention of the abdomen; (2) the presence of vomiting; (3) the existence of leukocytosis.

The distention of the abdomen is a most important indication for operative interference. This has seldom, if ever, failed, and in any case of appendicitis in which abdominal distention and pain exist, the surgeon is derelict in his duty if he procrastinates. I would rather see a patient with a pulse of 110 to 120, with a temperature of 103° to 104° F. than a patient with a pulse of 80 to 90 and a temperature of 99° F. accompanied by a distended, rigid, painful abdomen.

The presence of vomiting is always significant. By this I do not mean the vomiting that usually occurs as a symptom ushering in the attack; but the persistent nausea and vomiting that show no signs of abatement after 24 to 48 hours. No surgeon can afford to overlook this distressing symptom, which in itself indicates the serious character of the invasion.

I have been led of late to attach much importance to the existence of leukocytosis. I have never failed to find pus when leukocytosis was present, although its absence does not of necessity allow one to exclude pus. In other words, the presence of leukocytosis is presumptive evidence of the existence of pus; its absence is no contraindication to operation, provided the other two clinical symptoms are well pronounced. Within the past month I have operated on two cases in which leukocytosis was present, and pus was found free in the peritoneal cavity. The presence of pus in appendicitis in which leukocytosis is not present is explained by the fact that the pus is encapsulated. This exception must always be borne in mind.

It is difficult to formulate rules that are universally applicable for guidance as to the exact time for operation in all cases of acute appendicitis. I have, however, formulated a few rules that will serve in the majority of cases, and I think will be found safe to follow in nearly every case. Of course, there are exceptions to every rule. The time for operation in acute appendicitis, in these exceptional cases, must be determined upon according to the judgment, knowledge, and experience of the surgeon, bearing in mind the general principles which underlie all operative interference.

1. Operate in all cases within 10 or 12 hours after the disease is ushered in, provided the diagnosis is certain and proper facilities are present. This rule is imperative if vomiting and tympanitis are present, and the symptoms are increasing, or only modified.

2. Wait if the peritonitis is circumscribed and signs of improvement are present; but to remove the appendix in the interval, if there has been more than one attack, and in exceptional cases after the first attack.

3. With reference to the management of the appendix, this should be removed if it is accessible and if it is contained in an abscess-cavity whose walls are rigid. It should not be removed if it is buried in an inflammatory mass or walls of an abscess, the breaking down of the walls of which would cause a general purulent peritonitis. The appendix should never be sought

after when the patient's condition forbids any protracted research.

4. Do as little as possible when the cecum is gangrenous; but remove the appendix and wash out the pus-cavity with hydrogen dioxid followed by saline solution, and pack the cavity with sterilized gauze.

5. When pus is free within the peritoneal cavity, free opening should be made, the cavity washed out with hydrogen dioxid followed by a copious saline solution, and finally packed with sterilized gauze. The less manipulation in these cases the better.

6. The sixth rule pertains to those cases in which there is an intraperitoneal extension upward to the liver. The situation of the pus may be under the liver, or in some cases even above it, forming the subdiaphragmatic abscess. In these cases the suppuration follows the ascending colon on account of the natural curve of the lumbar region, the recumbent position of the patient, and the absence of firm adhesions. These cases require extensive washing out, and in some cases a counter-opening in the side to drain perfectly the anomalous pus-cavity.

7. The seventh rule has reference to those cases in which a *general peritonitis* is present. There is great diversity of opinion among experienced surgeons as to whether an operation is justifiable under these circumstances. A decision to operate must be left to the judgment of the surgeon, who must bear in mind that without operation the case is hopeless, but with an operation the prognosis is likewise almost hopeless, and the question of intervention should be carefully considered. The age of the patient, the environment, the facilities for a quick operation, the presence of any disease of the kidney, heart, or lung must determine the surgeon, after a frank understanding with the friends, of the circumstances under which operative interference is undertaken. In other words, each case of suppurative peritonitis must be considered by itself, and the question of operation depends upon the peculiar circumstances of the case and the environment.

HOW NATURE UTILIZES THE IRON CONTAINED IN THE BLAUD PILL.[1]

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To BRING up for discussion such an old subject as that of iron therapy, when there are so many new ones clamoring for attention, may appear like working over a very old problem. This may seem still more so in connection with the well-established reputation that the Blaud pill has sustained for many years. Yet we find much written upon this subject, and hear, from time to time, many discussions upon the action of iron in relation to anemia, which clearly demonstrates that the question is not as accurately understood as it can be. This is especially true when the more recent investigations in physiologic chemistry are practically applied to this very important problem.

Before attempting to explain the physiologic action of any iron-bearing compound, however, we must first have a clear conception of the natural methods by which hemoglobin is normally produced in the system, and also of the etiologic factors that enter into the destruction of the hemoglobin or prevent its formation in sufficient quantity to fully replace its natural disintegration.

It is becoming generally recognized that both iron and manganese cannot be absorbed from the healthy mucous membrane of the intestine and carried into the blood. The proof of this is absolute with manganese, as this metal is not a part of the normal body, and is one of the inorganic substances that can easily be traced. It is equally so with iron, but cannot be so readily demonstrated from the fact that iron is one of the constituents of the body-tissue. Therefore, iron cannot be supplied to the system direct from the inorganic world. This is further true by virtue of the law that synthesis is confined exclusively to vegetable life, while the chemistry of animal life is analytic destruction or oxidation reduction. Hence, all the anabolic processes of the animal kingdom are simply due to the mechanical multiplication of the molecules and not to synthetic construction.

With these simple laws established and confined exclusively in their working to the proper domain in all the phenomena that are observed in both vegetable and animal life, much of the confusion experienced in the explanation of these intricate problems in connection with living things is dispersed.

This much conceded, it becomes necessary to look for the primary source of all material required in the construction of the animal organism, not in the animal kingdom, but in the earth and its vegetable and animal products; the latter coming, as it were, out of the former, but always as the result of an isomeric or an oxidation-reduction process. In almost every instance the latter is the method pursued. Especially is this true in reference to the primary source of the iron and phosphorus-bearing compounds, which are necessary for the construction of the hemoglobin of the red blood-corpuscles, and for the lecithin of the nerve-tissue.

This iron and phosphorus-bearing compound has been found to exist in connection with the nuclei of the cells, as found in both animal and vegetable life, in the form of a substance that has received the name nucleoalbumin. It was so named because it was first discovered in connection with the nuclei of cell-life, and also because it was found to be composed largely of albuminous material. Yet nucleoalbumin differs from the proteid bodies in general, in that it contains

[1] Read before the New York County Medical Society, September 25, 1899.

an atom of iron and phosphorus in its composition. Nucleoalbumin is found as a common constituent of all cells, both in the vegetable and animal kingdoms. It is far more abundant, however, in the former than it is in the latter class, and it is especially abundant in the green vegetables and in the legumins. Nucleoalbumin, like many others of the complex proteid class, is variously described by different investigators. A careful analysis of all these observations, however, indicates that nucleoalbumin is a very complex and often polymeric substance, which, in its essential characteristics, more closely resembles the globulin series of the proteid bodies than any of the other proteids. It differs absolutely from the globulins, however, in this, that it contains in its complex composition both iron and phosphorus, neither of which is found to be present in a pure globulin.

The nucleoalbumin formed in the cells of the vegetable kingdom is unquestionably the direct anabolic product of the synthetic processes that constitute chemical action as it is observed in plant-life. It, like the proteid of the vegetable kingdom, is a highly complex polymeric compound; while the nucleoalbumin derived from the animal kingdom, like the proteid of animal origin, is always less complex or monomeric in its construction.

When this complex vegetable nucleoalbumin is taken into the stomach in the form of food, it, like the proteid of vegetable origin, is acted upon by the digestive ferments and rendered less complex, being by this process so transformed that it can be taken up from the alimentary canal by the epithelial cells that go to form the mucous lining. In its passage through these cells, or after it has entered into the system, it becomes, in part at least, isomerically or by a process of oxidation-reduction, transformed into animal nucleoalbumin, and finally appears as such in the milk, egg, and various structues of the body. Other portions pass up to the liver and are there oxidized in the hepatic cells. In this manner the nucleoalbumin is split up in accordance with the analytic theory of animal chemistry, thus forming the simpler forms of compounds, such as hemoglobin and lecithin, water, carbon dioxid, etc., all of which are well known and easily recognizable substances. It is also highly probable that in this oxidation process the polymeric molecule gives place to the less complex or monomeric form of structure, thus explaining the formation of the simpler form of nucleoalbumin as it is found in the animal kingdom. The hemoglobin contains the iron that previously existed in the nucleoalbumin, and enters into the composition of the red blood-corpuscles, thus giving to them their continuous supply of hemoglobin as rapidly as it is exhausted in its natural metabolic destruction. The lecithin contains phosphorus, and it enters into the nerve-tissue, either as one of the component parts of this structure, or as an oxidizable food-product for the direct stimulation of the nerve-cells.

By this method of formation, the first logical explanation is given for the production of hemoglobin and lecithin in the physiologic economy. Both of these substances have been developed in perfect harmony with the common laws of chemistry, as they are known to exist in connection with both vegetable and animal life. Their formation has been explained, also, without introducing a number of highly speculative problems, all of which rest on absolute uncertainty.

It will be noticed, also, in this study of the nucleoalbumins, that, while they are more abundant in the vegetable than in the animal kingdom, they are more complex in the former, and it is further noticeable that those found in the animal substances can be more easily digested and assimilated. Consequently, those derived from the animal class of foodstuffs are the most economic for the system. When the total quantity of nucleoalbumin in any foodstuff is inadequate for the demands of the system, which is true of most all substances in the animal class, an anemic condition of the animal economy must sooner or later follow the too exclusive use of the animal class. This fact is noticeable especially in the infant, in which the only diet is milk. And as the milk is defective in the proper quantity of nucleoalbumin, as the child advances from month to month it becomes anemic; hence the necessity for the addition of the vegetable class of foodstuffs as soon as they can be tolerated and utilized by the digestive organs. This deficient quantity of nucleoalbumin in the animal class of foodstuffs is one of the conclusive proofs that the vegetable class must be added to the animal to secure the highest grade of nutrition. On the other hand, this line of argument does not prove that the vegetable class of foodstuffs is the most valuable; but, to the contrary, it demonstrates conclusively that the vegetable class is the most difficult to digest, and, in consequence, may not yield a sufficient amount of proteid material to satisfy the demands of the system. Therefore, to secure the highest grade of nutrition, the two classes must be perfectly adjusted both as regards quantity and quality.

The theory just outlined, briefly summed up, is as follows: The intake and output of iron by the system is, comparatively speaking, very small; the iron in organic combination, commonly found in the foodstuffs as nucleoalbumin, is the only source of iron supply to the system for the formation of hemoglobin; the amount of nucleoalbumin as ordinarily contained in a well regulated mixed diet is far in excess of the requirements of the system daily. If, now, for any reason, the nucleoalbumin is decomposed in its passage through the alimentary canal before it is absorbed, then the system is deprived of the regular supply of this hemoglobin-forming compound, and the condition known as anemia will, of necessity, supervene. On the other hand, if there is a too rapid escape of the hemoglobin from the body, as occurs in connection with hemor-

rhage, the loss of hemoglobin will be more rapid than it can be reproduced by the physiologic laws already outlined.

Lack of iron in the system, or anemia, may then be classed as a surgical condition, etiologically considered, when the loss of hemoglobin is directly traceable to a hemorrhage. On the other hand, the loss of iron, or anemia, is a medical condition when it results from any one of the three following conditions: First, when too little food is ingested, or that which is taken is deficient in the nucleoalbumin compounds. Second, when there is introduced into the alimentary canal with the foodstuffs sulfur-compounds, or when digestive disturbances exist which cause the formation within the alimentary canal of an unduly large amount of these sulfur-compounds. In either instance these sulfur-compounds, having an intense chemical affinity for the iron atom that is loosely combined in the nucleoalbumin, draw the iron out of this compound and form an insoluble and unabsorbable sulfid of iron, thus depriving the system of its natural hemoglobin-forming substance. (In either instance the natural supply of nucleoalbumin, out of which hemoglobin can be formed, is destroyed or prevented from gaining access to the circulation and hepatic cells.) Third, that condition in which there is not necessarily any diminution in the foodstuffs, either as regards quantity or quality, or any excess of sulfur-compounds in the alimentary canal to destroy the nucleoalbumin contained in the food-supply, but there is a disturbance in the chemico-physiologic activity of the system, so that none of the foodstuffs, and particularly the nucleoalbumin, can be oxidized and utilized properly by the animal economy. This condition is found in all the infectious diseases, and when microbic and toxic agents are introduced into the system. It occurs in all acute and chronic diseases of the circulatory and pulmonary system, in hepatic and renal affections. This condition is also encountered in the uric-acid and oxalic-acid conditions, in neurasthenia, rheumatism, diabetes, pernicious anemia, etc., etc.

In the class in which some positive toxic agents are introduced into the system, the poisonous compounds not only cause an arrest of the normal metabolism, but they often produce a rapid disintegration of hemoglobin and an abnormally rapid destruction of that substance. The same prevention of formation and concomitant destruction of hemoglobin is especially well marked in pernicious anemia. This double action is much less marked in the more chronic forms of imperfect metabolism and states of suboxidation.

In the surgical type, all that is actually necessary is to arrest the hemorrhage and place the patient upon a suitable diet, and nature will rapidly restore the lost hemoglobin from the nucleoalbumin in the food taken. If, for any reason, any of the three medical causes are acting as a preventive to the restoration of the hemoglobin after the arrest of the hemorrhage, then the case must be treated in the same manner as if it had been primarily a medical condition.

All that is required in the first class of medical cases, *i. e.*, those due to insufficient ingestion of foodstuffs, is a perfect adjustment of the diet as regards quantity and quality, and the kinds of foodstuffs that can be digested and assimilated best by each special case. Remedies which will assist the enfeebled digestion, improve a weak circulation, and regulate an irregularly or imperfectly acting nervous system must be administered when required; and special attention must be given to securing the proper amount of outdoor exercise. To give in this class of cases the salts of iron, *i. e.*, assuming that there are no sulfur-compounds in the alimentary canal to destroy the nucleoalbumin before it can reach the bloodstream—would, with our present knowledge of the action of the iron-compounds and the natural method of formation of hemoglobin, be useless. They might prove damaging to the system by disturbing the digestive function.

The second class of the medical cases is best treated by the same careful attention to the diet, the digestion, and the circulatory and nervous systems, and to securing the proper amount of outdoor exercise.

It is at this point that we discover the true explanation for the action and utility of the iron salts. So far as the possibility of the absorption of iron is concerned, it does not make any difference which one of the salts is introduced into the stomach, as none of them is absorbed. If they act at all it is by their being acted upon in the stomach by the hydrochloric acid, and there converted into a chlorid of iron. This is true alike of all the inorganic and the many so-called organic preparations, excepting, possibly, a part of the nucleoalbumin, which then follows the same course as that of the foodstuffs.

The absolute nonabsorbability of the iron appears to be rather one of the wise provisions of nature, by which toxic compounds in general are kept out of the system, unless they chance to gain access to the lymphatic or circulatory channels through a break in the continuity of the skin or mucous membranes. Ferric oxid, in combination with the organic acids, behaves in the same manner as the inorganic salts of iron. The albuminates of iron, so-called, which, however, do not seem to be true chemical compounds, but simply variable and loose mechanical mixtures of iron and some proteid substance, are probably split up in the stomach by the gastric juice, with the formation of a chlorid and a proteid body. Even if this is not the case, there is no evidence to show that they resemble the polymeric nucleoalbumin, or that they can be utilized by the system in a similar manner.

Thus we find that one by one all the vaunted preparations of iron fall into the same class, so far as their utilization by the physiologic economy is concerned. The iron in them all, be it an inorganic or a so-called

organic compound, follows the same course in its passage through the alimentary canal, unless we are dealing with the nucleoalbumin as constructed by nature; and even a part of the iron in this compound must be converted into a chlorid by the action of the hydrochloric acid of the gastric juice before it can be utilized.

After the iron-bearing compound has been converted into a chlorid, owing to the strong affinity existing between the iron and the sulfur, the iron is quickly attacked by the sulfur-compounds with the formation of an insoluble sulfid of iron (FeS.). With this explanation, the iron administered to the patient, instead of entering into the blood, in some mysterious and inexplicable manner and in defiance of all the well-established chemical laws, now obeys the accurate laws of chemistry and appears in the feces in the same quantity in which it was administered, but as a black sulfid of iron. Hence, the black stools following the exhibition of any and all preparations of iron that are of any value as therapeutic agents.

This quick satisfaction of the sulfur-compounds by the action of the active chlorid of iron prevents the destruction of the iron-bearing compounds—nucleoalbumin—contained in the foodstuffs. The nucleoalbumin now passes on as usual in its natural course to reach the enterohepatic blood-stream, from whence it is drawn into the protoplasm of the liver-cells together with active oxygen and is there oxidized or reduced to simpler compounds, such as hemoglobin, lecithin, water, and carbondioxid, etc.

By this explanation we find a complete solution for the method by which hemoglobin is produced normally; it also makes clear the various methods by which the hemoglobin is destroyed more rapidly than nature can reproduce it, and it makes clear the only method by which the hemoglobin can be restored. It also shows clearly the part which the iron plays in this reproduction of the hemoglobin. It changes iron therapy from absolute empiricism to that of a fixed science. With this explanation of this intricate problem before us, the conviction is forced upon us that the chlorid of iron, or its well-known tincture, is the most effective and valuable of all the iron preparations. But it, like all other preparations of iron, will fail to be of benefit in all forms of anemia when the loss of hemoglobin is due to other causes than the destruction of the nucleoalbumin by the sulfur-compounds introduced into or found in the alimentary canal. In a similar manner, it will fail when it proves to be unduly irritating to the digestive system. Under these conditions some other preparation less disturbing to the digestive apparatus may have to be selected, as, for instance, the Blaud pill.

It is just at this point that this question presents itself: If the chlorid of iron is the only form that is actively effectual in the satisfaction of the sulfur group and in the protection of the nucleoalbumin from destruction by these sulfur-compounds, how can the Blaud pill be so effective, as clinical experience unquestionably proves it to be? This pill, as is well known by all, is made by mechanically combining the sulfate of iron with the carbonate of soda. This is followed later by a chemical transmutation between these two chemical compounds which gives as the final product a carbonate of iron and sulfate of soda as follows: $Fe\ SO_4 + Na_2\ CO_3 = Fe\ CO_3 + Na_2\ SO_4$. When these pills are freshly made, which is the only condition in which they should be administered, and are introduced into the stomach while they are still in this state of active chemical transmutation, the newly-formed carbonate of iron is then quite easily acted upon by the hydrochloric acid contained in the gastric juice, with the formation of iron chlorid and carbonic acid, thus: $2(FeCO_3) + 6(HCl) = Fe_2Cl_6 + 2(H_2CO_3) + H_2O$, or $Fe_2CO_3 + 2(HCl) = FeCl_2 + H_2CO_3$. In both instances the theoretically formed carbonic acid $H\ CO_3$ rapidly passes into carbondioxid and water, thus: $H_2CO_3 = H_2O + CO_2$.

By either reaction an iron chlorid is formed which, having a strong affinity for the sulfur, quickly unites with the sulfur-compounds, forming the insoluble sulfid of iron the same as if the patient had primarily been given a chlorid of iron. In the same manner, the nucleoalbumin is protected in its passage through the alimentary tract to reach the bloodstream and liver-cells.

The only advantage that can be claimed for the Blaud pill or any other preparation of iron as against the Tr. ferri chloridi, is that it can be tolerated and utilized as just described, when the tincture, by its irritating properties, can not be tolerated. In all instances, however, the form of iron that is of any actual service to the system is the chlorid, either introduced in that form or produced later in the alimentary canal by the action of the digestive process.

When we compel Nature to form the chlorid of iron out of some other salt of iron, it necessitates just so much expenditure of digestive energy with the loss of a certain amount of the hydrochloric acid of the gastric juice. This should always be kept in mind when administering any form of iron. This tax upon the natural powers of the system can, in a large measure, be compensated for by the exhibition of a little dilute hydrochloric acid at the same time that the Blaud pill is given. In a measure, the loss of the hydrochloric acid is restored when the sulfur-compound unites with the iron chlorid to form the insoluble sulfid of iron, as represented in the following equation: $H_2S + FeCl_2 = Fe\ S + 2\ (HCl)$. The acid then acts upon the trisodic phosphates as usual, forming the disodic monohydrogen phosphate and sodium chlorid, as follows: $2(Na_3PO_4) + 2(HCl) = 2(Na_2H\ PO_4) + 2(NaCl)$.

What has been said in relation to the Blaud pill

applies with equal force to every other iron preparation inside or outside the official materia medica. Each and every one must be acted upon by the hydrochloric acid of the gastric juice of the stomach and converted into a chlorid before it can be of any therapeutic value. This being true, the only reason for using any other preparation than a chlorid is the question of palatability or tolerance of the preparation by the stomach and intestinal tract. In this respect the Blaud pill is certainly one of the best in the large and constantly increasing list of iron preparations that are derived from the inorganic or so-called organic kingdom.

Among the many so-called organic iron compounds that known as hemaboloids comes near to a natural compound, and was worked out, at my suggestion, upon this theory of the nucleoalbumin oxidation reduction as the only source of iron-supply to the system. It is, in fact, nothing but a concentrated solution of the nucleoalbumins derived from the vegetable kingdom, and in this respect it should be considered more in the light of a food than as a medicinal compound. At the same time, in so far as it is acted upon in the stomach by the hydrochloric acid with the formation of a chlorid, it is medicinal in its action and obeys the laws common to all iron preparations, and acts by satisfying the sulfur-compounds. A certain portion of the nucleoalbumin, however, passes on to the circulation and liver-cells, as does the nucleoalbumin ordinarily contained in the foodstuffs, to be there reduced by oxidation to hemoglobin, lecithin, water and carbon dioxid, etc.

In some instances the digestive powers are not sufficiently strong or active enough to decompose the nucleoalbumin preparation and form the inorganic chlorid with sufficient rapidity to satisfy the sulfur-compounds before they will destroy the nucleoalbumin of the foodstuffs and of this preparation. When this is the case the nucleoalbumin preparation will fail as a therapeutic remedy, and the old tincture of the chlorid or the Blaud pill will prove more effective in dispersing the anemia, because it more fully meets the indication. Recognizing this fact, and the failure of the nucleoalbumin preparation in a certain class of cases, the manufacturing chemist succeeded in reinforcing the nucleoalbumin by direct chemical combination with a larger number of artificial iron atoms. Still, had the chlorid of iron been added by mechanical union rather than by direct atomic chemical union, the preparation would have been more valuable as a therapeutic remedy. Now the digestive system is forced to free this excess of iron and convert it into a chlorid before it can be utilized by the system to satisfy the sulfur-compounds; while, if the chlorid had been left free, it would be at once available so soon as it entered the stomach, and just so much digestive energy would have been conserved.

This is but one of the many instances in which the physiologic laws are not so closely followed as they should be in the use of chemic compounds introduced as artificial products into the system. It is just such little digressions as these that prevent medicine from becoming more rapidly the fixed and accurate science that it is capable of being made. Each one of these little errors corrected, however, brings us just so much nearer to the ideal for which we are all striving.

THE USE OF THERMOL IN TYPHOID FEVER.

By GEORGE B. MILLER, M.D.,

of Philadelphia.

Associate Editor of the *Medico-Legal Journal.*

THERMOL, $C_4H_{15}NO_3$, a definite chemical compound, is of all the coal-tar products the most valuable and reliable. Its action on any increase of bodily heat is twofold. It lowers temperature by dissipating heat and inhibits heat-production by directly controlling the heat-producing center.

My attention was called to the drug some time during the latter part of November, 1898; it having been claimed that it possessed a specific action in catarrhal fever, or as it is now more commonly known, la grippe. In this disease its action was much quicker and the results gained were more permanent than those obtained by any other remedy, of which I had formerly used a large number. Under its use there was an immediate fall of temperature, a decided action on the skin and a general activity of the glandular system, together with alleviation of the distressing symptoms.

From these most gratifying results I was led to give thermol a trial in a thoroughly grave case of typhoid pneumonia. Unfortunately I have not the notes of the case and can only refer to it from memory.

The patient, M. C., aged 45 years, female, the mother of 8 children, after exposure, was taken on December 20, 1898, with a chill, sharp stabbing pain in the left side increased by pressure, breathing and coughing; rusty sputa, and later consolidation of both lobes of the left lung. The temperature rose to 105° F. She was placed upon the ordinary remedies to allay her suffering, but she continued daily to get worse. The temperature remained high and she passed into a grave typhoid state. We expected her hourly to succumb to the disease. She was then placed upon thermol in 2½ grain doses, and in 12 hours there was a decided improvement. The mucous membranes instead of being dry, brown and cracked became moist and the patient was bathed in a profuse perspiration. [This must not be mistaken for the crisis, as occurred subsequently.] As soon as thermol was discontinued she relapsed to her former grave condition. Thermol was again administered with the result of a full return of favorable symptoms. Termination by resolution.

From the decided quick action and the immediate response of the patient to thermol, I am strongly of the belief that in the absence of this drug the patient would have sunk into a deeper typhoid condition, and possibly would not have recovered.

The case is referred to in order to contribute useful data to the action of the drug on the temperature and mucous membranes in this disease. It is certainly clearly indicated in cases of pneumonia, especially of a

typhoid form. The action of the drug on the respiratory and alimentary mucous membranes, together with its thermotaxic properties, suggested its use in typhoid fever, such action being most desirable and absolutely essential to a speedy recovery if not an actual cutting short of the disease. During December, 1898, a typhoid patient who was lingering on and on under the ordinary treatment, with regular sponge-baths, was placed on thermol in 2½-grain doses. I have not the clinical chart of the case, but will state that he immediately improved and quickly recovered.

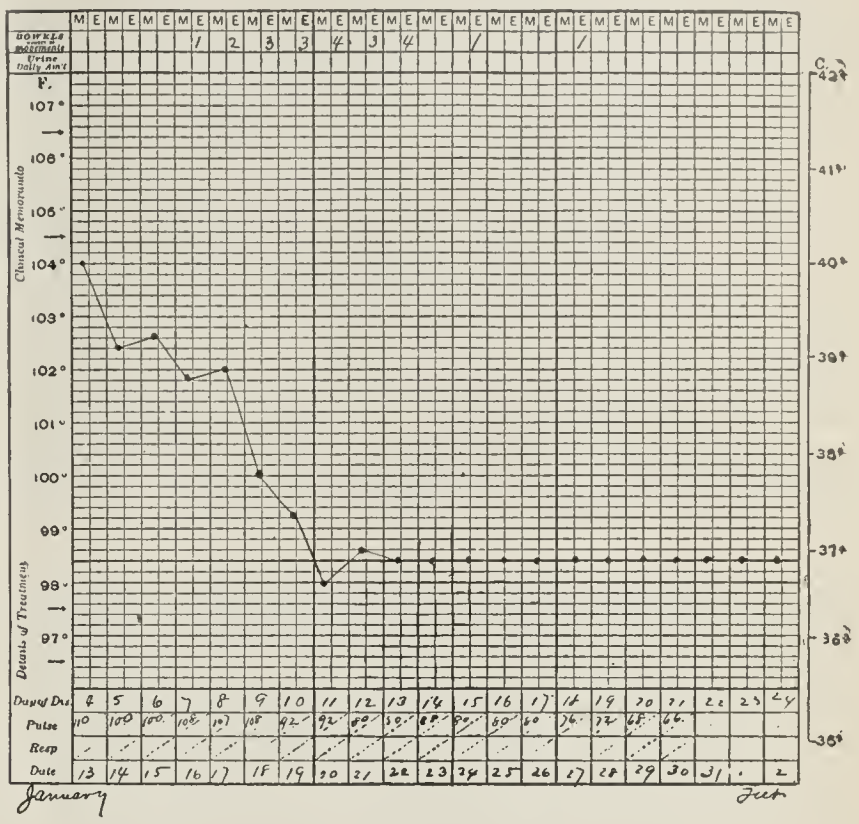
Many of us have been taught and have been in the habit of giving turpentine in typhoid fever, when we have the dry, chapped tongue, combined with a tympanitic abdomen and diarrhea, but in this series of cases, thermol quickly relieved this condition. The epidemic of typhoid fever which prevailed in Philadelphia the past winter and spring is admitted by the most conservative to have been of a severe type and attended by a heavy mortality. The fact is appreciated that it may be claimed my cases were abortive ones. but in defense of the position I have assumed, will advance the statement that it is very unlikely that I would have eight abortive cases in succession in private practice during the past winter in this city. That they were abortive under the antagonism of thermol is beyond question.

Thermol is nontoxic in its action. After the daily prescribing of this alkaloid for the past seven months it can be positively asserted that it is devoid of irritating properties, in contradistinction to the action of some of the coal-tar products. I have not met an instance in which there was the slightest unfavorable impression upon the circulatory system, such as blueness of the face and extremities, cardiac distress, dizziness, etc. The method of administration is important. The patients were given 2½ grains every 3 hours, even when the temperature took a subnormal dip, and continued through the whole course of the disease until it remained at the normal line a week. It is a mistake to give it *only* when there is a high temperature or hyperpyrexia and then discontinue the drug when there is a fall of several degrees. Its control thereby over the heat-centers is lost and its action on the intestinal microbes is not constant.

During the past few months there were carefully recorded the results gained by the use of thermol in eight cases of typhoid fever, and trusting that they may not prove uninteresting to the scientific observer, I will give brief reports, together with the clinical charts.

CASE 1.—A. G , female, aged 16 years, always enjoyed good health until the present illness, which began about ten days before with marked prodromal symptoms. There was constant and severe dull aching pain in the head, chiefly in the frontal region; herpes around the mouth; loss of appetite; nausea and vomiting. The bowels were constipated and the tongue was yellowish-white and swollen. There was a troublesome cough present.

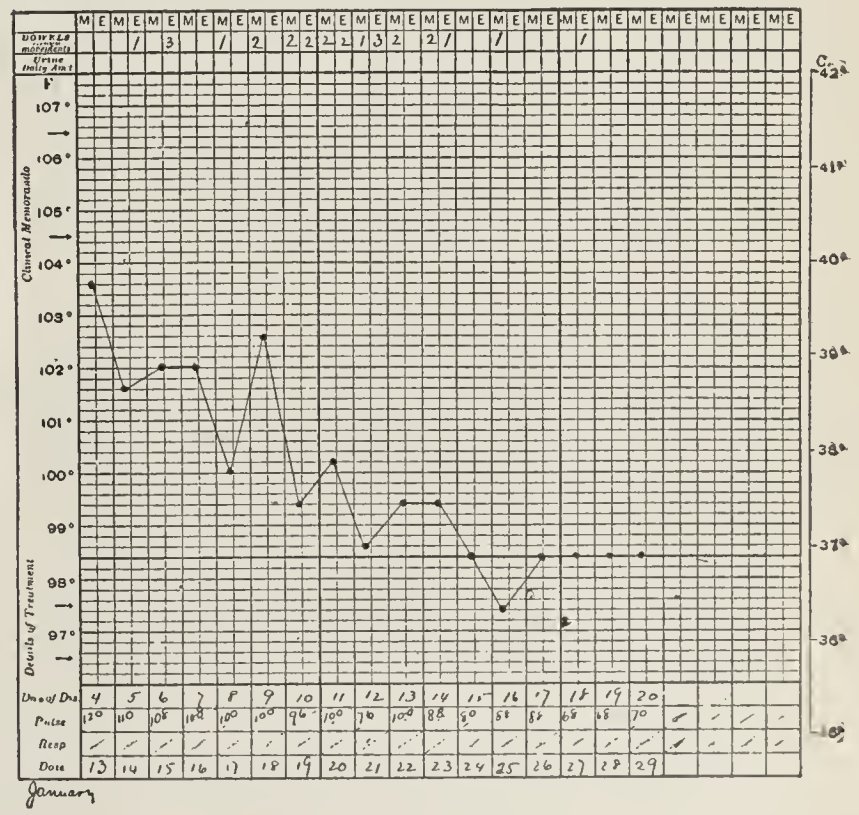
On January 13 the patient took to bed; temperature 104°. On the 16th, she had a foul ocher-colored stool. The next day, rose-colored spots appeared on the abdomen, which now became distended and tender in the right iliac region, Tache cérébrale was easily produced and very pronounced. The spleen showed considerable enlargement. For the next four or five days there were from three to four typhoid stools



CASE 1.

daily. The temperature reached 98° on the eighth day of treatment.

CASE 2.—M. McF., female, aged 15 years, had been convalescent for a month from a severe attack of influenza. Patient had been feeling quite badly for more than a week, and complained of having a bad taste in the mouth; drow-

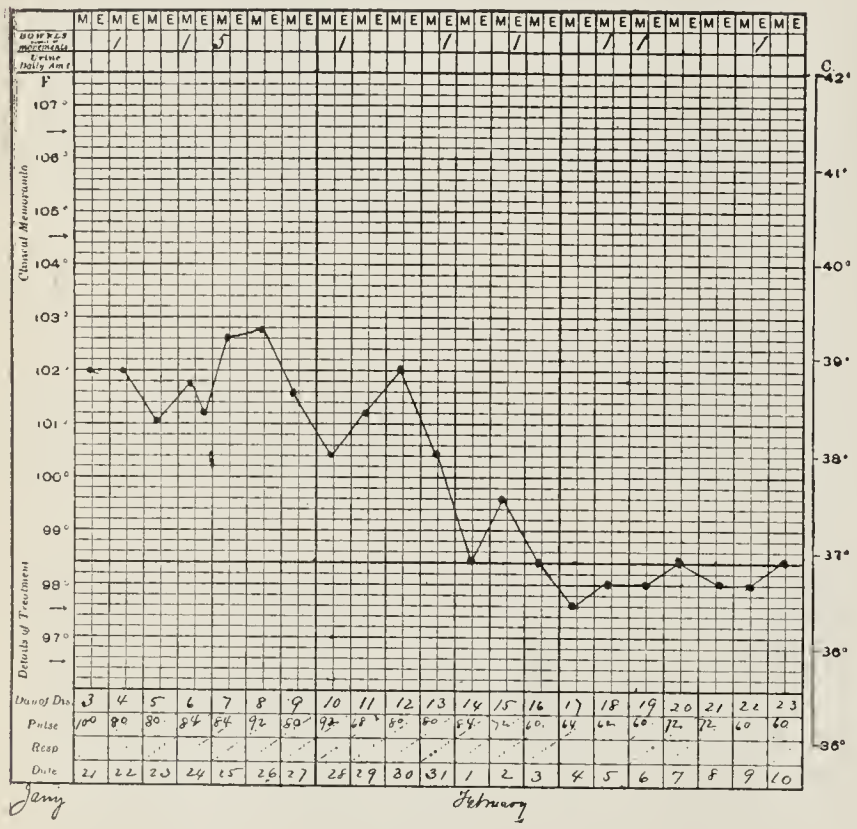


CASE 2.

siness; intractable headache and aching in the back and limbs; bowels were constipated. She felt so dull during this period that she was unable to continue with her work. On January 13, she was unable to be about; temperature was 103.3°, and the pulse 120 and dicrotic. The condition of the patient was such that I considered her very ill and expected

she would have a long illness. At this stage of the disease she was delirious and showed high nervous symptoms. The tongue now became dry and heavily coated with a dense brownish fur. The breath was foul, and a dry bronchial cough set in. Meteorism fully developed and tenderness over the whole abdomen, more pronounced beneath and to the right of the umbilicus. On the 16th, a typical rose rash developed on lower thorax and abdomen. A bluish rash, marked in size and character, appeared on the limbs, back, and side of the face. The constipation gave way to a slight diarrhea which continued throughout the disease. The temperature reached 98.3° on the ninth day, and was subnormal at 97.2° on the thirteenth day.

CASE 3.—M. L., student, aged 18 years, has enjoyed fairly good health. With a fellow student has been daily working in a laboratory for some time past, until his present illness. Has complained of being chilly for the past week, the chills being so pronounced as to make his teeth chatter and produce pallor of the face. A persistent headache continued, resisting a variety of remedies. Has been tired, restless and nervous; tongue coated and bowels constipated Complained of unusual muscular weakness. On January 21 the patient was compelled to remain in bed; temperature was 102°. The following day he had a yellowish stool; 2 days later nosebleed and and 5 loose ocher-colored movements of the bowels

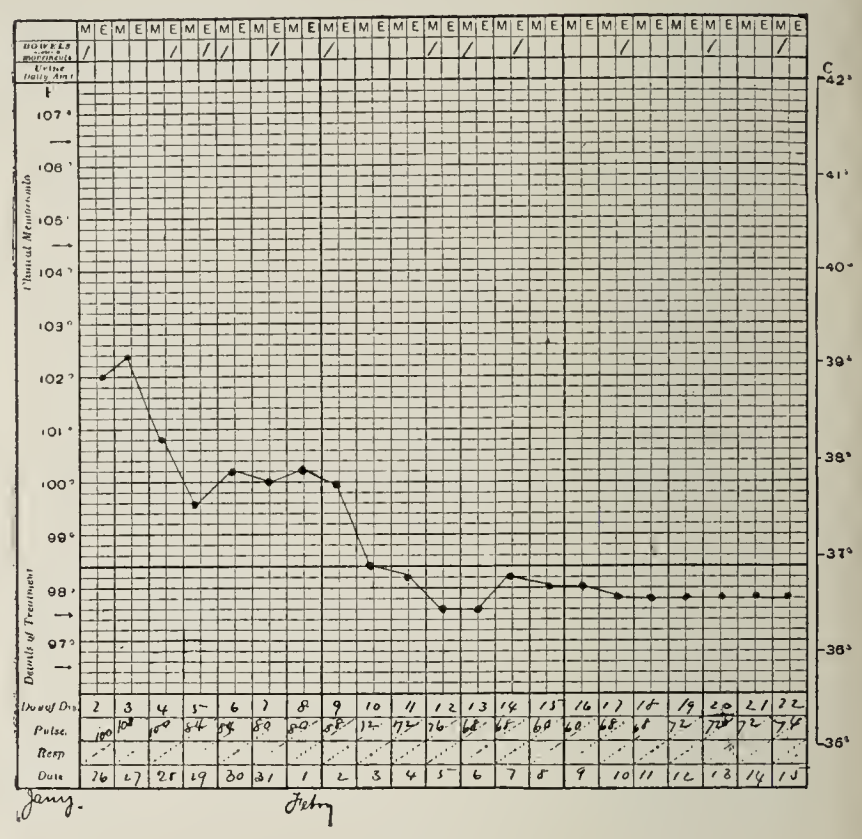


CASE 3.

occurred. The abdomen was tender and there was gurgling in the right iliac fossa. On the 26th a rose-red lenticular rash appeared on the abdomen. The same evening the patient had 3 heavy chills, when the temperature steadily dropped from 102.4° until it reached 100.2° on the 28th, when it rose to 102, from which point it gradually declined to normal line on the twelfth day.

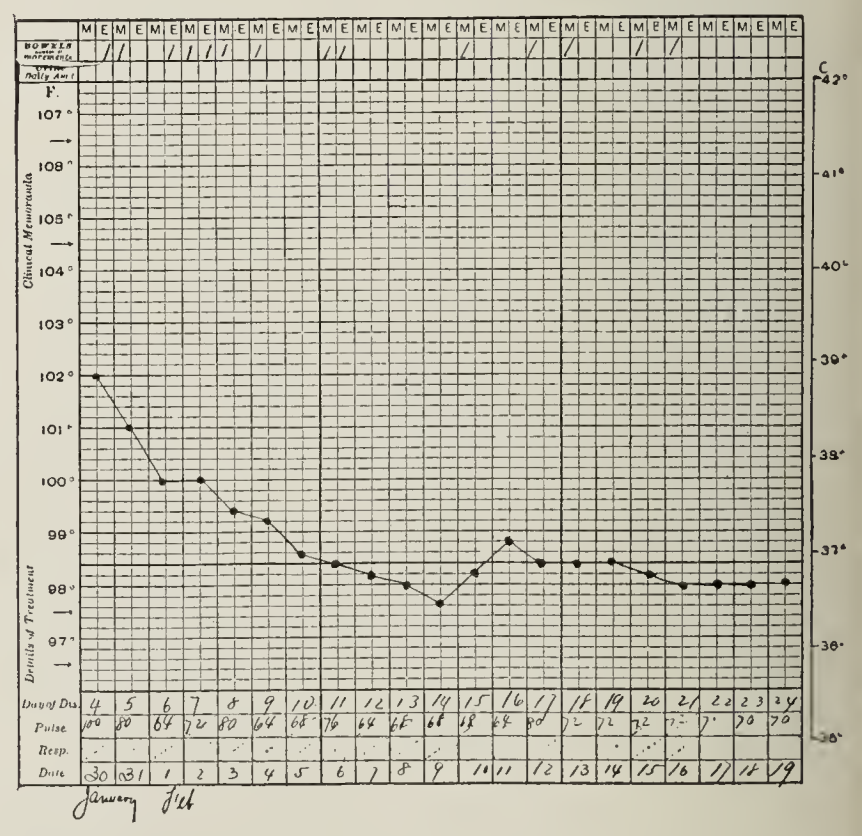
[The fellow student of this patient was taken ill at the same time and was treated for typhoid fever by his medical attendant]

CASE 4.—J. E., male, aged 38 years. Patient gives a history of very robust health since childhood; has resided in a farming district until somewhat recently. For two weeks the patient had been feeling very ill, complaining of general malaise, loss of appetite, headache and pain in the limbs. At times he felt flushed and later quite feverish. For a week he laid aside all business cares and remained home, during which time he improved enough to return to work, when he was again so prostrated that he was compelled to take to bed. When I was consulted on January 26, his temperature was 102°; pulse 100. The tongue was dry, brown, cracked, and was protruded with difficulty. The abdomen was not tender on pressure; there had been no chill and no diarrhea. On the 28th, a petechial rash showed itself. The following day there was an ocher-colored movement of the bowels. On February 1, a crop of typical rose-red spots made their appearance. The temperature reached the normal line on the ninth day and was slightly subnormal for nearly two weeks.



CASE 4.

CASE 5.—C. F., male, aged 17 years. Patient has been rather delicate for the past 7 years, and exceedingly sensitive to atmospheric changes and prone to contract catarrhal affections. Gave a history of prodromal symptoms. On January 30 a smart nosebleed took place. Temperature registered 102° and pulse was 100. The tongue was covered with a yellowish-white coat. There was an annoying bronchial

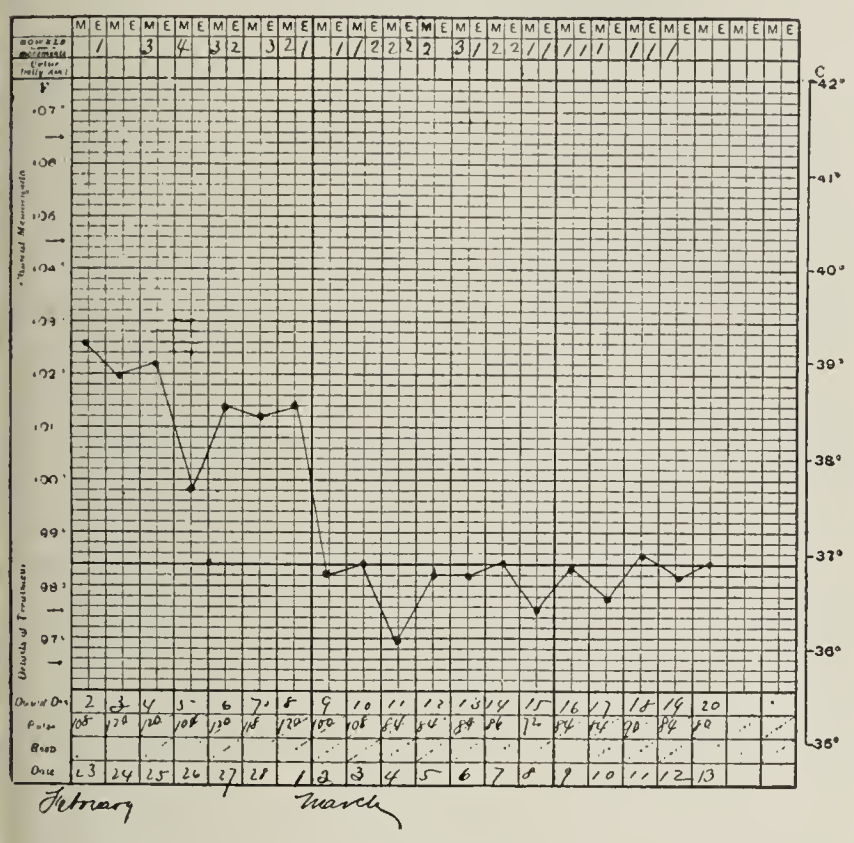


CASE 5.

cough; abdomen tympanitic; spleen increased in size and characteristic stools were observed. On February 2, a typical rash developed on the abdomen. The temperature reached 98.3° on the seventh day of treatment.

CASE 6.—R. L., female, 5 years of age. This patient, a sister of the patient, Case No. 3, was a member of the same

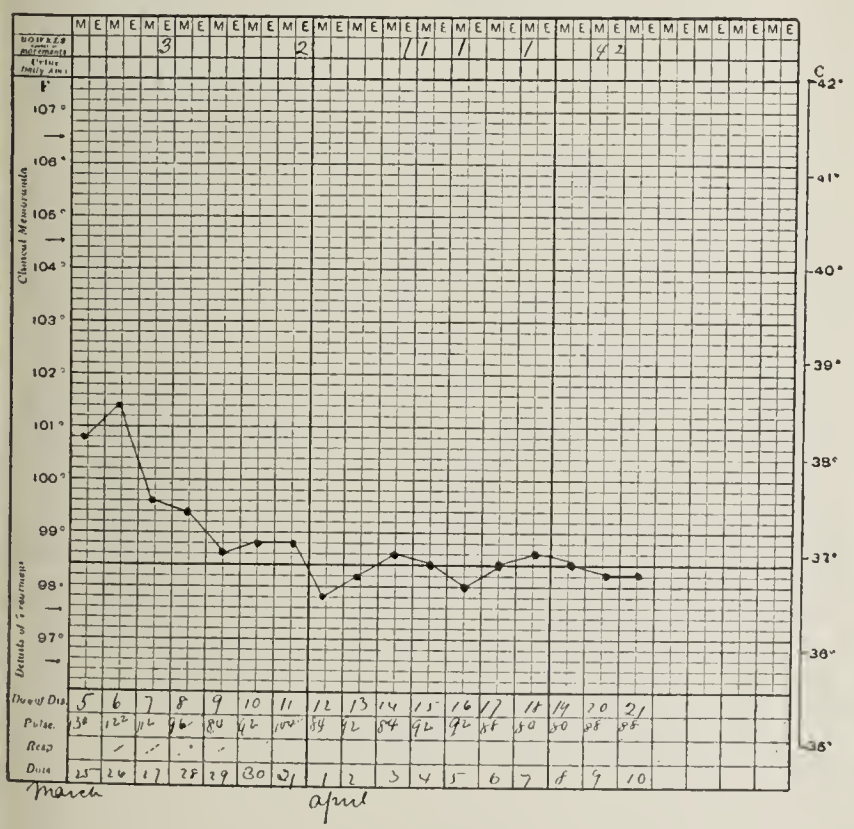
household during her brother's illness. She presents a history of almost continuous illness since birth, hardly having passed through one disease of childhood before she would be again stricken with another. Quite recently she has been attacked with pneumonia, diphtheria, etc. She has been an extremely delicate child, and consequently her recuperative



CASE 6.

powers have been at a low point. During her brother's illness she was kept under observation, but the disease apparently presented a short stage of incubation and came on very insidiously with scarcely any noticeable prodromal symptoms. She suffered slightly from malaise and headache.

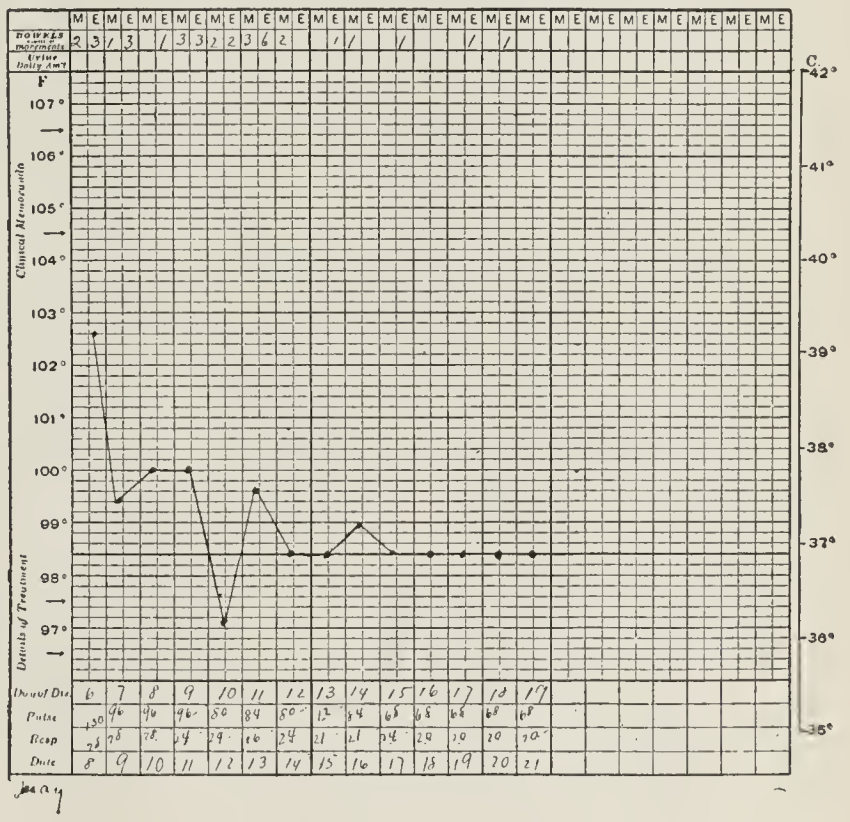
She was ordered to bed on January 23, 1899. Temperature was 102.3°, and pulse 118. The day following there were three bowel-movements; the tongue was coated and



CASE 7.

abdomen swollen. On the 28th a rose-rash appeared on the abdomen. A marked bluish spot, the size of a silver dollar, appeared on the left cheek on March 2, which disappeared in two days. The bowel movements from now on were quite frequent throughout the course of the disease, becoming ocher-colored on the fourth, and brown and formed on the seventh. The temperature reached 98.1° on March 2, the eighth day of treatment.

CASE 7.—M. E., female, aged 36 years. The patient is a sister of the patient, Case 4, and acted in the capacity of nurse to her brother in his attack of typhoid fever. She has enjoyed good health with the exception of an obstinate cystitis from which she has suffered for some time. Patient gave a history of feeling dull and deadlike, trembling, severe continuous headache for more than a week; tired, aching feeling in the limbs; no appetite; drowsy during the day and restless at night. The bowels were quiet. Her temperature on March 25, was 100.4°; pulse 130. There was a bronchial cough, enlarged abdomen, with tenderness and gurgling in right iliac fossa. On the 27th, suspicious spots were seen on the abdomen. The bowels moved after an aperient three times, and the stools were yellowish. On the 30th, there appeared an abundant crop of rose-red spots on the belly, more than I have ever seen in any case. The following day she slept well, the headache disappeared, and cough improved. The tongue cleaned on April 2, and she slept all that night. The next day a gnawing hunger tormented the patient. The bowels only moved throughout the disease after the use of a mild saline or a glycerin suppository. On the fifth day of treatment the temperature was 93.3°.



CASE 8.

CASE 8.—F. B., female, 14 years of age. This patient had been under the care of another physician since May 2, 1899. For several weeks before taking to bed she had been feeling quite ill, restless at night and no sleep; sleepy in the daytime; tired and languid; anorexia and diarrhea. At my first visit on May 8, I found her delirious, with a dry, brown, fissured and tremulous tongue, an intensely tympanitic abdomen, exquisitely tender, particularly over the small intestines. The stools were ocher-colored. The spleen showed enlargement. The patient was so violent in her delirium that she could scarcely be kept in bed. The temperature was 102.3°; the following day it dropped to 99.2°. A characteristic crop of rose-spots came out upon the lower thorax and abdomen on May 9. Nosebleed appeared on the 12th. The temperature took a subnormal dip to 97.1° in 5 days, and reached normal on May 14, the seventh day of treatment.

The sanitary surroundings of this patient were the worst I have ever seen, yet she improved with very poor nursing.

[The diagnosis of this case was confirmed by two medical friends.]

In referring to the charts it will be seen that a normal temperature was reached in one case on the

fifth day; in two on the seventh, the eighth, and the ninth days, and in one case on the twelfth day.

Under the use of thermol, the cases on the decline of the fever presented very little exhaustion and an early hunger developed. There were no complications and no sequels. The diarrhea was effectually controlled, as was also the abdominal distention. In no case was there a necessity for stimulants; only one patient was allowed a mild sherry and that at his request.

The cases were marked by a rapid convalescence, an absence of relapses and an early recovery of normal strength.

There is no doubt that every member of the medical profession will gladly accept any plan of treatment which will shorten the tedious course of typhoid fever, prevent its consequent exhaustion and lessen the prolonged convalescence, to say nothing of reducing its mortality.

To draw a comparison between the cold bath and the thermol treatment it is only necessary to compare the charts of cases treated by the respective methods. Under hydrotherapy the baths must be repeated every few hours and the patient disturbed and distressed. The temperature is not kept down permanently, but it almost immediately asserts itself. The specific cause at work in the system is not eradicated. There is increased heat-production continually going on from the presence of poisonous products. It seems more rational to employ a drug which will effectually control temperature and thereby lessen the great exhaustion and high nervous phenomena invariably associated with excessive heat. A certain percentage of cases have been saved since the innovation of the bath-treatment, but in thermol we have a far superior remedial agent which is more convenient of administration and one which will not only safely reduce a high temperature, but also control it thoroughly and act antagonistically to the leukomaines in the blood.

The charts have been kept in a strictly scientific manner and recorded in the brief moments of a practitioner's daily life, hoping that they may throw a ray of light upon the treatment of this highly important and widespread disease and encourage others to continue the investigations and record their observations of the action of the drug in this disease. If future investigations produce results which compare favorably with and corroborate those already obtained, we may almost claim it to be specific in its action and destructive to the typhoid bacillus.

Four Cases of Ectopic Gestation.—M. Rosenwasser (*Cleveland Journal of Medicine*, August, 1899) has operated upon 4 patients successfully within less than 4 months for ectopic gestation. The youngest patient was 25 years old, the eldest 38; two of the patients had born 2 children previously, and a third only one. The pregnancies were all of about 3 months' duration, and, in the cases mentioned, were tubal. [M.B.T.]

ABSTRACT OF THE COMPLETED HISTORY OF A CASE OF GASTRECTOMY: WITH REMARKS UPON THE SURGICAL TREATMENT OF CANCER OF THE PYLORUS.

BY MAURICE H. RICHARDSON, M.D.,

of Boston, Mass.

THE patient, a woman of 53, was operated upon May 31, 1898, for a supposed carcinoma of the intestine or omentum. The tumor proved to be gastric. Her excellent general health, with the remarkably favorable local conditions, justified total extirpation of the stomach. A satisfactory joint was made between the esophagus and the duodenum. The patient made a good recovery from the operation, and did well until November 1. The details of the operation and of five months of the subsequent history were published in the *Boston Medical and Surgical Journal* of October 20, 1898.

The patient was able to take freely of nourishment in great variety. There was no difficulty in assimilating food. She was able to be up and about, and to go to drive. Early in November the wound reopened, and began to discharge. On November 15 a hard mass was detected in the left hypochondrium. This proved to be a recurrence of the disease. The sinus never closed. Owing to a constriction in the transverse colon, there was finally a complete intestinal obstruction. The sinus provided an outlet for fluid regurgitated from the obstructed intestines. The colon became enormously distended. The patient died on February 19, 1899, from prolonged intestinal obstruction and from exhaustion.

At the autopsy the joint between the duodenum and the esophagus was found to be intact, except at the base of the sinus. There was an extensive dissemination of cancer, which near the splenic flexure of the colon had produced a complete obstruction.

From the history and the postmortem examination it seemed clear (1) That life would have been prolonged indefinitely had there been no recurrence; (2) that her sufferings were due to intestinal obstruction from cancerous stricture of the colon.

This case and one other in which a pylorectomy was successfully performed (the patient surviving nine months) were the only ones in my experience in which radical operation seemed justifiable. The operation should not be performed unless the patient's general condition is good and the disease distinctly localized. Such a favorable combination of circumstances is so unusual that total, or even partial, extirpation of the stomach cannot often be justifiable.

The most important point in connection with the surgical treatment of cancer of the stomach is the necessity of earlier explorations. Cancer of the stomach, if extirpated in its earliest stages, offers as good a chance for cure as cancer of the uterus. If one waits for a positive diagnosis, however, he waits too long; for when a tumor can be felt, it is usually too late to operate. On

the other hand, if he operates before a tumor can be felt, his operation may be unnecessary.

The dangers of the operation are great. They are, however, justifiable if the patient appreciates them, because by operation a life of despair gives way to one of hope; of pain, to one of comparative comfort. Moreover, recurrences are often quite painless. In successful operations there is always prolongation of life, with a possibility of permanent cure.

Total extirpation is technically possible only when the duodenum or the jejunum can be brought to the esophagus. Theoretically the esophagus may be closed, and the duodenum brought to the opening in the abdominal wall for an artificial mouth.

Gangrene of the transverse colon is one of the dangers in removal of the pylorus or in complete extirpation of the stomach. It is caused by cutting off the blood-supply of the colon in tying the lower attachments of the stomach. Several cases have resulted fatally from this cause. The mesocolon may be included in the ligatures of the right extremity of the greater curvature. In the case reported here, a small portion of the transverse mesocolon was divided in removing the stomach. This left a considerable gap—perhaps 4 or 5 inches—in the mesentery of the colon. The bowel retained its color, however, throughout the operation, and its integrity was not impaired.

Near the pylorus the blood-supply of the stomach and that of the colon are so intimately connected that one may tie both in the same ligature unless great care is taken to separate them.

DIAGNOSIS IN CONGENITAL DISEASE OF THE HEART; WITH REPORT OF A CASE.[1]

By J. P. CROZER GRIFFITH, M.D.,
of Philadelphia.
Clinical Professor of Diseases of Children in the University of Pennsylvania.

It is true, of course, of all diagnosis that very frequently we cannot be absolutely sure of our conclusions until the case comes to autopsy. This is especially so in congenital diseases of the heart, of which the child present before you this evening is an instance. There are such various lesions and combinations of lesions in this condition that very commonly diagnosis is entirely impossible. Yet not infrequently the exact lesion or combination can be made out with reasonable accuracy. This has repeatedly been done by physicians, and the results, confirmed by autopsy, published; and I have myself seen a number of instances in which the postmortem examination has borne out the clinical diagnosis entirely. I believe that this child exhibits lesions which can readily be determined accurately *intra vitam*, and I present the case in order to illustrate the steps in the reasoning toward the diagnosis. I hope the members of the Society will examine his heart and confirm or dispute my conclusions.

The boy is now 2½ years old. Labor was tedious and the presentation that of the breech. He has always had a tendency to slight blueness, which would become very noticeable when he cried. He has been subject to attacks lasting a few days, in which there is cough and great cyanosis, with some swelling of the feet. Nine months ago he was ill for two months with some obscure condition, said to have been at first congestion of the brain.

Examination shows a child who is certainly mentally defective to the degree of backwardness, if no more, but who in other respects is well developed. He breathes quietly and has only a slight tinge of blueness about the face. Nothing else abnormal appears on physical examination except the condition of the heart. The area of absolute cardiac dulness is bounded by the third rib, the midsternal line and the nipple line. It is therefore not noticeably enlarged. The apex-beat is felt in the third and fourth interspaces in the nipple-line. There is no precordial thrill. A loud systolic murmur is audible with maximum intensity at the pulmonary cartilage. It is transmitted under both clavicles, but especially so on the left side. At midsternum there is a loud systolic murmur, almost as loud as at the pulmonary cartilage. This murmur, although resembling the former in pitch and quality, gives the impression of being distinct in origin. A systolic murmur is quite loud at the apex; less distinctly in the axilla. Everywhere over the precordium the second sound is accentuated, but this is particularly marked at the pulmonary cartilage.

Now as regards the diagnosis:—We have first of all the history of cyanosis of moderate degree from birth, pointing clearly to a congenital cardiac disease. Next is the presence of a loud harsh murmur heard most distinctly in regions not those of the ordinary post-natal cardiac murmurs. Third is the fact that the heart shows practically no enlargement on percussion. In lesions of the left side of the heart developing after birth, there is nearly always very great enlargement of the heart present. The diagnosis of a congenital cardiac lesion is therefore practically assured.

Our next observation is the presence of decided cyanosis. As has been pointed out very convincingly by different writers, this cyanosis nearly always depends upon obstruction in the course of the pulmonary circulation. There are certain other conditions which produce it, as, for instance, abnormal origin of the vessels; but in such a case the cyanosis is apt to be very extreme, and the duration of life very short. Transposition of the main arterial trunks, for instance, easily produces very intense cyanosis. If it is accompanied by transposition of the venous trunks as well, as in a case recently under my observation, cyanosis would not follow; but such a condition would almost surely be attended by transposition of some or all of the other viscera, and possibly by dextrocardia. All this being absent in this case, we may conclude, in view of the moderate degree of cyanosis, that this symptom is clearly due to stenosis at the pulmonary valve. The presence of a very loud murmur at the pulmonary cartilage is in strong support of this diagnosis.

Yet pulmonary stenosis is of necessity attended by a feeble pulmonary second sound, on account of the

[1] Read before the Philadelphia Pediatric Society.

small amount of blood which is entering the pulmonary artery; while in our patient this sound is strikingly accentuated. There are very few methods of explaining this which occur to me. Mitral stenosis or regurgitation, both of these extremely rare congenital lesions, can be excluded. Either might produce the accentuation, but the first would give a diastolic murmur, and the second would produce a systolic murmur, probably loudest at the apex, and certainly not with just the distribution and points of maximum intensity constantly present in the heart of this child. A possible explanation is that of some irregularity in the arising of the great vessels, notably a transposition of the arterial trunks. Should the aorta arise from the right ventricle it is evident that the pulmonary second sound would be much accentuated, on account of the increased tension. For reasons already stated such a condition may reasonably be excluded here. The remaining explanation is that the ductus arteriosus has remained patulous, and that the blood from the aorta thus enters to some extent the pulmonary artery and augments very greatly the normal pressure there. As a consequence the pulmonary leaflets produce in closing an unusually loud sound. It is reasonable to conclude, then, that this child has a patulous ductus arteriosus as well as pulmonary stenosis.

Yet patulousness of this vessel, when of sufficient degree to allow sufficient blood to pass to alter the pressure in the way described, is very liable to be attended by a systolic murmur. The murmur is heard in much the same area as the murmur of pulmonary stenosis. It differs, however, in its diffusion. The murmur of pulmonary stenosis is not carried far from its seat of origin. That of patulous ductus arteriosus is very apt to be carried along the course of the aorta to some extent, and into its main branches. It is very probable in the case of this child, that the murmur heard beneath the clavicles is confirmatory evidence of the patulous state of the ductus arteriosus.

Finally: the narrow pulmonary orifice probably prevents sufficiently free exit of blood from the right ventricle. The blood in its effort to escape must pass from the right side of the heart to the left either through a patulous foramen ovale, or through a perforation in the septum between the ventricles. The former lesion is apt to be attended by no murmur, and should any be present it would probably be diastolic in time. We cannot tell whether this lesion is present or not in this case. Perforate septum ventriculorum is generally accompanied by a loud murmur heard over the midsternum and carried to the left, the direction in which the blood is passing. This is exactly the murmur present in this case. A murmur of tricuspid regurgitation is heard in somewhat the same area, but its diffusion is different, and there are no symptoms of this lesion in this child. We may conclude then with great probability that this child has a perforate septum ventriculorum. It sometimes happens when the perforation is near the position of the exit of the aorta that the murmur produced is carried into this vessel. It is possible that the sound we hear in this case beneath the clavicles owes its origin in part to the perforate septum. This would be confirmatory evidence of the diagnosis made.

Our diagnosis then is: Stenosis of the pulmonary orifice; patulous ductus arteriosus, and perforate septum ventriculorum.

As is well known, this is the combination of lesions most liable to occur in congenital disease of the heart, and one which almost necessarily must be present to attain a reasonable degree of compensation for a stenosis at the pulmonary valve. Yet of course, no diagnosis of an individual case can be made on the probability of occurrence, and I have, therefore, reasoned out the diagnosis in this patient almost without reference to statistics of frequency.

Of course there is absolutely nothing new in the manner of reasoning I have adopted. Those interested in the subject can find numbers of instances in medical literature in which the same process has been followed much more thoroughly, scientifically, and clearly than I have done it. I present the case and have made these remarks only that I might call your attention to the method in which a diagnosis may be attempted, and that I might urge dissatisfaction in all of us with a mere diagnosis of "congenital heart-disease."

Hypertrophied Tonsil.—J. T. Anderson (*The Medical Council*, July, 1899). The various attacks of tonsillitis that patients have year after year frequently developed into a chronic form with hypertrophy. Often the follicular form is treated by painting the tonsils over with silver nitrate. This seals up the follicles and the cheesy matter secreted in them is found in large balls within. This unhealthy chronic condition produces a general infection of the patient's system by toxins, which produce general manifestation in weakened and lessened vitality. The patients in addition become the subjects of frequent attacks of tonsillitis that render them unfit for anything. The only proper treatment is tonsilotomy, which the author believes can be effectually and safely performed by the general practitioner, with a tonsilotome, if a volsellum forceps is passed through the ring of the tonsillome, and the tonsil drawn well upward by an assistant. [C.L.L.]

Cerebrospinal Meningitis Treated by Lumbar Puncture.—Dr. W. Cuthbertson (*Chicago Medical Recorder*, June, 1899) reports the case of a soldier who became worse and worse in spite of hypodermic mercurial medication, and finally lost consciousness and became perfectly rigid. In this condition he was placed upon the operating table and a lumbar puncture made between the second and third lumbar laminae, and about one dram of clear fluid withdrawn. This was done to relieve pressure and for diagnostic purposes. The morning following the puncture consciousness had returned, the rigidity of the muscles had disappeared, but he was totally deaf. This gradually wore off and he recovered completely. Notwithstanding the fact that the opening between the cranium and spinal cord is obliterated in some cases, the author is of the opinion that the operation of lumbar puncture should be performed before the more serious operations of trephining the cranium or dorsal laminectomy. [C.L.L.]

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A novel and striking therapeutic discovery, by the courtesy of the editor of the *British Medical Journal*, is presented to our readers this week. From a private letter we are also able to bear testimony confirmatory of the truth of the cure of at least one remarkable case of lupus by the light-treatment of Drs. Finsen and Bie. The conservative and scientific tone of Dr. Bie's article will inspire confidence, and we hope the American profession will soon be able to report the results of investigations by this method, which appears to have been initiated with brilliant success and in true professional spirit.

The National Export Exposition has a considerable number of exhibits that will be of special interest to the medical profession. These are in the line of pharmaceutical preparations, apparatus and appliances for offices and hospitals, surgical dressings, etc. There is little danger of any physician being left without information as to the merits of any of these things, but inasmuch as we are sometimes obliged to choose between the merits of various preparations, it is not a disadvantage to be able to compare the output of different firms without their many points of superiority being thrust too vigorously upon us, as is sometimes the case in the encounters with traveling salesmen and the exhibitors at meetings of medical societies. But no doubt the many other interesting, useful, curious, artistic, musical, and other attractions will prove equally well worth a visit, and not quite so much in the line of "shop." We understand that all is not complete, but there is already as much as or more than one would care to see at one visit, and it is worth the time and trouble.

Filtration and Typhoid Fever.—If those who doubt the effectiveness of filtration in reducing the prevalence of typhoid fever in a community are open to conviction they may have this doubt dispelled by a consideration of the facts presented in a communication by Dr. Wolf Defries and published in the *Lancet* for September 16, 1899, p. 803. It is here pointed out that in an epidemic of typhoid fever that prevailed in the various barracks of Cherbourg from November to January last, no troops were attacked whose drinking-water was subjected to filtration. Observations covering a longer period of time and a larger body of men, showed that the mortality from typhoid fever in the years preceding filtration was about 10 per 1,000, in the 4 years of filtration about 1 per 1,000, and in the three subsequent years, when the water was boiled, about 2 per 1,000; the water itself being in each instance derived from the same source. The small number of cases that occurred in conjunction with boiling or sterilization may be attributed principally to accidental infection.

Newspaper-Doctors.—We have been much interested in the report, too long to publish, of a correspondent who tried to secure the cooperation of the practitioners of his city in securing an agreement to instruct the newspapers to omit mention of physicians' names except by special permission in writing over signatures, etc. Our correspondent feels chagrined and bitter at his ill-success, but somewhat illogically so, we think, because there probably existed some peculiar and local reasons for it. As it was, of those asked to petition the newspapers (not all of the local profession) 19 signed, and 10 refused. This is far from failure, and evinces a fair degree of right feeling on the part of the medical men. We fear our correspondent fails to recognize that by the nature of things this reform must be of an individual character before it can be a general and communal one, and that progress out of our present conditions must necessarily be slow. We cannot see that the statistics show any higher moral standards among regulars than among sectarians, among the "younger element" than among the elder men. One confessed he was under obligations to the newspapers, one or more were ward-politicians, one could not afford to lose the advertising, some refusers wrote letters in which spelling and English told tales, and so forth. The most disgusting part of the revelation was that the newspapers thought they would not obey or pay attention to the request, and that some signers told newspapers to ignore so far as they were concerned—that they signed the paper only because requested to do so!

Convict Labor Again.—We have received a letter from a manufacturer in New Jersey in reference to our recent editorial on this subject, and merely wish to call attention to a few points which are ignored by our correspondent and by most labor-agitators. We are perfectly familiar with the stock argument against prison labor—for there is but one argument, however altered

or disguised—and this is, that the State has no moral right to enter the open market with the products of prisoners' labor. We deny the validity of this argument as applied to prisoners and claim that there is no law, human or divine, natural or artificial, that can of right deny this privilege to the State. In its sovereign capacity the State has certainly as much right as, if not, in this respect, more than the various individuals who make up the State. The medical profession constantly acknowledges this right of the State in medical and hygienic affairs, even when by entering these fields the State injures the business of practising medicine. In other words, physicians do not question the State's right or the public good, even in detriment to their own commercial interests.

Again, taxpayers (who are the great mass of the people) have a right to demand that the expenses of supporting the jails shall be reduced to the minimum.

Third—a prisoner does not lose all his personal rights when he is immured, and one of his most sacred rights is the right to work. The State is his guardian and cannot escape moral responsibility for him.

Finally, this is, above all, a moral and hygienic question, not a mere economical one. The "honest" laborer has no right, for the benefit of himself and his children, to take what belongs to another. He does this, when he increases his own wages at the expense of the health and moral welfare of the convict.

As for the purely economical questions involved, we do not pretend to discuss them. When our correspondent claims, however, that the law of Pennsylvania merely intends to prohibit more than 10% of prisoners from working on *one kind* of produce, we believe he is in error; and when he advocates that Congress pass a law prohibiting prison-made goods of one State from being taken into another State, he is simply advocating a commercial embargo between the States—a thing which, we believe, is against the Constitution of the United States.

Quarantining Against Tuberculosis.—The report that a movement is on foot in California to prevent the migration of consumptive patients into that State, does not surprise us. The newer parts of America that are favorable to such patients formerly held out every inducement to attract these unfortunates. To have a mild and salubrious climate, especially suited to weak lungs, was believed to be a sort of bonanza to an unsettled and undeveloped State. It was supposed to attract a valuable population, who could pay for being sick and were expected to buy the climate, as it were, as well as to help build up the country. That a mere commercial instinct was at the bottom of much of this, goes without saying.

But such an enterprise was sure to have injurious consequences, just as we always have foreseen. A tuberculous population is not a good one with which to found a State, and possibly California is beginning to find this out. The mortality tables of the State, especially of the southern part, probably demonstrate that the results are not all that could be desired. With the growth now of the popular belief that tuberculosis is a contagious disease, the reaction and prejudice against it are easily explained. Such popular prejudices are apt to exceed due bounds, and the medical profession would probably do well to attempt to mitigate a scare which its own members have been largely responsible for starting. Still, the outside world cannot blame California for declining to be made a resort for consumptives. The fear shown in that State probably only presages what we may expect to see elsewhere. Already the tuberculous patient is being looked upon with suspicion in many quarters. It is no longer easy to get him into hospitals, sleeping-cars, or hotels, and his last end seems destined to be embittered with the thought that he is an object to be feared and shunned. Some of our enthusiastic microbists have already carried this panic a little farther than necessary.

If the example of California shall be followed by other sanitary States and regions, the poor consumptive may not know yet where to lay his head. Practically the difficulty will be to establish such a quarantine. Many men and women with impaired lungs will not expose these to the risks of scrutiny if they believe that they are to be shunned like lepers. The whole subject requires judicial as well as judicious management.

Employing the Chronic Insane.—By special invitation the neurologic consulting-staff of the State Asylum for the Chronic Insane, at Wernersville, Penna., visited that institution on the 26th of September, for inspection and consultation. The members of the staff were met by the President of the Board, Henry M. Dechert, Esq., who, with other trustees, gave full details of the institution at the present time. As this asylum is charged with the care of the chronic insane only, and of those especially among them who are judged to be able to work, it has had a problem before it, during its brief period of existence, that is full of interest and importance. The idea underlying the plan at Wernersville is to give employment to the chronic insane. The institution has been in operation for about five years, and receives patients from all the other State hospitals. Only such patients of the chronic class are selected as are believed to be physically able to work. The hospital is located on a large farm in one of the most highly favored regions of Pennsylvania, and hence supplies means for agricultural labor chiefly.

The results attained are expressed in the following tables:

The estimate of the amount of work done by individual patients as compared with sane labor is as follows:

Of the patients 6% are equal to paid labor; 30% are equal to one-half of paid labor; 50% are equal

to one-fourth the value of paid labor. The balance of 14% are not working. This balance probably includes those who are ill, or are found on trial not to be able to work.

The estimated value of the gross amount of work done during the current year, on a basis of 400 men, is $20,000.

The estimated cost of food per individual is twenty cents per day, or $1.40 per week.

The results in such a hospital are not, of course, to be estimated entirely in dollars and cents. The health and general welfare of the patients are of first importance, and these, according to the health reports and mortality statistics of the institution, are entirely satisfactory.

From these estimates it may be judged that the Wernersville Asylum is highly successful. The problem of employing the insane is being met there with gratifying results. In the future it is believed that certain kinds of indoor work, such as brushmaking, can be done with advantage and profit. In this connection it may be observed that the law in this State restricting prison labor does not apply of course to the Wernersville Asylum. This subject of convict labor has been recently discussed in these columns, and we need merely say that we hope that the prejudice of outside free labor will not be excited against the asylums which should undertake to do work that competes with such labor. The example of Wernersville, it seems to us, might be advantageously followed by the prison authorities in perfecting plans by which more convicts could be given outside labor, thus avoiding the opposition of labor organizations to convict labor.

The Didactic Lecture has been very severely criticised from all sides during the past few years, and quite naturally; it is the reaction which might be expected after many years of misuse and abuse. And very much of this criticism is just and needed, for there can be no doubt that the didactic lecture is still too much in evidence in many, perhaps most, medical schools in this country. But, as is usually the case in revolts of this kind, the reaction has gone too far. When any critic is able to see only one side of a question, or at least is willing to present only one side of a question, his criticism loses much of its value. It would seem that most of the critics have been unfortunate in attending lectures at institutions in which most of the professors are incompetent or are too lazy or too busy to prepare suitable lectures. It is true that most institutions have too many teachers who were chosen because of the influence they could bring to bear, instead of from their fitness from the standpoints of education, experience and ability to teach. It is true that there are too many medical teachers who have not enough education to use the English language correctly; those who copy notes out of textbooks and pump out the dull facts poorly arranged, to the sorrow of the much-abused student; others, who go to their classes with hasty, insufficient preparation; still others, who have education, experience, a good knowledge of the literature of their subject, and the desire to teach, but who have not the faculty for imparting knowledge. On the other hand we have met teachers of broad experience, thorough knowledge and faithfulness to duty; men with the ability to select essential facts, systematize knowledge, and present it with such clearness and force that their teaching has been an inspiration to many of their students throughout their lives. There are a few institutions in which the majority of the teaching-force are men of this type. As a general rule, the man who is a failure as a didactic teacher, is just about as much of a failure at any kind of teaching. We know of recitations that would never be attended if the students did not believe that attendance had an important influence at examinations; of laboratory courses, from which the student comes with confused, indefinite ideas of what he has seen, and shiftless methods of doing work which are worse than useless; of demonstrators who know less about the subject they are supposed to demonstrate than the students they try to teach; and of clinical lectures, away from which dozens of students come, saying that they have not seen or learned a single thing.

These are the exceptions, but so is the absolutely useless didactic lecture the exception. There can be no question but that the use of eyes, fingers, ears and nose are of the highest importance in gaining medical knowledge. Clinical and laboratory teaching has rightly come to the front, and the didactic system needs more pruning, but it seems to us that there is still left an important field for it to fill. It is needed to fill out the blanks left by clinical teaching. It is possible to attend for a year all the clinics of certain very famous surgeons in Germany, where clinical lectures only are given, without seeing or hearing one word about the surgery of the liver, the kidney, or any of the thoracic organs, and some important subjects are bound to be left without even mention of in any series of clinical lectures.

Then, again, it is almost impossible for the average clinical lecturer, who is more or less occupied with his patient, to present his ideas in such orderly succession as to be most readily retained by the student; it is a jumbled-up lot of facts, not a series of connected, related ideas, such as would be presented by the able didactic teacher. Furthermore, it is absolutely impossible to teach many details of operative work, etc., by clinical lectures. By the use of specimens, models, charts, and blackboard-sketches, however, the didactic lecturer can make many such points fairly clear to many students.

In such ways, supplementing, unifying and demonstrating, the didactic lecture seems to fill a very useful place.

Suggestions to Writers, No. 40. The Bryant Index Expurgatorius was a word blacklist devised by the poet-editor to try, by its aid, to withstand the onrush of philologic depravity, whereby the ignorant newspaper reporter and editor endeavored to hide their ignorance and some other qualities worse than ignorance. The newspaper men even of today still feel the sting of Bryant's irony and do not lose an opportunity to jibe at the failure (what they call failure) of the attempt to teach them some degree of literary manners, and they think because they are more numerous, more unabashed and powerful than they were in Bryant's day that their banalization of English is therefore correct and a great success, and that Bryant was a "failure." It would be just as true and as sensible to say that laws against theft and murder are failures because these crimes abound, or that boorishness is beautiful if the majority turn boors. The famous list was in large part made up of examples of highfalutin, and of that indescribable combination of bad slang, worse impertinence, and worst inaccuracy which can only be fittingly designated as newspaper English. Of this class of terms we might cite from the list of disapprovals: *Artiste*, for **artist**; *casket*, for **coffin**; *cortege*, for **procession**; *darkey*, for **negro**; *devouring element*, for **fire**; *gents*, for **gentlemen**; *inaugurate*, for **begin**; *lady*, for **wife**; *lengthy*, for **long**; *Mrs. Governor*, *Mrs. President*, etc.; *pants*, for **trousers**; *party* or *parties*, for **person, persons**; *state*, for **say**; *would seem*, for **seems**; *settle*, for **pay**; *locate*, for **settle**; *in our midst*, for **among us.** Such a list would include hundreds of similar terms, if some later Bryant were to remake it today.

The newspaper man who sneers at "the Bryant Index" has a confused jumble of an idea in his head that the index failed because it sought to banish slang. This error arises from a natural and ineradicable inability on his part to distinguish between slang and the banal. The one is the lusty living brat of properly married intelligence and recklessness, the other the bastard of stupidity and vanity. Many slang words make excellent citizens when they grow up and find their place in the world's work; but the cant of idealess conceit never gets into better literary society than that of the "Knights of the Quill."

Bryant erred in including in his list some terms that were not inherently wrong or vulgar, and which needed only usage to make them proper and serviceable tools. The error is one that the "pernickety stickler" is very likely to make. It is a dangerous, even a fatal thing, this "art for art's sake"—the thinking more of how one says it than of the thing said. In English, too, it is peculiarly dangerful to prescribe or proscribe. It is, indeed, "a grammarless tongue," and of all languages it responds most sensitively to the shaping mind of its makers, who, in their vitalizing democracy, will not allow any habit of tool or of tool-using to hinder them from realizing their ideals.

Editor and Reader, No. 25. The difference between a reading notice and a scientific article is quite as difficult in a given instance to determine as it is to describe it in writing. Probably there is no class of decisions the conscientious editor has to make that gives him so much worry. We recently received the following letter:

"I am very much disappointed to note that your JOURNAL is not going to publish the paper of Dr. —— —— ——. As we are depending for a business entirely upon the medical man, would like to keep him well informed in the advancement of our work; and, as you can readily understand, the ethics of the profession limit us to just such means as this of bringing our business before him. The article could be of service to us now, but would not be after the 1st of January. The reprints we wanted would be read by the interested ones to whom they would be sent. I had reason to expect a favor of this sort, and am quite disappointed that the exceedingly ethical and scientific article Dr. —— sent you should not quickly have found a place in your JOURNAL. I cannot but regard its rejection as a failure to reciprocate."

Now this letter contains or hints several fallacies:—

1. That the article was refused because of other reasons than those given in our letter returning the article offered us. Correspondents, and especially advertisers, seem determined to believe all editors are liars. We protest that some editors are truthful men. We have known several such. It is sometimes a simple statement of fact that an editor may have accepted so many articles, and his available space for original articles is so preempted that he dare not accept others for many months to come. This must be so unless he is unjust to authors whose MSS. have been accepted and pushes others into type that were accepted afterwards. This has sometimes to be done in the case of MSS. to be published in other journals or reports at a certain date, and in case of articles that have a strict seasonal value or time-significance.

2. The frank admission of an understanding between a physician-writer and the manufacturer of an instrument or pharmaceutic product is undoubtedly better than a secret and unconfessed collusion, but we do not think that either condition is ideal, or that it justifies in the least any expectation or demand that an editor is in duty bound to accept the essay and publish it "quickly." Authors and manufacturers forget that if an editor habitually does this he at once forms a precedent so that every manufacturer can demand the same thing of him, and an editor has henceforth no control of his journal; it becomes at once nothing but an advertising medium for any product. They also forget that when an editor thus abdicates control of his journal it speedily becomes valueless, even as an advertising medium, because every discriminating reader immediately perceives the fact and groans, *Reading Notices!* There are, we had nearly written, hundreds of medical journals that do not object to being classed as reading notice journals.

3. In the words "I had reason to expect a favor of this sort," and "its rejection as a failure to reciprocate," lurks the fatal misconception of the function of a medical journal. Upon that misconception is grounded the debasement of American medical journalism. Until it is utterly and conscientiously eradicated we shall never have a united profession, nor a medical press as its ethical exponent. It is a grievous and degrading practice, this of holding that purchase of advertising space in the advertising pages gives the purchaser any right to claim or demand entrance to the reading columns. When all advertisers wholly and unreservedly give up this claim then will they secure a more frequent admission to the reading pages, and what is said

therein will then have a value at present denied to it by a suspicion of bribery that may often be unjust and unjustified, but which in the present state of affairs seems legitimate; at least it is not to be allayed by poohpooing or by editorial laxity.

Against papers containing references to proprietary articles, or even wholly devoted to the praise of such products, our readers know well enough we have no objection whatever. Their acceptance depends upon our possibilities of publishing them, and upon the most careful judgment of which we are capable as to the motive of the writer and the scientific value of what he writes.

Medical Sermonets, No. 9. The Image in the Mirror.—There is story of a bird that was cured of "the mopes" by means of a mirror placed by the side of its perch. The image of itself was held to be a real mate, and before it there was much strutting, and in cuddling up next to it there was secured the greatest and most satisfactory happiness. The incident is psychologically analogous to the method whereby a certain class of writers and even of physicians find their satisfactions in life. Almost the whole tribe of novel-writers, many so-called "artists" and poets, placing their center of gravity in others, are nothing more than popularity-hunters, posing before the vanity images of themselves in the mirrors of other peoples' minds. And the fact that no poem thus produced, no novel, or work of art, is enduring, commands the attention after image and imaged are gone, and proves of how little value is the method. If created with the image in mind and for the purpose of pleasing the image, it is not an enduring work,—it is mere pose and strut and self-satisfaction. One whom even Carlyle called the greatest critic of his century, found nothing of value in the poetry of Wordsworth, and even belabored it with contempt and ridicule. When the world came to a very different conclusion, the great critic set himself to a rereview of Wordsworth, and after a careful study he reached the same conclusion as before. And yet Wordsworth is more precious to the English race than the combined authors praised by Jeffrey. His age agreed with Jeffrey; Wordsworth never having received $700.00 during his life from the sale of his poems. The fact is a lesson as to the trustworthiness of the most expert contemporary criticism, but it is of infinitely more significance as regards the methods and ideals of literary production. Wordsworth was oblivious of the method of the parrot and the looking-glass, and hence he created hundreds of single lines each worth more than the million books of the mirror-folk of the last or of any year. The reason that the image-literature is of no value is because the souls of the parrots are of no value. Only slaves and toadies and sycophants wheedle a master, and to choose the populace as a millionfold master is not a proof of lessened but of increased stupidity and cringingness on the part of the image-worshipper.

All this is beside the mark as regards physicians? By no means! First, as to medical literature it is entirely as apropos as to the lay variety. Take our medical journals; what large proportion of writing and of editorials may not properly be called image-literature, posing of authors before their own images in the glass? If not exactly this, how much of it is not slyly looking out of the corner of the eye at the success of the journal? In our books, what a number are created with the authorial eye on the image—for vanity's sake rather than in forgetfulness of self and the image, and with sole attention to pure scientific and sanitary progress? The profession shares the universal habit of ignoring the great and unselfish work, and is too prone to let its earnest, image-ignoring writers and delvers go unthanked, and to wear their lives out unhonored. The keen-eyed editor of the *Practitioner* recently wrote:

> It is, of course, in accordance with the general way of this best of all possible worlds that the one officer of the Association who has no share in the butyraccous honors so freely bestowed is the Editor of the *British Medical Journal*. He is the Atlas on whose shoulders rests the world of the Association. But one notes with regret, though hardly with surprise, that there are no compliments for him, and he must be thankful if he escapes a vote of reduction of salary for refusing to turn the *Journal* into a literary dustheap where cranks may shoot their rubbish. The whole thing is a pleasing illustration of what Mr. Pecksniff called "human nature."

There is often fully as much heroism and purity of ideal in the renouncing of clap-trap, posing, and popularity-hunting, on the part of many book-makers, editors, and writers as in soldier or operating-surgeon. To say the true, the needed, and the right thing when it is so easy to say the pleasing thing is a noble though often a thankless task. In our medical societies how frequently is the mirror-strutter in evidence? Certain men come to talk or read papers, apparently only to air themselves and their personal conceits. In our medical science, how much effort is wasted on the thing the mirror-parrot has devised, discovered, or first advocated? How many operations have been for the sake of the image in the mirror rather than for the single good of the patient? How accurate are the statistics compiled with an eye on the personal mirror-reflex? Personal ambition and the desire for the respect of one's fellows may be useful things, but they are not the highest ideals, and may so easily degenerate into parrot-satisfactions that they are to be kept in proper place and well in hand. And, like mirror-literature, mirror-science has no enduring quality. When the undiscriminating have wasted their breath, the beggar for their applause finds himself and his fads forgotten. The world will not long honor those who fawn for its honoring. This is the irony of egotism.

Gratifying progress in the popularity of the Philadelphia Medical Journal continues. So rapid and steady has been the increase in the subscription list that the 10,000 copies heretofore printed have become insufficient to supply the demand, and from this date the order to the printer will be for 12,500 copies each week. But "great achievement is only larger hope and promise," and we are by no means satisfied with what we have done. With a subscription list twice its present size we shall begin to realize some of our dreams of an ideal American medical journal. We ask each one of our ten thousand friends to secure for us within the next three months at least one new subscriber. With a little effort and good will it can be done. Is it too much to ask? Hundreds of letters assure us that we are giving more than "value received." We promise to do still more if you wish and will. At present you authorize us to send you at least 52 pages of reading-matter every week. It could be made better, and there might be more of it. We await your suggestion.

Surgeon-Major General S. A. Lithgow, whose death is announced as having occurred recently at Melrose, was Superintendent of the Royal Edinburgh Infirmary. He served through the Indian mutiny and the Egyptian campaigns with distinction, receiving medals and the decoration of C. B. At Edinburgh he was a highly popular and competent official.

Correspondence.

CAN YELLOW FEVER BE STAMPED OUT IN CUBA?

BY D. T. LAINÉ,
of Havana, Cuba,
Major and Brig. Surgeon, U.S.V.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

A MATTER of utmost interest to Americans now in Cuba, and one which will have much bearing on the future prosperity of this country, is the problem of the control and eradication of yellow fever from this island.

Can this be accomplished by the proper sanitation of its different cities and the persistent isolation of cases as they arise? This is a problem yet unsolved, and we must confess that the outlook is not hopeful, judging from recent events in Santiago.

Since the beginning of this year, military surgeons throughout the different Departments have had absolute power in regard to framing and carrying out such sanitary laws as they have deemed necessary, and such as Cuba has never before enjoyed, and although results have on the whole been good and the general mortality has been greatly reduced, and the usual number of yellow fever cases been decreased, we cannot draw positive conclusions as to what bearing this improved condition of affairs will have on the ultimate eradication of yellow fever as an endemic disease from this island.

From the New York *Sun*, May 14, 1899, we copy the following: " . . . Major Barbour writes from Santiago as follows: 'This is now as clean and healthy as any city in the world; the result of American ideas, of constant attention and unremitting energy, and a good heavy Spanish whip frequently used.'" About the middle of July a letter was received from the same city, written by one who is cognizant of the facts: "This outbreak of yellow fever surprised us all; like a thunderbolt out of a clear sky, we were suddenly made to realize that the city was infected, not in one or two places, but in at least a dozen. We had done so much cleaning and had bragged so much about it that we were not expecting more than a few sporadic cases at most."

It is true that this epidemic was promptly checked, but hardly for reasons connected with the improved sanitation of the town. First, all the nonimmunes were removed from the infected city; but such drastic measures cannot be applied in every instance. In Havana, for example, this would be impossible, except in the case of soldiers and such Americans as are in the employ of the Government. Santiago has a population of only 73,000, whilst Havana has 215,000 inhabitants and a much larger proportion of nonimmunes not under the direct control of the Government. In the second place, epidemics are now checked in this country with comparative ease, on account of the large proportion of immunes over the nonacclimated, consequently the disease spreads with less rapidity, and individual cases are more quickly detected and isolated.

This apparent ease now enjoyed in the control of epidemics, and the hope we all have in its ultimate eradication, will naturally decrease in direct ratio with the increase of the non-immune population and at the approach of such period in the future when the Government will pass into the hands of the natives, who can never take the interest in the matter that the Americans do.

It is an undisputed fact, that before the present Government took control no attempt had ever been made in any of the civil or military hospitals of this city to isolate cases of yellow fever; at least, not in the sense in which we apply the term. Two or three hospitals had wards set apart for such purposes, but relatives and friends were allowed free access to them without hindrance. In this way hospitals became foci, from which the disease was propagated to other parts of the city.

To return to the matter at the beginning of this letter, as to the probability of yellow fever being stamped out of Cuba by the present Government, we might infer from the decrease in the number of cases of fever that some progress has been made in that direction; but so long as sporadic cases continue to arise the problem remains the same. Three months ago the following was written to a friend in the States: "If yellow fever be a domiciliary infection, unquestionably this (its eradication) may be accomplished within a few years; but if, on the other hand, the germs are in the air, streets, wharves besides the interior of houses, nothing short of the complete destruction of the city and the building of a new one will ever bring about this happy state of affairs." The proposition still holds good, although never before have the vital statistics of Havana shown so few cases of yellow fever as have occurred here since the beginning of this year. But conclusions should not be drawn too hastily, for no disease has given so many false hopes to investigators and sanitarians or caused so many keen disappointments to clinicians. Innumerable cures have been tried, many promising success, only to be discarded in the near future when a more fatal type of the disease made its appearance. The same is true of its pathogenesis, which still remains a mystery. Greissinger proffers the following truth and pregnant warning: "A series of years often pass, during which yellow fever is scarcely observable in the very places it specially frequents; and this, though there may be no difference in the going and coming of unacclimated strangers. Then there is rejoicing over the presumed disappearance and destruction of the disease, and a triumph of sanitary police over it is often claimed." (Annual Report of the National Board of Health, 1880.)

MONTHLY MINIMUM, MAXIMUM, AND AVERAGE DEATHS BY YELLOW FEVER IN HAVANA DURING THE 10 YEARS 1870–79 AND THE NUMBER OF CASES AND DEATHS DURING THE FIRST 8 MONTHS OF THE PRESENT YEAR.

MONTHS.	MINIMUM DEATHS.	MAXIMUM DEATHS.	AVERAGE DEATHS.	NO. OF CASES AND DEATHS UP TO SEPTEMBER 1, 1899.	
				Cases.	Deaths.
January	6	32	17	2	1
February	4	24	14	0	0
March	4	32	15	2	1
April	4	37	24	5	2
May	13	127	57	2	0
June	66	378	188	3	1
July	68	675	328	7	2
August	70	417	242	34	13
September	35	234	120		
October	28	185	78		
November	5	150	60		
December	9	82	40		

This has been the case in Cuba during the last few months, where the wish has been father to the thought. Havana is an infected city, and the most perfect system of sewerage

nd paving of its streets will not alter this fact as long as the rigin of the disease remains unsolved, as well as the length f its duration in an infected locality.

For the present, constant and unremitting isolation and isinfection of cases as they arise will prevent widespread pidemics; but the time will come when a less energetic dministration, an error of diagnosis, or a combination of nknown climatic conditions will break through these barriers, and if there be a sufficient number of unacclimated ndividuals, epidemics will ravage the country as of yore.

As I am assigned to duty at these headquarters, my opportunity to study malaria in its different phases is quite limited; ut in two of the military hospitals here in Havana some ery interesting observations have been made which I believe will eventually be published. The presence of albumin n the urine in such a large proportion of the cases of malaria, s has been cited by Dr. Thayer in his paper "Nephritis of Malarial Origin," is of especial interest to us as decreasing ts value in the diagnosis of yellow fever. Since coming to Cuba, one thing has been thoroughly impressed upon most f us, and that is that many of the sporadic, or isolated cases f yellow fever are extremely difficult to diagnose, which the eachings of experts had led many of us to believe otherwise. The injected conjunctiva, faint trace of icteric discoloration, backache, and albumin in the urine are common n a large proportion of severer forms of malaria, in which he presence of numerous parasites in the blood, the cure of he disease by quinin, and subsequent history of the case, prove its true nature.

From the diversity of opinions expressed by the so-called experts in some of the obscure cases we have recently had, I have come to the conclusion that the diagnosis of yellow fever, when *not epidemic*, is extremely difficult during life, and even after death when the organs have found their way nto the hands of the pathologists. Another fact which has become self-evident is that all statistics gathered in Cuba by civil and military authority previous to the American occupation are unreliable and misleading.

The only practicable solution of the yellow-fever question n Cuba is that Congress appropriate a sufficient sum, such as the German Government has given to Koch, and that a commission be sent here to study the disease, and with every means at its disposal that modern bacteriology demands and with thoroughly trained and experienced men in charge.

The best work on yellow fever so far is the result of such a commission sent here in 1880 by the U. S. Government.

The Coexistence of Fibromyoma and Carcinoma n the Uterus.—W. Wayne Babcock, Jr. (*Journal Alumni Association College of Physicians and Surgeons*, Baltimore, July, 1899) reports 3 cases from which he draws the following conclusions: (1) that the frequency of association of fibromyoma with adinocarcinoma of the corpus uteri is greater than t would be, *a priori*, expected, and relatively greater than with the more common epithelioma of the cervix; (2) that a coincidence of the two growths is favored by their individual proneness to affect the nulliparous, but that the frequency f association seems greater than is thus explained, or than s explained by the frequency of fibromyomas in all uteri after middle life; (3) that the endometrial hyperplasia and congestive and irritative influences produced by fibromyomas would seem to favor the development of the malignant tumor; (4) that further investigation is desirable before the old theory that fibroids predispose to cancers in the uterus s considered as disproved; (5) that the occasional serious errors of diagnosis from this assoiation render the routine examination of the endometrium desirable in elderly women with fibroids, and imperative when there is excessive or odorous discharge, or abundance of scrapings. [C.L.L.]

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending October 14, 1899:

Monday, October 9—College of Physicians, Section on General Medicine.

Tuesday, October 10—Pediatric Society.

Wednesday, October 11—County Medical Society.

Thursday, October 12—Pathological Society.

Friday, October 13—College of Physicians, Section of General Surgery.

University of Pennsylvania.—Dr. John G. Clark has been appointed professor of gynecology to succeed Dr. Chas. B. Penrose recently resigned.

Chester County (Pa.) Insane Asylum.—Dr. Jane R. Baker, a graduate of the Woman's Medical College of Pennsylvania, class of 87, has been elected general superintendent and medical director of the new asylum which is nearing completion. Dr. Baker will assume charge on December 1, and immediately thereafter the work of removing the county's insane from the Norristown Asylum will begin.

Medico-Chirurgical College.—The opening exercises of the departments of medicine, dentistry, and pharmacy of the session 1899–1900 were held October 2. Introductory remarks were made by Dr. John V. Shoemaker, following whom Dr. Charles W. Burr, clinical professor of neurology, delivered the introductory address upon "Reforms in medical education," which will appear in an early number of this JOURNAL.

University of Pennsylvania.—The opening exercises of the department of medicine, dentistry, and veterinary medicine of the session 1899–1900 were held in the College chapel October 2. The opening address was delivered by Provost Harrison, who was followed by Dean Marshall, of the Medical School, Dean Kirk, of the Department of Dentistry, and Dean Pearson, of the Department of Veterinary Medicine.

Huntingdon County (Pa.) Medical Society.—The program of the next meeting to be held in Huntingdon, October 10, is as follows: Reports of Committees. Paper on Pulmonary Tuberculosis, by Dr. C. B. Bush, of Orbisonia; the discussion to be opened by Dr. H. C. Frantz, of Huntingdon. Paper on Phlebitis, by Dr. C. A. McCaulley, of Petersburg; the discussion to be opened by Dr. L. I. Bigelow, of McConnellstown.

Philadelphia County Medical Society.—At a meeting held September 27, DR. A. A. ESHNER reported a **case of myxedema,** and exhibited the patient, a Russian male, 54 years old, thick-set and short in stature, with hoarse voice and preserved intelligence. The lips and tongue were thick and the thyroid gland was palpable. The hands were thick, short, and broad. Perspiration was free. Drowsiness was complained of. Improvement followed administration of desiccated thyroid extract, 5 grains daily. The disease is much more common in women than in men, in the proportion of 7 to 1. In children it is known as cretinism. In diagnosis the several forms of adiposis and nephritis are especially to be differentiated.

DR. L. J. HAMMOND referred to a case in which a sinus formed on one foot, with adjacent anesthesia, and in which thyroid extract was employed without success.

DR. W. E. ROBERTSON reported a case in which exophthal-

mic goiter developed suddenly after fright, gradually passing over into myxedema, a child of the patient also developing exophthalmic goiter.

DR. S. SOLIS-COHEN pointed out certain points of contact between exophthalmic goiter, myxedema and akromegaly, and referred to a case in which symptoms of exophthalmic goiter and myxedema were present coincidently.

Vital Statistics of Philadelphia for the week ended September 30, 1899 :—

Diseases.	Cases.	Deaths.
Total mortality		364
Pulmonary tuberculosis 55, intestinal tuberculosis 3		58
Marasmus 22, debility 9		31
Pneumonia 28, congestion of the lungs 1		29
Gastroenteritis 17, cholera infantum 12		29
Heart-disease 24, fatty degeneration of the heart 1, neuralgia of the heart 1		26
Nephritis 16, uremia 8, congestion of the kidneys 1		25
Apoplexy 11, paralysis 4, softening of the brain 2, disease of the brain 1		18
Inflammation of the brain 9, congestion of the brain 5, disease of the brain 1, dropsy of the brain 1		16
Diphtheria 12, membranous croup 3	77	15
Convulsions		14
Carcinoma 9, tumor 3		12
Typhoid fever	65	7
Scarlet fever	50	0
Cerebrospinal meningitis		1
Bronchitis 7, pertussis 5, drowned 4, asthma 3, casualties 3, cirrhosis of the liver 3, cyanosis 3, senility 3, atheroma 2, suicide 2, alcoholism 2, burns and scalds 2, pulmonary edema 2, peritonitis 2, appendicitis 2, intestinal obstruction 2, abscess of the liver 1, abscess of the brain 1, abscess of the lung 1, anemia 1, aneurysm of the aorta 1, parturition 1, diabetes 1, urethral hemorrhage 1, pulmonary hemorrhage 1, indigestion 1, inflammation of the liver 1, pericarditis 1, spondylitis 1, tonsillitis 1, locomotor ataxia 1, malformation 1, opium-poisoning 1, multiple sclerosis 1, septicemia 1, sore mouth 1, suffocation 1, syphilis 1.		

Pathological Society of Philadelphia.—At a meeting held September 28, DR. A. A. ESHNER exhibited the much-enlarged and dilated heart from a case presenting, during life, symptoms of valvular disease and ulcerative endocarditis, and exhibiting after death obliterating pericarditis, chronic **mitral valvular disease** with **ulceration,** extensive **calcification** of the **aortic leaflets,** with fresh **vegetations,** an **aneurysm** of one **sinus of Valsalva** projecting into and communicating by a small opening with the right ventricle. Dr. Eshner exhibited also the heart from a case in which during life the symptoms were suggestive of ulcerative endocarditis, and included a purpuric eruption, hemorrhage from the mucous membrane of the mouth, gangrenous stomatitis, and presenting after death extensive **atheroma** of the aorta and the leaflets of the aortic valve, and chronic changes in the leaflets of the mitral valve. In the discussion, DR. J. DUTTON STEELE spoke of the frequency of cases of aneurysm of the sinus of Valsalva, stating that 27 cases have so far been reported.

DR. J. H. MCKEE presented a **dermoid cyst of the ovary** that had been removed from a child, aged 7 years. During life a growth had been palpable, that had extended from the spleen to the anterior superior spine of the right ilium, and much simulated a tumor of the kidney. Only 48 cases of dermoid cyst of the ovary occurring in persons under the age of 15 years had been reported.

DR. DAVID RIESMAN exhibited for himself and DR. A. C. WOOD a specimen of **abscess of the right frontal lobe of the cerebrum,** from a woman, aged 51 years. The patient had always had headaches, but there had been no visual disturbances, nor vomiting. Toward the close of life the patient became apathetic and her speech drawling. Later motor excitement developed and paralysis of the right leg and arm supervened. No cause could be assigned for the development of the abscess, which was about the size of an egg and contained thick greenish pus. In the discussion, DR. W. M. L. COPLIN spoke of a similar case illustrating the significance of disease of the sphenoidal and ethmoidal sinuses in the production of abscess of the brain of obscure origin. DR. DAVID L. EDSALL mentioned a case of obscure cerebral disease, in which after death the ventricular system was found distended by thick greenish pus. No cause could be assigned for the condition.

DR. M. HOWARD FUSSELL presented the specimens from a subject that had died of **double pneumonia and nephritis.** During life the Widal reaction had been positive, but no lesions indicating typhoid fever could be detected.

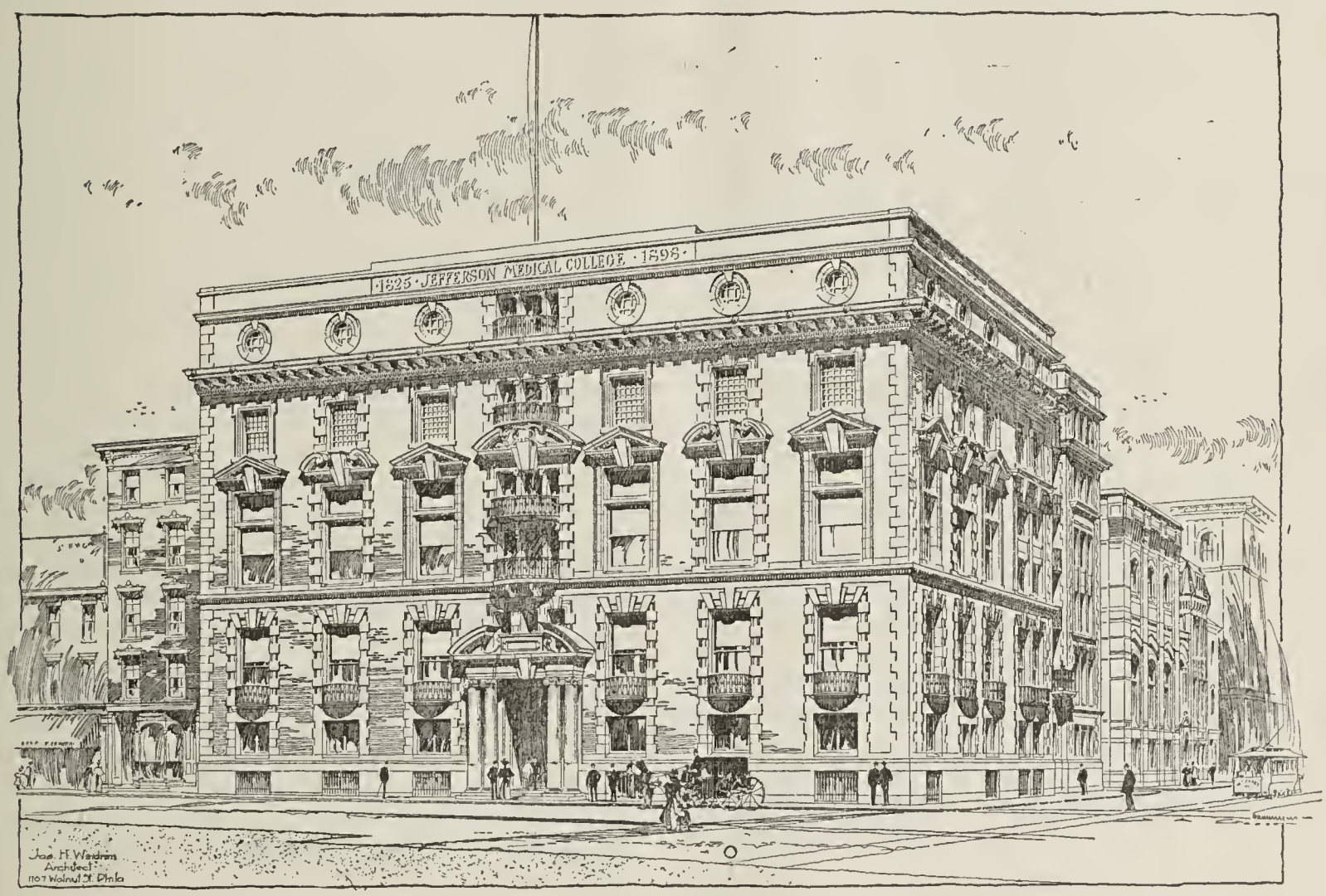
The Opening Exercises at Jefferson Medical College.—The formal opening of the magnificent new college building took place in the lower lecture-room, the evening of October 2. Hon. William Potter, ex-Ambassador to Italy and president of the board of trustees, opened the exercises, introducing Dr. Thomas Addis Emmet, class of '53, as presiding officer. After a short prayer by Rev. J. A. Harris, D.D., the address of the evening was delivered by Dr. Phineas S. Conner, of Cincinnati, professor of surgery in the Ohio Medical College, and a graduate of Jefferson in 1861. Dr. Conner's address will be published in a later issue of the JOURNAL. Surgeon-General Sternberg, of the U. S. Army, was then introduced, and congratulated those connected with the college especially on the splendid laboratory facilities offered in the new building. He spoke of the time when he began work in bacteriology in 1880, when no opportunities were offered for this kind of work and there was a general attitude of skepticism as to the bacterial origin of disease. After positively demonstrating the influence of bacteria by experiments and microscopic preparations before members of various learned societies he was often told that they were perfectly harmless. He spoke of the need of a larger medical corps for the army, expressed his belief that such an increase will soon be granted, and encouraged young graduates to try for positions. The facilities now offered for operative and laboratory work, even at the remotest posts, offer opportunities for every young surgeon to distinguish himself, and the preliminary training at the army training school does much to fit the men for such work.

Dr. Emmet made a few remarks in which he referred to the changes which have taken place in the college since the days in which he was a student. The exercises were then closed by a benediction by Rev. Dr. Harris. The building was packed to overflowing by members of the faculty and trustees, students, and friends of the college. The students manifested their enthusiasm by lusty cheering of their favorites among the faculty and teachers and by frequent applause during the exercises. After the exercises the building was inspected by a large number of visitors and alumni, some of whom had come from distant States to be present at the exercises.

A dinner in honor of Drs. Conner and Emmet was given at the University Club by Hon. William Potter, president of the trustees, just before the opening exercises. The faculty, trustees, General Sternberg, the Mayor, and many other honored guests were present.

THE NEW MEDICAL HALL is in many respects the finest and best equipped building devoted to medical instruction in the world. The building is in English Renaissance style, built of gray brick, with gray granite and terracotta trimming and is architecturally among Philadelphia's handsomest buildings. It fronts 118 feet on Walnut Street, and extends 108 feet on Tenth Street to Moravian Street, and is entirely modern and

fire-proof in its construction. The entrance portal admits to a tiled floored vestibule, hall, lobby for the main stairs and passenger elevator. The basement is occupied mainly by rooms devoted to the recess hours of the student, *i.e.*, a large, well-equipped gymnasium, with lockers and shower bath; a lavatory, rooms for billards, for reading and smoking, and for storage of bicycles. The first floor contains a reception room for visitors, the clerk's room, with telephone communication to the public wires and to different floors; the dean's office, trustees' room, library fully supplied with the newest medical books and periodicals, kitchen and pantry for receptions, recitation rooms, professors' private rooms, first story of the lower amphitheater, and a room for students' lockers. The second floor has a large museum room. It stores in the best manner for study the great collections of the late Professor Samuel D. Gross, of the late Professor Parvin, of Emeritus Professor DaCosta, and a large collection of models, preparations and specimens. On the second floor also is a laboratory for the study of morbid anatomy and the second story of the lower amphitheater. The third floor is occupied by a large lecture hall, connecting with a chemical apparatus room; a small lecture hall, having communication with the private room of the professor of physiology, the apparatus room and the laboratory of physiology. The fourth floor completes the upper part of the 2 lecture halls and provides a laboratory for instruction in bandaging and obstetric manipulations, and a storage room. The fifth floor is occupied by the first story of the amphitheater, the dissecting room, 2 stories high, unusually well lighted by 2 tiers of windows and a skylight extending the whole length of the room; the laboratory for operative surgery, 4 private rooms for professors and prosector, and a large locker room for students. The sixth floor is occupied by the upper story of the amphitheater and dissecting room, an incinerating furnace and bone library. Almost every floor has a lavatory.



The system for heating and ventilation embodies the latest principles and is entirely adequate. Fresh air is taken from above the building through a special shafts, blown by an enormous fan over a heating stack of steam coils and forced into every room. At the top of the exit shaft accelerating fans exhaust the foul air from every room by a system of flues.

The New Laboratory Building.—The college has 10 large laboratories for students and 17 smaller private rooms for individual research. Most of these are provided for in the structure which adjoins the medical hall, and is directly connected with it. In the basement are the boilers, engines and 2 dynamos for the heating and ventilation plant, for the 2 elevators and for the refrigerating apparatus which keeps the cold storage room at a low temperature for preserving cadavers. The first floor is occupied by a large laboratory of pharmacy, and a room used for recitations and for the students' societies. The second floor is occupied by a large laboratory of medical chemistry and toxicology, a pharmacy storage room and 2 private rooms for research by professors. The third floor provides a large laboratory for physiology, a chemical storage room, a chemical preparation and weighing room. The fourth floor has a large laboratory for normal histology, a room for storage and 2 private rooms for pathological research. The fifth floor has a large laboratory for pathological histology, a room for storage and one for the demonstrator of anatomy. On the sixth floor are the laboratory of bacteriology, the operating room and the private research room of pathology. All the students' laboratories are lighted by windows on three sides, besides incandescent electric lights; have individual roll-top desks and outfits entirely under control of the student while working. This equipment was provided in part by funds subscribed by the Alumni. It has, among other noteworthy features, 150 microscopes of the most recent make, a complete outfit for electric lantern

projection, and one for photography, besides the microtomes, models and other apparatus required for thorough study.

A feature of the building which deserves special mention is the provision of quarters for recreation and the social side of student life. The reading and smoking room, gymnasium with baths and lockers, library and society rooms, all provide a means for the student to spend leisure moments with some profit. In the past it has not been recognized that medical students, as well as other mortals, need time for pleasure and relaxation, at least no provision has been made for anything of the kind, and too often the students have become frequenters of saloons or street-corner loafers, for want of better places. A number of years ago some good friends provided temporary rooms for the students, and it has been abundantly proved that they have been thoroughly appreciated. Now that more elegant quarters are provided there can be no doubt that there will be a still greater development of this side of student life which makes a course of medical study something better than an unending grind of college work and study. The registration has greatly increased this year, and with the enthusiasm of the students, with a faculty of eminent practitioners and teachers, together with the many added facilities furnished by this fine new building, there can be no doubt that Jefferson is entering a new period of prosperity which will rival a most brilliant past in its influence in shaping the medical destinies of America.

NEW YORK.

Dr. Achilles Rose, of New York, has been granted the Silver Cross of the Knights of the Royal Order of the Saviour, by His Majesty, George I, King of the Hellenes.

Intramural Cremation.—An effort has been made to establish a crematory in one of the most thickly populated districts of the city, at West Nineteenth Street and Eighth Avenue. It was claimed that by the use of liquid air the operations would be conducted without causing any annoyance to the living neighbors. There were strong protests, however, and the Department of Health exercised its veto-power. The projectors hope to remove the objections, but it is believed that the sanitary authorities will not recede from their position.

Operating on a Broken Neck.—Much attention has been given to the case in Roosevelt Hospital in which an operation was performed on September 18, in order to remove fragments of the posterior portions of the fifth and sixth cervical verterbrae, which had occasioned paralysis by their pressure on the spinal cord. The patient was Walter E. Duryea, whose neck was broken on August 7, at his summer home on Long Island, in a bathing accident. The operation was performed by Dr. Robert Abbé, with the surgical assistance of Drs. R. F. Weir and Arthur Fisk, and the attendance of Drs. Pearce Bailey and Fischer, neurological specialists. Ether was contraindicated, and the operation was done wholly under the local influence of cocain. An operation-chart was prepared by the Röntgen-ray and served to guide the surgeons. The case is now free from all operative shock and while progress is necessarily slow the condition of the patient is comfortable and the prospects for the future are bright.

The Milk Question in Rochester, N. Y.—It is reported that the milk-producers and dealers who control the bulk of the milk-supply for Rochester have organized in opposition to an ordinance promulgated by the Board of Health of that city. This ordinance requires that milk offered for sale shall be taken only from cows that have been tested annually by tuberculin. The producers do not stand on the ground that the danger of contracting tuberculosis through milk has been greatly exaggerated, but they appeal rather to the fears of the people in that particular, and try to show that there is added danger through a reliance upon the efficacy of the health board's ordinance. They point out that although a cow may not react to the tuberculin-test at the annual examination, tuberculosis, latent then, may become pronounced 2 months later, and thereafter for 10 months the milk of the animal may be sold under a health board's certificate as to its innocent quality. Thus, they say, the care and vigilance of the producers and of the health officials would be relaxed. They play also upon the fears of the consumers by telling them that tuberculin is a poison, a product of ptomains, and that the indiscriminate injection of this poison into healthy animals may seriously affect their physical condition and their milk.

Dispensary Rules.—Acting promptly after the new dispensary law has gone into effect the appropriate committee of the State Board of Charities has held a public hearing for the purpose of devising rules for the government of dispensaries. Dr. Stephen Smith, of New York, is the chairman of the committee, and his fellow members are Dr. Enoch V. Stoddard, of Rochester, and General Simon Rosendale, of Albany. The Board will meet on October 12, and the rules will be reported at that time for final approval. The rules as drafted by the committee provide that in dispensaries treating women and children at least two women shall be included in the board of managers; that the medical staff of dispensaries shall be in two divisions, surgeons and physicians; that there shall be a registrar to keep a record of all cases and to investigate the ability of applicants to pay; that cases of smallpox, scarlet fever and all other infectious diseases shall be excluded from all dispensaries except those set apart for that class of diseases; and that there shall be a matron for each dispensary. The rule providing for women on the board of managers was opposed by Dr. Savage of the Demilt dispensary and the Roosevelt Hospital staff, and by Dr. Hadden, of the Northeastern dispensary. They said that many dispensaries were under the management of incorporated institutions whose articles of incorporation would not admit of the appointment of women. Objections were also offered against the rule governing the medical staff of the dispensaries and several amendments were submitted to the committee for their consideration. There was no opposition to the rules bearing on the prevention of free treatment of those who are able to pay proper medical charges. It is understood that several of the proposed amendments will find a place in the formulated rules, and that in general the first system of rules will be tentative and designed to elicit practical suggestions of such alterations as working conditions may show to be needed.

Buffalo Academy of Medicine—Section on Medicine.—At the meeting September 12, 1899, DR. DANIEL R. BROWER, of Chicago, Ill., presented a paper entitled **The Medical Aspects of Crime,** which was profusely illustrated by stereopticon views. He believes that it has been established that the habitual criminal is an abnormal man, the abnormity manifesting itself (1) physically in the criminal physiognomy, in stigmata of degeneration, in anomalies of the muscular, sensory, respiratory and circulatory systems, and (2) psychically in moral insensibility, lack of forethought, low grade of intelligence, vanity and egoism and emotional instability. He quoted statistics to prove that crime was rapidly increasing, while the expense was simply

enormous. Under etiology he described criminal parentage and environment as the two great factors, and quoted the histories of the Jukes family, the tribe of Ben Ishmael, the descendants of Frau Ada Jurke; another factor is intemperance—here he quoted Ferris' conclusion that crime and the vintage of France showed remarkable relations in parallel rise and fall. Other factors are the crowding of people into centers, and the raising of offspring in unhygienic and criminal surroundings, and the criminal laws and their unreasonable execution. He decried the definite-term sentence as a punishment for crime and would replace with the indeterminate or until reformed; he believes the laws should be directed toward the criminal and not the crime. He then discussed the classification of criminals into occasional or accidental and habitual. He took up the marks of crime, shape and character of jaw, ear, nose, the cranium in general and the confluent fissured brain. As to treatment he would (1) prevent propagation by (*a*) laws regulating marriage and by (*b*) asexualization; (2) state control of criminal offspring, and (3) the elimination of inebriety. He would revise the laws so that a criminal would be considered a diseased individual and detained until cured; he would regulate the period of reformation according to the stigmata of degeneration. In discussion Dr. H. R. Hopkins believed the great question to be: What are you going to do about it? He believes it the duty of the medical profession to agitate and educate the masses into proper consideration of the criminal as one diseased. He believes the deterrent punishment of criminals to be absolutely useless, that treatment should be according to the findings in each individual case, and not "en bloc." Prof. Tracy C. Becker believes much of the increase of crime to be due to (1) the influx of degenerates, on account of unrestricted immigration; (2) indiscriminate marriages; (3) penal system. He believes that sentence should be based upon the life-history of the guilty; that sentences should be rather indeterminate than determinate. Dr. Dunham believes that the increase in criminal statistics was not due to crime, but rather to arrests for drunkenness, which is not a crime, but a disease. Dr. Pryor thinks that in the consideration of criminals lawyers were very conservative, while scientists, like Lombroso, were extremely radical; that the proofs of degeneracy were not very powerful, as many, probably as great percent, of known normal individuals had such stigmata as found upon criminals; that penologists examine with preconceived ideas; thinks control of marriages impossible. Judge White believed that criminal judges were doing best possible under the law, which, rather than its administration, was defective; he believes determinate sentences are wrong. Police Justice King said he was opposed to long sentences in primary and accidental cases, but thought them proper in habitual cases; believes surface railways lessen crime by improving the environment of the people who otherwise huddle together. As to drink he thinks it should be much lessened. He believes in asexualization for habitual criminals.

The following officers for the ensuing year were enstalled: President, Dr. Matthew D. Mann; secretary, Dr. Thomas F. Dwyer; treasurer, Dr. Eugene A. Smith; trustee, Dr. Stephen Y. Howell.

CHICAGO AND WESTERN STATES.

Northwestern University Medical School, Chicago.—Dr. John D. Kales has resigned his position as professor of etiology and hygiene.

Chicago College of Physicians and Surgeons, Medical Department of the University of Illinois.—Dr. John S. Porter has been elected professor of orthopedic surgery, and Dr. August F. Lemke, adjunct professor of medicine.

Dr. C. B. Davenport, of Hartford, Director of the Marine Laboratory at Cold Spring Harbor, Long Island, has accepted a call to the Department of Zoology at the University of Chicago, to succeed William Morton Wheeler, professor in embryology, who has gone to the University of Texas.

Chicago Society of Internal Medicine.—At a meeting held September 28, Dr. John A. Robinson delivered the presidential address, and Dr. S. A. Matthews read a paper upon **The effects of veratrin upon the myocardium.** He discussed the effects produced by veratrin upon the irritability and contractility of the heart-muscle, and the effects upon the circulation the result of these.

Physicians' Club of Chicago.—At a meeting held September 25, the subject for discussion was, **Shall the code of ethics be abolished?** The subject was apportioned as follows: 1. Has the code outlived its usefulness, by Dr. S. J. Kuh. 2. Do we need a code of ethics? by Dr. H. M. Lyman. 3. Consultation with irregulars? by Dr. John Ridlon. 4. How can we improve it? by Dr. D. W. Graham.

Regular Meeting of the Cleveland (Ohio) Medical Society.—At a meeting held September 8, Dr. O. T. Thomas exhibited a specimen which had been diagnosed before operation as epithelioma of the cervix with fibroid uterus. Microscopic examination of the cervix after hysterotomy showed a **sarcoma and an epithelioma,** a very rare condition. The body of the organ contained an adenocarcinoma in the lining within the walls and almost pure myoma which showed beginning sarcomatous degeneration. He exhibited one other specimen which had before operation been diagnosed from its softness and rapid growth a possible sarcoma, but which proved to be almost pure myoma. Dr. W. H. Humiston gave the history of the case from which the last mentioned tumor was removed. There had been metrorrhagia for the previous nine months, together with symptoms of a tumor. Abdominal hysterotomy was performed, practically bloodlessly, by means of clamping the ovarian and uterine vessels. There was no shock and recovery was prompt. He thought these tumors should be removed as soon as they attained perceptible size because of the risk of malignant degeneration.

Dr. C. F. Hoover reported a case of a man, aged 19 years, who suffered from pain in the cecal region and vomiting. Diagnosis of appendicitis was made, but after 4 or 5 days in bed the tenderness diminished and the fever disappeared. However, severe thirst persisted, the tongue was very dry, and he vomited large quantities of thin green fluid. There was abdominal distention, more marked on the left side, with considerable prominence of the hypogastrium. The prominence on the left side was dull on percussion, and by pressure a very distinct succussion-sound would be elicited. A day later the symptoms became very much worse and death occurred. At the necropsy the tumor was found to be simply a **distended stomach,** which practically filled up the whole abdominal cavity. The appendix had sloughed off and lay up behind the cecum. There was no free pus in the peritoneum, but there was some along the ascending colon. No anatomic basis for the dilatation of the stomach was found. A few cases of acute dilatation of the stomach without apparent cause have been reported. Dr. R. J. Wenner remarked that Dr. Hoover's case furnished a strong argument for operation in appendicitis within 24 hours after the diagnosis was made. He reported a case of **dilatation of the stomach** in a young man who had been shot through the dorsal region of the spine, and two other cases which followed directly upon an attack of typhoid fever, and in which stenosis of the pylorus existed. Dr. H. D. Spence quoted a recent report of a case of acute dilatation of the stomach without apparent cause, which was followed in a few days, in spite of all treatment, of death by collapse. No mechanic cause could be found. Dr. C. F. Hoover remarked that stomachs are generally contracted in typhoid and that he had never seen dilatation mentioned as a sequel of typhoid. He noted also a case in which the patient died of collapse a short time after the passage of a stomach-tube, and said that it was perfectly clear that a stomach-tube should never be passed without some clear indication, as the sudden inhibition of the vagus may cause death.

Dr. Charles Tanner, of Willoughby, reported at length a typical case of **ruptured ectopic gestation** with sudden

death. DR. HUMISTON thought it was never too late to operate in such cases. He reported a grave case in which a successful outcome was possible by immediately finding and clamping the ruptured tube just as soon as incision was completed.

DR. C. A. HAMANN presented a case of a boy 8 years old, who had fallen from a wagon striking on his hip. He was able to walk after the accident, but in a day or two went to bed because of severe pain. When seen at the end of 2 weeks the leg was held in a flexed position, with the arch of the lumbar spine that we see with coxitis. There was considerable fever and emaciation. The leg was extended with weights and allowed to remain in this position for 5 or 6 days. There was no improvement and the temperature still rose in the evenings. An abscess then formed in Scarpa's triangle. The pus was not that of a cold abscess. The case was found to be one of **acute osteomyelitis of the inferior spine of the ilium and the pubis.** There was no evidence of hip-joint disease. After cureting, the abscess rapidly closed. Staphylococci were found in the pus but no tubercle-bacilli. DR. WIRT remarked that hip-joint disease could be eliminated from the diagnosis of this case because of the complete flexion of the limb. Even if the joint had been affected the opening of the capsule would not have been justifiable, because of the danger of fresh infection of the joint.

DR. HAMANN also showed a case of **dislocation upward of the outer end of the clavicle** caused by a fall from a freight train, the man striking on his head and shoulder. He noted that while the difficulty was easily reduced it is difficult to retain in position, and there usually remains considerable deformity. The best treatment is to apply a compress and then strips of adhesive plaster firmly bound over the chest anteriorly and posteriorly, and then a posterior "figure-of-eight" bandage. DR. C. J. ALDRICH has had poor result in treating these dislocations. He noted that the chief feature in a deformity was contraction of the trapezius muscles and that placing the patient prone on his back relaxed these muscles entirely, and aided in securing a good result.

DR. WIRT reported 4 cases illustrating the **necessity** of making in every case a **complete examination.** The first had been referred to him as one of infantile paralysis, but proved on examination to be congenital dislocation of the left hip. Another supposed case of spinal disease proved to be congenital dislocation of both hips. The third case of supposed Pott's disease was found to have the same condition. In these cases when there is an acetabulum and a head of the femur a good result can be obtained, but in many cases these structures are absent and cure is practically impossible.

DR. TUCKERMAN reported a case of removal of the **renal calculus** in which determination of the organ affected had been made by the ureteral catheter. DR. WENNER noted that the segregator would probably have performed the same service equally well without danger of infecting the sound kidney.

Chicago Medical Society.—At a clinical meeting held September 27, DR. HOTZ presented a case of **total symblepharon of the upper lid relieved by skin-grafting.** Injuries received in a dynamite explosion had caused complete union of the entire upper lid and partial union of the lower lid with the eyeball. In both lids the adhesion extended from lid border to fornix, and the adherent lid borders covered a portion of the cornea which was flattened and densely opaque. Lids and ball were immovable and every winking and every rotation of the other eye caused a painful pulling in the injured eye. The partial symblepharon of the lower lid was successfully relieved by dissecting up the cicatricial tissue from the cornea to the fornix, and closing the diamond-shaped wound by transverse sutures after previous mobilization of the conjunctiva.

Two operations for the total symblepharon of the upper lid.

First Operation.—Lid released until it could be easily everted. A small thin sheet of lead was cut and molded to accurately fit the curvature of the ball and reach from canthus to canthus and from the fornix of the lid to the retrotarsal space of the lower lid; large Thiersch skin-flap cut from the arm; one portion of it, large enough to cover the wound of the lid, was spread out over the convex side of the lead plate, with its epidermis side towards the lead; the rest of the skin-flap was reflected over the edge of the lead and spread out over its concave side. Thus mounted the lead plate was inserted under the upper lid, and well pushed up against the fornix; the lower lid was then drawn over the lower uncovered part of the plate to make its lower edge rest upon the lower fornix; lid borders united by sutures and both eyes bandaged.

Reaction very slight; dressing not disturbed for four days. When lid sutures were removed, flap was found adherent to lid as well as ball. But as the graft had not covered the whole wound on ball, the cicatrization of the uncovered portion of the wound next to the cornea drew the grafted skin and the upper border of the lid gradually down towards the cornea, reducing materially the depth of the fornix.

Second Operation.—Incision along the upper tarsal border through the grafted skin, mobilizing lid by free dissection until its upper border could be well turned over away from the globe. Large wound covered by new skin-flap; its upper margin was sutured along the upper tarsal border to the upper margin of the skin previously grafted upon the lid; its lower margin was fastened by sutures to the expansion of the superior rectus tendon.

Final Result.—Free mobility of eyeball and lids; large and sufficient space for the insertion of artificial eye which is worn with perfect comfort and shows an excellent range of motion.

DR. E. FLETCHER INGALS reported a case of **aneurysm of the aorta with recovery,** which presented some points of interest. He said the patient was not present because it was difficult for him to leave his home at night. The man was 52 years of age when he came to him in 1892. He is a carpenter, born in Bohemia. He then complained of attacks of pain in the region of the left auricle, principally to the left sternum and extending as high as the first rib, radiating at times over the front of left chest and occasionally extending to the left arm. He described it as an aching or burning pain, much aggravated by exertion and steadily growing worse. These attacks came on in the forenoon and he would not experience much relief until he became thoroughly rested in bed at night. When first seen the pain had troubled him for several months. He gave a history of an acute sickness lasting four or five days, which came on two or three weeks before he began to experience this pain. Aside from this there was nothing pointing to the nature of the trouble. He had never had rheumatism except slightly during early life. There was no history of specific trouble. His daughter, who came with him and acted as an interpreter, was a young woman in perfect health. There were no suspicious scars on his person. He used but little alcohol, although he smoked practically all of the time. Nutrition was fairly good, but he complained of being exceedingly weak. There was dyspnea on exertion. He was troubled considerably with a dry cough, but had no expectoration. Appetite, digestion, and bowels were said to be normal. Pulse was full, regular, being 80 per minute; temperature 98.5° F.

Examination of the chest revealed a prominence $2\frac{1}{2}$ inches in diameter and $\frac{3}{8}$ inch in thickness, the center of which was over the scond costal cartilage. There was an area of dulness in the region of the pulmonary artery and confined to the upper portion of the left side. The dulness on the line of the first interspace extended $1\frac{1}{2}$ inches to the left of the sternum, on the second rib $1\frac{3}{4}$ inches, in second interspace $2\frac{1}{2}$ inches, and in the third rib $2\frac{1}{2}$ inches to the left of the sternum. All other percussion notes over the chest were normal, and upon auscultation the normal respiratory sound could be heard all over the dull region as well as in other portions of the chest. There were no abnormal heart-sounds and no murmurs over this area. Upon percussion and pressure over the swelling there was considerable tenderness. The dulness was not marked, but could easily be detected by auscultatory percussion. The diagnosis in the case was based largely upon the symptoms. The patient had a peculiar burning, aching pain, greatly aggravated by exercise, which came on usually about 10 o'clock in the morning and

disappeared at 10 o'clock in the evening, when he had rested for an hour or two in bed. It grew worse as he moved about but became better when he was quiet. This is one of the most prominent symptoms in aneurysms of the aorta.

There are other mediastinal growths that may be confounded with aneurysms, such as syphilitic growths, enlarged glands and malignant tumors, but there was no evidence of syphilis; there was no enlargement of the glands above the clavicle, and there was none of the cachectic appearance which we observe in most cases of malignant tumors, which constitute most of the growths in the mediastinum, excepting aneurysms.

The question of mediastinal abscess was also considered, but there were no chills or elevation of temperature, therefore, it seems more than probable that the patient was suffering from aneurysm of the aorta. As against this conclusion we lacked some of the usual signs, but it must be remembered that in not more than 50% of the cases do we find abnormal murmurs and pulsations, and in a considerable number we cannot obtain even accentuation of the second sound at the aortic orifice. No symptoms of pressure upon the recurrent laryngeal nerve of the left side were present, but this could be easily explained by the probable position of the aneurysm. Absence of pressure symptoms was one reason for thinking that we were not dealing with a solid growth. These symptoms are much less likely to be present in aneurysms than in solid growths. The man's age, the peculiar character of the pain, the time of its occurrence, and its increase in intensity upon even moderate exertion, together with dyspnea and great weakness, which so commonly accompany atheroma and aneurysm, and the presence of a tumor in the course of the aorta, all together appeared to justify a diagnosis of aneurysm of the descending aorta.

The patient was placed on potassium iodid in doses of 5 grains, which were rapidly increased to 20 grains to be taken after each meal. At his next visit, a month later, he reported himself much better. He continued to improve for two or three months, at the end of which time I observe a note to the effect that he was much worse than at his preceding visit. The pain then frequently extended down the left arm. Fowler's solution was then added to the potassium iodid, which he was taking 3 times day in doses of 25 grains. I saw the patient about once a month for 9 months, at the end of which time I find a note to the effect that the swelling had disappeared and that he had no pain whatever. I have heard from this patient occasionally during the succeeding years. I find one note in 1893, but no others until 1898, when his daughter came to see me for herself, and reported him quite free from pain and feeling pretty well, though not able to work. I saw the patient again this week, when I found no evidence whatever of pulmonary consolidation or of any tumor within the chest. He was able to exercise considerably and had shingled his house recently, although he was not able to work. He is now about 60 years of age. His great improvement shows conclusively that he did not have a malignant growth, and leaves the only open question as to diagnosis between aneurysm of the aorta and syphilis. His recovery suggests that he had syphilis instead of aneurysm, as he was given those remedies which are so valuable in specific trouble, but gave no evidence whatever of having had syphilis. I believe that in 1892 he was suffering from a sufficient dilatation of the descending aorta to be termed an aneurysm, and I believe that he had practically recovered from it. I once saw a patient who presented almost the same signs and symptoms that were present in this case, but who lacked many of the common signs of aneurysm, yet this patient died from rupture of the aneurysm within a few months.

Dr. B. W. Sippy presented a case of **dystrophia muscularis progressiva (Erb's type).** The patient was a tailor, 31 years of age. When 16 years old he noted that his right arm was growing weak. Three years subsequently his left arm was similarly affected. When about 22 years of age the right arm and shoulder had become extremely wasted. At the age of 25 wasting in the muscles of the left arm and shoulder was apparent, and has gradually progressed to the present condition of extreme atrophy. The patient is aware that his toes scuff the ground when he walks. The disorder has not been associated with painful sensations. The patient has had no other serious illness. Both parents, 5 brothers and 2 sisters are living and healthy. No history of a similar disorder in the family.

Examination of the Patient.—The scapulas are pulled downward and outward by weight of the upper extremities, their inner borders are markedly everted, giving to them the characteristic winged appearance. The orbicularis oculi and oris muscles are weak and the facial folds obliterated. Marked atrophy, symmetrically distributed, of the following muscles was observed: trapezius, rhomboidei, serratus anticus major, pectoralis major, biceps, triceps, supinator longus, erector trunci, rectus abdominis, and moderate atrophy of the peritoneal group. There was slight weakness of the long extensors of the forearm. In all the muscles involved the weakness was proportionate to the atrophy. No muscular hypertrophy was evident. Fibrillary twitchings were absent. The electrical reactions were practically normal. Sensation was undisturbed and reflexes normal. Bladder and rectum functionate normally. No difficulty in swallowing, nor ocular palsies present.

The clinical picture represented was that of a gradually progressing atrophy of certain muscles, begining at puberty and continuing slowly at the present time. It is generally recognized that individual atrophy, such as present in this case, may be due to disease of the spinal or peripheral nervous system, or to a nutritional disorder located primarily in the muscles themselves. This case belongs to the so-called primary myopathies, or the progressive muscular dystrophies. These terms designate a class of muscular atrophies not accompanied by demonstrable lesion of the nervous system.

The different types of muscular dystrophy recognized are based chiefly on the location of the atrophies and the nature of the muscular dystrophy (simple atrophy and atrophy with deposit of fat in the interstitial tissue). The types most commonly described are: (1) Pseudo-muscular hypertrophy; (2) juvenile progressive muscular atrophy (Erb's scapulo-humeral); (3) infantile muscular atrophy (Landouzy-Déjérine facio-scapulo-humeral). Many other types are described. The essential difference between the various types, however, is slight and they all present many characteristics in common. In all forms there is a tendency to hereditary transmission; the disease begins in early life and rarely after the twentieth year; certain groups of muscles are prone to the disorder; while other groups are rarely involved; the anatomical changes in the muscles are essentially the same.

The reaction of degeneration is never present, fibrillary twitchings are absent, and bulbar manifestations do not occur. Sensation is intact, the bladder and rectum functionate normally, and the reflexes are undisturbed. Many believe the muscular dystrophies are dependent on disease of the nervous system, and it must be conceded that such a view has much in its favor. However, inconclusive evidence has been offered as yet, to establish that explanation of the profound nutritional disorder. It is not improbable that within the next few years the nature of the muscular dystrophies will be much more satisfactorily known.

Dr. A. B. Hosmer presented a case of **extirpation of an ankylosed patella, with restoration of function to the quadriceps femoris.**

Dr. O. T. Freer presented a case of **laryngeal tumor.**

Dr. Archibald Church demonstrated a case of **multiple arthritis of the spine.**

SOUTHERN STATES.

Johns Hopkins University.—Dr. William H. Howell, professor of physiology, has been made dean of the medical faculty, Dr. Osler having resigned. Dr. Howell is also superintendent of the Johns Hopkins Hospital.

MISCELLANY.

Introduction of Yellow Fever into Key West.—In view of the allegations published in several newspapers, purporting to have emanated from official authorities of Florida, to the effect that the present epidemic of yellow fever in Key West is due to the "negligent inspection service of the Marine-Hospital Service" at Havana, and no dis-

avowal by said authorities having been received, or noted in the press, the Bureau deems it necessary to state that it knows of no evidence or facts which justify such assertions. The alleged facts and intimations, so far as known, have been thoroughly investigated and found to be without foundation.

Obituary.—DR. THOMAS G. CUSACK, Orange, N. J., September 20, aged 44 years.—DR. FRANK A. KIMBALL, Gardiner, Me., September 29, aged 58 years.—DR. FRANCIS A. THOMAS, of concussion of the brain, the result of an accident, in New York, September 28, aged 73 years.—DR. GEORGE W. WAYSON, a surgeon in the U. S. Army during the Civil War, and for years visiting physician to the Baltimore City Almshouse, in Baltimore, Md., September 26, aged 80 years.—DR. GEORGE W. BUTLER, Wellsburg, Va., September 12, aged 77 years.—DR. H. C. HUBBARD, Bloomington, Ill., September 24, aged 53 years.

Health Reports.—The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General of the U. S. Marine-Hospital Service, during the week ended September 30, 1899:

SMALLPOX.—UNITED STATES.

			Cases.	Deaths.
MASSACHUSETTS:	Everett	Sept. 15–23	1	
TENNESSEE:	Memphis	Sept. 15–23	1	
VIRGINIA:	Portsmouth	Sept. 15–23	1	

YELLOW FEVER.—UNITED STATES.

FLORIDA:	Key West	Sept. 25–29	166	9
"	Miami	Sept. 5–22	2	1
LOUISIANA:	New Orleans	Sept. 15–23	10	4
"	" "	Sept. 25–29	9	

SMALLPOX—FOREIGN.

BELGIUM:	Antwerp	Sept. 2–9	1	
BOHEMIA:	Prague	Aug. 26–Sept. 9	6	
BRAZIL:	Rio de Janeiro	July 27–Aug. 11	121	63
EGYPT:	Cairo	Aug. 19–26	1	
INDIA:	Bombay	Aug. 5–29	12	
GREECE:	Athens	Sept. 2–29	7	
MEXICO:	Chihuahua	Sept. 8–16		6
RUSSIA:	Moscow	Sept. 2–10		3
"	Odessa	Aug. 26–Sept. 9	2	1
"	Warsaw	Aug. 26–Sept. 9		8

YELLOW FEVER.—FOREIGN.

BRAZIL:	Rio de Janeiro	July 28–Aug. 11		4
COLOMBIA:	Cartagena	Aug. 26–Sept. 9	1	1
"	Panama	Sept. 12–19	3	1
MEXICO:	Tampico	Sept. 15–22		1
"	Tuxpan	Sept. 4–11		3
"	Vera Cruz	Sept. 14–21		6

CHOLERA.

INDIA:	Bombay	Aug. 15–29		4
"	Calcutta	Aug. 5–19		15
"	Karachi	Aug. 12–19	3	2
JAPAN:	Osaka & Hiogo	Aug. 19–26		1
"	Yokohama	Aug. 19–26		1

PLAGUE.

CHINA:	Amoy	Aug. 5–12	40	40
"	Hongkong	Aug. 5–19	44	46
EGYPT:	Alexandria	Aug. 28–Sept. 3	1	1
INDIA:	Bombay	Aug. 15–29		159
"	Calcutta	Aug. 5–19		87
"	Karachi	Aug. 12–19	2	2

Changes in the Medical Corps of the U. S. Army,

for the week ended September 30, 1899:

TRUMBULL, Major WILFRED, surgeon, U. S. volunteers, will proceed from New York City, N. Y., to San Francisco, Cal., and report to the commanding general, department of California, for duty.

HILL, JOHN STURGEON, acting assistant surgeon, is relieved from temporary duty at the U. S. General Hospital, Presidio of San Francisco, and will report to the commanding officer, U. S. troops, on the transport "Centennial," for duty on that ship.

KELLOGG, P. S., acting assistant surgeon, is relieved from duty on the transport "Centennial," and will at once report to the commanding officer, U. S. troops, on the transport "Grant," for duty during the voyage of that vessel to the Philippine Islands, and upon arrival in Manila will report to the commanding general, department of the Pacific, for instructions.

HILL, JOHN STURGEON, acting assisting surgeon, having reported at these headquarters, is, upon the recommendation of the chief surgeon of the department, assigned to and will report for temporary duty at the U. S. General Hospital, Presidio of San Francisco, awaiting transportation to the Philippine Islands.

PLUMMER, G. R., acting assistant surgeon, is relieved from duty at Las Animas Hospital, and will report to the commanding officer battery No. 5, for duty.

GODFREY, Captain GUY C. M., assistant surgeon, having reported for duty at Pinar del Rio Barracks, will report to the commanding officer at that post accordingly.

ALEXANDER, JAMES ALBERT, acting assistant surgeon, will proceed to Lands End, Port Royal, S. C., and report to the commanding officer of the troops at that place for duty to relieve EVAN P. HOWELL, acting assistant surgeon, and by letter to the commanding general, department of the Gulf.

ALEXANDER, JAMES ALBERT, acting assistant surgeon, so much of par. 45, S. O. 281, from this office, as relates to him, is revoked.

BOYD, WM. J., acting assistant surgeon, is relieved from further duty at Fort Leavenworth, Kan., and will proceed to Fort Riley, Kan., and report to the commanding officer of that post for duty.

CONDON, AMASA S., acting assistant surgeon, upon the arrival of Major DANIEL M. APPEL, surgeon, at Fort Bayard, N. M., is relieved from further duty at that post and will proceed to Ogden, Utah, and report upon arrival there by letter to the Surgeon-General of the Army for annulment of his contract.

MOSES, HOMER C., acting assistant surgeon, now at St. Paul, Minn., will proceed to Fort Snelling, Minn., and report to the commanding officer of that post for duty and by letter to the commanding general, department of Dakota.

EDIE, Major GUY L., surgeon, U. S. volunteers, will report to the commanding officer, U. S. transport "Pennsylvania," for duty as medical officer on board that vessel en route to Iloilo, Jolo and Cebu and return.

FURBUSH, Captain CHARLES L., assistant surgeon, will proceed from New York City to Fort Leavenworth, Kans., and report to his regimental commander for duty.

CABELL, Major JULIAN M., surgeon, U. S. volunteers, is honorably discharged as major and surgeon, U. S. volunteers only, upon tender of his resignation, to take effect October 1.

COLLINS, First Lieutenant CHRISTOPHER C., assistant surgeon, is relieved from further duty at San Juan, Porto Rico, and on the expiration of his present leave of absence will proceed to Madison Barracks, N. Y., and report to the commanding officer of that post for duty and by letter to the commanding general, department of the East.

KING, J. STEBBINS, acting assistant surgeon, is relieved from further duty at Fort Hamilton, New York, and will proceed to Decatur, Ill., for annulment of contract.

KEEFER, Captain FRANK R., assistant surgeon, now on duty in the Philippine Islands, is relieved from further station and duty at Fort Walla Walla, Wash.

MOSES, HOMER C., acting assistant surgeon, is relieved from temporary duty at Fort Snelling, Minn., and will report to the commanding officer Forty-fifth Infantry, U. S. volunteers, at that post, for duty, to accompany that regiment to the Philippine Islands.

BEESON, First Lieutenant EDWARD G., assistant surgeon, having reported at these headquarters, is assigned to duty with the battalion of that regiment now at Vancouver Barracks, Wash., and will report without delay to the commanding officer.

AHRENS, PERCY, acting assistant surgeon, is relieved from duty at Ciego de Avila, Cuba, and will proceed to New Orleans, La., the place of making contract, and report by letter to the Surgeon-General of the Army for annulment of contract.

TILTON, Lieutenant-Colonel HENRY R., deputy surgeon-general, chief surgeon, department ot Dakota, will personally inspect the camp of the Forty-fifth Infantry, U. S. volunteers, at Fort Snelling, Minn., at the earliest practicable date, and will make such sanitary recommendations in regard to it as he may deem necessary.

PILCHER, Captain JAMES E., assistant surgeon, the leave granted on surgeon's certificate is extended until further orders on account of sickness and he will proceed to his home, where he is authorized to await such orders as may be given him resultant from his recent examination by an Army Retiring Board.

RAMSAY, GEORGE D., acting assistant surgeon, is relieved from further duty at Fort Hamilton, N. Y., and will proceed to Fort Adams, R. I., and report to the commanding officer of that post for duty.

KIRKPATRICK, JR., First Lieutenant THOMAS J., assistant surgeon, now on sick leave of absence at San Francisco, Cal., is relieved from further duty in the department of the Pacific and Eighth Army Corps, and will proceed to Fort Myer, Va., and report to the commanding officer of that post for duty, and by letter to the commanding general, department of the East.

Changes in the Medical Corps of the U. S. Navy,

for the week ended September 30, 1899:

RIGGS, C. E., passed assistant surgeon, detached from the "New York," and ordered home to wait orders.

BOGERT, E. S., passed assistant surgeon, ordered to the "New York." October 3.

KINDLEBERGER, C. P., passed assistant surgeon, detached from the Philadelphia Naval Hospital and ordered to the "Iowa."

Guest, M. S., passed assistant surgeon, detached from the "Wabash" and ordered to the Philadelphia Naval Hospital.
Crandall, R. P., passed assistant surgeon, detached from the "Iowa," and upon relief to proceed home and wait orders.
Wright, B. L., assistant surgeon, ordered to additional duty on board the "Monterey."
Berryhill, T. A., surgeon, detached from the "Panther," when out of commission and ordered to the "Monongahela."

Changes in the U. S. Marine-Hospital Service, for the seven days ended September 28, 1899:

Mead, F. W., surgeon, granted leave of absence for 2 days. September 28.
Blue, Rupert, passed assistant surgeon, granted leave of absence for 1 month and 8 days, from October 6. September 25.
Tabb, S. R., assistant surgeon, to proceed immediately to South Atlantic Quarantine for temporary duty. September 23.
von Ezdorf, R. H., assistant surgeon, to proceed to Miami, Fla., for special temporary duty. September 25.
Billings, W. C., assistant surgeon, relieved from duty at New York, N. Y., and directed to report in person at the Bureau for temporary duty in charge of the Miscellaneous Division. September 28.
Bailey, C. W., acting assistant surgeon, granted 5 days' leave of absence. September 25.
Walkley, W. S., acting assistant surgeon, granted leave of absence for 4 days. September 25.
Comfort, N. C., hospital steward, to report at Bureau for orders. September 23. To proceed immediately to New York, N. Y., and report to H. D. Geddings, passed assistant surgeon, for assignment to duty in charge of the steamer "Wapiti," on her voyage from New York to Florida. September 25.

Foreign News and Notes.

GREAT BRITAIN.

Dr. R. M. Buchanan has been appointed bacteriologist to the City of Glasgow, his duties being to cooperate with the Department of Health and to undertake bacteriologic investigations for public sanitary purposes.

Bequests to Glasgow Institutions.—By the will of the late James Brown Thomson $400,000 was bequeathed to charitable and educational institutions of Glasgow, and by the will of the late W. W. Pollock, about $150,000 to institutions of Glasgow and Edinburgh.

Extension of Aberdeen City Hospital.—Aberdeen now rejoices in a hospital worthy of its important traditions. The Aberdeen Corporation City Hospital received its finishing touches towards the end of September, the total expenditure upon alterations and innovations having been £42,000.

The British Association.—The concluding meeting of the British Association for the Advancement of Science was held at Dover on September 20. The annual grants in aid of science for the ensuing year were announced as amounting to £1,115, and the total number of tickets issued as 1,403.

Quack Remedies.—There would seem to be a good deal of quack medicine consumed in Great Britain. Proprietary preparations—some of which are very good and prescribed by medical men, but a large proportion of which are the expressions of the grossest charlatanism—have to pay a duty of from 1½ d. to 3 s. to the Inland Revenue. In the last financial year the Exchequer took no less than £266,000 in these "stamp duties" (as they are called), about 28,000,000 of bottles or packages out of a total of 34,000,000 paying the lowest tax of 1½ d.

Scotch Longevity.—It seems that 1 in 1,000 of the people of Scotland die from old age, and the Registrar General's report, just issued, shows that in 1897 the death-roll of Scotland included 18 centenarians. He mentions that at ages between 95 and 100 years, 41 men and 100 women died, while 4 of the former sex and 14 of the latter were 100 or over at death; 6 women were 100 years; 1 man and 2 women 101; 1 man and 1 woman 102; 2 women 103; 1 man 104; 2 women 105, while 1 man and 1 woman were returned as being 107 years of age at death.

The Spread of Tuberculosis by Milk.—It is stated in the *Lancet* that the City Council of London has resolved that there should be included in the next application to Parliament powers for protecting the public against the spread of disease by the sale within the city of the milk of cows with diseased or indurated udders and for taking samples of milk within the city for the purpose of bacteriologic examination, and for the entry of the medical officer of the city or a specially authorized inspector into any cowsheds or other places within or beyond the city where cows are kept from which milk is sent for sale within the city, to examine the cows therein for the purpose of ascertaining whether such cows suffer from diseased or indurated udders, and for preventing the milk of cows so affected being sent for sale within the city.

Some Curious Poisoning Cases at Aldershot.—Aldershot, the most important military center in England, has recently been the scene of a rather extraordinary epidemic of poisoning. In all, 40 soldiers were attacked with distressing symptoms of gastrointestinal irritation, pain and fever followed by jaundice. As the result of the evidence given at an inquiry, Sir Redvers Buller, the commanding officer, issued an order prohibiting the sale to the troops of tinned meat not cooked in the regimental kitchens. It has now been discovered that the offending food-stuff was a certain cheese which was full of tyrotoxicon. Three deaths occurred. The most remarkable example recorded of wholesale poisoning from tyrotoxicon in cheese will be found, the *Lancet* says, in the report of the Michigan State Board of Health for 1886, when no less than 300 persons were seized with symptoms very much like those presented by the Aldershot sufferers.

The British Institute of Public Health.—A Public Health Congress under the auspices of this body was opened at Blackpool on Thursday, September 21, under the presidency of the Marquis of Lorne, K.T., late Governor-General of Canada, and the Queen's son-in-law. Lord Lorne's presidential address was interesting but rambling. He began by alluding to the value of imagination in curing disease, and warned his hearers that at a time when all men are talking of scientific progress some modern discoveries might be only the reacquisition of knowledge familiar to our predecessors, but now lost to science. He then dwelt upon the practical and immediate requirements of large populations, such as sound milk and water supplies, and urged upon the members of the Congress to take every opportunity of agitating in their respective communities for good ventilation, less smoke, and effective drains. In conclusion, he recommended the maxim: "Live in cleanliness and godliness." To medical men these addresses lose some of their force by their obviousness; but the members of the Congress are not medical men, while the promulgation in the press of such teachings from the lips of an influential layman has possibly more result than the technical teachings of the physician or expert sanitarian.

The Chair of Medicine in Queen's College, Belfast, which was recently left vacant by the death of Professor Cuming, will probably be filled by the appointment of Dr. James Alexander Lindsay, one of the physicians to the Belfast Royal Hospital. Dr. Lindsay has strong local claims on the post, for he was a distinguished student of the college as well as an exhibitioner and medalist of the Royal University of Ireland (of which the college is a branch), while he has been continually engaged in hospital work in Belfast for 16

years. Dr. Lindsay is also a a well known man outside of Belfast, for he has taken an active part in the work of various medical and scientific societies, and been a frequent contributor to the literature of his profession. The professorship of medicine in Queen's College, Belfast, is a government appointment, but Lord Cadogan, the Lord-lieutenant of Ireland, is sure to follow the good example of his predecessors, and find out who is the best man in the opinion of the medical world, before filling up the post.

A Learned Family.—Mr. S. P. Budd, a medical man of Bath, who died on September 11, enjoyed a large practice and was the bearer of a name that is widely known. His grandfather, Samuel Budd, a Devonshire surgeon, brought up seven sons to the medical profession. Five of these were educated at Cambridge University, where all became "wranglers"—*i. e.*, obtained first-class honors in mathematics. One of these, George Budd, F.R.S., professor of Medicine in King's College, London, in his treatise on "Diseases of the Liver," published in 1845, systematized a practical knowledge of hepatic pathology entirely by his own careful clinical observation, and his work remained for many years the authoritative text-book on the subject. Another and more distinguished son was William Budd, also a Fellow of the Royal Society, and the author of "Typhoid Fever, its Nature, Spread, and Prevention," a book which 30 years ago established in the teeth of medical opposition facts now so widely recognized as that typhoid fever is contagious and propagated chiefly by matter discharged from the bowel. Mr. S. P. Budd was the son of a third brother, a physician at Exeter, and was himself, in addition to being a sound practitioner, an enthusiastic botanist.

The Health of Dublin, upon which we have recently commented more than once, has now begun to concern Dublin citizens deeply. Typhoid fever is seriously prevalent and the death-rate of the city last week reached the portentious figure of 42.4 per 1,000. There has been a grave outbreak of typhoid fever in the constabulary depot and in several of the police barracks, while the juvenile population has suffered severely from measles. Sir Charles Cameron, the well-known and able medical officer of health of the city, is optimistic and says that the typhoid fever of Dublin is of a semi-malarial character, always present and lighted up now and again by circumstances; and he would appear to think that some of the sharp newspaper articles on the public health of the Irish capital are not warranted by the facts. But what about the figures? Granted that the cold, wet spring followed by a hot and phenomenally dry summer have produced an unhealthy season for all the British Isles, still the mean death-rate of Dublin for the previous ten years at the corresponding date is only 23.3, or little more than half the present figure, while the general death-rate throughout the United Kingdom this autumn is only about 20% above the average.

Analysts and Their Deputies.—At one of the London police courts recently an Italian "hokey-pokey" man (as the street boy calls the ice-cream vender) was summoned for selling ice-cream containing injurious organisms. The analyst gave evidence that the mess had been made from decomposed cream, but admitted upon cross-examination that the analysis had not been made by himself personally but by his bacteriologic assistant. Counsel for the ice-cream vendor submitted that by the words of the Act of Parliament under which the summons had been taken out the analysis "must be made by the public analyst," and the magistrate concurring with this view discharged the garbage-monger. The decision is a very serious one for analytic chemists who cannot possibly attend to all the details of their work themselves, and who have been in the habit in many technical processes of relying upon the observations of competent assistants. As their personal reputations are bound up in securing only competent assistants, it has always been felt that the public was perfectly safe. Cleaning test-tubes and even brushing out the laboratory are essential parts of the day's work. No one supposes that a public analyst shirks his duty in deputing these tasks to a deputy. At what point must he step in and do everything himself if he is to comply with the Act? We expect to see the matter commented upon in the English medical press.

CONTINENTAL EUROPE.

University of Vienna.—The number of students in attendance during the past summer semester was 5,770. Of these, 1,598 were inscribed at the medical faculty, 1,104 as ordinary students, 151 as extraordinary students, and 343 entered for special courses.

Plague in Portugal.—Dr. A. Calmette, a member of the French commission sent to Oporto to investigate the plague, reports that the sanitary condition of the city is miserable and that the quarantine regulations are a farce. The prospect of spreading the plague over Portugal, Spain, and even parts of France is to be feared. The serum of the "Institute Pasteur" (Paris) is the only remedy employed in the treatment of the plague.

Investigations of Sea-Water.—Prof. A. Gautier has just finished a series of analyses of sea-water, the samples for which were taken from different depths of the ocean and the results show remarkable combinations of iodin. For the first 1000 feet in depth the iodin is found in *organic* combinations, but below 1000 feet as *inorganic* salts only. The specific gravity of sea-water is in proportion to the depths from which it is taken; the surface being the most dense.

Pulmonary Tuberculosis and Insurance Associations in Germany.—We read in the *Maryland Medical Journal* that in 1889 a law was passed in Germany that every German with an income of $750 and over was compelled to insure his life against sickness and old age. In 1898 there were 11,200,000 persons in Germany thus insured, and so many of these had pulmonary consumption that 37 of the insurance companies erected at their own expense a sanitorium for the care of the cases.

Dr. Léon Joubert has made several necropsies upon the bodies of "bulls" killed in the "ring." He finds, in the majority of instances, that the sword of the "matador" enters the body of the animal upon the left side between the spinal column and the scapula and cuts completely the large vessels at the base of the heart. The very "acme of the art," however, is to introduce the sword just back of the occiput and sever the spinal cord; when this is adroitly accomplished the animal falls like a "thunderbolt."

Explosion at l'Ecole de Médecine.—Owing to the many changes that are being made in the structure of "l'Ecole de Médecine," a gas leak was occasioned in the cellar, immediately below the office of the dean (Prof. Brouardel). Workmen searching for the origin of the leak ignited the accumulated gas, the result was a frightful explosion that materially affected a part of the foundation of the building and tore up the sidewalk in the vicinity. The fire that

followed the explosion destroyed many valuble anatomic specimens that were stored in the cellar. No person was injured.

The Twenty-fourth Congress (German) for Public Hygiene was held at Nürnberg, September 13 and 14. There were 286 attendants, representing some 125 German cities, reported present. The secretary's report showed that the membership of the association had increased to 1,560. In the course of the usual addresses of welcome, etc., the statement was made that Bavaria was the first to introduce public hygiene and give it a chair in the universities.

The first subject for discussion was **hygienic criticism of the various kinds of artificial light,** opened by Prof. F. Erismann, of Zurich. The speaker proceeded to give the results of experiments to show the needs in factory lighting. Sunlight is equal to 50 meter candle-power; and the lowest limit for the general lighting of a workroom is 10 meter candle power. Next the speaker treated the matter of harm from the light-giving bodies. His remarks tended to give the idea that he believed that acetylene was the best in this respect because of the small volume consumed. The danger from explosion begins when the mixture of acetylene with air is at the proportion of 1:26 and ends at 1:4; while ordinary coal-gas has the limits 1:12 and 1:4. With regard to the calorifics of light, green waves are regarded as cold and red as warm—that is the best light which has relatively to its illuminating equivalent the smallest calorific equivalent. In conclusion the speaker said that while the whole of a workroom should have a meter candle-power of 10, the workman's bench should have at least 25–30, especially under conditions of unfavorable reflection. Finally, light should be diffused, especially in school-rooms. In the discussion that followed the point was made that in drawing-schools and other places where fine work is done the whole 50 meter candle-power of the sunlight is needed.

The second topic, **need of greater cleanliness in the handling of food materials,** was opened by Dr. L. Heim, of Erlangen. He showed that this need was present in the bakeries, and quoted from the reports of Jürgensen (Berlin) and Hadeck (London). In meat markets the condition was even worse, and he quoted Jean Paul's "Only a god can eat sausage, for such a being alone knows what there is in it." But the worst complaint of all is with the milk, with which all will agree who have seen how and where German peasants keep their cows. The speaker discussed the bad effects of showing food on the streets, in open markets, and in windows. Finally the evils of preservatives were mentioned. The remedy for this state of things lies in close police supervision.

The discussion seemed to indicate that all agree as to the evil, but that there was a division as to the practical remedy. One speaker suggested that the best way was to interest the women in the subject, and that they would soon bring about a reform. Several speakers agree that the profession should use the newspapers, especially the Sunday supplements, for acquainting the people with the dangers attending this uncleanliness. But others made the point that people will not reform simply because they know it is bad—some force must be employed, and the English system of inspectors was eulogized.

On the 14th, the entire session was given up to the discussion of **The school-physician.** Two papers were presented, one from the school men, and one from the physicians. Geh. Oberschulrath Prof. Dr. Schiller, of Leipsic, represented the school men and spoke on **Meaning and duty of the school physician.** The first demands from the doctors must be light, and the introduction gradual. The office should be put first into the *Volksschulen* (Folkschools) where the need is greatest. And here, again, the American observer of some, at least, of the German folkschools heartily agrees with the speaker as to the absolute and pressing need of medical supervision. The school-pbysician should not, however, said the speaker, possess the power of command in the school. The work of the physician should include hygiene of the building, eyes, ears, nerves, and teeth, and school-hygiene should develop into a special branch of study. Epidemics should be a special care. And the hygiene of instruction should also be included. [On this last subject much is being written and said at present, as the meeting of physicians in Munich will show.]

The second speaker, from the medical men, Dr. med. Paul Schubert, of Nürnberg, laid down his opinions in a tabulated form, as follows:

1. The introduction of school-physicians who have a special training in school-hygiene, is necessary in all kinds of schools for the protection of the health of the coming generations.
2. The duty of the school-physician includes:
   - I. The supervision of the healthfulness of the buildings and of the equipment.
   - II. The supervision of the careful execution of all regulations bearing on school-hygiene.
   - III. The supervision of the health of the school-children. viz.:
     - *a.* The support of the district (*Amts-*) physician in guarding against and fighting epidemics;
     - *b.* the examination of children as to their ability to do the full school-work, etc. [A point specially needed in America, where disagreement often arises as to when a child is unfit for school-duties];
     - *c.* the supervision of the bodily training and athletic exercises given by the school.
3. Larger places should furnish their own school-physicians who should also care for the private schools. The State should provide men for the smaller places. In the larger places there should be superintendents and a unification of this work.
4. The State should create bureaus in charge of specially trained physicians to supervise the work.
5. All teachers should have special training in school-hygiene, and this should be a topic in the examinations for licenses.

Finally, the speaker said, that the State, especially the military State, is as much interested in the bodily as in the mental development of its youth.

The debate that followed was lively, and the municipal and school delegates rather opposed all but the last point (5) of the last speaker as being too stringent. Mayor Delbrück, of Danzig, claimed that there was no need of a new department in the already too specialized school government, and that he believed that he secured as good results from the employment from time to time of regular local physicians.

Almost all the speakers regarded the training of the teachers as the first and necessary step. But no general agreement was reached at the close of the discussion.

MISCELLANY.

Obituary.—Dr. Jules Simon, formerly physician to the Children's Hospital of Paris, and a distinguished pediatrist. —Professor Borysiekiewocz, director of the Ophthalmic Clinic in the University of Graz.

University Appointments.—Berlin: Dr. Hermann Senator has been appointed honorary professor of internal medicine and Dr. August Lucae as honorary professor of otology. Budapest: Dr. Koloman Tellyesnizcky has been appointed assistant professor of anatomy. Pavia: Dr. Carlo Forlanini, of Turin, has been appointed to the chair of medical pathology. Turin: Dr. Bernardino Silva, of Pavia, has been appointed to the chair of medical pathology. Würzburg: Dr. Max von Frey, of Zurich, has been appointed to the chair of physiology in succession to Dr. Fick, resigned.

The monument to the memory of the late Dr. Müller, assistant to Professor Nothnagel, and who died in Vienna of the plague last fall, has been put in place in front of the Nothnagel Clinic in the courtyard of the Vienna General Hospital. The monument which has been executed by Professor Richard Kauffungen, consists of a bronze bust of Dr. Müller surmounted on a marble pedestal. On the latter is the name of the doctor in gold, and beneath this in relief a medallion of Marcus Curtius offering himself as a sacrifice and perishing to save Rome. The monument will be unveiled upon the anniversary of Dr. Müller's death during the present month.

The Latest Literature.

British Medical Journal.

September 16, 1899. [No. 2020.]

1. Plague: Its Symptomatology, Pathology, Treatment and Prophylaxis. W. J. SIMPSON.
2. Mosquitos in Relation to Malaria. IAN MACDONALD.
3. Can the Reproachful Differences of Medical Opinion in Lunacy Cases be Obviated? DAVID NICOLSON.
4. A Discussion on Lunacy Legislation as it Affects the Temporary Care of Incipient Cases. G. H. SAVAGE, LIONEL A. WEATHERLY, T. SEYMOUR TUKE, A. G. S. MAHOMED, H. G. MANNING, DAVID BOWER, and P. W. MACDONALD.
5. A Discussion on the Relationship Between Syphilis and General Paralysis of the Insane. ALFRED W. CAMPBELL, P. W. MACDONALD, A. DAVIDSON, LIONEL A. WEATHERLY, J. C. MCDOWALL, J. F. BRISCOE, A. G. S. MAHOMED, S. RUTHERFORD MACPHAIL, ALLAN MAHOOD, T. SEYMOUR TUKE, and G. E. SHUTTLEWORTH.
6. Can We Instil Rational Ideas Regarding Insanity into the Public Mind? LIONEL A. WEATHERLY.
7. A Discussion on the Treatment of Epileptics and Imbeciles. G. E. SHUTTLEWORTH, FLETCHER BEACH, LLOYD ANDRIEZEN, FRANCES M. DICKINSON BERRY, A. HAIG, and T. TELFORD-SMITH.
8. Congenital General Paralysis. P. W. MACDONALD and A. DAVIDSON.
9. A Discussion on the Mental Conditions Involved in Post-Hypnotic Appreciation of Time. J. MILNE BRAMWELL, W. LLOYD ANDRIEZEN, and G. E. SHUTTLEWORTH.
10. Urgency of Legislation for the Well-to-Do Inebriate. J. F. SUTHERLAND.
11. Alcoholism in its Relation to Heredity. G. ARCHDALL REID.

1.—Simpson considers the slow, irregular and gradual manner in which **plague** acquires a hold over a locality into which it is imported and which may later on become the scene of epidemic, and the obscurity which often surrounds the earlier cases, two especially characteristic features. There are two varieties which may escape attention for some time, and thus permit the germs of the disease to be extensively spread. These are the pneumonic and ambulant varieties. The pneumonic variety is very infective owing to the fact that the sputum frequently contains almost a pure culture of plague-bacilli. Beyond cough and fever, and the prostration, which is exceptionally severe and far in excess of what ought to be expected from the small amount of lung involved, there are few signs in this particular form to make one suspect that the disease is plague. The only certain means of diagnosis during life is by the discovery of the characteristic cocco-bacilli in the sputum. It should be definitely determined also that the diplo-bacteria discovered are the plague microbes, which can be done by Haffkine's stalactite test. The ambulant, on nonfatal form of plague, is more likely to escape attention, because of the slight constitutional disturbance and the likelihood of mistaking it for some other condition; consequently, it is a greater danger to the community. The condition is not discernibly infectious, cases appearing to crop up unconnected with one another, which are generally classified as cases of mumps, syphilis, scrofulous glandular affections, or malaria. This form is only distinguished by a careful inquiry into the history and by elimination. Examination of the blood should be made, as in some cases the characteristic bacillus may be found. If unrecognized, the disease gradually gains hold on the locality, and later on develops into the more virulent type. Simpson describes the ordinary bubonic form at some length. The septic variety of plague is the most virulent. Lymphatic glands show no special enlargement during life, but after death the glands are found to be generally infected, being somewhat enlarged and much congested. In this form the bacilli early invade the blood in large numbers and are easily detected. Its chief characteristic is the rapidity of its development and fatality. The chief postmortem characteristics of plague are those of engorgement and hemorrhage. There is also parenchymatous degeneration in the heart, liver, spleen and kidneys. The bubo consists of a number of congested glands embedded in a mass of extravasated blood and with extensive exudation into the adjoining areolar tissue, the larger bloodvessels being often involved. In the pneumonic type, there are, in addition to the general pulmonary engorgement, several pneumonic patches. Plague-bacilli are to be found in different varieties in the lymphatic glands, and in the serous or sanguinolent exudation around them, in the blood, spleen, lungs, liver, bile, urine, peritoneal fluid, and in the fluid of the brain. The treatment is symptomatic. The cases should be immediately isolated; the sputum, urine, and excreta should be received in vessels containing mercuric chlorid of the strength of 1 part in 500, while a solution of half this strength should be used for soaking soiled clothes, disinfecting cups, spoons, etc., and washing the physicians' and attendants' hands. It is especially important not to throw any infected matter into the drains on account of the likelihood of infecting rats in the sewers. If patients die, they should be wrapped in sheets soaked in strong bichlorid solution, and the body be surrounded in the coffin by carbolized sawdust. [S.M.H.]

2.—Macdonald, as the result of a study of **malaria** in the Spanish Sierra, has determined that the Anopheles claviger is the predominating anopheles present in this district, and his experiments have led him to believe that it to is this mosquito that a large majority of the cases of malaria found there are to be attributed. [S.M.H.]

3.—Nicolson believes that the conflicting differences and divergencies of opinion among medical men and medical psychologists in lunacy cases should not occur if they know their work, and if they carry it out in an honorable, careful, independent, and fearless manner. [S M H]

4.—This article relates to a discussion of a clause in the **Lunacy Bill** of 1899, by which a medical man will be enabled to place for a definite time, in a definite place, under a definite person, patients suffering from mental disease which is not of a confirmed character. The practitioner must certify that the insanity is only temporary, and must send a notice to the commissioners granting them the privilege of visiting the patient. The person receiving the patient must likewise inform the commissioners, and must keep them informed of any change in the custody of the patient. The patient may be kept under these conditions for 6 months. At the termination of this time he is not received again under similar terms before the expiration of 2 years. Savage is of the opinion that the carrying out of this clause will result in the **early treatment of incipient insanity,** the importance of which is unquestionable. [S M.H.]

5.—Campbell has for a long time considered **general paralysis** a toxemia. The association between syphilis and general paralysis is very close, and he inclines to believe that syphilis is the cause of the morbid blood-state which occasions the grave changes, not only in the nervous system of general paralytics, but in almost every organ and tissue of their bodies. As to the point of attack of the poison, he thinks it probable that following physiologic rules the neuron will first show signs of degeneration at that point which is furthest removed from the chief trophic supply, or where it is most highly organized and functionally susceptible. [S.M.H.]

7.—Shuttleworth reviews the methods of **treatment of epileptics and imbeciles** in vogue today, paying special attention to the deficiencies existent in England. In the discussion, Dr. Beach said he was in the habit of using the bromids of potassium and ammonium, either alone or in combination, varying the dose from 15 to 30 grains three times daily. In order to avoid the deterioration of function of the spinal cord he administered 5 drops of liquor strychninae. To avoid the bromid rash, he systematically prescribed liquor arsenicalis. He continues the use of the bromid through a period of 2 years after the last fit, and in some cases in diminished doses during the third year. The cause of the condition should always be searched for and removed. The iodids should be administered when there is a history of congenital or acquired syphilis. He believes that astigmatism giving rise to eyestrain frequently acts as a reflex cause of epilepsy. In the matter of diet, he omits meat and eggs for a time. Children whose parents are known to be neurotic or epileptic require to be very carefully brought up. Epileptics should not marry, since a considerable portion of their children will prove to be epileptics. When the

number of fits is so great as to prevent the patient from obtaining or continuing at work, he should be removed to an epileptic colony. The **insane epileptic** should be treated in the same way as sane epileptics, and all the best cases should have scholastic and industrial education. In the treatment of **imbeciles** much attention should be paid to the hygienic conditions under which they live. Exercises in the open air, when possible, or dancing, gymnastics or other games should be ecouraged in wet weather. Their diet should be liberal, and consist chiefly of cocoa and milk, bread and milk, farinaceous puddings, vegetables and cooked fruit, together with a goodly supply of meat. It is essential in these cases to lay a good physical foundation before attempting to improve the mind. Great attention should be paid to the correction of faulty habits, and the patient should be trained to evacuate the bowels and use the chamber at regular intervals. The moral training, which goes on side by side with the physical and mental training, should consist of an endeavor to inculcate ideas of justice, self-reliance, prudence, forethought, perseverance, etc. The intellectual training should begin by the cultivation of the senses, and especially by improving the sense of touch. Teaching must be carried out by the use of concrete forms, at first of a simple character, but becoming more complex as time goes on. When speech is indistinct, it should be corrected by a speech drill. After the senses have been educated and the speech improved, higher branches of learning, such as reading, writing, arithmetic, drawing, etc., should be taught. Dr. Andriezen has had good results in the treatment of epilepsy by a combination of 5 grains of antipyrin with 15 grains of ammonium bromid. It prevents stupor and promotes mental brightness. Great care should be given to the correction of gastrointestinal defects. Dr. Haig calls attention to the great similarity between epilepsy and migraine. The diet of these patients should exclude animal flesh, which contains exanthin and uric acid, and vegetable substances, such as tea and coffee, rich in alkaloids, which are xanthins, and thereby lower the blood-pressure and diminish the frequency and severity of the attacks. With a proper dietary he believes we can look forward to reducing the fits to insignificant proportions in quite one-half of all functional cases. He gives a dietary in his discussion for those who suffer from gout, rheumatism, and allied diseases. Telford-Smith approves of the **colony treatment of epileptics,** and for the purposes of such treatment would divide epileptics into the following five classes, each group needing to be dealt with differently: (1) Mild cases of epilepsy with normal intellect, to attend ordinary schools. (2) Mild cases of epilepsy with feebleminded-ness, to go to special schools. (3) Severe cases of epilepsy, not insane or imbecile, to go to special homes for special treatment. (4) Severe cases of epilepsy with insanity, to go to the lunatic asylums. (5) Severe cases of epilepsy with idiocy or imbecility, to go to custodial idiot asylums. [S.M.H.]

8.—MacDonald and Davidson report 3 cases of **congenital general paralysis.** In all these cases the family history showed a strong neuropathic taint. There was no history of intermarriage or syphilis on the part of the parents. As to the etiology, alcohol may have played a small part, but hereditary predisposition was the only predominating factor in the production of these cases. They believe that the proportion of hereditary cases is much higher among the young than in after life. Two of the 3 patients died under 11 years of age. These congenital cases run varying courses; some die early while others drag on. Generally speaking, however, the disease has a longer life-history in congenital cases than in the acquired adult general paralysis. An important point in the symptomatology of the cases reported is that all three were certified as congenital idiots, which does not agree with the recorded cases of general paralysis in the young. On account of the mental condition subjective symptoms were absent, but the progressive mental deterioration was early recognized, and was as intense as in the ordinary general paralytic. In one case, in walking, the boy straddled about in a semibent position, holding out his hands as if to balance himself, and on the slightest touch toppled over. The morbid appearances were characteristic of the classic morbid appearances met with in adult general paralysis, which rendered doubt as to the nature of the cases unnecessary. That they were not cases of idiocy is shown by the fact that they ran a totally different course. From their earliest infancy these cases failed to grow or develop, and at a very early state of their existence drifted into contracted and bedridden dements. They screamed, bit their wrists, made hideous noises, and laid huddled and rolled up in bed, which is in direct contrast to the comparatively quiet, calm course of the ordinary idiot. A careful search of the literature shows an almost complete absence of reference to cases dating from birth. In the discussion of this paper, Weatherly expressed the view that too many cases of general paralysis had been attributed to syphilis. He thought that the stress on the nervous system, especially sexual excesses, was a very conspicuous cause of the disease. McDowell considered syphilis the chief, if not the only, cause of general paralysis. Briscoe thought there were three points in the etiology of general paralysis: an existing cause, the specific element, and a neuropathic tendency. Mahood did not consider syphilis the only cause. He had observed a hereditary case which had been classed as a congenital idiot. In this case there was no trace of syphilis in the parents or their children. [S.M.H.]

Lancet.

September 16, 1899. [No. 3968.]

1. The Growth of Science in the Century and its Lessons. Michael Foster.
2. The Increase of Cancer. Joseph Frank Payne.
3. Epilepsy of Cardio-vascular Origin. R. Llewelyn Jones and T. Aldous Clinch.
4. The Role of Insects, Arachnids, and Myriapods in the Propagation of Infective Diseases of Man and Animals. Geo. Nuttall.
5. A Case of Leprosy in England. J. Ross MacMahon.
6. Antityphoid Serum in the Treatment of Enteric Fever. T. R. J. Cowen.
7. On Streptothrix Infections. Alexander G. R. Foulerton.
8. On the Various Domestic Remedies, with their Effects, used by the People of India for Certain Diseases of the Ear. H. J. Dadysett.
9. Cardiac Thrombosis and its Causes. Charles J. Martin and George E. Rennie.
10. Poisoning by Mercuric Chlorid (Corrosive Sublimate); Death; Necropsy. W. H. Coates.
11. Virility of Cryptorchids. R. Milner Smyth.
12. A Case of Epistaxis due to a Leech. A. J. Manasseh.
13. Two Cases of Unilateral Nasal Diphtheria. C. J. Symonds.
14. A Case in which Lumbricoids were a Cause of Obstructing the Small Intestine; Sequel to a Case of Alleged Poisoning; Necropsy. Donald R. MacRae.

2.—Payne believes **cancer** is becoming increasingly frequent as a cause of disease, and that in this increase there is a marked prominence of cancer of the digestive organs. Cancer of the generative organs increase less rapidly. There is no explanation yet given that satisfactorily accounts for this increase. It is unquestionable that a certain proportion of it is dependent upon more careful measures of diagnosis and registration, but this fails by very much in accounting for the total increase. [S.M.H.]

3.—Jones and Clinch review at some length the literature relating to **epilepsy of cardiovascular origin,** and report a case occurring in a man aged 60 years. The subject was insane, and had previously led a very intemperate life. There was an indefinite history of syphilis. The chief points of interest in the case were the cardiovascular degeneration, accompanied by slow pulse, convulsions, loss of kneejerk, cervicofacial paresis, and spasticity of the limbs. There was some ptosis and deviation of the head to the right. The autopsy showed a lesion of the left optic thalamus which satisfactorily accounted for the facial paresis. The ptosis was of more difficult explanation. It may be assumed that the syphilitic process had invaded the right third nerve. Ptosis being one of the commonest cranial paralyses due to syphilitic meningitis, it is suggested as not improbable that the nerve-fibers supplying the levator palpebrae are more sensitive to pressure than the remaining components of the nerve-trunk. The deviation of the head and eyes to the right is of typical cerebral significance, and almost suggest a cortical irritation. There was shown at the autopsy an area of necrosis beneath the left inferior quadrigemenal body anterior

to the outer part of the posterior longitudinal tract, which by its contiguity to the posterior longitudinal bundle, the associational fibers for conjugate movement of the head and eyes, might alone account for the deviation, but it must be remembered that fibers of the superior peduncle are interrupted by this lesion and that internal arcuate fibers which pass by the restiform body into the cerebellum have been interrupted by a second area of necrosis at the level of the lower border of the pons occupying the orifice of the olivary body. The following ocular phenomena were observed in a dog, the left half of whose cerebellum had been removed: On the left side there existed deviation downward; on the right side deviation downward and outward, with ptosis partly corrected by associated overaction of the frontalis muscle. This group of symptoms showed marked points of relation with those observed in the present case. The bradycardia can be explained by the infiltration of the spinal accessory and vagus by syphilitic exudation. The only spinal lesions present which might account for the absent kneejerk were disease of a spinal ganglion and a posterior root below the center for the kneejerk, though on the same side, while on the normal side the descending septomarginal tract of Bruce was diminished. The authors, therefore, incline to the belief that the bulbar lesions were a cause, also, of the lost kneejerk. The presence of the ankle-clonus was attributed to the general sclerotic state of the cord. Its presence on the right side, in the light of the existing lesions on the nerve-roots, is not explained. The treatment in this case consisted in the free administration of cardiac stimulants—and was without effect. The late appearance of the signs pointing to a neural origin of the bradycardia prevented the use of the antisyphilitic treatment which was indicated. [S.M.H.]

4.—According to Nuttall insects may play a passive or active role as carriers of pathogenic organisms. In the passive role Musca domestica, and allied species, are chiefly active. While they are incapable of biting, they may from the nature of their food carry pathogenic bacteria about on their bodies, or within their alimentary tracts, and deposit them on lesions of the mucous membranes or skin, or on food. Anthrax, the plague, cholera, frambesia, Egyptian ophthalmia, and "Florida sore-eye" can be transmitted in this way. It is not improbable that flies fed on the excreta of typhoid fever are capable of infecting food. The active role may be played by blood-sucking flies in the propagation of bacterial diseases; at least, it is so stated by some authorities. Nuttall, in his experiments on animals suffering from plague, anthrax, mouse-septicemia, and chicken-cholera, obtained entirely negative results. Insects, arachnids, and myriapods, while serving as **intermediary hosts,** may play a passive or an active role in the spread of disease due to animal parasites. They play a passive role when they are devoured by a host of the parasite they contain; an active role is played when they inoculate the parasite into a host by means of their proboscis. Insects, arachnids, etc., may play a passive or active role without serving as intermediary hosts; a passive role when they transport eggs or animal parasites and deposit them in food or other substances; an active role when they carry the agent of disease from one animal to another and inoculate the parasite. [S.M.H.]

5.—MacMahon observed a **case of leprosy** in a man aged 35 years. The subject had never been out of Britain, and had not, to his knowledge, seen a leper. In searching for the origin of his infection, MacMahon was reminded of having seen a woman in a far advanced stage of leprosy in London about two years prior to the turning up of this case. She spent one night in London at a third-rate hotel where it was not the custom to change the sheets constantly. It is suggested that some such circumstance as this may have accounted for the development of the present case. [S.M H.]

6.—Cowen used **antityphoid serum** in an advanced and severe case of typhoid fever, in which the diagnosis was confirmed by the discovery of the typhoid-bacillus in the stool. Two injections were given; the first, consisting of 3 cc. of the serum, was given about the fifth week. A few days later a second injection, consisting of 7 cc., was administered. There was a marked rise of temperature following both injections, occurring within a period of 3 hours. There was a rapid and marked improvement in the general condition, and an increase of bodily strength. The rapidity of action suggested that a direct antidote to the toxin was either a constituent of the injection, or that a formation of such in the blood took place with great quickness. A peculiar symptom noted was marked difficulty of speech, with subsequent convulsions. These seemed to be closely connected with the administration of the serum, but were attributed to an embolus in one of the cerebral arteries. The patient's physical condition was perfectly restored, but there was a permanent mental defect. [S M.H.]

7.—Foulerton observed a patient, a subject of **winter cough,** who had a small, red painful lump over the left clavicle. This gradually increased in size until it finally extended about two inches above the clavicle, and two or three inches below it. It was nodular, purple in color, and here and there over its surface there were small yellow pustules, some of which had broken, leaving small, punched-out ulcers. Examination of the chest showed weak breath-sounds on both sides, almost inaudible over the left lung. A few rales were heard over the right lung. There was considerable expectoration of a thin and occasionally blood-tinged sputum. In this sputum, and in the pus from the skin lesions, small yellow grains were found, which microscopically proved to be the **mycelial masses** of a streptothrix fungus. No tubercle-bacilli were found in the sputum or pus. Glycerin-agar cultures from the pus of freshly opened pustule showed a streptothrix fungus which could not be identified with any of the species previously described. The rate of growth was very slow, a colony springing from a single grain attaining at the end of three months a diameter of 0.3 cm. The growth had a distinct resemblance to that of Bacillus tuberculosis. The substance of the colony, after about eight weeks' growth, was quite loose and almost friable, but the growth had penetrated some distance below the surface of the medium. At this age it consisted of masses of branching mycelium, which was mostly in the sporulating stage and broke up very easily. In still older cultures practically all traces of mycelium had disappeared, and was replaced by masses of small, spherical bodies, which were taken to be of the nature of spores. The growth of the second set of tubes was still more scanty, and on the next set of sub-cultures there was scarcely any growth. The growth on horse-serum and ox-serum was very small in amount and some peptonization apparently occurred as the culture sank gradually into the serum. In peptone beef-broth growth occurred in small discoid, whitish colonies, the size of a pin's head, the medium meanwhile remaining clear. All these cultures were obtained under ordinary aerobic conditions at a temperature of 37° C. Tubes of glycerin-agar incubated under anaerobic conditions showed no evidence of definite growth. Two rabbits inoculated with sub-cultures in peptone beef-broth survived for two months, and when killed showed no lesions which could be attributed to the inoculation. [S.M H.]

9.—In speaking of **cardiac thrombosis,** Martin and Rennie refer to the white fibrinous clots which they believe can only be formed while the blood is still circulating, and therefore antemortem. In 450 postmortem examinations they found more or less cardiac thrombosis to have occurred in 42% of patients; 80% of these died either from pneumonia or from suppurative diseases, such as pyemia or septic peritonitis. They further observed that in the same diseases in which cardiac thrombosis often occurs at other times the blood at the time of the autopsy was still fluid and had lost its spontaneous coagulability. These diseases, which are associated with either an increase of blood-coagulability, or on the other hand with diminution in coagulability, are those which are attended with a considerable disintegration of some of the cellular elements of the body. Under such circumstances the lymph flowing from the parts affected presumably contains more or less of the products of cell-destruction, among them nucleoalbumins. It has been shown experimentally that nucleoalbumin, when injected into the veins of an animal, produce extensive intravascular clotting, and on the other hand it sometimes causes the shed blood to partially or entirely lose its power to clot spontaneously. It has been further determined that clotting occurs in situations where the tension of carbonic acid is highest, and that the rapidity with which the solution is allowed to enter the circulation is an important factor in determining the degree of coagulation. The more rapidly it is introduced, the greater the clotting. If allowed to flow slowly into a vein it can be introduced in

great quantity without causing thrombosis; consequently, one finds thrombosis most usually in the right side of the heart and in the pulmonary artery. The blood in the right side of the heart, in addition to being highly charged with CO_2 is submitted to a violent churning movement due to the cardiac contractions; therefore, owing to the presence of nucleoalbumin, excess of CO_2, and the violent movement, conditions which exist in the diseases named, separation of fibrin may occur. The course of the blood-stream draws the fibrin threads down from the auricle into ventricle, where they adhere to other strands of the fibrin. These are again drawn by the direction of the current into the pulmonary artery, thereby rendering both the auriculo-ventricular and pulmonary valves incompetent. Such a condition does not necessitate immediate death; life may be continued some hours or days after this condition has apparently existed. If life continues, the tough, whipped clot receives a further coating of smooth shiny fibrin by gradual deposition. As has been said, if the nucleoalbumins are introduced with sufficient slowness and in sufficient amount, there will be created a condition in which the blood has lost all tendency to spontaneous clotting. This is explained in the following manner. Nucleoalbumins are capable of being split up by a variety of means into a nuclein and a proteid. The nuclein is concerned in the separation of fibrin from fibrinogen; the proteid, histon, possesses a marked hindering action upon coagulation, leading in extreme cases to its absolute suspension. When nuclein is injected alone, thrombosis occurs. When histon is injected alone a fluid, noncoagulable blood results. When the compound nucleoalbumin is injected, the action of the nuclein radical occurs, first causing a rise in coagulability and perhaps thrombosis; afterwards the histon for some reason obtains a predominating influence and a fluid, noncoagulable blood results. The authors believe that not infrequently death is brought about in cases of pneumonia as the result of cardiac thrombosis, and that the treatment of patients suffering from this disease might with advantage be directed to lowering the coagulability of the blood with a view to obviating this source of danger. [S.M.H.]

10.—Coates had under his care a man, aged 42 years, who had by accident drunk the contents of a bottle containing a solution of mercuric chlorid, which was supposed to have contained about 40 grains. The patient lived for 12 days with all the gastrointestinal symptoms of **mercurial poisoning,** accompanied by those resulting from the absorption of the drug. He died at the expiration of this time from perforation of the stomach. The perforation was in the center of a large patch of ulceration along the greater curvature, 3½ inches from the cardiac end of the stomach. There was no trace of mercury found in the analysis of the stomach and intestines, but a very minute quantity was recovered from the liver. [S.M.H]

11.—Smyth, in operating upon a man suffering from strangulated, incomplete inguinal hernia, discovered that the subject was a **cryptorchid.** He had been married 16 years previously, at the age of 18 years, and had had 5 children, which result confirms the virility of cryptorchids, a view held by some authorities. [S.M.H.]

12.—Manasseh, in examining a young child who had sufferred from continuous **nasal bleeding** for 3 days, discovered a leech hanging over the posterior wall of the pharynx, and clinging to the posterior nares. The leech was removed and the bleeding ceased immediately. Several such cases have been observed in Beyrout, in which district leeches are present in the water.

13.—Symonds reports 2 cases of **unilateral nasal diphtheria,** in which the constitutional symptoms were very slight.

14.—MacRea observed a boy, aged 6½ years, who having been perfectly well an hour previously, suddenly fell into a state of collapse. He was found with an empty bottle of furniture polish in his hand, the contents of which he was supposed to have swallowed. He had one convulsive seizure. The case was **treated as one of poisoning.** He regained consciousness, but later relapsed into a state of drowsiness, following which he had another lucid interval. This was succeeded by a violent convulsive seizure, some few hours after which the patient died. The autopsy revealed no evidence of poisoning of any nature, but on opening the abdomen the stomach and intestines were found distended, yet of normal color. The upper portion of the large intestine was distended and occupied by large masses of inspissated feces. In the lower portion of the small intestine was found a **round worm,** 14 inches long and almost an inch in circumference. It was so coiled up as to form an incomplete obstruction of the bowel. The obstruction was completed by the presence of two other round worms. One of these was 12 inches long and ¾ of an inch in circumference; the other 6 inches long. The real cause of death was supposed to have been the **intestinal obstruction.** The treatment adopted probably did more harm than good. [S.M.H.]

New York Medical Journal.

September 30, 1899. [Vol. lxx, No. 14.]

1. Displacements of the Heart in Lateral Curvature. A Study in Therapeutics. Thomas E. Satterthwaite.
2. Removal of a Foreign Body from the Bronchial Tube through the Tracheal Opening. Report of a Case. A. Coolidge, Jr.
3. A New Series of Therapeutic Agents. (Preliminary Report.) Karl Schwickerath.
4. The *Ameba ciliaria* in Disease. Henry Gereon Graham.
5. Typhomalarial Fever. Charles R. Grandy.
6. A Third Report Relating to the Heated-blood Treatment of Croupous Pneumonia. Carl E. Elfstrom.

1.—Displacements of the thoracic and abdominal viscera frequently result **from lateral curvature.** The contents of the thorax suffer most, since the deformity is usually most marked in the dorsal region. In advanced degrees of lateral curvature, unnatural positions of these viscera may so seriously affect their function as to disturb both respiration and circulation. Satterthwaite has seen a number of cases in which he considered the curvature the principal factor in determining cardiac and pulmonary disease. He has seen improvement in the curves of the spine, and corresponding to it an improvement in the position of the heart, without the administration of other remedies, so favorably affect the circulation, respiration, and general health, that he believes that in some cases the lateral curvature is the cause of the functional disturbance rather than the cachexia which is so apt to attend it. The usual plan of treatment which should be adopted in these cases consists in, (1) resistant exercises with forcible pressure, (2) carbonated brine-baths, (3) massage, (4) faradism, (5) nutrients. The author describes at some length the system of exercises which he resorts to for the correction of the spinal deformity, and relates a series of cases which have been benefited by this treatment. He calls attention to the fact that the spinal supports which have been so much used for the treatment of these conditions are only palliative in their effect. Special exercises adapted to the special deformity are requisite in all cases. Resistant exercises are also needed, and with them forcible pressure. [S.M.H.]

2.—In the **removal of foreign bodies from the air-passages,** Coolidge recommends the method introduced by Schroetter of passing a straight speculum into the trachea and bending the upper part of the body and head backward and to one side so that the speculum can be pushed downward and that its axis is a continuation of the axis of the lower part of the trachea. He reports a case in which he used this method successfully. A man, 23 years old, who had worn a tracheotomy-tube for 20 years on account of stenosis of the larynx, had drawn the tube which had become detached from its shield into the air-passages. The patient was anesthetized, the tracheal opening enlarged and for want of another suitable tube a urethroscope was introduced into the trachea. This was pushed to within about an inch of the bifurcation of the trachea without any difficulty; by means of reflected light the foreign body was seen in the right bronchus, seized with a long pair of alligator forceps and removed without difficulty. The patient suffered no ill effects from the operation. [M.B.T.]

3.—In order to overcome the irritating action of such antiseptics as mercuric chlorid, silver nitrate, and copper sulfate, Schwickerath obtained a pure nuclein from yeast, with which he has been able to produce chemical compounds of nuclein with silver, mercury, copper, and the iron oxids. These compounds contain the metals in true chemic

combination. They do not precipitate solutions of the albuminous substances that prevent the irritating action of the drugs. Practical prolonged clinical investigations have shown that these new compounds possess all the therapeutic advantages of the respective inorganic salts without their disadvantages. The mercury compound displays the greatest activity. These compounds are known as **mercurol, nargol, cuprol,** and **ferrinol.** [S.M.H.]

4.—To be concluded in another issue.

5.—Grandy, after reviewing briefly the more recent literature on the subject of **typhomalarial fever,** and reporting two cases which would previously have been classified under this heading, reaches the following conclusions: That typhoid fever may occur in an individual who already has virulent malarial organisms in his blood; that these organisms produce symptoms either at the onset or during the convalescence of the typhoid fever; that they remain quiescent during the course of that disease (only one case to the contrary); that the early malarial symptoms may be checked by quinin, and without influencing the course of the typhoid fever; and consequently that the two diseases should no more be classed as a mixed infection than typhoid fever and measles occurring in the same person. [S.M.H.]

6.—Elfstrom adds three cases of **croupous pneumonia** to his list of six previously reported, in which he has used the heated-blood treatment. The results are favorable in these cases. Of the nine cases reported, two have been fatal. He says that the two fatal cases showed unmistakable signs of meningitis before injections were given, in consequence of which he protests against these two cases being counted in calculating the percentage of recoveries, and argues that up to the present time his percentage has been 100. He only injected the two fatal cases to ascertain its action on the lungs, without any expectation of cure. [S.M.H.]

Medical Record.

September 30, 1899. [Vol. 56, No. 14.]

1. A Further View of the Management of the Deformity of Hip-Disease. A. B. JUDSON.
2. The Neglect of Sexual Symptoms in the Treatment of the Male Genitourinary Organs. FOLLEN CABOT.
3. The Induction of Premature Labor in Cases of Albuminuria. ELIZABETH JARRETT.
4. The Toxic Origin of Certain Neuroses and Psychoses. G. W. MCCASKEY.
5. Dangers of Headache Powders: Report of a Case with Tests for the Suspected Ingredients. JACOB SOBEL.
6. A Case of Hereditary Arthritis Deformans Terminating in Fatal Pernicious Anemia. JOHN S. BILLINGS.
7. Report of Two Cases of Acute Suppurative Osteomyelitis. G. H. GRANT.

1.—Judson advises the **education of patients wearing hip-splints** in the habitual observance of the normal rhythm in walking in order to diminish the appearance of lameness. Deformity and factitious shortening are caused by the patient's instinctive and habitual effort to keep the affected limb clear of the ground by elevating the pelvis, and this is accompanied by adduction. The patient does this to escape the pain of unexpected contact with the ground; in withholding the bad foot the well one hastens forward to do the work. A well person can pass for lame by giving more time to one foot than the other, and one seriously lame can lessen the appearance of being so by habitually observing the natural rhythm of locomotion. [M.B.T.]

2.—The importance of **carefully investigating sexual symptoms** in genitourinary practice is emphasized; the indiscriminate use of irrigation is believed to be unscientific and often injurious. Before urethral instrumentation rectal examination is advised, and Cabot believes that many forms of remote nervous symptoms are directly traceable to disorders of the sexual organs. [M.B.T.]

3.—Jarrett discusses the **induction of premature labor** in cases of albuminuria. Many cases of albuminous urine do not terminate in eclampsia, nor do all cases of eclampsia terminate fatally, either for mother or child. There are certain indications which point so unmistakably to danger for the mother that the question of the induction of labor prematurely should be seriously considered. Cases in which premature labor is indicated are those in which a decided kidney-lesion can be determined by the chemic and microscopic urinalysis. That albumin may exist in the urine and sometimes in considerable quantity as merely a functional condition, most pathologists will admit, and while the obstetrician should watch this feature with more than ordinary care, yet he is not justified in suggesting premature delivery on this ground alone. [W.K.]

4.—McCaskey insists upon the importance of investigating **neuroses and psychoses** with a view of the **possibility of origin in an intoxication,** and believes that the stomach-contents, the urine, the feces, and the blood, should be investigated in such cases, the urine being examined particularly for an increase in ethereal sulfates, the presence of acetone, sugar, etc.; he considers Gerhardt's iron-reaction in the blood of importance. If large numbers of parasites and bacteria are found in the intestinal contents these may be considered to some extent an indication of intoxication from this source. He notes two cases of chronic psychoses that were cured by treatment directed to overcoming an intoxication, and other cases in which a similar diagnosis was made and treatment based upon it caused cure. [D.L.E.]

5.—The case was that of a woman of 25 who had been in the habit of taking powders called "Anti-Headache, or Half Hour Headache Healer," which is a **quack medicine** guaranteed not to contain any dangerous drug. She had taken three powders **for a violent headache** and had become severely cyanosed and collapsed, her condition being decidedly grave. She recovered under suitable treatment. Examination of the headache powders showed that they contained large quantities of acetanilid. [D.L.E.]

6.—The case recorded by Billings was that of a woman of 47 whose mother and grandmother had had a joint-affection similar to the one which this patient presented, thus furnishing interesting evidence of the **hereditary tendency** of the disease in this family. The patient, whose case was reported, had been a sufferer from the **joint-affection** for 12 years. She presented the general signs of arthritis deformans. A year before the time that she was seen she had begun to lose strength, and had grown pale and dyspneic. There was some edema. She had become markedly emaciated and had acquired the typical lemon-yellow appearance of the skin generally seen in pernicious anemia. Her red blood-corpuscles were reduced to 1,344,000; the leukocytes were 9,200; the hemoglobin, 48%. There were no nucleated or polychromatophilic red corpuscles. The lymphocytes were increased to 84.3% of all the leukocytes. The condition became worse and the patient died within 2 weeks. Billings notes the interest of the history of heredity, and discusses the blood-condition. He believes, in spite of the absence of nucleated corpuscles, that the case was one of **pernicious anemia;** he considers the lymphemia merely a terminal one. [D.L.E.]

7.—Two cases of acute suppurative **osteomyelitis** are reported following infected stone-bruises. In one case the stone-bruise was punctured with a thorn; 6 days later an abscess of the heel was opened; this was followed by lobar pneumonia, and during convalescence osteomyelitis of the region of the left knee occurred, and this was followed by osteomyelitis of the middle of the femur. It was found necessary to amputate the femur because of persistent suppurating necrosis and consequent exhaustion, after which recovery followed. In the second case necrosis and separation of the entire head of the tibia followed the disease. [M.B.T.]

Medical News.

September 30, 1899. [Vol. lxxv, No. 14.]

1. Diphtheria: Etiology, Diagnosis, Prophylaxis. JOHN DUDLEY DUNHAM.
2. Suggestions Concerning Early Diagnosis in Pulmonary Tuberculosis. S. G. BONNEY.
3. Some Surgical Aspects of Syphilis. (Concluded.) FRANK HARTLEY.
4. Wound of the Urinary Tract During an Operation for Acute Appendicitis; Spontaneous Closure of the Urinary Fistula; Recovery. CHARLES A. POWERS.
5. Suggestion as a Means of Producing Sleep in the Case of a Patient Said to be Insane. J. M. F. GIBBONS.

1.—Dunham accepts the etiologic relation of the Klebs-Löffler bacillus to diphtheria, and prefers Joos' media for the purpose of making **diagnostic cultures.** He believes that the spread of the disease is probably accomplished by persons apparently healthy, who carry virulent bacilli in their throats, and he thinks that it could be more readily controled if all persons in whose throats they were found should be isolated. He examined the secretion of the fauces of 11 physicians, and in 2, diphtheria-bacilli were present; in 1 case an exceedingly virulent form in pure culture. Both of these physicians had recently treated cases of diphtheria. [J.S.]

2.—Bonney holds **mistaken or delayed diagnosis** to be the cause of many thousand deaths per year from **pulmonary tuberculosis.** He discusses the statistics of 546 cases in his own practice, of whom 71% arrived in Colorado with distinct evidence of the disease in both lungs. The average duration of the disease in the East had been about 18 months, and the average amount of weight lost about 19 pounds. Some 15% of the cases had apparently followed an attack of influenza. In 21% the onset was of a definite bronchial character, and 20% gave a history of sudden hemorrhage. Bonney believes that medical men as a rule are too apt to disregard hemoptysis as an early symptom of pulmonary tuberculosis. Among the most important signs are the morning cough, daily rise of temperature, and constitutional disturbance. All of these, however, may be absent, and, therefore, no sign is of paramount importance. Of course the occurrence of hemorrhage is significant, and the physical examination of the chest with perhaps the aid of the x-rays is of great importance. This physical examination should be made upon the bare skin, and deep inspiration should be encouraged by asking the patient to cough. [J.S.]

3.—The joint-manifestations of **syphilis** fall under 4 varieties: (1) the acute and multiple synovitis; (2) the subacute or chronic serous synovitis occurring in the later stages; (3) a gumma situated in the neighborhood of the joint and extending into it, giving rise to a serous or papillary synovitis and (4) a gradual involvement of the joint, secondary to a periostitis or an osteomyelitis. Surgically speaking the most important syphilitic manifestations in bones are the exostosis, hyperostosis and osteophytis, especially in hereditary cases, and this is because of the difficulty in recognizing their true nature. Gumma of the skull when of rapid growth is likely to be mistaken for tuberculosis or sarcoma. This also holds true in other parts of the osseous system. Syphilis of the rectum often closely simulates carcinoma and great care is necessary in making a proper diagnosis. [G.B W.]

4.—A boy, 18 years of age, was operated upon for an attack of **acute appendicitis.** During the breaking up of some firm adhesions in the pelvis, there was a gush of urine some two ounces or more, and it kept welling up during the operation. The point of rupture in the urinary tract could not be found. Two glass drainage-tubes were inserted and the wound well packed with gauze. For 5 days the urine kept coming through the wound, but in ever-diminishing quantities, but at the end of that time it stopped and the urinary fistula seemed closed. The patient made a complete recovery. [G.B.W.]

5.—Gibbons reports a case that he describes as **acute melancholia** in which the patient had made many attempts at suicide, and was apparently exhausting her strength by refusing to lie down and sleep. He gave her a bottle containing an indifferent mixture labeled "laudanum." She immediately took the entire contents, lay down with the expectation of sleeping, and did sleep for several hours. [J S.]

Boston Medical and Surgical Journal.

September 28, 1899. [Vol. cxli, No. 13.]

1. The Completed History of a Case of Total Extirpation of the Stomach, with Remarks upon the Surgical Treatment of Gastric Cancer. Maurice H. Richardson.
2. The Boston Dispensary Clinic in Mental Diseases. Arthur C. Jelly.
3. Administration of Ether at the Boston City Hospital. J. B. Blake.
4. Cyclical, or Periodical Vomiting. Albert N. Blodgett.
5. Dermoid Cyst of the Ovary with Twisted Pedicle in a Child of Ten Years; Operation with Recovery. J. V. Meigs.

1.—See Philadelphia Medical Journal, Vol. IV, page 622.

2.—Jelly reports the following cases: (1) a boy of 4, the youngest of seven children, two of whom had died from cerebral or spinal trouble, and one of whom was an imbecile. The patient had **epileptic convulsions** at the age of 2, and now can scarcely walk, and has incoordination of the hands. He is apparently a total imbecile. (2) A boy of 16, without neurotic heredity, at the age of 13 had a spell during which he felt dull, and stupid, and slept for two days. These spells have recurred from time to time. He had lack of decision and disinclination in the performance of actions that brings him in contact with strangers. He was able to take abundant physical exercise however. The physical examination showed a slightly infantile type of body, but under treatment he improved comsiderably and was able to work. Later his father attempted suicide. (3) A woman, of 57 years, who had delusions that enemies placed snakes in her mouth when asleep. These would then escape and bite or clasp her. She was not dangerous, and able to earn her own living. The disease appeared to have been produced by an attack of puerperal delirium at the age of 31. (4) A woman of 48, who is somewhat melancholic, has occasionally **suicidal tendencies** that she is able to resist; and finally (5) a woman of 25, who has nervous dyspepsia, severe headaches, and is despondent. (J.S.)

3.—Blake says that the awarding of an **ether prize,** the visitation of a **professional etherizer,** and the introduction of the ether chart have in the last 10 years greatly improved the etherization at the Boston City Hospital. He also says "that proportionately more ether is used in Boston than in any other city in the world," and again, "that ether is given, on the average, better in and about Boston than in any other place in the world (with the possible exception of London)." [These two last statements seem rather dogmatic to say the least. G B W.]

4.—Blodgett reports the case of a boy of 13 with slightly neurotic ancestry, who was well developed and precocious mentally and physically. His appetite was good, sometimes ravenous. Physical examination showed nothing abnormal. About once a month he had an attack of vomiting lasting over two days to a week, and preceded by a prodromal stage in which the patient feels languid, pale, and spiritless, with progressive anorexia and slight elevation of temperature. The attack began with **paroxysmal vomiting,** during which enormous quantities of fluid stomach-contents were expelled containing portions of food that had been ingested days before, and also abnormal material, such as lint, wool, feathers, etc., that had been swallowed by the patient. Careful observation of the patient showed that for two weeks succeeding the attack, he would be perfectly normal, there was then restlessness, voracious appetite, and he would swallow the most extraordinary substances, including candles and bootblacking. During this period also, the moral character of the patient would change completely. As a result of these observations, an attempt was made to abort the attacks by giving the patient a laxative and an emetic during the prodromal stage. This usually produced an immediate restoration of normal character, and in the course of time the attacks became less severe and finally disappeared. Careful investigation of the patient's habits for the purpose of discovering some etiologic factors was fruitless. Blodgett gives a brief review of the literature on this subject. [J.S.]

5.—Meigs reports a successful **ovariotomy** performed upon a girl aged 10 years for the removal of a dermoid cyst of the right ovary, the cyst having a twisted pedicle. The other ovary was found healthy. [W.K]

Journal American Medical Association.

September 30, 1899. [Vol. xxxiii, No. 14.]

1. Surgical Treatment of Abscess of the Lung. D. S. Fairchild.
2. Some of the Rare Forms of Hernia and their Radical Treatment. R. Harvey Reed.
3. Fibrosarcoma of Abdominal Wall. Albert I. Bouffleur.

4. Chronic Volvulus Produced by Absorption of a Myomatous Tumor after Salpingo-Oöphorectomy; a Clinical Note. JAMES F. W. ROSS.
5. Data Concerning Deformities of Extrauterine Gestation. ANDREW F. CURRIER.
6. Association of Pelvic Diseases and Insanity in Women, and the Influence of Treatment of the Local Disease upon the Mental Condition. H. A. TOMLINSON and MARY E. BASSETT.
7. Cholecystitis. CHARLES G. STOCKTON.
8. Responsibility of the Physician in Vaccination. JULIA W. CARPENTER.
9. Relation of Uric Acid to Migraine. JOHN A. LICHTY.
10. Migraine. SAMUEL J. WALKER.
11. The Douche. (Concluded.) FRANK A. STAHL.

1.—See this JOURNAL, Vol. III, p. 1331.
2. " " " " III, p. 1331.
3. " " " " III, p. 1272.

4.—A young woman was operated upon for an abdominal tumor which on opening the abdomen proved to be a **fibroid tumor** of the left broad ligament, too large to be removed with safety. Both ovaries and tubes were removed and a perfect recovery followed. A little over 4 years later the woman determined to have the tumor removed at all hazards. At the operation a tumor was found filling the pelvis and which proved to be nothing but the sigmoid flexure packed tightly with fecal matter and half twisted on the narrowing portion of the omega flexure. Ross suggests as a possible explanation that the tumor of the broad ligament diminished, after removal of the ovaries, from the size of a man's head to that of an orange, and that during this diminution, the rectum was stretched and its mesentery lengthened, and that after the tumor had undergone a reduction in size, the bowel, as a consequence of this increase in length of bowel and corresponding mesentery, was allowed to take a half turn on itself. [M.B T.]

5.—See this JOURNAL, Vol. III, p. 1334.

6.—As the result of a series of investigations carried on at St. Peter's State Hospital, Minnesota, to determine the relation between **pelvic disease in women and mental disease,** Tomlinson and Bassett conclude that menstrual disorder and pelvic disease, while quite common among insane women, in the majority of cases bear no apparent relation to the insanity; nor is the intensity of the mental disturbance in proportion to the gravity of the physical disease. In cases in which the insanity has existed for more than a year, or the patient has a defective nervous organization, treatment of the disease of the generative organs is practically without effect on the insanity, and in such cases operative interference resulting in the establishment of an artificial menopause almost invariably hastens the onset of dementia. Operative interference is called for in the treatment of pelvic disease among the insane for the same reasons that would determine the necessity for such treatment among the sane. [M.B.T.]

7.—See this JOURNAL, Vol. III, p. 1329.
8. " " " " III, p. 1338.
10. " " " " III, p. 1338.

Centralblatt für Gynäkologie.

August 5, 1899. [23. Jahrg., No. 31.]

1. Is the Integrity of the Amniotic Sac a "Conditio sine qua non" for the further Development of the Fetus after the Rupture of the Uterus and the Chorion, or not? F. NEUGEBAUER.
2. Vaginal Fixation in Retroflexio and Prolapsus Uteri. A. SCHUECKING.
3. A Traction Arrangement for Fenestrated Forceps. B. W. ZANGEMEISTRE.
4. Extirpation of a Tumor of the Spleen twisted on its Axis Several Times. B. SCHWARZ.

1.—Price assumes that after **injury of the amniotic sac following rupture of the uterus,** the fetus will be absorbed by the peritoneum. Neugebauer denies this and refers to the formation of a **lithopedion** as well as to a case, described by him, of a living child secured by laparotomy, which lay free among the intestines. The living or dying of a fetus depends, according to Neugebauer, only upon the ability of the umbilical cord and placenta to nourish. [W.K.]

2.—Schuecking describes his method of **vaginal fixation** for retroflexion and prolapsus uteri as follows: He first separates the connective tissue between the bladder and the anterior wall of the uterus, passes the first suture immediately underneath the peritoneum through the anterior wall, and the second in the same manner, and ties it in the anterior fornix. The first suture by pulling and tying causes an acute anteflexion, while the second secures a point of support in the uterine cavity. [W.K.]

3.—Zangemeistre has invented an arrangement which fastened to any forceps changes it to a traction forceps. [W.K.]

4.—Schwarz reports a case of a tumor of the spleen twisted on its axis several times, which was removed by an operation. The character of the tumor is not mentioned. [W.K.]

Centralblatt für innere Medicin.

September 2, 1899. [20. Jahrg., No. 35.]

The Therapy and Etiology of Lymphoma of the Neck. F. JESSON.

It is particularly insisted in this paper that many of the instances of so-called scrofulosis of the neck are dependent upon disease of the tonsils, even when there are no symptoms of tonsillar disease, such as mouth-breathing, restless sleep, snoring, etc. A number of cases of apparently simple enlargement of the glands are noted, all of which had been subjected to treatment with ointments and applications of various kinds, all of them occurring in children that had no outward appearance of disease of the tonsils. When Jesson subjected them to examination, however, he found large tonsils, and removal of these caused rapid reduction of the glands to the normal condition. Further cases are noted in which the appearance of the glandular enlargement with fistulas was similar to that seen in tuberculous disease. In these cases also, there was quick recovery after the removal of enlarged tonsils. [D.L.E.]

Neurologisches Centralblatt.

August 15, 1899. [18. Jahrg., No. 16.]

1. The Representation Reflex of the Pupils of Blind Persons. J. PILTZ.
2. The Results of Section through the Trapezoid Body of a Cat. ARMIN TSCHERMAK.

1.—Piltz, in continuation of his work upon the **pupillary reflexes,** carefully investigated the pupillary phenomena in two blind persons, both of whom had lost their sight as a result of retinitis pigmentosa. Both patients were totally blind. In one, however, the pupils contracted to central illumination, but failed to contract to lateral illumination. After vigorous closure of both eyes, the pupils were found to be smaller. By attempting closure against resistance, the eyeball rolled out and up, and the pupils became narrower. The patient was then encouraged to attempt to imagine a lighted lamp, and a black shoe alternately, and it was found that the imaginary representation of a lamp caused contraction and the shoe caused dilatation of the pupils. Similar results occurred in the second case. As a result, Piltz concludes first, that because central illumination may occasionally cause contraction of the pupils, therefore the pupillary fibers are found chiefly in the macula lutea, and may persist in functional activity long after the visual fibers have been completely destroyed. Second, that the pupils of blind persons may become narrower or wider, as the result of the imaginary representation of a light or the dark object, even when the retina has undergone complete atrophy. In conclusion, he calls attention to some of the difficulties and peculiarities of this type of experiment. On the part of the patient, it may be difficult to imagine with sufficient intensity the light or the dark object, and the pupillary reaction appears to depend directly upon the intensity of the representation. In different persons there is a great difference in the ability to imagine things clearly, and to concentrate the

attention upon them, although this may be acquired by practice. On the part of the observer, there is often a tendency to mistake the normal oscillations of the pupil for alterations in its size. [J.S.]

2.—As a result of the examination of the sections, Tschermak comes to the following conclusions: The central tract for audition of the cat contains numerous uncrossed fibers that arise particularly in the region of the upper olive. It, therefore, follows, that there is only a partial decussation of the auditory fibers. The lateral fillet is composed of the fibers of the striae medullares, the most posterior fibers of the dorsal third of the trapezoid body, and fibers from the homolateral olive, and terminates in the nucleus of the lateral fillet and the ganglion of the posterior pair of the corpora quadrigemina. The median and ventral white substance is composed of fibers from the dorsal third of the trapezoid body, which end as do the fibers af the lateral fillet. The medio-ventral white substance of the accessory olives is formed by fibers from the middle third of the trapezoid body. The fibers from the ventral third of the trapezoid body arise from the medio-ventral cochlearis nucleus and the free olivary nucleus, as well as from the trapezoid body. They form the lateral portion of the lateral fillet, and end in its ganglion and the posterior and anterior corpora quadrigemina. Some of these fibers, Tschermak believes, are due to the degeneration of secondary and tertiary neurons of the auditory tract. Both crossed and uncrossed fibers from the trapezoid body descend through the nucleus of the cochlearis, and others bend upward into the nucleus of the trapezoid body where they terminate. A direct auditory cortical tract, that is, fibers from the nucleus in the cochlearis through the lateral fillet and the trapezoid body to the cortex, does not exist in the cat. It therefore seems likely that there is **an extensive interruption of the central auditory tract in the thalamus.** He also notes the existence of a tract of fibers which passes through the hypothalamic commissure toward the globus pallidus, and of another bundle which arises from the central nucleus of the reticular formation, and divides, sending one group of fibers to the upper lateral nucleus, and another group into the anterior columns of the spinal cord. [J.S.]

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8. Contributions to the Subject of Infarcts of the Kidney. Ribbert.
9. The Origin of Sactosalpynx and Tuboovarian Cysts. Orthmann.
10. Two Cases of Abdominal Lung-Tissue. Vogel.
11. The Doctrine of the Functional Form of Bones. Wolff.
12. Anatomico-Pathologic Findings in Infants Dead of the so-called Kakke Dyspepsia. Miura.
13. Tropical Malaria and Reclimatization. Beyfuss.
14. The Importance of the Lymph-Gland System in the Modern Theory of Infection and Immunity. Experiments and Conclusions. Manfredi.
15. Brief Reports: 1. A Case of Free Body in the Abdomen. Rindfleisch. 2. The Recognition of Two Stages of Amyloid Disease. Davidsohn. 3. Rare Postmortem Findings. Kolster. 4. An Enormous Varicose Tumor of the Left Abdominal Wall. Lejeune.

[The numbers are consecutive as in the original, and are volume-numbers.]

8.—Infarcts of the kidney are said to be wedge-shaped, but this is true only of those that involve cortex and medulla, while those of the cortex alone are quadrilateral. Even the large infarcts are not truly wedge-shaped, for the obstruction of the artery is not as in the spleen and lung at the apex of the wedge, but at the junction of cortex and medulla. The **histology of infarcts** was studied by Ribbert on small infarcts from human kidneys and similar ones produced in animals by the injection of sterilized agar. In the smallest infarcts there is usually not a complete death of all the elements—a part of the connective-tissue cells and some of the tubules remain preserved. Changes also take place in the border-zone of the infarct. Ribbert recognizes two or three of these zones—one, the hyperemic, is very marked; on the inner side of this there appears, as early as 16 hours after the formation of the infarcts, a white line, and soon afterwards a similar one is seen on the outside. Later the hyperemia disappears, only a white zone remaining. The inner zone just mentioned corresponds to an area of round-cell infiltration, the red line to a hyperemia. While in the infarct the nuclei are all preserved up to 16 or 24 hours, the necrosis in the peripheral zone is at an early hour far advanced. This is probably due to the fact that in this zone, owing to the proximity of the normal circulation, the lymph-current is maintained and dissolves out the nuclear substance. In a typical infarct, as already intimated, 4 different areas or zones can be distinguished: (1) The infarct proper; (2) the zone of cellular infiltration; (3) the zone of hyperemia; and (4) the zone of partial necrosis. The second and third disappear after several days. The infarct, although not hemorrhagic, is in the beginning not anemic, owing to the influx of blood by way of the capillaries. This gives rise to the hyperemic zone. The pallor of the outer zone is due to a partial anemia, the blood being able to flow away readily, and to a necrosis of the cells. The hyperemia and a transudation into the tissues (either of the fluid of the blood itself or, less likely, of fluid from the surrounding tissues) causes the swelling of the infarcted area. The cellular infiltration, distinctly visible by the 16th hour, is important in that it interferes with and eventually checks the collateral circulation. Fatty degeneration occurs in the infarct, especially in the interstitial tissue, but is never marked. The removal of the infarct is brought about by proliferative processes starting in the outer zone. Regarding the fate of uriniferous tubules that escape necrosis, Ribbert found that they remained and were present in the scar-tissue. Such tubules are never of the type of convoluted tubules, but are lined by cubical cells without special differentiation. Proliferative processes are seen in the epithelial cells also, but they probably never have any functional importance. Mitotic figures are never found in the convoluted tubules, only in those lined by pale, undifferentiated cells. In large infarcts there may be an attempt at the formation of straight tubules; functionally such tubules are not of consequence. [D.R.]

9.—There seems to be considerable difference of opinion as to **the origin of tuboovarian cyst.** Zahn had denied the existence of such cysts, holding that the ovary was merely inserted into the cyst-wall, as a setting is into a ring; that during the formation of the inflammatory adhesions of the fimbriæ closing the mouth of tube the ovary became included. Two different theories, according to Orthmann, have been suggested—the **ovulation-theory and the catarrh-theory.** Von Rosthorn, from his studies, has proposed a combination of these two theories. He assumes that in those cases in which the fimbriæ are situated on the inner side of the cyst, the tube drops with its pavilion into a follicle burst during ovulation, and becomes in this position adherent to the cyst-wall. The formation of a communication between a cystic tube and an ovarian cyst from pressure-atrophy, he considers possible, but rare. Orthmann rejects the combination theory; (1) because it is not probable that the whole tubal pavilion can find its way into the small opening made by the bursting of an ovarian follicle; and (2) if the theory were true the majority of tuboovarian cysts would, in their ovarian portion, be corpus-luteum cysts, which is not the case. Only rarely are they cysts of that nature. He recognizes **two classes of simple tuboovarian cysts**—one in which the tubal luman is more or less dilated, and one in which it is little or not at all changed. This difference in the behavior of the tube depends on whether the ovarian cyst is the primary feature or not. If the tubal cyst is primary, Burnier's theory is applicable. Burnier explains the closure of the tubal lumen on the basis of the formation of adhesions between the serous coats of the fimbriæ and the invagination of the epithelial surfaces. The tube becomes adherent to the ovary, and cysts form also in the latter. Atrophy of the partition-wall may establish a communication between the cysts. When the ovarian cyst is the primary formation, the tuboovarian cyst may be produced either by a bursting of the former and a slipping of the fimbriæ into the rent, or by surface-adhesions between the fimbriæ and cyst, with subsequent atrophy of the cyst-wall. The latter is the more frequent mode of origin of tuboovarian cysts, in

cases in which the cyst of the ovary is the primary feature. The reports of several cases and a number of illustrations elucidate the various modes of origin. [D. R.]

10.—In the pathologic museum of Basle there are two examples of **abdominal lung-tissue,** concerning which Vogel makes an exhaustive report. The first specimen was found in the body of a man of 47 years, who had died of carcinoma of the stomach. It was located behind the stomach, under the diaphragm, between the aorta and the left adrenal, and was as big as a saucer. The microscopic examination revealed, in addition to arteries and veins, bronchi and an alveolar meshwork. The second specimen was found in the body of a woman, 28 years old, dead of general tuberculosis. It was situated near the tail of the pancreas. Regarding **the origin** of such abdominal lung-tissue, two possibilities suggest themselves—either the masses represent **portions of the pulmonary tissue separated** from the left lung, or they are independent structures and represent **a third lung.** Careful examination of the left lung gave grounds for the belief that the first specimen was certainly, and the second probably, a detached portion of the lung, and not a rudimentary third organ. The malformation in all five cases hitherto observed was always on left side. [D.R.]

11.—In a lengthy essay Julius Wolff defines his **theory of functional bone-morphology.** There is a reciprocal relation between function and the functionating substratum. It is possible to infer from the form of a bone whether it is intended to resist pressure or flexion, and, at the same time, to infer the architecture of the spongy bone. When a fracture heals with dislocation of the fragments, the marrow-cavity never again becomes free. In this persistence of the obstruction the author sees a general law, the one, namely, that in the regeneration of bone, as of all other tissues, **function is the sole form-governing element.** Nature endeavors primarily to restore function; the restoration of form is a secondary matter, and is conditional on the function. The theory of the functional morphology of bones can be demonstrated mathematically. The mathematic significance possessed by the internal architecture of bones (attention is called by the author to the right-angled crossing of the pressure and traction-girders of spongy bone) is also possessed by the external form of bones. This is true under normal as well as under pathologic conditions. In addition to mathematic proof of the functional character of the form of bones, there is anatomic proof (1) in the secondary transformation of the shape of bones in cases of primary changes of form, and their consequent changes in the static forces acting on the bones, and (2) in the change of form produced primarily by changes in functional demand, the cause for which lies *outside* of the skeleton. The change in external form is accompanied by a modification in internal structure. In a section on the functional pathogenesis of surgical deformities, Wolff endeavors to show that the "pressure-theory," viz., that pressure causes atrophy, and removal of pressure new formation of bone, is erroneous. In all cases of distortion of bone, **thickening** of the dense and condensation of the spongy bone occurs **on the concave side,** *i. e.*, the side of increased pressure, while **rarefaction** takes place **on the convex side,** the side of diminished pressure. Mathematic proof against the pressure-theory is also brought forward, but need not be detailed here. In short, deformities cannot be explained on this theory, but only by considering them the expression of a **functional adaptation** to the abnormal static demands on the deformed limbs.

In demonstrating the influence of functional demand, the Röntgen ray is of great value. The theory of the functional pathogenesis of deformities has a general biologic interest. From a teleologic view-point, deformities are purposeless; yet they are advantageous for the individual, inasmuch as they secure the efficiency of the deformed bones under the new static conditions. At the same time, they are repellant, and harmful in that they limit the normal mobility of the past, and not rarely also encroach on the space for the internal organs. The origin of deformities illustrates perhaps better than any other example that, in formations of structure, the advantages of the individual is not the true aim of nature. The contemplation of deformities indeed disproves the teleologic conception of nature. In the final section the author discusses exhaustively the newer researches along the line of the doctrine of the functional morphology of bones. [D.R.]

12.—Miura reports the postmortem findings in the bodies of 4 infants that had died of the so-called **kakke dyspepsia.** Kakke is the Japanese for beri-beri, a form of epidemic multiple neuritis. The principal lesion in all the 4 infants was an hypertrophy and dilatation of the right ventricle; atelectasis of the lung was present in 1 case, catarrhal pneumonia in 3, and anasarca in 2. Nothing is said concerning any nerve-changes. [D.R.]

13.—In his recent striking address before the German Colonial Society, Koch gave his adhesion to the **mosquito-theory of malaria.** Beyfuss reports an interesting observation that tends to weaken this theory. There is no region on the globe which has as many varieties of mosquitos as the west coast of Borneo. Stagnating streams and marshes abound, in which the moisture and temperature favor decomposition and offer the best conceivable soil for the development of the malarial organism. Yet the district is quite immune from malaria, which the author explains on the ground that the recurrence of ebb and tide in the Kapua River is so marked that the alluvial soil never dries out, but is always covered with a layer of water. In December, 1890, a dam was constructed near the officers' quarters, the material of which was taken from the marshy region, and within 24 hours after the earth was exposed to the sun, malarial infection traveled from house to house, and the progress of the disease coincided with the progress of the earthworks. The infection did not involve any other dwellings in the district, except those near the dam. It is scarcely probable that mosquitos, if they were the bearers of the germs, would have remained in the infected region. They would more likely have carried the disease to other parts. The author seems to think that the **malarial organism multiplies outside of the body,** and is carried in the air in some "Dauerform," and is inspired; if the mosquitos do play a part in the carrying of the infection, they form only one of the various ways in which it is introduced into the body. Koch had maintained that the infection, through the agency of mosquitos, usually occurred at night, but this is contrary to the author's experience. It would also be difficult to explain on the mosquito-theory the rapidly spreading pandemics, such as have been observed in Java. If the views of Koch are correct, malarial patients who are transferred *en masse* to hygienically favorable and malaria-free districts should, in time, transmit the disease, indirectly perhaps, to others; but at no time was such a dissemination of malaria brought about by the hundreds of gravely-infected persons who were transferred during the 25 years' Atjeh-War to immune localities. Koch maintained that malaria is absent in the tropics on mountains above the 1,200 meter-line; but the coffee-planters of Java, who have erected their dwellings on volcanic mountains at levels of from 1,000 to 1,500 meters, in regions free from mosquitos, suffer severely from intermittent fever. The incubation-period of malaria may be as short as 25 hours, and the author cites the instance of a Dutch mail-steamer which anchored for only one day at the Javanese port of Panaroekan. None of the passengers left the ship; yet in 24 hours after its departure malaria broke out among the passengers, even those who never had had the disease. Koch warned against the excessive use of quinin, believing that it favored development of the dreaded black-water fever (Schwarzwasserfieber). This possibility is denied by Beyfuss. Koch expressed the opinion that a patient stands but little chance of recovery, wherever he might go, so long as the malarial parasites are demonstrable in his blood; but Beyfuss is convinced that emigration of malarial patients to non-infected mountains has the happiest results. Taking up the subject of the **acclimatization of Europeans in the tropics,** the author asks whether even after we have conquered the chief foe of the human race in the tropics, malaria, by natural or artificial immunization, it is possible for the European to live in the torrid zone. Acclimatization means nothing less than a process of adaptation, which renders possible the propagation of strong, viable individuals, without degeneration-stigmata, and with the exclusion of an afflux of fresh blood from the mother-country. The experiences to the present day justify grave doubts of a complete adaptation of European nations. Despite the efforts of the Dutch in Java, consistently pursued for hundreds of years, not a single family can be found that has preserved its purity of blood. We know too little of the effect of high

tropical temperature, of intense solar radiation, of humidity, of direction of wind, etc., on the human organism. Eijkman and Grijns, in their comparative studies, have found that the specific gravity of the blood, the hemoglobin-content, and the body-temperature of Europeans in the tropics, show no departure from the physiologic limits. If this is true, there must be alterations of some other sort that render the European less resistant to a tropical climate. [D.R.]

14.—Manfredi and his pupils have made some very important investigations concerning the **significance of the lymph-glands in infection and immunity.** The possibility of a latent microbism had been asserted by some and denied by others. To settle the question, Perez, a pupil of Manfredi's, made cultures from lymph-glands of animals and of human cadavers, and found that while all other parts of the organisms of the different species were sterile in culture, excepting on rare occasions, the liver and the spleen, the lymph-glands, in 78 out of 88 bodies examined, yielded cultures of bacteria. In addition to some nonpathogenic microorganisms, several distinctly pathogenic were found, among others, staphylococci and a typhoid-like organism. The discovery of these germs in the glands suggested two questions: First, whence do they come? Secondly, why are they not destroyed in the lymph-glands as they are in other organs? Regarding the first question, experiments show that the lymph-glands act as bacteria-filters and that they are capable of preventing infection in all cases in which the bacteria enter through the lymph-channels (the uninjured skin, the vaginal mucous membrane, the anterior chamber of the eye, etc.), provided that the quantity of bacteria is not too large. The investigations also confirm the prevalent belief that even under normal conditions, or under the influence of trivial injuries, pathogenic germs enter through the skin and the majority of mucous membranes. But bacteria can only enter the lymph-glands from without, they may also remain in them after the body has recovered from an infectious disease. This survival of pathogenic bacteria in the lymph-glands explains the frequency of relapses in infectious diseases. It is difficult to harmonize the preservation or latency of microorganisms in the lymph-glands with the theories of bacterial destruction by the phagocytes and the serum of the blood. The bacteria in some way must escape the action of these forces. It has been shown that **phagocytosis does not take place in the lymph-glands,** and, secondly, the proof has been brought that the lymph is not bactericida]. The retention of the bacteria is to be explained, then, first, on the peculiar property of the glands of filtering off solid particles; and, secondly, on the absence or insufficiency of the bacterial agencies which elsewhere keep the organs aseptic. A series of experiments was made to test **the ability of lymph-glands to attenuate the virulence of pathogenic microorganisms.** Susceptible animals were inoculated with a pathogenic bacterium. At the death of the animal, a culture of the bacterium was taken from the glands and another animal inoculated with it. From its glands, again, a culture was made, and a third animal inoculated. These experiments constantly showed an attenuation in virulence of the bacteria employed, among which were the pneumococcus, the typhoid bacillus, staphylococcus, anthrax, the bacillus of plague, and the tubercle-bacillus. Anthrax-bacilli were attenuated with the greatest difficulty; but the authors hit upon three methods of accomplishing their object: (*a*) By the inoculation of attenuated cultures and recovering them from the lymph-glands; (*b*) the inoculation of cultures into the lymph-paths, *e. g.*, into the anterior chamber of the eye; (*c*) by the inoculation of refractory animals with virulent cultures. It is needless to say that the activity of the cultures obtained from the lymph-glands was always compared with that of those obtained from other organs. The studies made for the purpose of determining the mechanism by which the parenchyma of the lymph-glands brings about an attenuation have not yielded any definite results. An important observation is the following: Microscopic examination of the lymph-glands as well as the culture-method has shown that a distinct relation exists between the attenuation of the bacteria and their distribution in the gland-tissue, especially in the case of those which act by infection rather than by intoxication, as in the anthrax, the pneumococcus, and the plague-bacillus. When death occurs early the bacteria are most numerous in the bloodvessels and sparse in the stroma proper of the glands. When death occurs late, the reverse is the case—the microorganisms then disappear entirely from the blood. In the glands they are for the most part free in the intestines, rarely inclosed in cells. The influence of the glands in **immunity** was also investigated, two points being kept in view: (1) The inoculation of pathogenic bacteria into the peripheral lymph-plexus in order to secure their entrance and deposits in the lymph-glands, and in order to prevent the direct entrance of the bacteria into other tissues, particularly into the circulation; (2d) the study of the changes produced in the organism by this latent, specific parasitism of the lymph-glands. The bacteria were inoculated into the anterior chamber of the eye—anthrax bacillus, the typhoid bacillus, and the bacillus of diphtheria were used, *i. e.*, of the last only the toxin. The results were striking. It was found that a much larger dose of anthrax was necessary than in the case of inoculation elsewhere. The inoculation of a single bacillus into the tissues of a rabbit may bring about the latter's death; from 620 to 684 bacilli were required to produce the same result after inoculation into the anterior chamber. The results with the typhoid bacillus were similar. In the cases of diphtheria they were not so striking, although the minimal fatal dose of toxin for inoculation into the anterior chamber was twice as large as that required for inoculation into the subcutaneous tissue. The effect of "endolymphatic" inoculation—so that described is 'called—is to produce, in the first place, an increased resistance of the lymph-tissues to the germs, and, in the second, a **most general immunity.** Repeated inoculation of anthrax into the anterior eye-chamber of an animal induces such an immunity that the inoculation in other parts of the body of large doses of anthrax-culture is not fatal. This form of immunization is the most energetic hitherto known; it was also obtained by the same process against the typhoid bacillus. With diphtheria-toxin the results were not decisive—while the resistance of the lymph-paths is increased, a general immunity is not produced. Experiments with regard to anthrax and typhoid showed that the seat of production or the origin of the immunity is the lymph-glands. Two hypothesis are possible as to the mode of action of the glands—either they act indirectly, by favoring an augmentation of the general defensive agencies of other organs and of the blood, or the reaction consists in special processes which are inherent in the glands and the influence of which extends to all the other tissues. Studies have been made which show that in endolymphatic immunization phagocytosis is not increased nor do bactericidal properties appear in the blood. This suggests that the second hypothesis is the correct one. The immunizing influence of the lymph-apparatus manifests itself also in that immunity which generally follows the recovery from infectious diseases. The author briefly animadverts to the possibility of a lymph-gland therapy. He found that animals lived much longer when together with the bacteria they received into the subcutaneous tissue the juice of lymph-glands from an ox. Some experiments were made with the tubercle-bacillus—a goat was hyperimmunized by means of tubercle-cultures—after a time a large lymph-gland was removed and its expressed juice introduced with tubercle-bacilli into guineapigs, while other guineapigs received the bacilli alone. After 47 days an animal of the first group and a control were killed—the former, beyond a subcutaneous cheesy nodule, had healthy organs; the control showed a general tuberculosis.

[It seems not improbable that the lymph-glands are the scene of special biochemic activities, which do not obtain in other organs, and which cannot be explained on the phagocytic or the humoral theory of immunity. D.R.]

15.—1. At the autopsy on a woman aged 57 years, Rindfleisch found a **free body the size of a goose-egg** in the peritoneal cavity; the uterus contained an intraparietal myoma, and the right kidney was hydronephrotic. Free bodies in the peritoneum may originate from epiploic appendices; they may be lithopedions, or detached ovarian tumors or subserous uterine fibroids. The last are the rarest, but the present case is considered, and properly so, an instance. On microscopic examination nonstriped muscle-tissue was found. The author thinks that the hydronephrosis was probably produced by pressure of the foreign body on the right ureter. [D.R.]

2. The fact that the **color-reaction of amyloid** with iodin and iodin and sulfuric acid varies in different organs

has led to the belief that amyloid passes through several stages before revealing its fullest development. Davidsohn produced advanced amyloid disease in a white rat by means of repeated staphylococcus-injections. The spleen was enlarged and with iodin and sulfuric acid the follicles gave a beautiful blue color, while the pulp was brownish. This proved that the artificially-produced amyloid was identical with human amyloid, and that it could reach the highest stage of amyloid development. In the body of a syphilitic woman, generalized amyloidosis was found. The spleen was bacony, both pulp and malpighian bodies being affected. Treated with iodin and sulfuric acid the organ presented a remarkable appearance; the pulp was blue, the follicles remained reddish-brown. In all the other organs the blue color was constantly developed under the same circumstances. Davidsohn believes that the reaction in the spleen was conditioned on a difference of stages of the amyloid process, the follicles were in an earlier stage. This difference was only discoverable with the iodin-sulfuric acid reaction. In a white mouse that died somewhat later than the first, the blue color could be developed in nearly all the organs. By fastening alcohol-sections embedded in paraffin to slides and washing them for 24 hours, the iodin-sulfuric acid could also be obtained in the hardened tissue. [D.R.]

3. Kolster reports (1) a case of **total transverse rupture of the aorta** in a man of 53 years. The rupture occurred while the patient was in bed; the aorta was atheromatous; (2) a case of **myocarditis and arteriosclerosis in a man of 27;** the entire left ventricle was lined with dense fibrous tissue, from 3 to 6 mm. thick. The only cause that could be found was diabetes, from which the patient had suffered for 2 years, and which also seemed hereditary in the family. (3) A peculiar **congenital malformation of the cecum.** The **appendix** was **absent,** as was also the normal angle between ileum and colon; there was no ileocecal valve. (4) A large **mediastinal tumor secondary to a round-cell sarcoma of the epididymis.** (5) **Extensive metastases of a sarcoma of the right eye** in a child of 3 years. Tumor-masses were found in the anterior frontal and in the temporal lobes of the right side, along the spinal cord, and along the peripheral nerves, especially the brachial plexus and the sciatic nerve. Despite these extensive deposits in the spinal cord, pressure-symptoms had been absent. (6) **Two fetuses of different gestation in the same tubal sac.** [D.R.]

4. An enormous varicose tumor was found surrounding the left side of the abdomen from the umbilicus to the spine. The patient was a laborer, 57 years old, who knew nothing concerning the origin of the growth, but believed it was concongenital, a nevus. The lower ribs on the left side had been eroded by the tumor. On account of the size of the growth and the enfeebled condition of the patient, operative measures were out of question. [D.R.]

Sundry French Journals.

1. Albumosuria as a Sign of Primary Multiple Sarcoma of Bone. VALDIMIR DE HOLSTEIN (*Sem. Méd.*, March 15, 1899. 19me Année, No. 11).
2. Amniotic Infection and its Consequences for the Child. M. LEHMANN (*Paris Thesis*, 1898–99, No. 225), (*Gaz. Heb. de Méd. et de Chirur.*, April 9, 1899. 46me Anneé, No. 29).
3. A Contribution to the Study of the Clinical Forms and of the Diagnosis of Carcinoma of the Esophagus. LUCIEN-LEON MUNIER (*Bordeaux Thesis*, 1898–99, No. 29), (*Gaz. Heb. de Méd. et de Chirur.*, April 9, 1899. 46me Année, No. 29).

1.—Holstein calls attention to the fact that **albumosuria is a symptom of primary multiple sarcoma of bone.** When albumose is present in large amount in the urine it may be detected by the addition of several drops of acetic acid, so as to render the urine strongly acid in reaction, followed by the addition of an equal quantity of saturated solution of sodium chlorid. If albumose is present, an abundant precipitate is formed that dissolves on boiling and is reprecipitated on cooling. Sometimes the precipitate does not completely dissolve after boiling, indicating the presence of albumin with the albumose. The symptoms that would lead one to examine the urine for the presence of albumose are spontaneous bone-pains, particularly referred to the axial skeleton, and accompanied by the formation of bone-tumors of various sizes. The pains are sharply localized and augmented by the least movement. The affected bones are painful on pressure. Later on, curvature of the diseased bones may be observed, and even spontaneous fractures of the ribs or of the vertebrae. Neuralgic pains, paresthesia, and often partial paralysis may be noted, and at the same time the patient becomes emaciated. In some cases the symptoms are much more vague and consist, especially, of a grave anemia with progressive exhaustion, followed by death. All patients who are subject to this disease present a recurrent fever of indefinite duration, and, indeed, for a certain length of time, the increase in temperature may be the only symptom present. Senator and Rosin have recorded the occurrence of asthenic paralysis without cerebral lesions, probably due to the anemia. [J.M.S.]

2.—Infection of the amniotic fluid may arise from three sources: (1) through the placenta, the membranes being intact; (2) after premature rupture of the membranes, streptococci, staphylococci, or colon-bacilli may reach the fluid through the vagina, or from the exterior, and (3) from a neighboring focus of infection. In such a case the microorganisms may pass directly to the amniotic fluid, or they may be carried to it by the leukocytes. According to Lehmann the prophylactic treatment consists particularly in endeavoring to prevent the premature rupture of the membranes, and in making sure of the antisepsis of the genital tract. If the membranes have been prematurely ruptured and the amniotic fluid is not infected, the vagina should be thoroughly cleaned, an obturating tampon should be placed upon the vulva, and the labor may be allowed to terminate naturally. If the amniotic fluid is infected, the labor should be terminated as rapidly as possible. After birth it is necessary to disinfect the child systematically; the entire skin, the mouth, and the throat should be carefully cleansed, as well as the umbilical cord and the eyes. When it is necessary, the tracheal mucus should be removed before the child begins to breathe. [J.M.S.]

3.—Carcinoma of the esophagus, according to Munier, presents itself in many **clinical forms.** The simplest cases are characterized by dysphagia, pain, and regurgitation, and the patient dies from inanition, unless surgical intervention is employed. The tracheobronchial form presents itself in two ways: (1) On account of pressure on the trachea and bronchi, the dominant symptom being a dyspnea that frequently causes asphyxia; (2) on account of the ulceration of the trachea and the bronchi, pneumonia and pulmonary gangrene supervene. The laryngeal form also presents itself in two ways: (1) The carcinoma extends directly from the esophagus to the larynx; (2) the larynx becomes involved on account of pressure upon the recurrent laryngeal nerves. Both varieties are characterized by vocal difficulties, and usually end by asphyxia and often by rapid cachexia. Pleuropneumonia and pleuritis may occur due to the extension of the carcinoma. Pneumonias in these cases have long been attributed to lesions of the pneumogastric nerve, that are in reality the results of secondary infection by the pneumococcus. The difficult respiration added to the cachectic condition of the patient, and, perhaps, assisted by lesions of the pneumogastric nerve may determine a tuberculous infection of the lungs. Finally, cases of pulmonary gangrene by obstruction of the bronchioles, of the vessels, and by secondary infection have been recorded that increase the condition of inanition. The lesions of the pneumogastric nerve, so often referred to, do not cause pleuropulmonary lesions, but they predispose to them, favoring infection by the trophic troubles that they give rise to. In addition to the pleuropulmonary form of carcinoma of the esophagus, cardiovascular forms have also been described. Some of these are characterized by the formation of aneurysms and by ulcerative lesions of the vessels and rapidly end fatally. Other cases of this kind produce cardiopericardial lesions by secondary infection, or by neuritis of the cardiac plexus. They are sometimes due to the extension of the tumor. There are exceptional forms characterized by the extension of the disease to the thyroid body, to the bones, to the marrow, etc. The diagnosis of this condition has become easy by the employment of auscultation and the esophageal sound. Esophagoscopy and radioscopy may also be used. [J.M.S.]

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.

Formalin in the Treatment of Surgical Tuberculosis.—Hahn says in the *Centralblatt für Chirurgie*, June 17, 1899: "The treatment of surgical tuberculosis with iodoform glycerin, although much adopted in the medical world, shows yet very unsatisfactory results." This induced him to look for other remedies, and after various experiments, a freshly prepared mixture of formalin and glycerin was found to be most suitable. The effect is most excellent wherever formalin comes sufficiently in contact with the tuberculous places. Most suitable for formalin treatment are cases of tuberculosis of the joints, especially if they are suppurating, but have not yet burst; also abscesses, more especially gravitating abscesses, and tuberculous empyema of the pleura. The concentration to be used is 1 to 5%. In tuberculous joints the best results are obtained if the articular cavity is extended by a tuberculous abscess, and the remedy can then enter into all corners. The effect in gravitating abscesses is excellent; one to two punctures and injections are mostly sufficient to permanently prevent pus to collect again; and spondylitis heals surprisingly rapidly when plaster-of-paris treatment is employed at the same time. The mode of treatment is as follows: The cavity of the abscess is emptied by means of an aspiration syringe, and cleaned by several injections of boric water. After this, a quantity equal to one-third to one-half of the pus removed is injected of a 1% formalin glycerin. The limb in question is placed resting. A reaction follows, more or less severe, accompanied by swelling, and often by fever up to 39° C. and more; the fluid in the abscess cavity increases considerably, causing sometimes severe pains, which should be relieved by morphin. After a few days the reaction passes away, and the quantity of exudate lessens again. After about a fortnight it is recommended, if possible before the exudate is absorbed, to make a second injection, and, if necessary, more injections. Healing takes place, often with faultless function, in a very short time. Condition for permanent cure is, that no necrotic tuberculous masses are left, because they are dangerous to a complete healing, even if no living tuberculous bacilli are present in the caseous granulations. Any caseous masses which may be present are liquefied by degrees by the influence of glycerin, and can afterwards more easily be removed by aspiration. It is, of course, natural that every tuberculous arthritis cannot be cured in this way, especially as formalin cannot well be retained so long in the burst joints until it has developed sufficient action. At all events, this method by far supersedes any other, especially that of iodoform glycerin.—*Therapist*, London, July 15, 1899.

The Therapeutic Value of Cacodylate of Sodium.—At the meeting of the Academy of Medicine, Paris, held on May 30, 1899, Renaut of Lyons (*Lancet*, June 17, 1899) made a communication with regard to the methods of administering arsenic by increasing doses which give the best results. To avoid the gastric intolerance which is so serious a hindrance to obtaining the best effect of arsenic administered in the ordinary way he prescribes Fowler's solution administered as a rectal injection, giving 3 syringefuls per diem of a solution made by mixing 4 grams of Fowler's solution with 56 grams of distilled water, and in this way the patient absorbs from one-third of a centigram to one centigram of arsenious acid per diem. Renaut has also, at the suggestion of Gautier, made use of sodium cacodylate, a salt which contains nearly 50% of arsenic and which has the great advantage of being non-toxic, for even one gram injected into the veins of a rabbit does not cause death. Renaut employs a solution containing $\frac{1}{10}$ gram of the salt to 1000 grams of water and injects 2 syringefuls of this solution into the rectum per diem for 2 days, and then 3 syringefuls per diem for 6 days, after which the patient is allowed a rest for 5 days. Sodium cacodylate acts as a gentle nervine tonic and prevents waste. It has no bactericidal powers, but delays tissue-change and places the tissues in a better position to resist infection. It is useful in the treatment of the early stage of localized and still curable tuberculosis, also in diabetes, Basedow's disease, and the like. In a case of splenic leukemia treated by sodium cacodylate the proportion of the red corpuscles which had fallen to 600,000 was raised in less than 20 days to 3,038,000 and to the normal figure of 4,030,000 in less than 3 months. At the next meeting of the Academy, held on June 6, Gautier continued the discussion of the subject introduced by Renaut. In a very important communication he described cacodylic acid as a most valuable remedy which would yield quite extraordinary results in the treatment of such a condition as tuberculosis. Although Renaut had been the first to publish his observations, Potain, Burlureax, and Roustan some months ago simultaneously commenced experimental trials and all of them had expressed the most confident hope of possessing in cacodylic acid an energetic substance capable of rendering the tissues of the human body resistant to tuberculous infection. It has, in fact, been ascertained that the local signs of tuberculosis gradually improve, that the cough and perspiration diminish, that the patient gains weight rapidly, and that the red blood-corpuscles increase in number. It is interesting to note that in one respect Gautier differs in opinion from Renaut, the latter of whom sees in the new remedy a means of obtaining the ordinary effects of arsenic and also of administering it in unusually large doses, the toxic power of the arsenic being reduced by its association with an organic body. In the opinion of Gautier this is not all. The arsenic which exists in large quantity in cacodylic acid is in a special condition, no longer giving the characteristic reactions of arsenic. This explains why cacodylic acid is not poisonous and does not even produce the troublesome symptoms due to arsenic, such as diarrhea, staining of the skin, paralysis, and hepatic lesions. The explanation which Gautier suggests for this unexpected diversity of action is that the new arsenical compound replaces phosphorus in the lecithins and nucleins. It is, therefore, living matter impregnated with arsenic that the leukocytes disperse throughout the circulation and bring into contact with the nervous centers where it seems to become fixed. Cacodylic acid being nonpoisonous differs entirely in its physiologic effects from the older arsenical compounds which when introduced into the blood act as well-known poisons. Brought into direct contact with the nervous tissue, as has been done by Beredska, arsenic is extremely poisonous, exactly 100 times more so than when taken into the stomach or administered hypodermically. For tuberculous patients it is better to give sodium cacodylate hypodermically than by the mouth. The dose of $1\frac{1}{2}$ grains a day ought not to be exceeded; on an average $\frac{3}{10}$ to $\frac{3}{4}$ of a grain should be given in 24 hours. The injections should be continued for 7 or 8 days, then stopped and resumed as before after a week's interval.

Ammonium Chlorid in Neuralgia of the Fifth Nerve.—Campbell (*Treatment*, August 10, 1899) believes that ammonium chlorid is a valuable drug in neuralgia, especially of the fifth nerve. It is necessary to give it in large doses in order to get the best results. His favorite combination is:

℞.—Ammonium chlorid	30	grains.
Tincture of gelsemium	$7\frac{1}{2}$	minims.
Tincture of aconite	1	minim.
Liquid extract of licorice	1	dram.
Water to make 1 ounce.		

To be taken every hour when the pain comes on till three doses are taken. If the medicine has done no good after the third dose it must be abandoned altogether. In successful cases, some relief comes shortly after the first dose, the pain entirely disappearing after the second or third. When we are especially anxious to get a speedy effect we may add a small dose of morphin. Ammonium chlorid must be given in large doses and at short intervals.

A New Treatment of Whooping-cough.—Gilbert (*Revue médicale de la Suisse Romande*, June 20, 1899) reports some striking results accomplished in modifying the course and severity of whooping-cough by the administration of antidiphtheric serum. The first suggestion of the method came from the beneficial effects secured by the administration of antitoxin in a case of coexisting pertussis and diphtheria. Nine observations are given, in 7 of which the serum was administered in the absence of diphtheria, and the effect upon the pertussis was quite as striking as in the first case. The duration of the paroxysmal stage never surpassing 5 to 10 days; the number of paroxysms rapidly

diminished, falling in the course of 6 or 7 days from 20 or 30 in 24 hours to 3 or 4, with almost complete disappearance of the repetitions. The violence of the cough also became greatly modified. Vomiting also ceased after the injections. The remaining slight cough was easily controled by antispasmodic remedies, preferably by bromoform.

The total quantity of serum employed never exceeded 10 cc., except in the 2 cases of diphtheria, in which the larger doses were required. The quantities used in a single injection varied between 2 and 5 cc., and the intervals were 2 or 3 days. No local disturbances occurred in any of the cases. Secondary accidents were not more frequent than in diphtheria. The employment of antidiphtheric serum in the treatment of pertussis the author has discovered, has been exploited by other clinicians. Lotti, of Lecco (*Semaine Médicale*, 1897, No. 24), observed like beneficial effects in a case in which the serum was used for intercurrent diphtheria, and Cerioli, of Broni (*Semaine Médicale*, No. 41, 1898), employed it with excellent results in 15 cases, in which, besides the symptoms of the disease, complications, such as bronchitis, bronchopneumonia, epistaxis, and hemoptysis, were favorably influenced. Whether the results obtained were due to the antitoxin or to the blood-serum of the horse, the author does not venture to decide.—*The American Journal of the Medical Sciences*, September, 1899.

Sodium Benzoate for Erysipelas.—(*Medico*, 1898, No. 35.) When administered internally, sodium benzoate has a beneficial effect on several infectious diseases which affect the skin, as, for instance, in measles, rötheln, scarlatina, and it is especially useful in erysipelas. The following prescription is convenient:

℞.—Sodium benzoate..... 2 parts.
Gum acacia..... 3 parts.
Sugar..... 4 parts.
Distilled water.....40 parts.

A teaspoonful to a tablespoonful (according to the age of the patient) every two hours. During the febrile stage the drug is taken readily, but later it gives rise to a distaste for it. Sodium benzoate is useful in cases when there is a special predisposition to erysipelas, as it acts as a prophylactic.—*Treatment*, June 22, 1899.

The Treatment of Pneumonia.—Hare (*Therapeutic Gazette*, July 15, 1899) discussed this subject at the recent meeting of the American Medical Association, at Columbus. He advises the use of sedative measures in those comparatively rare cases in which the patient is robust, has a bounding pulse, and is in the very first stage of the disease. He recommends a hot footbath, a hot compress over the chest, or if the fever is high, a cold compress, renewing the compress often enough to maintain its primary temperature, and veratrum viride in three-minim doses of the tincture every 15 minutes till 3 doses have been given, or the patient's relaxed pulse and moist skin showed its effects, and some Dover's powder to allay painful cough and increase diaphoresis. While venesection is often valuable later on, it seems an unnecessarily rigorous treatment at this early period, and deprives the patient of valuable blood, should be exhausted by the progress of the disease. When the consolidation has taken place it would seem that there are four different conditions to be looked after. First, the prevention of hyperpyrexia by cold sponging with friction, the use of an ice-bag over the heart and one on the head. These local applications are of great value. The effect of the one on the precordium is to slow the heart and perhaps to protect it from the ill effects of the fever. Certainly its use is advantageous in the majority of cases. By the use of the ice-bag to the head pain is diminished, the mind is kept clear, and temperature is to some extent controled. The employment of antipyretic drugs is rarely if ever of service. In cold we have all the antipyretic power that is needed, and these drugs impair the vascular tone of the patient and decrease the activity of his blood-cells.

The second indication is to aid the circulation, *if it needs it*. If one is worried about a patient and is tempted to give stimulants, and before doing so he feels his own pulse, he will sometimes be surprised to find that his own is the weaker, or rather the patient's heart is overworking and really needs no stimulation, but sedation by means of the ice-bag. For years digitalis has been looked upon as the standby when the pulse really needs stimulation, but Hare believes that it often fails because of the well-known fact that it loses much of its regulating power over the heart in the presence of high fever. The question of the dose is as important as the choice of the drug itself. Surely digitalis is given wrongly in many cases, for the doses are too large and too often repeated. The drug is so slow in its effects that in pressing cases 10 to 20 minims of the tincture, or 1 or 2 minims of a physiologically tested and standardized normal liquid digitalis should be given hypodermically, and there is no necessity of repeating it for many hours, say for 8 or 10 or even for 24 hours in some cases. By giving a good-sized dose when really needed and remembering that the effect of digitalis is very prolonged, we provide cardiac support for hours and avoid producing the shuttle-like pulse of overdoses of digitalis. The next important thing is to be sure of the quality of the digitalis, for much of it is so different in effect from what it should be that the effort of the physician must be nullified by a poor drug.

If the pulse be gaseous and relaxed, belladonna in 5 to 10 minim doses every 4 or 5 hours may be useful, particularly if the skin is relaxed. Strychnin is the only stimulant which simply goads the system to increased endeavor and does not aid it simultaneously. By giving it freely when the patient seems to be sinking into the slough of death, we may rally him to a final effort to pull through, just as a crack of a whip will prevent a team from being "mired." But the skilful driver does not lash his horses all day long, and keep on lashing them after they are stalled. He uses it heroically at the crucial moment. Strychnin puts "a wire edge" on the nervous system, and, if kept up, causes more harm than good. For prolonged collapse, or tendency thereto, we may resort to cocawine. For combating a sudden collapse, strychnin is invaluable, particularly if it be combined with atropin. A fine old brandy will often agree very well with patients who have a feeble circulation, particularly if they are advanced in years.

According to Hare, nitroglycerin is of value in proportion to the degree of arterial tension. If this is high, the drug is, of course, invaluable; if it is low, it is manifestly useless, and should venous engorgement be great, it is only a very indirect means of producing relief when a much better and direct means is venesection. The value of oxygen is regarded as problematic, but its use is advised.

Persistent Diarrhea in Children.

℞.—Silver nitrate..... 1 grain.
Dilute nitric acid..... 5 drops.
Mucilage of acacia..... 4 drams.
Sirup of orange peel..... 4 drams.
Teaspoonful every 3 or 4 hours. —*Pediatrics.*

Fowler's Solution as a Corrigent in Thyroid Medication.—Mabille, of Rheims (*Revue de Thérapeutique*, No. 9, 1899), has found that Fowler's solution in doses of 3 to 12 drops offsets the untoward symptoms occasioned by the administration of thyroid extract in full doses. He cites a case of goiter in which he used thyroid extract in sufficient dose to excite nervous symptoms—vertigo, tremors, dyspnea, anorexia, palpitation, etc., and found that these symptoms disappeared when Fowler's solution was added, and reappeared when it was withdrawn. In two other cases similar effects were noted.

Influenza.

.—Quinin salicylate..... 3 grains.
Phenacetin..... 2¼ grains.
Camphor..... ⅖ grain.
Sig.—Six in 24 hours.
—BACELLI, *Gazette degli ospedali e della cliniche.*

The Treatment of Cheyne-Stokes Respiration.—Rabé (*Gazette Hebdomadaire de Médecine et Chirurgie*, January 22, 1899) gives an elaborate description of the type of breathing known as Cheyne-Stokes respiration, and suggests the following treatment: Morphin, notwithstanding earlier observations, has been found of distinct value by Huchard, Gubler and others. It seems to allay anxiety, relieve the dyspnea, and to induce sleep. It should be administered at night and in small doses, on account of the frequent association of chronic nephritis. According to Rabé, who cites many instances, a combination of morphin with digitalis is the most efficient remedy when the dyspnea is a symptom of atheroma with weak heart.

Original Articles.

FINSEN'S PHOTOTHERAPY.[1]

By VALDEMAR BIE, M.D.,

Laboratory Assistant of the Finsen medicinske Lysinstitut in Copenhagen.

In view of the interest excited at the Tuberculosis Congress held in Paris last year, and since then throughout the medical world, by the reports of the results obtained by Dr. Finsen, of Copenhagen, in lupus and some other affections by means of concentrated light, Dr. Finsen was invited to describe his methods and results in the *British Medical Journal*. Dr. Finsen asked his principal assistant, Dr. Bie, to undertake the task, and Dr. Finsen states that he has read the paper and fully approves of it.

The readers of the *Journal* know the name of Finsen from his red-light treatment of the exanthemata of the different eruptive diseases, especially smallpox.[2] More recently Dr. Finsen has devised another method, applying light for therapeutic purposes; the technic of this method is now so far perfected, and it has been tried in so many cases, that it deserves to be more extensively known.

Dr. Finsen's treatment of smallpox was, as is well known, founded on the following considerations:

As the "chemical" (blue, violet and ultraviolet) rays of light are capable of causing an inflammation (erythema solare) of the healthy skin, it might be assumed that they would equally be capable of aggravating preexisting inflammations. In other words, if the diseased skin be protected against the injurious action of the chemical rays of light, it will be possible to diminish the intensity of the inflammation, and thus prevent suppuration. The object is therefore to exclude the chemical rays of light which are injurious to the skin. In the new way of treatment devised by Finsen these rays are now used as curative agents. The method consists in treating local superficial bacterial skin-diseases by the concentrated chemical rays of light.

The experimentally proved data on which the method is founded are the following:

1. The bactericidal property of the chemical rays of light.
2. The power of the chemical rays of light to produce an inflammation of the skin (erythema solare).
3. The power of the chemical rays of light to penetrate the skin.

1. The Bactericidal Property of the Chemical Rays of Light.

The bactericidal property of light, originally demonstrated by Downes and Blunt, has more recently been studied in detail by a great many investigators. The particular question which is of the greatest interest in this connection is the following: Whether the bactericidal property is essentially attached to a single part of the spectrum or whether it resides only in the whole uncolored light. The most trustworthy examinations have given the result that it is especially due to the blue and violet rays. This view is supported by a series of researches which I have made with the improved physical apparatus of which "Finsen's medicinske Lysinstitut" disposes. At the same time I made this subject a matter of a quantative examination. I pointed out that only a small percent of the effect of the light depends on the red, yellow, and green rays, and that the ultraviolet rays have a most powerful effect, a fact not previously determined. If it is desired to employ the bactericidal property of the light therapeutically, the greatest possible number of violet and ultraviolet rays must be procured. On the other hand, the red, yellow, and green are useless.

Another condition for the advantageous use of the bactericidal property of the light therapeutically is that the bacteria are quickly killed. In nearly all the first series of researches several days, even months, elapsed before they were killed. This is, however, doubtless due to a defect in the way in which the experiments were carried out, for by using plate cultures with thin strata of nutritive media the light killed the bacteria in a few hours, and Finsen, for instance, found that on days of bright sunshine at noon in July and August in Copenhagen the sunlight killed the bacillus prodigiosus in plate-cultures within one hour and a half of insolation. An electric arc-lamp of 25 ampères killed a plate-culture of the bacillus prodigiosus at a distance of 75 cm. from the carbon points after 8 to 9 hours' exposure.

Even the strongest sunlight in summer—which takes more then one hour to kill the bacteria in plate-cultures, and probably still longer when they are growing in the skin—has then too slight a bactericidal property ever to be of any use for therapeutic purposes, otherwise all bacterial skin-diseases would be cured spontaneously in the summer. In order to obtain a more energetic effect Finsen concentrates the light by means of apparatus, which will be described further on. It is only when the light is concentrated in such a way that it contains as many blue, violet, and ultraviolet rays as possible that its bactericidal property becomes so powerful that it can be used therapeutically with advantage. That concentrated electric light, which Finsen now uses for the treatment of patients, kills the bacteria till now examined in a few seconds when they are spread in a stratum of agar about $\frac{1}{5}$ mm. thick.

2. The Power of the Chemical Rays of Light to Produce an Inflammation of the Skin.

The old name of erythema solare (erythema caloricum) proves that this disease was supposed to be due to a too intense heating of the skin consequent on the heat that always is inseparable from the light. Widmark (Stockholm) first experimentally showed the error of this view. He concentrated the electric light into parallel rays by means of a lens of quartz, and applied them to the skin, after they had passed either through a layer of distilled water, which absorbs the ultrared rays (dark rays of heat) or through a glass plate, which absorbs a large part of the ultraviolet rays. It turned out to be immaterial whether the light contained the ultrared rays or not; on the other hand, the absorption of the ultraviolet rays by the glass plate prevented completely the appearance of the inflammation. The experiments of Widmark prove, then, that the ultraviolet rays are of predominant importance in regard to producing light erythema. Later researches made by Finsen have confirmed this, and further he has proved that the blue and violet rays have also the power to produce the specific photochemic inflammation, but in a slighter degree than the ultraviolet rays. It is still impossible to decide finally of what importance this photochemic erythema is in regard of treating bacterial skin-diseases with concentrated chemical rays of light; but that at any rate it is not quite insignificant for the treatment of lupus vulgaris may well be considered probable, in view of the trials made of other methods of treatment which tend to cause an inflammation of the skin.

[1] From advance-sheets by courtesy of the Editor of the *British Medical Journal*.

[2] *British Medical Journal*, December 7, 1895.

3. THE POWER OF THE CHEMICAL RAYS OF LIGHT TO PENETRATE THE SKIN.

This point has been investigated by Godneff and Finsen. Godneff with a trocar placed small sealed glass tubes with muriate of silver under the skin of dogs and cats. Then he allowed some of these animals to remain in the dark, while he exposed the rest of them to the direct sunlight. After an hour he took out the tubes; and it was invariably found that the muriate of silver was blackened in those animals exposed to the sun, but not in those kept in the dark. The chemical rays of light can then penetrate the skin. Finsen thus proved that they penetrate far more easily in bloodless tissues than those filled with blood. He placed a piece of sensitized paper on one side of a man's ear, letting the blue and violet rays of one of his apparatus for concentration of sunlight fall on the other side of the ear. After five minutes this paper was not affected; on the other hand the paper was distinctly blackened in 20 seconds, if all the blood were pressed out of the ear between two glass plates. In agreement with this is the fact that by looking into a spectroscope through an ear filled with blood you will only discover a red stripe; if the ear is made anemic the spectrum will consist of all the colors. Accordingly the area of the skin that is going to be treated is made as anemic as possible; later on I shall explain how this is done.

Based as it is on these three experimentally-proved facts this method of treatment is so rational that objections can scarcely be raised against it from a theoretic point of view. In the treatment of patients sunlight is used in the summer, when the sky is bright, otherwise the light of electric arc-lamps of 50 to 80 ampères. As already explained, it is only by concentration that the light becomes so powerful that its bactericidal property can be used in treatment. In order to avoid burning the skin it is also necessary to cool the light. This double object—to make the light stronger and cooler—is attained, in regard to the sunlight, by an apparatus consisting of a lens of about 20 to 40 cm. in diameter. The lens is composed of a plain glass and a curved one, which are framed in a brass ring, and between them there is a bright blue, weak, ammoniacal solution of copper sulfate. As one surface of the liquid is plain, the other one being curved, its optical function is that of an ordinary plain convex glass lens. By making the lens of a blue liquid instead of solid glass a considerable cooling of the light will be obtained, because water absorbs the ultrared rays, and because the blue color excludes a considerable amount of the red and yellow rays. These three kinds of rays have particularly strong heating effect, while their bactericidal power is insignificant. On the other hand, the blue, violet, and ultraviolet rays, which it is important to procure in as great a number as possible, are but very slightly impaired by passing through the blue liquid. The lens hangs on a foot, made in such a way that the lens can be raised and lowered as well as turned on a vertical and horizontal axis; therefore it is easy to place the lens perpendicularly on the sun-rays, and at such a distance as to make the light strike the area of skin which it is intended to treat.

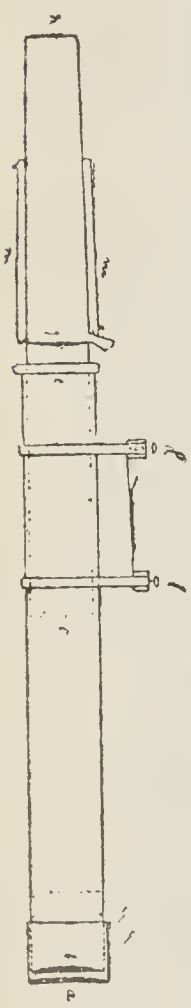


FIG. 1.

Fig. 1 shows a longitudinal section through an apparatus for concentrating the electric arc-light. It consists of lenses of quartz (*a*, *b*, *g*, and *n*) framed in two brass tubes (*a-e* and *c-n*), which can be moved, the one into the other, like the two pieces of a telescope. Lenses of quartz are used because this material in a far higher degree than glass allows the ultraviolet rays of shortest wave-length to pass through, and it is just the ultraviolet rays that have a considerable bactericidal effect. The apparatus for concentrating the sunlight

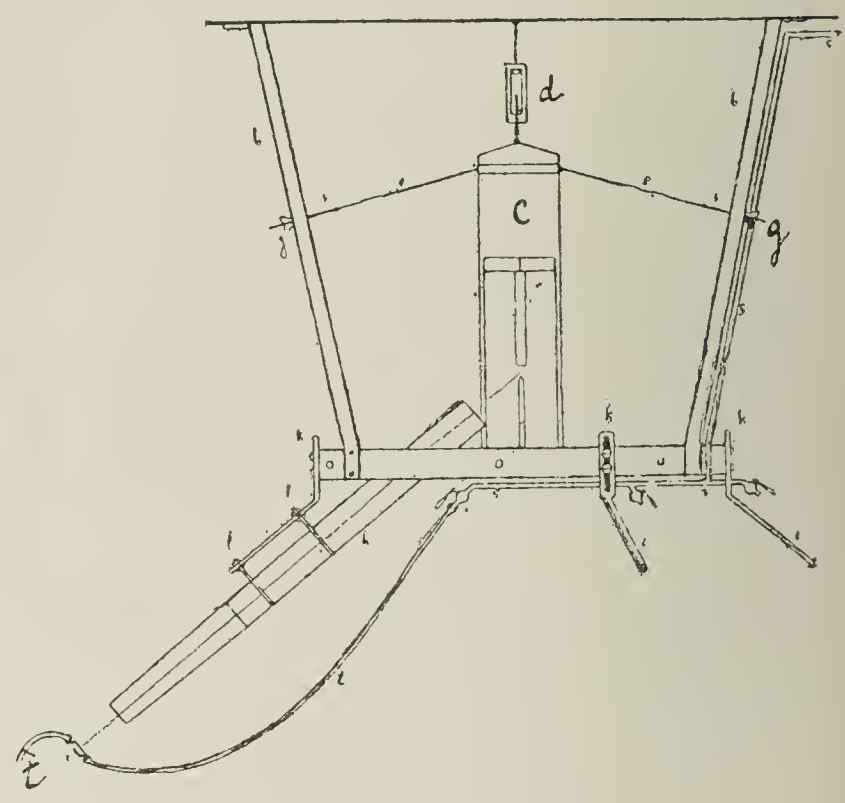


FIG. 2.

may, on the other hand, be made of glass, because all the ultraviolet rays of the sunlight have so long a wave-length, that they can pass through glass; those of a shorter wave-length are already absorbed by the atmosphere.

In the part of the apparatus which faces the lamp, two lenses are placed (Fig. 1, *a* and *b*) that have together a focal distance of 12 cm.; when the apparatus is placed in such a way that the first lens (*a*) is exactly at this distance from the points of the carbons of the lamp, they consequently will concentrate the divergent rays coming from the lamp and make them parallel; these rays pass through the brass tubes, at the distal end of which they meet again with two lenses of quartz (*g* and *n*), which concentrate the parallel rays, making them convergent in such a way that they are united about 10 cm. outside *n*. Between these two lenses—*g* and *n*—there is distilled water, which cools the light by absorbing the intensely heating ultrared rays, but does not impair the blue, violet and ultraviolet ones. It is not possible, as in the apparatus for the sun, to make the water blue in order to cool the light further, because the extreme ultraviolet rays, which abound in the electric light, may well pass the quartz, but get absorbed by the blue coloring matters; the advantages of using the lenses of quartz would consequently be lost if the light got cold through a blue solution. Of course the distilled water between *g* and *n* gets heated by the absorption of the ultrared rays. In order to avoid too much heating (boiling) cold ordinary water may be run through the mantle (*m m*) surrounding this end of the apparatus.

Four such apparatus for concentrating are fixed to an iron ring (Fig. 2, *a a*) round each lamp (*c*), this ring again being fixed to the ceiling by four iron supporters (*b b*). The lamp is movable up and down by the mechanism *d*, and can be put exactly into the center of the ring by the aid of four strings (*e e*), which are connected with screws (*f g*) in the iron sup-

port. The apparatus for concentrating hangs on iron arms (*k i*), fastened to the ring (*a a*), and depend from this at an angle of about 45°, because the lamp sends out the strongest light in this direction; the apparatus for concentrating can be put nearer to or further from the lamp by sliding on the iron arm. By this disposition the lamp and the apparatus for concentrating can be fixed so that the points of the carbons are exactly in the focus of the front lenses of all the four apparatus. The apparatus for concentrating can be revolved

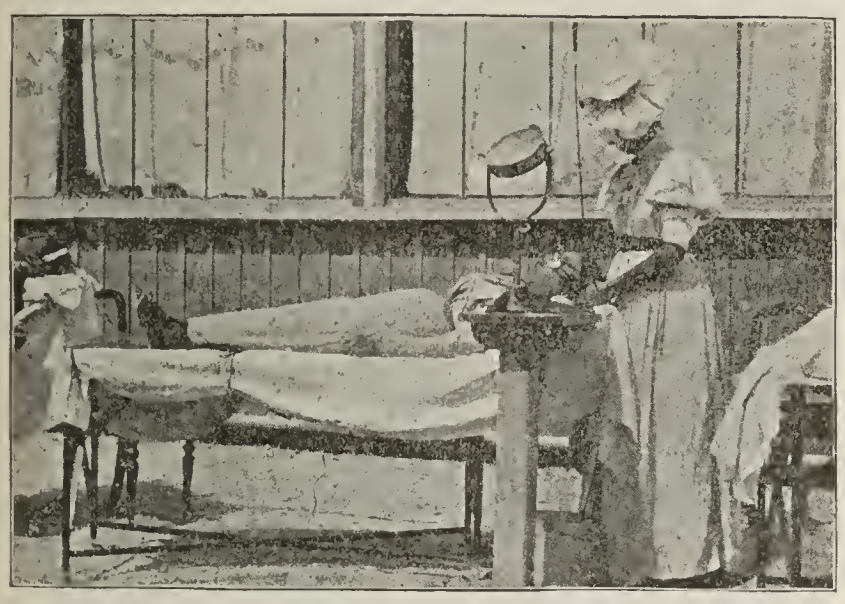


Fig. 3.—Treatment by sunlight.

on a perpendicular axis and a horizontal one by three screws at *l''*; by this they can be so placed that the axis of the apparatus gets fused with the axis of the parallel rays, so that no light is striking the brass cylinders. The distant focus can be placed at the height which suits the patient by pushing the lowest cylinder (Fig. 1, *n c*) into the uppermost one (Fig. 1, *a-e*) of the concentrating apparatus.

Through the two forms of apparatus for concentrating already described the concentration and cooling of the light are



Fig. 4.—Treatment by sunlight.

thus affected. But the light is still too warm to be applied to the skin without hurting it; the skin must therefore be cooled in order to avoid burning. This is effected by a little apparatus consisting of a plate of quartz and a plain convex lens of quartz, both framed in a conical brass ring, which carries two small tubes and four arms; to each arm is fastened an elastic band, by means of which the apparatus is pressed against the skin. By making cold water run (through *s-s* and *t-t* in Fig. 2) into one of the tubes and out of the other one, the skin would be cooled to such a degree that it can stand even the strongest light. By the pressure which the plano-convex quartz lens excites on the skin this is made anemic, so that the chemical rays penetrate it much better, as I have described it already.

In this manner an area of skin of 1½ centimeters in diameter is treated for one hour each day. The treated skin reddens and swells, a bulla may appear, but necrosis has never been observed. Figs. 3, 4, and 5 shows the arrangement of the treatment.

We have tried to treat different skin-diseases known or supposed to be of microbic origin, but it is only of lupus vulgaris, lupus erythematosus, and alopecia areata, that we have treated a number of cases great enough to estimate the value of the method.

Lupus Vulgaris.

About 350 cases of this disease altogether have been treated. The first patients were treated entirely by light; the same thing is done with all the slighter cases; on the other hand, in the more serious cases the treatment by light is assisted by treatment with pyrogallic acid ointment, in order to make the skin smooth and easily penetrable by the light as possi-

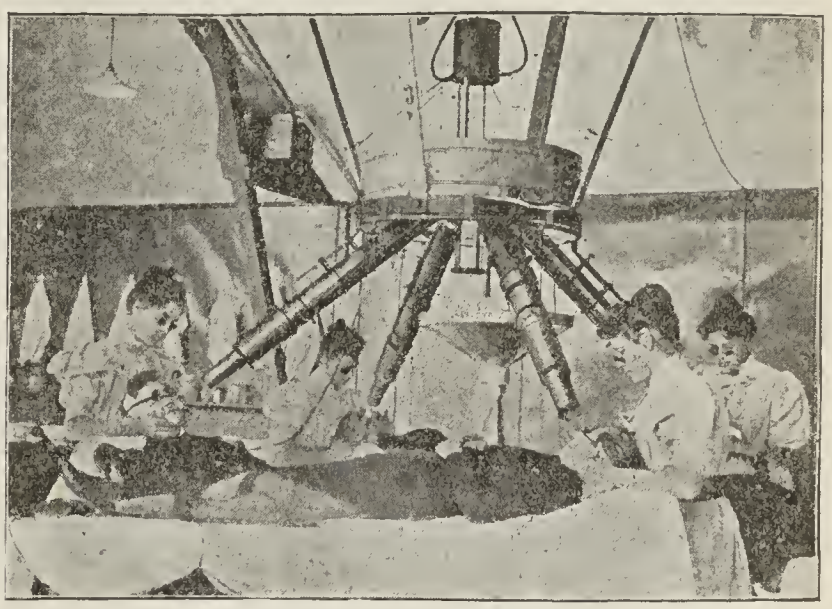


Fig. 5.—Treatment by electric light.

ble. While one part is being treated by light, the pyrogallic acid ointment is put on another part; when the cauterization is healed by a zinc ointment this area of skin is treated by light; this treatment with ointment is not necessary for obtaining a good result, but it saves much time for the patient. All ulcerations are kept free from crusts by a cataplasm of a boric acid solution. The mucous membranes are touched with a solution of iodin and potassium-iodid (1 : 2 : 2), or are treated with the galvanocautery.

For the present, at least, only the skin, the hard palate, the front part of the septum nasi, tongue, and the mucous membrane of the cheek, can be healed by this method. In none of the cases the treatment has been quite without effect, but in about 5 cases the improvement was very slow, either because the disease was progressing so rapidly that it was extending in one place while the treatment went on in another, or because the lupus was so deep that the light could only with difficulty penetrate to it. In all the 350 other cases the result of the treatment has been satisfactory. Of course it takes some time—until all the diseased tissue is thoroughly treated and the formation of scar-tissue has begun—before any improvement is visible; but from the moment it begins it is continued without interruption until the last nodule of the lupous

patch has disappeared. In all these 350 cases this result has been so certain and so constant that there is even reason to doubt the accuracy of the diagnosis of lupus vulgaris when this method of treatment appears to be ineffective.

I do not purpose giving any statistics of the results of the treatment. Statistics are always dangerous things, and especially in this case it would be difficult not to give a wrong picture of the facts by mere numerical statement. Indeed, I think that one must not only know the number of the cases but also their nature in order to judge what excellent results this treatment of lupus yields. Among the patients that have been treated up to this time there are a disproportionally large number of severe cases, because the medical men of this country very soon gained confidence in the method, and therefore send to us a number of patients whom they had given up treating. The clinic of the institute has received all the patients who have applied except a few suffering from a very widespread lupus of the mucous membranes, and only from a localized lupus of the skin, which had nearly ceased, and had caused much destruction. Moreover, it would be very difficult to group the cases definitely in the categories "cured" and "not cured," if for no other reason because it is a matter of individual judgment how long a time of observation may be required. The intermedial groups: Better, much better, etc., depend too much on subjective opinion to lend themselves to mathematical computation. It must further be taken into account that until a year ago apparatus was used the bactericidal effect of which was quite insignificant compared with that of those now employed, because the lenses were of glass instead of quartz; but, of course, it would be quite unreasonable to make statistics only of the patients that have been treated during the last year.

I hope, however, that our readers will get an impression of the excellent results of the method of treatment through the following extracts of the histories, and from the illustrations.

No. 192 (Fig 6), 30 years old. Lupus vulgaris faciei et cavitatis nasi. The patient has been suffering from lupus vulgaris 15 years. Previous treatment: (1) cauterization of the lupus; (2) homeopathic treatment; (3) scraping out and thermocauterization during 3 years. The disease was progressing very slowly just before the beginning of the treatment. The extension of the disease is seen by Fig. 6. The affected places were swollen and red. Everywhere numerous nodules, partly confluent with crusts and small ulcerations, no large ulcers. A number of disseminated nodules in the healthy skin. There was an extensive but almost quiescent lupus cavitatis nasi. June 1, 1898. Treatment by light with a quartz apparatus and a lamp of 50 ampères one hour a day. For the mucous membrane of the nose: Compresses saturated with a solution of mercuric chlorid, and touching with a solution of iodin and potassium iodid (1:2:2) once a week. September 30. Steady improvement. No ulcers at present. The skin of the nose seems to be healthy. Everywhere good scar-tissue; hardly any nodules visible. October 29. No distinct nodules. Treatment discontinued. November 15 (Fig. 7). Everywhere the scar-tissue is smooth and but little visible. No distinct nodules. January 19, 1899. Letter from the patient's doctor. No relapse.

No. 84 (Fig. 8), 23 years old. Lupus vulgaris faciei, cavitatis nasi et manus dextræ, phthisis bulbi dextri; spina ventosa digiti iii sinistri. The patient has been suffering from lupus for 7 years. Previous treatment: (1) ointment; (2) scraping, several times repeated; (3) touching with iodin. There was lupus on both sides of the face and of the right hand. The extent of the disease on the left part of the face was about the same as on the right half of the face, as shown in Fig. 8. The dorsum of the right hand was affected to the half of its extent, and still a part of the right fourth finger and the fifth one. The lupus consists of ulcers, covered with crusts, and of disseminated nonulcerated nodules. The right ala nasi was almost quite destroyed. October 18, 1897. Light-treatment of the face, alternating every two days with lamps of 35 ampères and glass apparatus during 2 hours, and lamps of 50 ampères and quartz apparatus during one hour. February 19, 1898. Hardly any improvement. March 8. A slight improvement only. April 13. Good improvement. The apex nasi is not ulcerated. The ulcers of the cheeks are less numerous, small and superficial. May 17. The affection of the face is constantly improving, no ulcers, a few disseminated nodules. June 15. Light-treatment one hour every day with a lamp of 50 ampères and a quartz apparatus. August 18. The affection of the face apparently cured. No distinct nodules. October 25. A fine scar-tissue everywhere in the face. Still a few doubtful patches. Treatment discontinued. November 11. The scars on the face are sound, only two small solitary nodules on both cheeks. Light-treatment a few times. May 24, 1899 (Fig. 9). Every



FIG. 6.—No. 192. Before the treatment.



FIG. 7.—No. 192. After the treatment.

where a smooth and pale scar-tissue; the small scars are but very little marked. On the right cheek three small, fresh, and doubtful nodules; otherwise no nodules. The right hand is treated by light (a lamp of 50 ampères and a quartz apparatus) from October 25, 1898, till January 16, 1899; in addition a pyrogallic acid ointment is ap-

plied five times, three days. May 24, 1899. The hands were covered with a smooth sear-tissue still a little red, but without any nodules.

No. 143 (Fig. 10), aged 22. Lupus vulgaris faciei et laryngis. The patient has been suffering from lupus about six years. Previous treatment: (1) ointments; (2) cauterization; (3) exeision with transplantation three times; (4) scraping. The disease had been spreading quiekly shortly before the treatment. The affeeted part was mueh infiltrated, of a deep livid color. There were many irregular partly confluent uleers, flat, with prominent granulations. The skin between the patches was thin, smooth, and shining. On the nose only a few nodules; they were somewhat more numerous on the margin on the eheeks and the lips. The greater part of the eartilaginous strueture of the nose was destroyed. The upper lip was mueh infiltrated, the prolabium somewhat erusty, but it seemed to be free from lupus. The gums at the ineisor teeth were swollen. February 19, 1898. Light-treatment, alternating every two days with a lamp of 50 ampères and a quartz apparatus during one hour, and a lamp of 35 ampères and a glass apparatus during two hours. Tampons with a solution of mereurie chlorid in the nose. April 6. Considerable improvement, less redness and infiltration, only a few uleers. The upper lip not swollen any longer. May 25. Steady improvement, hardly any uleers; the swelling and redness are disappearing; only a few nodules. June 15. Light-treatment every day during one hour by a lamp of 50 ampères and a quartz appa-



Fig. 8.—No. 84. Before the treatment.



Fig. 9.—No. 84. After the treatment.



Fig. 10.—No. 143. Before the treatment.



Fig. 11.—No. 143. After the treatment.

ratus. August 18. No ulcers ; only on the alæ uasi a few brownish patches ; no distinct nodules. Treatment discontinued. Next time the patient was examined, on November 15, 1898, the skin was smooth everywhere, the scar-tissue fine. There was only one nodule on the right side of the nose and one on the right cheek ; these were treated a few times. Since treatment was left off in August an



FIG. 12.—No. 177. Before the treatment.

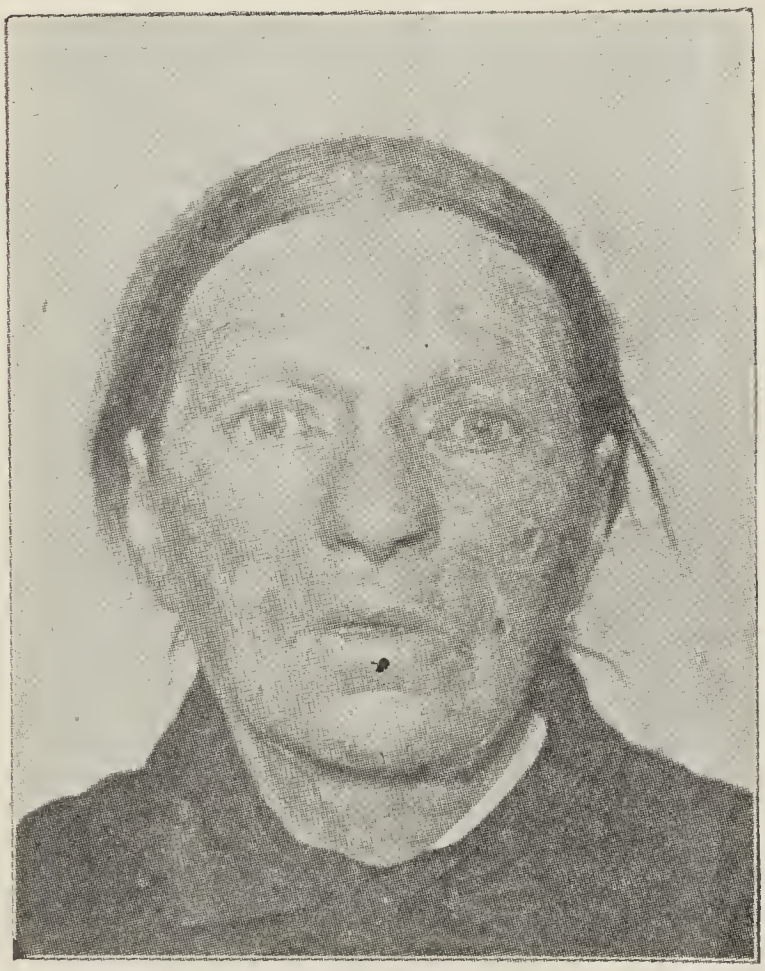


FIG. 13.—No. 177. After the treatment.

ulcer has developed on the right side of the prolabium of the upper lip ; it is seen on Fig. 11 ; the photograph was taken on November 15, 1898. The whole right part of the upper lip was swollen. This ulceration was very obstinate ; it was treated during a certain time by light in December, 1898; and since then by galvanocauterization twice ; it was also scraped once. It has now diminished to about the size of a pea. February 2, 1899. A little brown nodule was observed on the left ala nasi ; it disappeared by galvanocauterization. May 3. The scar-tissue of the skin is fine; there are no nodules.

No. 177 (Fig. 12), aged 65. Lupus vulgaris faciei et cavitatis nasi. The patient had been suffering from lupus for 10 years. Previous treatment: scraping three times during the first year of the disease; now and then later on. There was a very considerable infiltration and hypertrophied granulations. Everywhere irregular, nodular ulcers were visible, forming large, confluent surfaces, between which nodules of the size of a pea. In the neighborhood numerous nodules and small ulcers. April 18, 1898. Light-treatment, alternating every two days with a quartz apparatus, and a lamp of 50 ampères during one hour, and with a glass apparatus and a lamp of 35 ampères during two hours. From June 15, light-treatment with a quartz apparatus and a lamp of 50 ampères every day during one hour. The treatment was continued till October 17. In addition pyrogallic acid ointment was used in some of the periods, when the affected parts were not treated by light, altogether six times on the right cheek, four times on the left, and once on the nose. The treatment by ointment lasted every time about three to four days. October 17. Treatment discontinued. There was everywhere a smooth, soft scar-tissue ; no distinct nodules. December 3. Letter from the patient's doctor: "On the margin of the left ala nasi a tiny ulceration, covered with crusts, with doubtful nodules. The remaining part of the affected area, the nose as well as the cheeks, is covered with a smooth scar-tissue." January 13, 1899 (Fig. 13). Note made in the clinic of the Institute. There is a smooth, rather bright scar-tissue everywhere ; the left cheek is the best, with only a few nodules ; on the right cheek also but a few nodules ; but, besides, some suspicious spots of pigmentation. On the root of the nose a couple of superficial small nodules ; the soft part of the nose is a little swollen and red ; there are some deep spots of pigmentation ; on the margin of the left nostril a few small ulcerations. In the interior of the nose lupus still exists. Light-treatment with a quartz apparatus, and a lamp of 70 ampères one hour every day. February 11. Treatment discontinued. March 19. Letter from the patient's doctor: "Quite well at present ; no sign of relapse."

The principal advantages of the method are, besides its reliability, its excellent cosmetic results, the infrequency of relapses and their slight extent, and that the treatment is painless.

The good cosmetic result is due to the fact that there is no destruction of tissue, healthy or diseased. It is for the same reason that the results in respect to relapse are so favorable. One may, without harm, treat both the diseased tissue and the apparently healthy surrounding skin until one is fairly sure of having destroyed all the disease-germs. When the patient has been treated till there are no distinct nodules of lupus to be seen at the moment, the treatment is discontinued, till the swelling and redness of the skin have disappeared, so that it is easier to determine whether anything is left of the disease or not. If there is nothing visible, the patient is still kept under observation. Many have, however, to be submitted to a second course of treatment. Whether the nodules which develop are the result of recurrence, or whether they could not earlier be recognized as lupus-nodules, is a matter of little consequence in itself. The principal thing is that there have always till now been a few scattered nodules, which disappear after a short, further course of treatment.

If the treatment is carried on for some time after the last nodule of lupus seems to have disappeared, recurrence would be more surely guarded against. The fact that the treatment is discontinued as soon as we think it justifiable to do so is due solely to the wish to save the time and the money of the patients as far as possible. Inasmuch as the efficacy of the treatment is absolutely certain, and the patients, on account of its painlessness, are very willing to submit themselves to a second course, a recurrence is not nearly so serious a matter as it is after the older methods of treatment.

LUPUS ERYTHEMATOSUS.

The treatment of this disease has in many cases given excellent results—permanent recovery and firm scars. Nevertheless, the effect of the treatment is not nearly so sure as it

is in the case of lupus vulgaris. A few cases have improved very slowly and with a constant tendency to recurrence. What the cause of this great individual difference may be it is still impossible to determine, if for no other reason, because we have not a sufficiently great material (altogether only 28 patients).

Alopecia Areata.

As the indication for the treatment by concentrated chemical rays of light is that the disease must be superficial, local, and bacterial, and as it is at least possible that alopecia areata is due to an infection, we have tried to treat this disease. In January, 1899, when the first experiments were published in Danish, 7 cases altogether had been cured. The following are the notes of one of the cases:

No. 65, aged 15. In the beginning of June, 1897, the patient noticed a bald spot about 1 cm. in diameter, which was steadily increasing. When the treatment began, on September 3, 1897, there was a large, completely bald spot of 6 by 4 cm. After shaving the areas immediately surrounding, the patient was treated 8 times for about half an hour from September 3 till September 24. October 4. Lanugo hair on the patch. November 5. A normal growth of hair. January 12, 1898. A bald spot of 2½ by 2 cm. is seen; treatment five times one hour from January 12th to 16th. January 22. Fine, small hairs. March 29. The growth of hair is as vigorous as on the rest of the scalp. October 22. Unchanged.

On the whole, the trials made till now look promising. Whether all the fresh cases will give results as satisfactory as in that described can be solved only by further experiments. To judge from the later experiments, even the old decalvans form seems to be curable, though only after a long treatment. Besides the practical interest attached to these experiments, they have the theoretical interest that they decidedly support the theory of the infectious origin of alopecia areata.

REPORT OF A CASE OF AKROMEGALY, WITH SPECIAL REFERENCE TO THE EYE-SYMPTOMS.[1]

By WILLIAM M. LESZYNSKY, M.D.,

Professor of Mental and Nervous Diseases at the New York School of Clinical Medicine; Consulting Neurologist to the Manhattan Eye and Ear Hospital, etc.

J. D., a policeman, 36 years of age, married, and born in the United States, of Irish parents, was kindly referred to me by my friend, Dr. David Webster, on October 29, 1898. His father, who was over 6 feet in height and had remarkably large hands and feet, died at the age of 54 from causes that cannot be ascertained. His mother died from pulmonary tuberculosis. A brother, 52 years of age, is also a policeman and is in good health. He has large hands and feet also.

The patient has been on the police force 11 years. At the time of his marriage, 9 years ago, he was in perfect health. There are two healthy children. Until quite recently he was a "steady drinker" of whisky, for fifteen years averaging 10 to 15 drinks daily, and was frequently intoxicated. At one time he suffered from morning vomiting and many other symptoms of chronic alcoholism. Sixteen years ago he contracted a chancre, but as no secondary symptoms developed he did not consult a physician. For the past year there has been complete sexual impotence.

He states that about a year ago his sight became affected. There was difficulty in reading. The letters seemed blurred. This gradually became worse. During the last three months he has been unable to read more than two or three lines, and he was therefore compelled to give up reading altogether. He says that with the left eye he sees only about one-third of objects, and recently objects appear indistinct when he looks toward the left. Formerly, he suffered from more or less headache, which he attributed to alcoholism, but, during the last two months there has been a dull frontal and bitemporal pain, which is worse in the morning and more or less constant during the day.

He has neither vertigo nor vomiting. During the last three years he frequently complained of pain and swelling in the right ankle and numbness in both hands.

Until two months ago he had a "fierce" appetite, consuming large quantities of food. Excessive thirst was also present, but these symptoms have diminished. He has always been a sound sleeper, but of late has been somnolent during the day, and often falls asleep when he remains indoors. The bowels are always constipated unless relieved by drugs. Although previously very strong, his strength has materially decreased.

About 5 years ago he first noticed that his hands and feet had grown unusually large. He thinks this enlargement may have begun earlier, as he had been obliged to get larger gloves and shoes almost every year for several years. Now, his shoes must be made to order. As this growth did not interfere with his duties, he did not deem it worthy of special attention. About 3 years ago it was first noticed that the lower lip and the lower jaw protruded. About the same time he discovered that the sense of smell had entirely disappeared.

Examination.—Height, 6 feet 1 inch; weight, 245 pounds.



Photograph taken in 1887.

The lower jaw, which is considerably enlarged and prominent, projects ½ inch beyond the upper jaw, thus preventing approximation of the teeth. The lower lip is thickened and somewhat everted. The upper lip is also thickened. The tongue is protruded well in the median line without tremor. It is 2½ inches wide, and its surface is corrugated. The alveolar process, hard palate, and epiglottis are also hypertrophied. All of the other bones of the face are proportionately enlarged, the superciliary arches being particularly prominent. The occipital protuberance is also involved in the enlargement. The nose is broadened and lengthened, and the nostrils widened. The accompanying illustrations will clearly illustrate his present appearance. The earlier photograph, which is the only one obtainable, is presented for comparison and contrast.[2]

Cranial Measurements:—

Circumference	61.0 cm. (24 inches)
Anteroposterior arc	38.2 cm. (15 inches)
Binauricular arc	38.2 cm. (15 inches)
Greatest transverse diameter	16.0 cm. (6¼ inches)
Anteroposterior diameter	20.0 cm. (7⅞ inches)
Facial length	16.0 cm. (6¼ inches)

Some tenderness is complained of on gentle percussion over both temporal regions. The thyroid gland is not en-

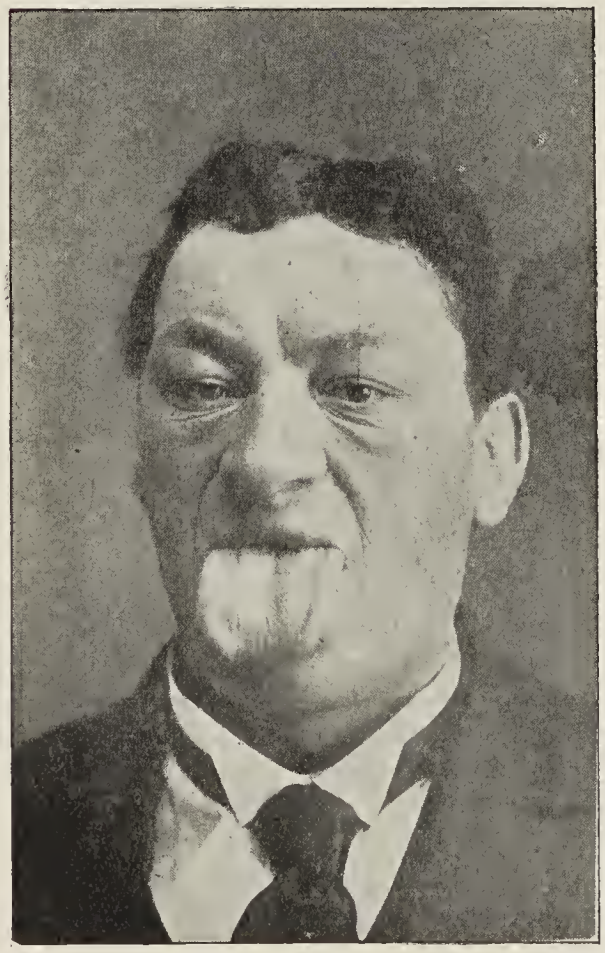
[1] The patient and report were presented at a meeting of the Section on Ophthalmology of the New York Academy of Medicine, March, 1899.

[2] This picture was copied from an old battered tin-type.

larged. There is only a very slight anteroposterior cervicothoracic curve. The sternum and both clavicles are enlarged. Percussion over the region of the thymus gland develops no abnormal area of dulness. The pulse is 84 and regular. No increase in arterial tension. There is a slight accentuation



Photograph taken in 1899.



Photograph taken in 1899.

of the aortic second sound. Heart, lungs, and abdominal viscera present no evidence of disease.

Upper Extremities.—All of the bones of both hands are enlarged, and there is considerable thickening of the ulnar border. The accompanying skiagraphs show the hypertrophy of the osseous structures. No muscular atrophy. No tremor. No ataxia. No objective sensory disturbance. The grasping power is good. The muscular resistance and strength in both shoulders and arms are well preserved. The elbow-jerk is normal.

Lower Extremities.—Gait normal. No static ataxia. Pronounced enlargement of all bones of the feet. In each foot the os calcis projects about two inches beyond the tendo-achillis, which is much hypertrophied. No muscular atrophy. Muscular power well preserved. No objective sensory disturbance. Achilles and plantar reflexes feeble in both. Cremasteric and abdominal reflexes absent. Both knee jerks active. No ankle-clonus. No enlargement of genitals.



Photograph taken in 1899.

A few of the measurements are as follows:—

Distance between central lower incisors and central upper incisors when the jaws are tightly closed: 2 cm. ($\frac{3}{4}$ inch).

From the angle of the lower jaw to the symphisis: 11.5 cm. ($4\frac{1}{2}$ inches).

Circumference of the thorax at the level of the ensiform cartilage: at rest, 106.8 cm. (42 inches); forced inspiration, 112 cm. (44 inches); forced expiration, 104.6 cm. (41 inches).

Circumference of abdomen, 114.4 cm. (45 inches). Length of foot: right, 27.9 cm. (11 inches); left, 27.9 cm. (11 inches).

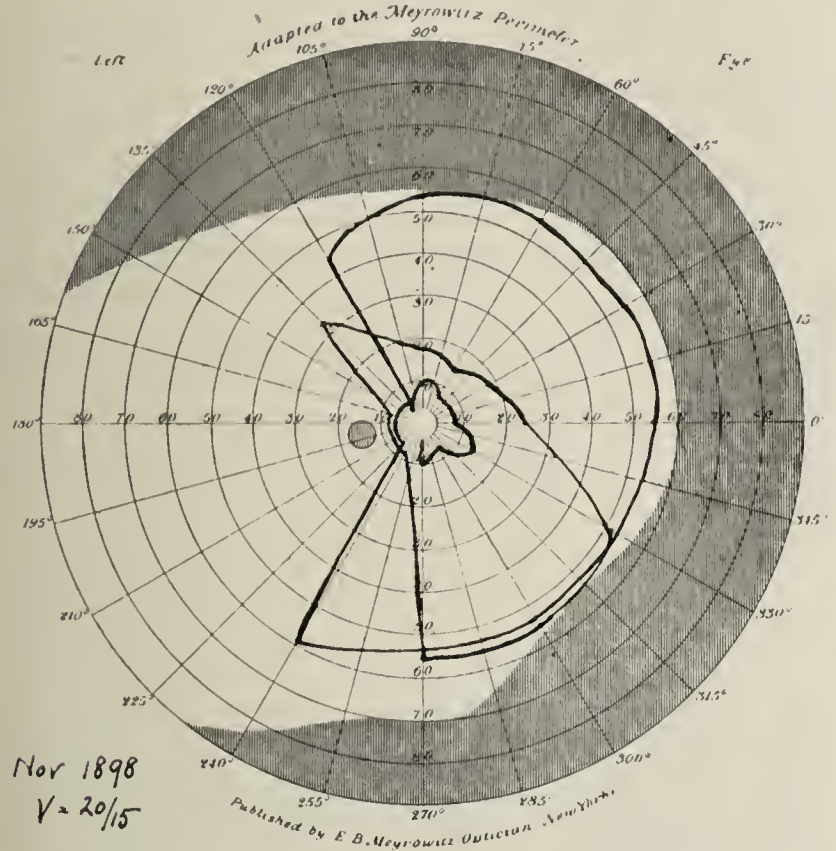
Circumference of knee (leg extended): right, 41.9 cm. ($16\frac{1}{2}$ inches); left, 41.9 cm. ($16\frac{1}{2}$ inches).

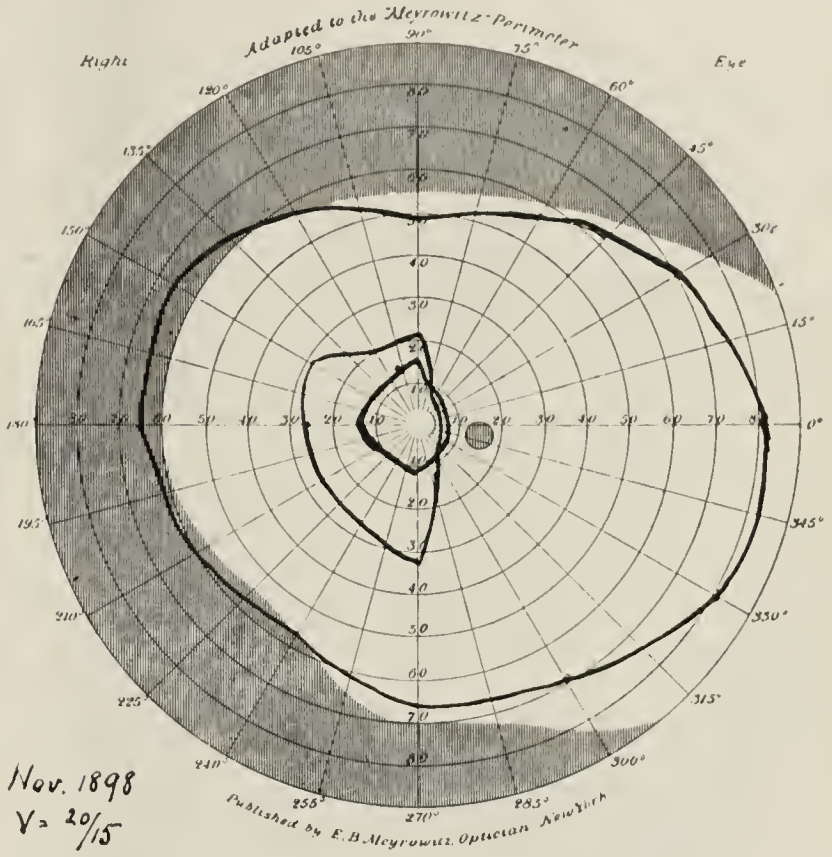
Length of hand, from tip of styloid process to tip of index finger: right, 21 cm. (8¼ inches); left, 21 cm. (8¼ inches).

Circumference of hand, glove measurement: right, 26 cm. (10¼ inches); left, 26 cm. (10¼ inches).

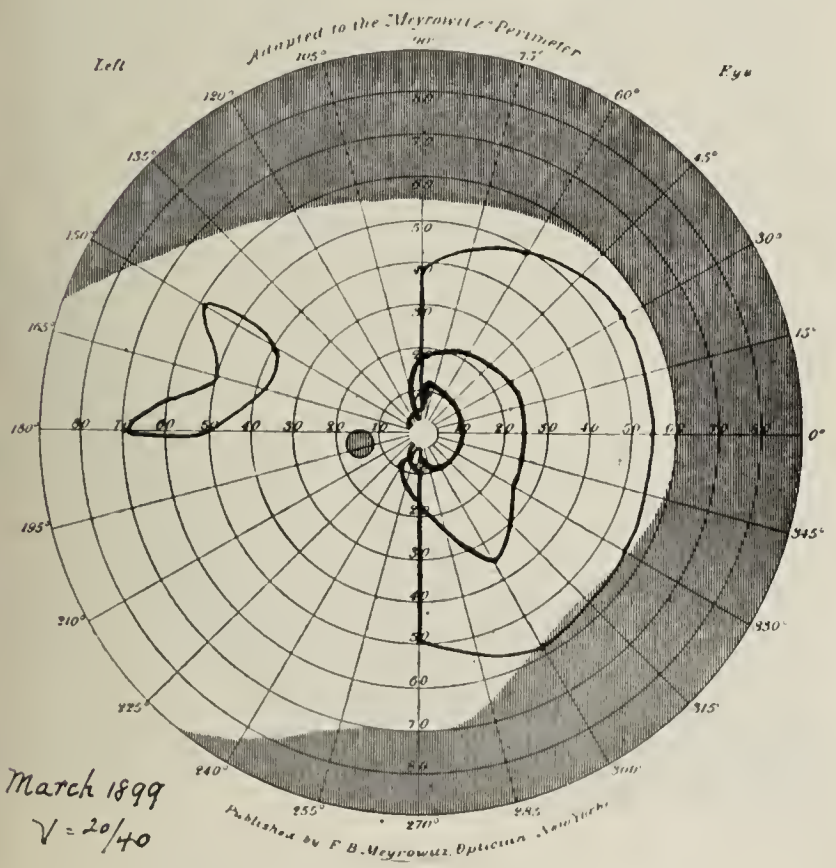
Ocular Condition.—Pupils equal at 3.5 mm. Reaction very slow to light and consensually, but normal in convergence. Hemiopic pupillary inaction is demonstrable in the left eye,

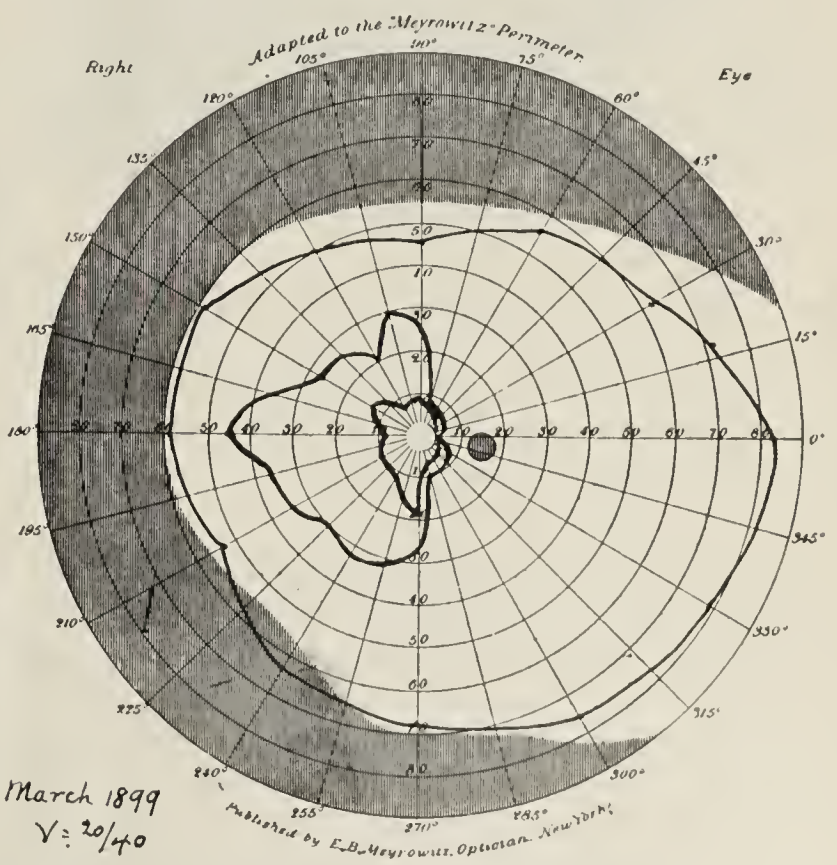
V. R. = 20/15
V. L = 20/15 } Accepts no glass.





The small inner figure represents the field for green. The second figure the field for red. The largest figure the field for white.





The small inner figure represents the field for green. The second figure the field for red. The largest figure the field for white.

With the left eye he reads the letters toward the right side of the card only. Stereoscopic vision is materially impaired, the image in the left eye being suppressed. With strong effort at convergence he succeeds for a moment in fusing images at 4 inches. The ocular muscles act normally. Reads Jaeger No. 1 at 12 inches with + 1.50 D. There is no central color scotoma.

Visual Fields.—In the *left* eye there is incomplete temporal hemianopsia for white. For red, there is marked concentric contraction and temporal hemianopsia, and almost complete loss for *green*. In the *right* eye the field for white is normal, while the fields for red and green show a contraction on the nasal side and a temporal hemianopic defect. The accompanying charts will more clearly illustrate the condition of the visual field. With the ophthalmoscope both optic papillae are found pale and apparently atrophic.

The sense of smell is totally abolished. He is unable to recognize or tell the difference between cologne, asafetida, carbolic acid, or oil of cloves.

The sense of taste over the entire tongue is considerably impaired.

He fails to distinguish "sour," "bitter," or salt," but readily recognizes "sweet."

The hearing is normal.

Three specimens of urine have been examined at different

times with negative results. The quantity voided in 24 hours is about normal. It was always found to be acid, the specific gravity ranging from 1016 to 1024. Neither albumin, sugar, indican, nor casts were discovered.

His wife states that while at home he has outbursts of excitement from time to time, when "he acts like a crazy man." These attacks occur when the headache is severe. He sleeps much of the time while indoors, and is becoming too indolent to attend to himself, and there is increasing inattention and forgetfulness. He is obliged to eat "soft food"



Right hand.

on account of the difficulty in mastication. His general condition does not interfere with his duties.

Medically, the akromegaly has remained unrecognized for the past five years, during which time his fellow officers have repeatedly ridiculed the size of his hands and feet.

It was the increasing visual defect that led him to seek medical advice, and he seemed much surprised when told that the large hands and feet were due to a pathologic process.

This disease was first described by Marie, of Paris, about 12 years ago. Since then about 140 cases have been reported. He attributed to the changes in the hypophysis cerebri (formerly known as the pituitary gland or pituitary body) all the phenomena of the disease, and believed that this gland possesses a function analogous to that performed by the thyroid body in myxedema. Some think the changes in the hypophysis are a result and not a cause. The origin, however, must be in the centers which preside over equilibrium of nutrition. In all autopsies in cases of akromegaly the hypophysis has been found diseased. It has therefore been assumed that its secretion serves normally in inhibiting bone-development, and that when this gland is diseased its inhibitory influence diminishes or ceases; hence, the abnormal enlargement of the bones. On the other hand, tumor of the hypophysis may exist without any signs of akromegaly. In the case before us, in addition to the characteristic appearance of the face and extremities, there is unmistakable evidence of involvement of the hypophysis as shown by the visual disturbance and the anosmia.

It is well known that a variety of eye-symptoms may occur as an accompaniment of akromegaly, but the most important are those due to involvement of the optic nerves. Vision is impaired in many cases. The symptoms are usually early and take a progressive course. In some cases they appear among the later manifestations of the disease. Bitemporal or one-sided temporal hemianopsia for form and color is frequently observed. This is due to an overgrowth or neoplasm involving the hypophysis which presses on the chiasm, and also to bony changes in the optic foramina. In this manner the arterial supply of the nerve and eyeball is also disturbed.

But the usual cause is unquestionably an enlargement of the hypophysis. This enlargement, making prolonged and gradual pressure, produces slow degeneration of the optic nerve-fibers until ultimately the atrophy of the nerves becomes complete. Homonymous hemianopsia occasionally occurs from the growth pressing upon one optic tract. At almost every autopsy in which a hypophysis tumor has been revealed in akromegaly, the optic nerves have been found flattened mostly in the region of the chiasm. The microscopic



Left hand.

examination shows a pronounced degeneration of the nerves, especially that portion in direct contact with the tumor. On the other hand, hypophysis enlargements, whether benign or malignant, may produce optic-nerve disease, without at any time presenting a hemianopic field. In these cases, at times, there is pronounced involvement of only one eye, clinically a simple optic atrophy.

Again, there are cases which run a course with papillitis, and these are most frequently tumor of the hypophysis, usually sarcoma. They may also terminate in complete blindness through consecutive atrophy.

The changes in the pupillary reaction are those which are usually associated with lesions affecting the anterior (noncortical) portion of the optic tract, producing hemianopsia. The Wernicke reaction is often demonstrable, and was present in the patient shown.

Among other eye-symptoms that occur in this affection are :—*Exophthalmos*, probably from proliferation of adipose tissue back of the bulb, and *oculomotor paralysis* from pressure on the third nerve nucleus.

When more is known of the early period of this disease, and when practitioners take more interest in studying their patient's condition from a practical scientific standpoint, it is hoped that a diagnosis may be made early in its development.

It seems to me that in those cases accompanied by ocular disturbances as above mentioned, and their association with persistent headache, anosmia, paresthesia in the extremities and impotence, that an early diagnosis might probably be made before the characteristic enlargement of the extremities becomes pronounced. It remains an open question, however, whether or not the eye-symptoms and the enlarged extremities develop progressively at about the same time.

Such a pronounced and classic type of the disease herewith presented when once seen will not be readily forgotten. At the last examination in March, 1899, the following was noted :

Progressive general weakness and feeble heart-action. Urine, 1020, neutral. No albumin. Small amount of phosphates. No sugar. No casts.

Pupils equal at 3.5 mm. No reaction to light. Feeble reaction in convergence. V. R. = $\frac{20}{40}$. Reads all letters. V. L. = $\frac{20}{40}$. Can only read single end letter on right side of card. The eyes are easily tired. Fields obtained with much difficulty, requiring several examinations. (See charts.)

It is interesting to note that in the right eye while the field for white is normal the color fields are hemianopic. It will thus be seen that central vision and fields have diminished since the first examination made about 5 months ago.

An asylum for patients suffering with carcinoma and incurable diseases is to be erected by Count K. Branicki, in Pruschkow, Warsaw, Russia. The count has purchased a plot of ground for 175,000 rubles. He gives, in addition, 30,000 rubles for the construction of the necessary buildings, and 12,000 rubles for maintenance.

THE SUCCESS OF OPERATIVE TREATMENT IN FACIAL DISFIGUREMENT.[1]

By JOHN B. ROBERTS, M.D.,

of Philadelphia, Pa.

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The acceptance of an invitation to present a few surgical thoughts to a body like this, carries with it a duty to bring forward material either new or at least not too trite. The topic which I have selected is certainly not novel; but it is possible that the members of this society have had their attention directed of late more to operations of greater magnitude and danger, and may therefore find interest in a rather neglected, but most interesting, field of surgery.

The medical profession in general appreciates what can be done to ameliorate the deformity in harelip and crosseye; but it remains more or less unfamiliar with the resources of surgery in the curing by operation of many other disfiguring lesions of the cheeks, nose, lips and ears. There is at times a want of perception or appreciation on the part of physicians. For instance, we know to our sorrow that many women with malignant disease of the breast come to the surgeon too late for successful extirpation; because the doctor who first saw the growth advised delay, failed to recognize the disease or was unaware of the frequency of permanent cure of these lesions by early and thorough operation. So in this matter of facial surgery, those afflicted with disfigurements, curable by the most trivial operation, are often allowed to go through a long life without ever being told by their physicians that relief is obtainable. The patients themselves are ignorant of surgical art; think of an operation as a dangerous and bloody ordeal, associated with the probable complication called by them blood poisoning; and they therefore cover the chagrin due to their uncomeliness by endeavoring to ignore it. Cyrano de Bergerac has many unfortunate colleagues, whose lives might be made happier, as his would have been, by a skilful application of the knife to offending features. A Michael Angelo need not in these days have his artistic sense troubled by a necessary transmission to posterity of a countenance disfigured with a deformed or broken nose, nor need a modern Alexander have a twentieth century Apelles paint only the unmarred side of his face. The dislike of man for conspicuous deformity is known to all, and was utilized by the ancient general who advised his soldiers to strike at their enemies' noses instead of at their hearts.

Plastic surgery is a development of the universal desire to be comely and free from deformity, though the methods used may have been first employed for more utilitarian purposes. In times past, mutilation of ears, eyelids and noses was practised upon malefac-

[1] The Address in Surgery of the Medical Society of the State of Colorado, for 1899.

tors and other unfortunates as a punishment or badge of servitude. This association of facial disfigurement with the brand of ignominy naturally led to an earnest search for surgical aid to repair the damage or to conceal its results. The attempts of Indian and Italian operators to make new noses, lips and ears led to a certain degree of interest and success in this branch of operative surgery in the sixteenth century, but little further attention was given it until the early years of the nineteenth century.

The certainty of rapid union, with little scarring, and the freedom from septic fever, obtained by aseptic surgery, have, within the last twenty years, greatly extended the number and variety of operations performed for cosmetic reasons alone. The success of skin grafting, bone grafting, and the insertion of foreign bodies as supports and representatives of the tissues have given opportunity for original work of a high order in plastic surgery. It is no longer necessary or wise to advise abstention from operations of convenience on the ground that it is better to be satisfied with disfigurement than assume the risks of operative treatment. Practically there are no risks of hemorrhage, sepsis or gangrene, provided that the operations be done in accordance with recognized surgical principles; and if the operator is familiar with the recent developments of the plastic art in surgery or has an original bent of mind success is almost assured.

It is a well established fact that in this department of surgical endeavor the worst cases give the most satisfactory results. The more horrible the disfigurement, the greater is the patient's delight at an improvement in appearance. The surgeon may therefore operate upon a very badly deformed face with almost a certainty of gratifying his patient, even if the final result is not a perfect physiologic restoration. It is the man or woman with little abnormality in contour, who is apt to be dissatisfied with even a perfect surgical result; because the mind has become warped by constant contemplation of a want, or supposed want, of personal comeliness.

One of my most grateful clients is a man the side of whose face and head was the seat of a congenital deformity, which caused him to be known as the dog-faced man. A series of operations relieved him of the canine countenance and lifted him into a condition of mental exhilaration; though to more fortunate persons his final aspect was not that of an Apollo. Another instance is that of a woman whose eyeball and eyelids were destroyed and cheeks and lips partially destroyed by fire. The countenance was so improved by twelve or fifteen operative attacks that she now is willing to go about the streets without keeping her face screened from view, and her mental equipoise is practically restored.

It is certain that deformity of limb and face has long been produced by the criminal classes for the purpose of inspiring wonder and commiseration and increasing thoughtless almsgiving. Double monsters are said to have been made by grafting two children together by backs, buttocks or arms. The production of a laughing countenance by such sinister surgery has, as is well known, been used as the basis of a novelist's tale. The plastic results obtained in the endeavor to diminish the size of the feet of Chinese girls, to alter the shape of the head in certain tribes of American Indians, and to cultivate dwarf trees of fantastic shape by the Japanese serve to indicate that the mind of man has long recognized the possibility of perverting nature's processes. The utilization of these same processes should be more generally brought to the attention of surgeons. Heretofore operators have been perhaps too much taken up with the cure of life-destroying conditions to study with care the means of lessening mere disfigurements. It was natural and fitting that the first efforts of surgery should be to prolong life and to lessen human agony, and that its first and greatest triumphs should be won from death, disease and pain; but now that asepsis, hemostasis and improved technic have made operations safe, it is proper that surgical luxuries, so to speak, should be given due consideration. The refinements of life are developed after the physical safety of the individual has been assured, and the time has now come when modern surgery may turn its skill to the amelioration of uncomeliness.

In this address it is impossible to describe the many operations which are employed in remedying deformities of the face and ears; but a few may be mentioned as an intimation of those most frequently required. This branch of operative surgery is one in which unusual chance is given for originality. The lesions vary greatly in character and extent and satisfactory results depend much on the effect the change in contour has upon the eyes of the observer. The newly constructed or altered feature must so conform to the rest of the face as to escape critical attention, or else it must serve to divert attention to other parts of the patient's countenance.

Local anesthesia, a few moments for excision and suturing, and two or three painless days for healing seem so insignificant a combination that it is a source of surprise that fleshy warts, sebaceous cysts and epitheliomatous ulcers are so frequently permitted to remain as facial blemishes.

Hairy growths and capillary angiomas are removable with great satisfaction by electrolytic depilation or by excision. Even a large but smooth and white scar will in some instances be less conspicuous than a portwine mark. It is often not difficult to convert fistulas, sinuses and distorted scars into scarcely noticeable linear cicatrices.

The ears give a particularly good opportunity for successful plastic surgery. The two ears are not as a rule completely seen at the same time, and as a consequence the surgeon will be considered highly successful

even if the organ upon which reparative operation is done has not the exact shape of its mate. Large auricles may be reduced in size by V-shaped excisions, flaring ears may be drawn close to the head, big lobules decreased in size, keloid growths removed and fissures or openings due to wearing ear-rings neatly closed. I have recently been quite successful in making an elevated ridge in a congenitally deformed ear. It had no antihelix, because the cartilage was not normally crumpled. I am at present satisfactorily shaping by mechanical means an auricle in which the cartilage was buckled and made the ear lie too close to the head.

The mouth is a feature of great importance in expression and its impairment by congenital defects of development often requires more than one operation. Its congenital and acquired deformities furnish a wide field for mechanical and operative effort. Indeed a very small part of this field in oral therapeusis and prosthesis occupies the talents of the dental profession. To the cosmetic work of the dentist who corrects irregularly developed teeth, decolorizes dead ones and replaces those lost with artificial dentures, the surgeon may add a long list of operations upon the lips and cheeks. Protruding or everted lips are reduced in size and altered in shape by well planned operations; hypertrophy of the mucous membrane, causing double lip, is treated by excision; and fissures in the upper or lower lip or at the angle of the mouth are closed by plastic procedures.

The most familiar instance of oral disfigurement is harelip. It is so often complicated with deformity of the alveolus and the nose that it affords ample scope for artistic methods of operating. Harelip operations may include osteoplastic procedures on the upper jaw, and sometimes must be supplemented by removal of part of the lower lip to obtain a proper balance in the bulk of the two lips. The cicatricial changes made in the mouth by sloughing supply a great variety of operative possibilities. A distorted or contracted oral opening may be altered in shape or diminished or enlarged in size. The tissues of one or other lip or of the chin or throat may be utilized in these plastic reparations.

Nasal deformities and deficiencies cause most noticeable facial disfigurement. The frequency of such conditions arises from the easy occurrence of fracture of the nasal bones and cartilages and the liability of syphilis to attack the nasal structures. Ulcerative destruction may require an ala or the columella of the nose to be made from the cheek, upper lip or a portion of a finger; or may necessitate the construction of an entire nose from the tissues of the forehead and cheeks, the arm, or from some inorganic material such as celluloid, guttapercha or aluminum.

Flat noses, saddle-back noses, crooked, twisted and angular noses, sunken noses and noses with bifid or bulbous ends are all susceptible of improvement by nasal or intranasal operation. It is quite surprising to some physicians, as well as to most patients, to see what can be done in these directions without noticeable scarring.

These operations on the nose are often valuable not only for cosmetic reasons, but because they at the same time restore the patency of the nasal chambers and give the patient opportunity to breathe through the nose instead of with a perpetually open mouth. This establishment of physiological breathing improves the voice and lessens the tendency to pharyngeal and laryngeal irritation often so conspicuous. An operation which improves appearances and at the same time improves the health can certainly be claimed as satisfactory.

The eye is currently supposed to be the most expressive portion of the face; and, although this is to a great extent untrue, it is indisputable that imperfections in the cornea and eyelids and want of parallelism in the axes of the eyeballs cause instantly noticeable disfigurement. Bulging or unduly sunken eyeballs may mar an otherwise comely face and the unsightliness of distorted eyelids is recognized by all.

The various forms of crosseye have long been treated by operation, but the operation must in many cases be supplemented by a careful correction of the refraction. The wearing of glasses may sometimes be useful in rendering an ocular condition less conspicuous, even when no refractive error is present. For example, a blind and shrunken eyeball may be made to look equal in size to its normal companion by having a convex lens worn in front of it. A piece of plain glass adjusted in front of the normal eye will have no effect upon its vision or appearance, but will serve to balance the lens on the other side of the nose. Small eyes, associated as they often are with hyperopia, look larger when proper convex glasses are worn to relieve the asthenopia, due to the refractive error.

Drooping upper eyelids, everted or inverted lids, redundant lids and lids the seat of tumors are all susceptible of operative treatment, which in many instances gives surprisingly satisfactory results. The uncomely bulging seen after recovery from exophthalmic goiter may be relieved by freshening and suturing the eyelids at the outer extremity of the palpebral fissure. This insignificant operation is, however, seldom done. On the other hand, a sunken eye may be brought forward by cutting the rectus muscles. This procedure, however, requires special care, as the division of tendons might cause double vision or strabismus. It is perhaps only applicable to blind eyes.

Tattooing of white scars on the cornea, removing conjunctival and corneal growths and inserting glass eyes are all cosmetic measures that deserve the attention of the profession. Many of these operations are done frequently by the ophthalmic specialist; but they are either unknown to, or unappreciated by, the surgeon and the general practitioner.

All of them may be done by the surgeon, if he has trained his hand to the delicate manipulations required. He will be a better general surgeon if he has acquired such delicacy of touch; as, on the other hand, the ophthalmic surgeon will do better eyework, if he is familiar with the procedures of operative surgery in general.

It is perhaps due to a too high degree of specialism that the cosmetic surgery of the face has had so few exponents. Those who are acquainted with, and can do well, eye operations, nose operations or ear operations may know too little of general surgery to attempt the more bloody operations upon the face. Those who usually deal with operations like resection of the jaw and excision of the tongue or larynx may not possess the technical skill to make them safe operators upon the special organs often concerned in facial disfigurements.

The object of this paper is to remind the members of the society of the ease and safety with which operations for the relief of facial disfigurement are performed, the interest of the manipulations, the satisfaction of the results, and the wide field which they offer for scientifically beautiful and original work.

CLINICAL CASES AND INTERESTING IDEAS.[1]

BY SAMUEL F. BROTHERS, PH.G., M.D.,
of New York.
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INTRODUCTORY.

IT may seem strange that a specialist should read a paper of such a variegated character as I have attempted, but in a neighborhood like that of mine, a certain amount of general practice is unavoidable. Besides, it is freely admitted that even the specialist should have a general all-around knowledge of medicine. He may therefore give his experiences on other topics without encroaching upon the domain of any one else. The specialist considers himself an expert in his branch, and on account of this, his opinions deserve special consideration. Most of the cases which I have recorded have been taken at random from daily practice.

Even the greatest geniuses have written many things of only mediocre import; I hope, therefore, to be excused for any shortcomings in my modest attempt.

DERMATOLOGY.

A beginning epithelioma of the tongue is so similar to a cracked tongue caused by a localized glossitis, that we are often at a loss to make an immediate positive diagnosis. After using an antiseptic application for awhile (such as boric acid in glycerin) the diagnosis is soon cleared up.

I have known patients with a mild general prurigo to go around for years without consulting a physician. On examination they show myriads of pinhead sores, which have been caused by repeatedly picking and scratching off the minute scabs. The itching is limited to the covered portions of the body only.

An interesting case of weeping eczema of the breast in a nursing woman was presented to my care, which seemed the most obstinate I ever attempted to cure. Such eczemas in other parts usually heal without difficulty, but nothing short of solutions of silver nitrate prevented the spread of this one. The caustic was applied after cocain was used, and was therefore practically painless.

RHINOLOGY.

The number of children whom we see on the streets with "running noses" is an evident indication of the great neglect of parents in failing to attend to such cases of chronic nasal disease. It is my suspicion that a great deal of this is due to the physician, who fails to recognize such cases as of actual disease. Frequently one of these, which can almost be distinguished at sight as an ozena, is left to itself, until the child reaches adolescence or even adult age, becoming so habituated to it as not to recognize its disgusting features. By the time they discover their real condition, extensive complications have arisen. I believe even in the possibility of deviations of the septum from such causes.

GENITOURINARY.

Coming to the subject of venereal diseases, I have evidence, positive to my mind, that gonorrheas and skin-abrasions of the penis need not be the result of impure coition. Referring to gonorrhea particularly, I had a druggist show me that his closet-seat was so constructed that every vulva impinged on the same portion, and every penis must have touched nearly the same spot of the bowl-margin underneath; he had contracted gonorrhea two days after coition with his wife, who was above reproach, and who first showed symptoms of dysuria without suspecting anything, a day previous. Some days later the druggist himself showed me his glans penis stained with feces. This was curious in view of the fact that we suspected his wife as being the first victim.

In a case of chancroids, again, the patient said, "The skin sometimes peels off, but it heals up again." As he came to me with true chancroids I had no reason to doubt him; and I have seen other cases in which infection was positively denied.

Is copulation frequent during the continuance of a gleet? I have had cases of gonorrheal ulceration of the urethra in long-standing cases, in which the patient continued to smoke in spite of all advice to the contrary.

Since any local treatment causes the most excruciating pain in the acute stage of gonorrhea, it seems to be

[1] Read at the New York Society for Medical Progress, May 10, 1899.

only reasonable to assume that all injections or local manipulation should be avoided in this stage. In a recent case of mine the patient positively fainted during the administration of a permanganate irrigation, carefully given. In cases of heart-failure from any cause, I seat the patient in a chair, and then force the head down to the floor, keeping it in that position until the patient has fully recovered.

I wish to mention a symptom of uncured urethral disease which I believe has never been mentioned before. It is a moisture of the outer edge of the meatus urinarius before urinating; after urinating, a moisture is to be expected. Many physicians discharge a patient as cured, even while the lips of the glans penis are still sticky, and I have repeatedly been called upon to cure this moisture concerning which physicians had said "nonsense," but the patient himself was not satisfied. These are the cases which so often recur, and by which wives are infected. In cases of female sterility, these should be looked for in the male. Strong solutions of lunar caustic, and even the solid stick, have been demanded for its cure. I have had patients who have gone from physician to physician unsatisfied, who were on the verge of leaving me likewise, when this treatment was resorted to successfully.

As a substitute for the tedious and painful strapping of an epididymitis (swelled testicle) I am experimenting with a mixture of ethereal solution of contractile collodion with solution of caoutchouc; I have also used this to relieve the excessive congestion of the breasts in nursing women, or in those not nursing.

I use a urethral applicator (or probe which is nothing but a thin uterine applicator, having the end curved so as to correspond to a urethral sound). I use this in protracted cases of clap, for the local application of strong silver solutions—6 to 10%. Before using these, however, I always apply a cocain solution with the same cotton applicator. I do not consider myself justified in causing any more pain in these than in any other operations. Unnecessary pain creates dread of physicians. Dr. Toeplitz showed me a method for the extemporaneous use of cocain which I deem invaluable; it is inexpensive, economical, and effective. It consists in laying a $\frac{1}{4}$ or $\frac{1}{2}$ grain tablet on a piece of clean paper. The cotton probe is then wet with water, and placed over the tablets until dissolved. The objection to a solution of cocain is, that a great deal is wasted, and its immediate preparation is troublesome. Besides this, its limit of application cannot be controlled so well. The probe, however, requires skill and patience in its use here. It is hardly necessary to say that the cotton must not slip off of the threaded end, during its use.

Surgery.

The use of guttapercha sheets for splints does not seem to be sufficiently appreciated. This material can be readily cut while dry to any required shape, and by simply soaking in boiling water can be moulded to any part of the body. If desired, the inner surface could be coated with a solvent so as to make it adhere to the skin, but this would make its subsequent removal difficult, besides having other objections.

Regarding the treatment of inflammation and suppuration of the fingers, in fact of all the diseases of the digits, the information given in our textbooks is very imperfect. A felon, for instance, often suppurates under the nail instead of on the palmar surface of the finger. In such cases it is necessary, after cocainization, to cut a V-shaped piece out of the nail, and then make a deep incision, through the abscess, into the phalangeal bone.

Coming to other surgical diseases, I recall a case of suppurating patellar bursa, which was partially discharging from a sinus when the patient came to me. I prescribed an antiseptic ointment, and reopened the sinus with a probe at each successive visit at the dispensary. After awhile the discharge changed to a natural serous-yellow tinge, and after the tenderness had subsided, I was enabled to use sufficient manual pressure to expel nearly all that remained. The case finally terminated in complete recovery, the bursal cavity becoming obliterated through the collapse of the sac walls.

I have a cystic calculus which I removed manually through the urethra of an elderly woman. It was forced through by placing one hand externally over and behind the pubes, and the other in the anterior vagina, behind the stone. It was much larger when removed, as a great deal was lost by crumbling. The shortest diameter is now about one inch and the longest measurement through the center over two inches.

I have also a specimen which represents a little finger of the right hand, which Dr. Manley and myself removed. The finger was the subject of a compound fracture of the middle phalanx, the whole finger being infected to such an extent that we felt relieved when the trouble stopped here. The patient was sojourning in the mountains, and merely tripped over the end of a protruding plank in the road. The little finger, in this fall, was bent completely backward upon the dorsum of the hand, causing the fracture. The physician who attended him was summering at the village, and, after suturing the wound, and removing the sutures again on the appearance of suppuration, thought he did his full duty in sending our patient to his chief in the city (although he knew me well). As the infection continued to extend, the surrounding tissues swelling enormously, we feared a fatal general infection, so took the only course at our disposal.

My next specimen represents two foreskins, a piece of leadpencil passing through the center of each. One was removed from a man of 28, who complained that it was a great nuisance. It was removed with cocain as an anesthetic; the other prepuce which I removed

for Dr. L., who administered the chloroform, is from a child, 2 years of age. In removing the sutures the doctor had some difficulty for the want of proper assistance.

Speaking of the ignorance of patients as assistants, reminds me of a case in which I pierced an infant's ears, and in some way unknown the silk in one ear got out; the fond mother brought the child back, and I succeeded in repiercing the ear, in spitc of the child's struggles; the mother never forgave me, however, because in the melee thc second puncture was made $\frac{1}{16}$ of an inch away from the original faint depression.

In a case of dislocation of both bones of the left elbow and fracture of the external condyle of the humerus, I found patient with left forearm resting semiprone on a table. I could not make out the bones distinctly, on account of swelling and sensitiveness of patient, but evidently the head of the radius had been forced forward and the ulna backward and outward, the olecranon protruding markedly toward the outer side of the limb (not the inner side). The fracture was not discovered until the dislocation had been reduced by extension under chloroform; each bone had to be reduced separately. After this the crepitus and mobility of the external condyle was found. A medical undergraduate who was present wanted to know if cocain-anesthesia could not be used. An interesting feature of the case was that next day a young medical man (whom they at one time met in a city institution through an accident case) was called in; he deliberately removed the plaster and splint dressing, glibly telling the patient that he "put the splint in a different place." How he knew the nature of the accident was a mystery to me. Of course the patient did not think it necessary to reimburse me for my services under the circumstances.

Branchial fistula. I myself am a subject of this condition, which seems to be allied in some way to goiter. The fistula gives rise to a mucopurulent discharge, which collects into a very small pouch under the skin, at the center of the angle of the neck; after collecting here for a variable time, the plug of dried mucus is ruptured (or its full sensation causes me to pick it off), when the contents are discharged; this amounts to about 10 minims, and is discharged on an average of once in 24 or 48 hours. The following is an extract found in the PHILADELPHIA MEDICAL JOURNAL:—

Nieny reports a case of branchial fistula occurring in a girl 2 years old. The fistula had existed since birth and secreted a purulent fluid. The external opening was on the right side of the neck 3 cm. from the median line and 2 cm. above the sterno-clavicular joint. During the operation for its removal it was discovered that the duct opened internally at the lower edge of the pharyngeal tonsil. The fistulous tract was dissected free up to the internal opening and removed. Microscopic examination: The duct was lined with many layers of cylindrical epithelium which were surrounded by a stratum of lymphoid tissue. Outside of this a layer of connective tissue with a few striated muscle-fibers running through it, was found, and surrounding the connective tissue were numbers of bloodvessels and large longitudinal bundles of striated muscle-fibers. Deeper in the neck the character of the duct changed, the epithelium remaining cylindric, occasionally becoming ciliated, but the wall was thrown in numerous folds, making fine papillae on its surface. The subepithelial follicles become larger and more numerous though still further in, beyond the first ampulla, it almost disappeared. In the ampulla the epithelium becomes stratified, squamous, but as soon as the duct begins to get narrower the epithelium again becomes cylindric. Of the various methods of treating these cases, total extirpation offers the best chance for cure, though most favorable results have been obtained by iodin injections and electrolysis.

It seems remarkable that nearly all cases of acute synovitis should be located at the knee-joint. The vibration at this joint seems to explain this, the constant irritation aggravating the inflammation. Of course the structure of the joint also has a good deal to do with it. In the shoulders the natural weight of the limbs relieves pressure from the synovial sacs, and in the ankles the natural pains enforce rest before the condition has proceeded too far.

Artificial hypospadias. I produced this condition while making an incision for the purpose of enlarging a small meatus urinarius in a case of spermatorrhea. The best anesthetic, by the way, which I have ever found for small operations of this character is an ethyl chlorid spray containing 2% of cocain. The part is absolutely anesthetic right to the mucous membrane, and remains so for somc time after the temperature of the part has returned to normal. In the case above cited, I at once coaptated the edges of the wound and bandaged the glans firmly. The incision was made with a sharp curved bistoury from within, and this, I think, is a bad procedure. In future I shall cut from the outside, on a grooved director. The edges of the wound separated again partially, but, after a time, the meatus contracted to about the proper size.

A case of infantile fracture of the upper third of the left humerus was brought to my office recently. The pieces of the broken bone had united at an obtuse angle, a considerable amount of osseous tissue having been thrown out. I refractured the bone on the spot between my hands, straightened the limb, and placed it in a splint. At the end of 3 weeks a nice result was obtained. No anesthetic was used.

The operation of complete excision for hard corns ought to be made a more general procedure for this very troublesome and annoying condition. Patients go around for years, frequently having them shaved off, and using every collodion remedy, every salve, every foot-bath, without permanent relief. I have seen patients try all kinds and shapes of shoes without relief, and yet, after taking iron for several months, the trouble disappeared almost completely. The most remarkable situation of a corn, in my experiencc, was on the inner side of the left hcel.

I expect any moment to be called upon to remove thc first and perhaps the second gangrenous phalanx of a finger, the gangrene having been caused by the ignorant application of purc carbolic acid, after a splinter had been removed. I believe I could have prevented

this by an early, deep incision, as it seemed that the contraction of the cicatricial skin over the end of the finger strangulated the circulation. Still, as I might have failed, and remembering Dr. Manley's experience, I declined to risk it. (This finger has since been removed.)

(To be continued.)

A SPECIMEN OF CYCLOCEPHALUS.

By J. C. FALK, M.D.,
of St. Louis, Mo.

The mother, 27 years old, had been delivered of two healthy and normal children, the last about two years previous. There was no history of monstrosities on either the maternal or paternal side of the family. The father is of American parentage, intelligent, and in good physical condition. The mother is of German descent, delicate in physique and for about a year has been failing in health. She is now suffering from pulmonary tuberculosis, which is making rapid onslaught upon her lung-tissue.

There is no history obtainable of any "maternal impressions" which might suggest a causative factor. There was nothing unusual about the pregnancy except that labor set in about 6 weeks later than the time the mother had expected.

She felt "life" regularly and normally until 12 days before confinement, when there occurred, during several hours, a series of violent fetal movements which made her sick and caused her to remain in bed for a day. During the following days, until labor began, she attended to her household duties, but no longer felt any



Fig. 1.

movements of the child. After a somewhat prolonged labor there was spontaneous delivery of a dead child.

The child was, with the exception of the head, a normal, well-developed, well-nourished male, weighing about 7 pounds, and seemingly at full term. From the macerated condition of the cuticle, the history of convulsions 12 days previous to birth, with no subsequent "life" movements, I infer that death of the fetus took place over a week before its delivery.

By the exercise of some diplomacy, I was enabled to secure the head of the child, which is here presented. It will be observed that the head is somewhat small

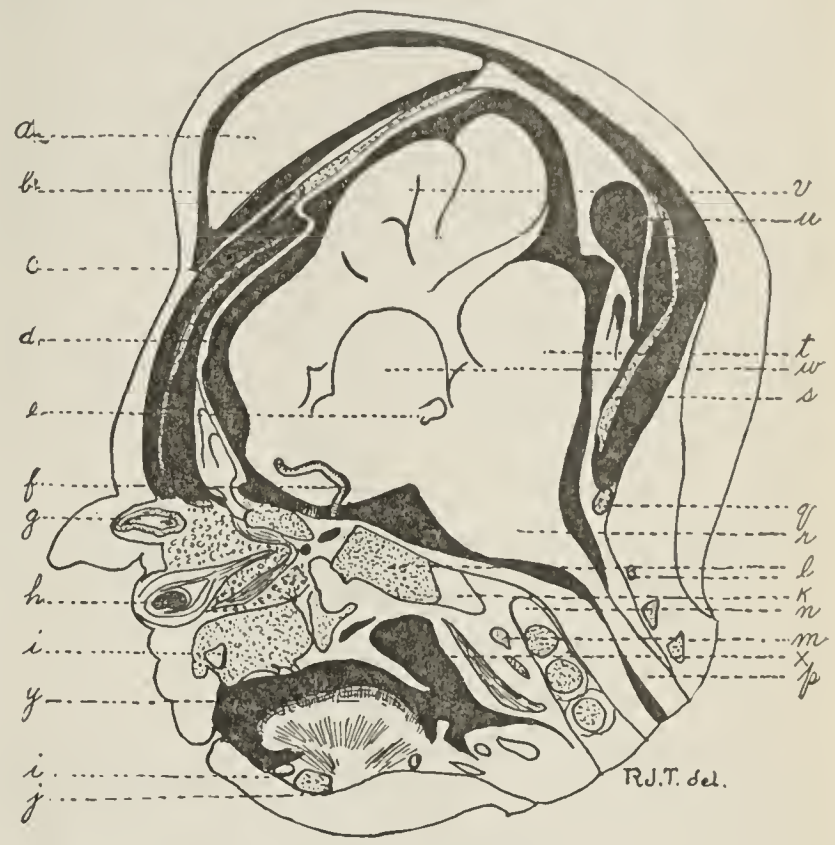


Fig. 2.—*a*. Blood-clot in scalp (caput succedaneum). *b*. Parietal bone. *c*. Frontal bone. *d*. Dura. *e*. Conarium. *f*. Mid-cerebral artery. *g*. Cartilage supporting nasal (?) rudiment. *h* Eye. *i.i*. Teeth. *j*. Mandible. *k*. Basi-occipital. *l*. Basi-sphenoid. *m*. Ant. arch of Atlas. *n*. Odontoid process of axis. *o*. Post. arch of Atlas. *p*. Spinal cord. *q*. Occipital bone. *r*. Bulb. *s*. Occipital bone. *t*. Cerebellum. *u*. Torcular Herophili. *v*. Prosencephalon. *w*. Diencephalon. *x*. Nasopharynx. *y*. Buccal cavity.

for a 7-pound infant, its general outlines being, however, about normal.

The occiput is illy developed; the cranial bones are all freely movable upon each other so that the calvaria may be flattened out in any direction. The ears are normal in appearance and properly placed. The mouth is quite small, and, inasmuch as the inferior maxilla has a limited amount of motion, one can barely insert the tip of the little finger into the buccal cavity.

In the center of the face, just over the mouth, is a single orbital cavity containing one eye. To all appearances, it is a normal eyeball, pupil, iris, choroid and conjunctiva being like those of a newborn child. The eyelids and lashes are well developed. The nose is a cutaneous proboscis an inch in length situated immediately above the middle of the eye in the center of the forehead, resembling the penis of an infant. It appears to be a purely cutaneous appendage, having no bony constituents and apparently no attachment to the skull beneath. At the tip there is a shallow depression having a minute opening through which a bristle may be passed along the rudimentary naris for about two inches.

The photograph was taken after the specimen had been in alcohol for 3 weeks, hence the drawn and irregular contour of the face and scalp shown in the picture.

Dr. R. J. Terry, of the Medical Department of the Washington University, to whom I submitted the specimen for dissection, has kindly furnished the drawing of a mesial section with a preliminary statement of the findings from an inspection of cut surfaces.

It was found that the eustachian tubes are both present and that all the cranial nerves are in pairs except the first (olfactory lobes), which are not discernible at all, and the second (optic) which is single.

The cerebrum, it will be noticed, is very small, almost rudimentary in its proportions. The pharynx is not imperforate, as seems to be the case in the figure; this is due to the section being to one side of the middle line.

Dr. Terry promises to make a more minute dissection of the cranial contents and to present the result in a subsequent report.

IS THE USE OF TOBACCO DETRIMENTAL TO MANKIND?[1]

BY T. H. MARABLE, M.D.,
of Clarksville, Tenn.

THE tobacco-plant belongs to the order Solanaceae and the genus Nicotiana. The order to which tobacco belongs has rather a bad reputation, as almost every genus contains poisonous plants, and they are generally unsightly, or have an unpleasant odor. Among the disreputable kindred of tobacco are the nightshade (Solanum nigrum), horse-nettle (Solanum carolinensis), belladonna (Atropa belladonna), henbane (Hyoscyamus niger), and Jimson weed (Datura stramonium). The character of the order is somewhat relieved by the Irish potato (Solanum tuberosum), pepper (Capsicum annuum), tomato (Lycopersicum esculentum), and the night-blooming jessamine (Cestrum parqui).

There is good reason to believe that this plant is a native of tropical America, where it was found by the Spaniards upon their arrival. It is at present cultivated in most parts of the world, and nowhere more abundantly than within the limits of the United States. Virginia is, perhaps, the most celebrated for its culture. The harvest is in August. The total estimate of the annual product of tobacco throughout the United States at present is 500,000 tons, and five and one-fourth millions of acres of land in the world are given up to the cultivation of tobacco. The internal revenue to the United States is $40,000,000 per annum.

The various species of tobacco found in commerce all contain a liquid, volatile, poisonous alkaloid (nicotin) probably united in the plant with citric and malic acids. There is, also, present in tobacco an unimportant camphor, nicotianin. The general composition of the plant as shown by Passelt and Rienmann is:

[1] President's Address at the Annual Meeting of the Tennessee State Medical Society, April, 1899.

Nicotin	0.060
Concrete volatile oil	0 010
Bitter extractive	2.870
Gum with malate of lime	1.740
Chlorophyl	0.267
Albumin and gluten	1.308
Malic acid	0.510
Lignin and a trace of starch	4.969
Salts (sulfate, nitrate and malate of potash, chlorid of potassium, phosphate and malate of lime, and malate of ammonia)	0.734
Silica	0.088
Water	88.280
	100.836

QUANTITATIVE ESTIMATE OF NICOTIN IN TOBACCO.

The best process (although not a perfectly accurate one) is the following: 25 grms. of the tobacco are mixed with milk of lime, and allowed to stand until there is no odor of ammonia; the mixture is then exhausted by petroleum-ether, the ether shaken up with a slight excess of normal sulfuric acid, and titrated back by baryta-water; the sulfate of baryta may be collected and weighed, so as to control the results with regard to the percentage of nicotin in commercial tobacco. Kosutany found from 1.686% to 3.738% in dry tobacco; Letheby, in 6 samples, from 1.5% to 3.2%; whilst Schlossing gives for Havana 2%, Maryland 2.29%, Kentucky 6.09%, Virginia 6.87%, and for French tobacco, quantities varying from 3.22% to 7.96%. Again, Lenoble found in Paraguay tobacco from 1.8% to 6%; and Wittstein, in 6 sorts of tobacco in Germany, 1.54% to 2.72%. We are thus driven to the conclusion that the alkaloid varies within very wide limits.

The first detailed account of smoking among the Indians is given by Oreido. It was used by them to produce stupor and insensibility. The smoke was taken by inhalation through the nostrils by means of a hollow forked cane in one piece about a span long. When used the forked ends are inserted into the nostrils, the other end being applied to the burning leaves of the herb. This implement is called tabaco, from which the name tobacco was taken. There are four ways in which tobacco is used for its effects by man—chewing, snuffing, smoking pipe or cigar, and smoking cigarets. You will note that I class cigaret-smoking as a distinct manner of using tobacco, for, indeed, it is, and I think the most dangerous form in which tobacco can be used.

PHYSIOLOGIC ACTION.

Tobacco is hostile to all forms of life. On man, the effects have been very minutely observed. In small doses it occasions a burning sensation in the tongue, a sensation of heat in the throat, a sense of rawness throughout the esophagus, and a feeling of warmth in the stomach. The effect produced when used in excessive quantities is faintness, giddiness, nausea and vomiting, gastrodynia, cardialgia, torpor, sleepiness, palpitation of the heart, hypochondriasis, deafness,

amblyopia, delirium, general relaxation of muscular system, trembling, complete prostration of strength, coldness of the surface, cold clammy perspiration, convulsive movements, paralysis and death. These conditions and symptoms have all been repeatedly noted by physicians, and reported in medical journals.

As to the composition of tobacco-smoke, numerous investigations have been made. Kissling, experimenting on cigars, found that a large proportion of the nicotin passes unaltered into the smoke. Dealing with a tobacco containing 3.75% of nicotin, he recovered from the smoke 52.02% of the total nicotin consumed, while in the unconsumed remains of the tobacco the proportion of nicotin was increased to 5.03%. With a second sample of tobacco, having likewise 3.75% of nicotin, the smoke yielded only 27.83% of the total nicotin consumed, and the percentage in the unconsumed remains was raised to 4.51%. From a tobacco containing only 0.30% of nicotin he recovered 84.23% of nicotin in the smoke.

The composition of tobacco-smoke is highly complex, but beyond nicotin the only substance found in appreciable quantities are the lower members of the picolin series. Dudley has made experiments seeking to explain the poisonous effects of cigaret-smoking. He states besides combustion, destructive distillation takes place in the pipe, cigar, and cigaret as the result of heat and the exclusion of the oxygen of the air, which has been completely used up in passing through the redhot, burning tobacco, in front of that which the fire has not yet reached. The products of this destructive distillation are ammonia, a yellow and very poisonous substance of disagreeable odor called nicotianin, some nicotin, though most of the latter has been destroyed by heat, and many other products of minor importance. When there is a layer of fire one-sixty-fourth to one-sixteenth of an inch in thickness, as the air is drawn through the hot carbon, this is reduced to carbon monoxid, and as such is drawn into the mouth, for when it passes beyond the fire there is no air or oxygen to convert it back to carbon dioxid. Its well-known poisonous effects when inhaled are the results of its affinity for the hemoglobin of the blood, converting the oxyhemoglobin into carbonic oxid hemoglobin, a stable compound not reduced in the circulation, hence producing permanent asphyxia. Schtscherbak experimented upon animals by forcing them to inhale the smoke from a burning cigar, but permitting them to exhale freely. He found exalted faradic excitability of the motor centers and subjacent medullary substance. When the nicotin was removed from the tobacco-smoke by passing it through hydrochloric acid, this was not observed. Subcutaneous injections of nicotin (0.50 gram) also increased the faradic excitability, showing the same symptoms by injection of nicotin as are seen from inhaling tobacco-smoke, and proves that nicotin is taken into the system by smoking. The cheapness of the cigaret enables the young to buy and use them. Ninety percent of cigaret-smokers inhale the smoke. The cigaret is smoked to the end, and discharges directly into the mouth of the smoker everything that is produced by the burning. The cigaret is rapidly burned and the smoke inhaled, thereby increasing the proportion of the poisonous substances which are drawn into the mouth, and when the saliva is retained the fullest effect of all the narcotic ingredients of the smoke will be produced upon the nervous system of the cigaret-smoker.

Coomes, of Louisville, considers the use of cigarets particularly injurious, because of the almost universal practice of inhaling their smoke, and expiring it through the nose. Dudley (*Medical News*, 1889) says more injury results from cigarets than from smoking cigars or a pipe, because as a rule the smoke of the former is inhaled. Cersoy, a French writer, finds smokers' vertigo confined to those who inhale tobacco-smoke, and ascribed the injurious effects to its action upon the pnenumogastric while it is retained in the pharynx, larynx and the trachea, and that the cardiac, pulmonary and digestive disturbances are mainly the result of enfeeblement in pneumogastric action. Hall, of Texas, holds smoking to be the most noxious form of using the weed. Tucker, analyst to the State Board of Health of Pennsylvania, in his report on cigarets, says that careful analysis of tobacco and paper failed to reveal other injurious substances than the tobacco itself, the evils of cigaret-smoking being due, he thinks, to their cheapness, enabling excessive quantities to be used both by children and immature persons, who usually inhale the smoke. Dumas reports a series of cases from Algeria, showing the noxious effects of tobacco, among which is a case of angina pectoris ascribed to excessive cigaret-smoking, which resulted fatally. Lewin, of Paris, 1895, states that the deleterious effects of tobacco are observable after its use in any form—smoking, chewing or snuffing. Typical nicotinism occurs, as a rule, after a long-continued use of tobacco, sometimes not until 20 years and more. While many smokers reach old age, many people do not live to old age, because they are smokers. In higher schools nonsmokers get on better than smokers, children from 9 to 15 years of age who smoke, showing less intelligence, and laziness. Adults are are liable to cephalic pressure, insomnia or its converse (slecpiness), melancholy, aversion for work, and dizziness.

Kitchen, *Medical Record*, 1890, says that the stimulating and narcotic properties of tobacco have an effect upon the body in moderate use as well as in immoderate use, this being simply in proportion to the quantity used, though the effects of moderate use may not be measurable by ordinary means. It is easy to see the effects of large amounts of tobacco in the stunted growth of adolescents, in functional cardiac disorders, loss of appetite, neuroses of motion, intellectual sluggishness,

loss of memory, color-blindness, and marked blunting, of various functions of sensation.

J. W. Seaver, of New Haven, 1894, gives particulars of the comparative condition of 77 nonusers of tobacco, 22 irregular users, and 70 habitual users, at Yale University. In weight, the nonusers, in 1891, increased 10.4% more than the regular users, and 6.6% more than the occasional users. In height the nonusers increased 24% more than the regular users and 14% more than the occasional users. In chest-girth, the nonuser had an advantage over the regular user of 26.7%, and over the occasional user of 22%. In lung-capacity the growth was in favor of the nonuser, 77.5% when compared with the regular user, and 49.5% compared with the irregular user.

Huchard, of Paris, 1890, considers the effects of tobacco, this forming part of a treatise on diseases of the heart. He reviews the chemistry and physiologic action of tobacco, showing its effects on the nerve-centers, the pneumogastric nerves, the vascular system, and on muscular tissue. He considers the chief action to be upon the medulla oblongata. He describes what is termed the "irritable heart of smokers," in which there may be acceleration or slowing of the pulse, intermittence and arrhythmia of the heart, lipothymia and syncope, angina, præcordial anxiety, palpitation, sudden and distressing arrests of the heart, and extreme irritability of the circulatory functions. This action of tobacco is usually ascribed to its effect on the nervous system in general, and the pneumogastric in particular; but this is not all: much is due to its action on the muscular system in general and particularly upon the vascular walls. Tobacco is not simply a cardiac poison; it is, also, an arterial poison. The vasoconstrictive action of nicotin has been thoroughly demonstrated. The effects of tobacco resemble absolutely those produced by galvanization of the great sympathetic; it is probably through the nerves that nicotin acts upon the vessels. The tetanizing process produces, in reality, a muscular ischemia, which explains in part the tremor, muscular weakness, and paresis observed in nicotinized animals. This vasoconstrictive action produces disturbances in various organs. The nerve-centers show signs of ischemia, cerebrospinal irritation, headaches, with vomiting, morning fatigue, impairment of memory, psychical irritation, inaptitude for work, and even transitory aphasia, with incomplete hemiplegia, alternating from right to left. The respiratory apparatus, besides serious attacks of dyspnea, produced by the action of tobacco on medulla and respiratory muscles, may exhibit disturbances attributable to contraction of the pulmonary vessels. The diuretic effect of tobacco is also explained by this hyperarterial tension. But it is upon the heart itself that the most deplorable effects of this vascular tetanization are produced. Certain attacks of angina and disturbances of rhythm may be ascribed to spasm of the coronary arteries and consequent ischemia. The hard, small, tobacco pulse is also explained by this vasoconstrictive action. At first these troubles are functional, but in time, from repetition or permanence of these vascular contractures, a sort of peripheral circulatory barrier is set up. Arterial tension is increased, the heart suffers from successive dilatations, which in turn becomes permanent, and there is produced, finally, a general arteriosclerosis, which, if it involves the heart-muscle, may produce various degenerations, of which dystrophic sclerosis is the most common. We may have two or three different forms of angina pectoris from tobacco: (1) Functional angina, relatively benign, resulting from a spasmodic state of the coronary arteries, and without a myocardiac lesion. This is the tobacco spasm. It is rapidly cured by the discontinuance of the tobacco habit. (2) Organic angina, of serious character, resulting from coronary sclerosis—the tobacco sclerosis. It is not curable. (3) A gastric form, which is the most benign of all, a functional angina, resulting from frequent disturbances of digestion produced by tobacco, such as gastralgia, dilatation of the stomach, etc.

Dumas doubts the efficacy of tobacco-smoke in arresting the development of the tubercle-bacillus from his experiment in the case of a young subject who smoked by inhalation almost continually, but finally developed phthisis, which improved after he ceased to smoke for a time, yet became worse on his resuming it, death finally resulting. The observer considered it a case of phthisis provoked by the abuse of tobacco-smoking. I do not believe tobacco prevents tuberculosis. Have seen 4 cases of tuberculosis within the past 12 months, primary involvement in lungs, secondary tuberculosis of throat. These men were users of tobacco, chewed and smoked.

Broomhead records the death of a boy, aged 13, following nausea and vomiting after cigaret-smoking, terminating in convulsions, and subsequent respiratory failure.

The following is what Dr. Bartholow says on the subject: "It is high time something were done to put a stop to this frightful evil, which is stunting the growth and ruining the health of thousands of boys. It is just horrible to see these boys—little fellows, many of them not more than 8 or 10 years old, not street boys, but well-dressed and carefully nurtured boys, gathered in knots in some corner, where they think they will not be observed, learning to smoke. Parents see their sons getting thin and yellow and irritable, the family doctor is called in, and, without going to the root of the evil, prescribes tonics which do no perceptible good.

"The prodigious increase of cigaret-smoking among boys, in the last few years, is an evil which will tend to the deterioration of the race if it is not checked. But it is not hard to account for. Boys are very imitative; they follow the fashion with promptness and zeal. Cigarets are the rage at Harvard. It is the cor-

rect thing to smoke these poisonous little rolls of tobacco and paper. Whatever is fashionable in a great school like Harvard is sure in a very short time to be fashionable among young men and boys all over the country. Another great cause of the mischief is that boys are very fond of imitating their elders. Smoking in public places ought to be discouraged. There ought to be a sentiment created against it, and the press is the power to create such a sentiment. Every man, when he smokes in public, ought to think that he is encouraging some boy to smoke. The boy will smoke a cigaret, imagining that he will get less tobacco in that way, and ignorant of the fact that cigaret-smoking is the most pernicious form in which tobacco is used. Tobacco in any form is a great injury to a growing boy, and the fashion of inhaling the smoke and then forcing it through the nose is deadly in its effects. It causes catarrh in the air-passages, throat, and nose, and makes the smoker disgusting, as well as puny and stunted. You will find that these cigaret-smoking youths have impaired digestions, small and poor muscles, irritable tempers, and a lack of capacity for sustained effort of any kind, and I believe that you will find that they do not succeed in life. The men who win are men of strong physique. A cigaret-smoking boy will not make a strong man. These are some of the evils which the individual brings upon himself. But the mischief does not stop with the individual, but is transmitted to his offspring. Nervous peculiarities are just as readily transmitted as physical peculiarities. The acquired irritability, imperfect development, and loss of nervous force of the father is inherited by the child, who, in turn, further impairs his health by the same process, so that in the course of three or four generations there must be a great deterioration in the race. The sale of cigarets to boys should be prohibited by law."

It is truly melancholy to witness the great number of the young who smoke nowadays, and it is painful to contemplate how many promising youths must be stunted in their growth, and a physical and mental wreck before arriving at man's estate. Look at the pale, young face, imperfect development, and deficient muscular power of the cigaret-fiend; the action of the heart and lungs is impaired by the influence of the narcotic on the nervous system, and a morbid state of the larynx, trachea and lungs results from the direct action of the smoke. The voice is observed to be rendered hoarser and with a deeper tone.

The General Assembly of the State of Tennessee, in 1897, passed an Act prohibiting the importation or sale of cigarets, and fixing a heavy penalty for its violation. The law was at once recognized as an eminently proper and beneficial one, and the only question upon which there was ever any doubt was as to the validity of the clause prohibiting their importation for sale. The question came before Judge Lurton of the Federal Court, and the clause was held to be invalid, in that it conflicts with the interstate commerce clause of the Federal Constitution. The question was also ably presented to the Supreme Court of Tennessee, whose decision outranks that of the Federal judge, and is the settled law, unless the decision of Judge Lurton shall be affirmed by the Supreme Court of the United States.

Our Supreme Court in the case of Austin vs. the State undertakes to settle the question in a very elaborate and strong opinion by Judge Caldwell. The broad position is taken in this opinion, and very properly so, that any article that is noxious or deleterious to health does not come within the provision of the commerce clause of the Federal constitution. The fact is cited that the Supreme Court of the United States has held that discolored or adulterated oleomargarine is an article whose importation can be prohibited by the States. Upon this principle there seems to be no controversy, and the only remaining question, as said by Judge Caldwell, is this: "Are cigarets legitimate articles of commerce?" Continuing, Judge Caldwell says:

"We think not, because wholly noxious and deleterious to health. Their use is always harmful, and never beneficial. They possess no virtue, but are inherently bad, and bad only. They find no true commendation for merit or usefulness in any sphere. On the contrary, they are widely condemned as pernicious altogether. Beyond question, their every tendency is towards the impairment of physical health and mental vigor. There is no proof in the record as to the character of cigarets; yet their character is so well and so generally known to be that stated above, that the Courts are authorized to take judicial cognizance of the fact. No particular proof is required in regard to those facts, which by human observation and experience have become well and generally known to be true. Nor is it necessary that they be formally recorded in written history or science to entitle Courts to take judicial notice of them. It is a part of the history of the organization of the volunteer army of the United States during the present year (1898), that large numbers of men, otherwise capable, had rendered themselves unfit for service by the use of cigarets, and that among the applicants who were addicted to the use of cigarets, more were rejected by examining physicians on account of disabilities thus caused than for any other, and perhaps every other, reason. It is, also, a part of the unwritten history of the legislation in question that it was based upon and brought to passage by the firm conviction in the minds of the legislators and of the public that cigarets are wholly noxious and deleterious. The enactment was made upon this idea, and alone for the protection of the people of the State from an unmitigated evil. Such being the nature of the cigarets, they cannot be legitimate articles of commerce.

"Every State has the right under its police power to prohibit the importation and sale of all articles inher-

ently unworthy of commerce, and unfit for the use of its people. Indeed, an active duty rests upon the legislative branch of the State Government to enact appropriate laws for the protection of the public against the hurtful influences of such articles; and in the discharge of that important duty the members of the legislature must be allowed to act in accordance with the dictates of their own best judgment. The right of a State to protect its people in their comfort, health and safety, against the importation and sale of non-commercial articles has long been recognized and never questioned, by the Supreme Court of the United States."

In support of this decision numerous cases are cited involving adulterated oleomargarine and other articles unfit for public use.

The Supreme Court takes judicial knowledge of the hurtful nature of cigarets, and very properly assumes that there are none who are ignorant of their tendency and effect.

The output of cigarets in the United States for February, 1898, was 289,241,502.

A PNEUMATIC SIGMOIDOSCOPE.

A Preliminary Report.

BY WILLIAM V. LAWS, M.D.,

of Philadelphia.

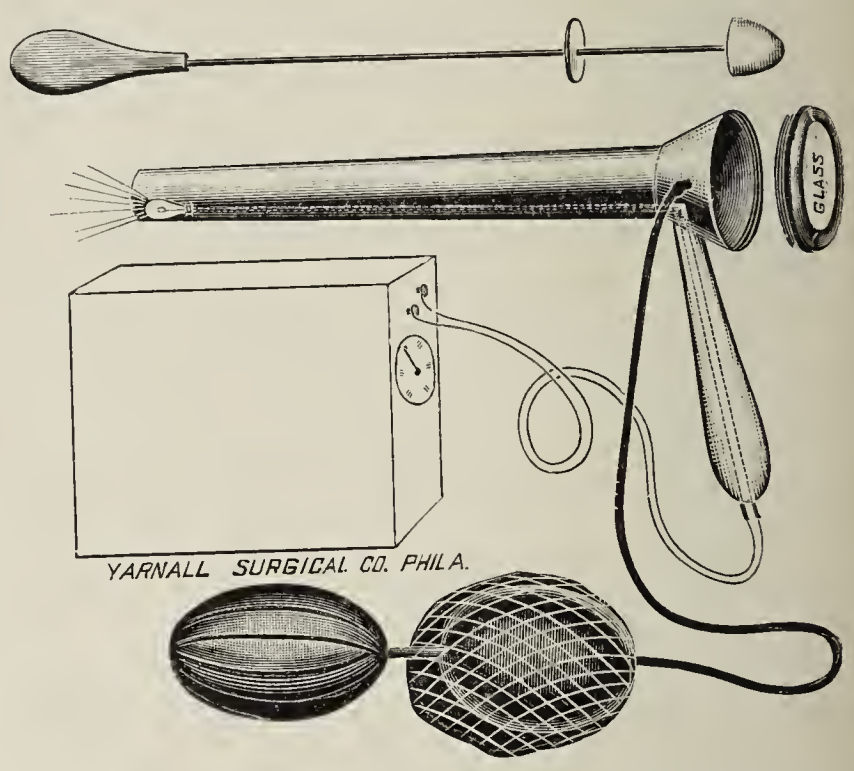
Demonstrator of Surgery, Medico-Chirurgical College.

HAVING been especially interested in the study of rectal diseases for several years, I have frequently felt the need of some means by which the upper rectum and sigmoid colon could be examined thoroughly, and at the same time with safety. The instruments in established use have in my hands proved very unsatisfactory. Not being able to eliminate the element of danger incidental to the introduction of the long sigmoidoscopes, I have been very chary in the use of them. Such instruments are dangerous in any but expert hands, and even then accidents have been reported, especially when there is coexisting disease of the upper bowel.

To overcome the objections to the long instruments, I have devised a pneumatic sigmoidoscope, which I believe is unique in several respects. It consists of a simple tubular speculum, 6 inches in length, with a screw-cap fitted with plate glass over the proximal end; two electrodes run through the handle of the instrument, so as to connect a 5-candle-power electric light, which is placed a short distance from the end of and within the tube; just in front of the glass cap there is a small opening in the tube, so arranged that the rubber tubing of a double air-bulb may be attached. It is also furnished with an obturator.

The obturator being placed in position, the instrument is introduced into the rectum for 2 or 3 inches; the obturator is now removed, and the electric lamp put into place; the glass cap is tightened, and then by gradually pumping in air by means of the bulb, the whole upper part of the rectum and sigmoid flexure will be inflated; now, by turning on the electric current, the interior of the bowel is illuminated, and can be thoroughly examined.

If the lower part of the rectum is to be examined, a finger-cot may be slipped over the end of the tube, and held in place by means of a ring; when the finger-cot



is inflated, it becomes transparent, and, at the same time, dilates the rectum, so that every part of it can be seen.

The patient should be placed in the knee-chest position, in order to facilitate the dilatation of the parts. It is not necessary to give an anesthetic, as the use of the instrument does not cause much pain. A pad of cotton wrung out of water, and held closely around the tube, and against the anus by an assistant, will keep the air confined in the rectum.

Ovarian Multilocular Cystic Tumor.—Willard and Wilson (*University Medical Magazine*, August, 1899) report a very interesting case in which a multilocular cystic tumor of the ovary had existed for 35 years without injury to the patient, who died from influenzal bronchitis at the age of 74 years. The tumor first showed itself at a time when laparotomy was not in vogue, or at least when it was seldom performed and the mortality was still very great. It was subjected to repeated tappings and a large amount of fluid removed on each occasion. The occurrence of intercurrent attacks of peritonitis, none of them following the tappings, produced such intimate adhesions between the parietal peritoneum, the cyst and the neighboring viscera, that it was never deemed advisable to operate, nor would the patient consent.

The autopsy showed the correctness of this view. The abdomen was enormously distended; the circumference was 70 inches. The mass was incorporated in the abdominal wall, and it was impossible to separate it, even after death. Numerous sacs were opened discharging quarts of fluid. Folds of small intestine were incorporated with the tumor at irregular points, forming a portion of the mass. There were no indications of a dermoid character. Plates of calcareous and almost bony formation were found in various parts of the tumor. The tumor originated in the left ovary. The uterus was atrophied and involved in the mass. [C.L.L.]

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See Advertising Pages 24, 25 and 38.

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The Law and the Profits.—It is refreshing to find common sense as to medical matters in a country newspaper. The *Clarksburg News* (of West Virginia) in an excellent editorial teaches good law and good medical morals concerning osteopathy, showing that according to the laws of that State the osteopaths have not paid the $50 demanded of itinerant physicians. The *News* adds :

"The laws of West Virginia require that no physician will be permitted to practise until he shall have successfully passed an examination and secured a certificate legally giving him the privilege of following his profession. These new physicians have never passed such an examination, and are therefore violating the law, imposing upon the licensed physicians, and appropriating rights which the State has vested in others. If they wish to practise let them take the examination. Judge Thompson held that the word practice, relative to medicine, meant 'that branch of science which relates to the prevention, cure or alleviation of diseases of the human body.' As osteopathy at least assumed to alleviate and cure diseases, it was held to be amenable to the statute. Axtell was fined fifty dollars and forbidden to practise in Kentucky. The statute of this State provides that *manipulation or other* expedient shall constitute the act of practising medicine. The penalty for unlawfully practising medicine in this State is a misdemeanor, punishable by the imposition of a fine not less than $100 nor more than $500; imprisonment in the county jail not less than one nor more than twelve months, or both at the discretion of the court. It is, therefore, clearly shown that these osteopaths are violating the law. In justice to the profession the law should be enforced."

The Cornell Nature-Study Leaflets and Bulletins should be placed in the hands of every country boy and girl. Physicians have always been students and lovers of nature, and the nature-loving boy is likely to turn out a young biologist, and the young biologist is more likely to become a physician. Moreover, there is a direct influence upon the health both of the individual and of the community in the intelligent observation of living things by the country people. The Cornell University College of Agriculture has undertaken a noble and profoundly important work in encouraging this study among the young people of the State, and so far has issued 13 leaflets gratis to them, describing in a simple, yet scientific way the facts of meteorology, the growth of plants, combustion, flower-cultivation, entomology, ornithology, arboriculture, etc. Of course, these big names are not used. It is the farmer and his children that the college tries to reach, and in such a way as to arouse interest in the things among which they live—things too often ignored and not understood. If life can be made interesting to them, then there will be better health, greater contentment, and there will not be the deplorable rush to the city to avoid mental stagnation and the slavery of the humdrum. There are 29,000 teachers in the State of New York, and of these and their pupils, 25,000 names are on the mailing-list of the managers of this excellent institution. How many other States are content to spend their money and energies in political games and corruptions? The example of New York should be studied by us. Until we undertake a similar work, Cornell will not limit its beneficence to the boundaries of the State. A word to the wise!

What Becomes of Rejected Drugs?—No reputable pharmacist or manufacturer will use inferior drugs in making fluid extracts or other preparations, and our best manufacturing houses employ skilled chemists to standardize all drugs, and, although these standards are yet to a large extent simply a "law unto the house," inasmuch as very few have been adopted by the United States Pharmacopeia, it is obvious that physicians must depend upon the reputation of a maker for honesty, skill and ability to furnish reliable products. In the case of such drugs as opium, cinchona, and nux vomica, and others which depend for their activity upon alkaloids, it has been possible to fix official standards, and these are recognized by the custom-house authorities in various ports of entry, and it is possible to keep such inferior foreign drugs out of the country, but what becomes of ergot, belladonna, cannabis indica, digitalis, and a host of others for which no official standard is supplied?

Obviously, indigenous drugs are subjected to the operation of no law for admission into the materia medica, and the conscience of the manufacturer alone regulates the quality of the preparation. But what becomes of the rejected drugs? Thousands of pounds of inferior drugs are not accepted by manufacturers and pharmacists and should be destroyed; yet who ever heard of such a drug holocaust? Every effort should be made to perfect standards for drugs as rapidly as possible, and these should be adopted by our pharmacopeias; stringent laws should then be passed providing heavy penalties for the sale of drugs or preparations which did not conform to the standard. When the facts are sent broadcast, the movement in this country for pure food and drug laws should be given a mighty impetus. Let

us nail up the flag with the motto, "Pure Food and Pure Drugs," and lastly, let us see that the laws are administered by "pure men."

Philadelphia's Water Supply.—In order to secure filtration in this city it is proposed to submit to popular vote an ordinance for borrowing $12,000,000. This sum is required to construct a filtering system. The prospect is that this ordinance will be ready in time for the November election. The time is short for mature consideration of such a great public measure. All the features of this scheme should be made perfectly plain, both in a hygienic and a financial way. Experts who are competent to judge may be sure now of an attentive audience in this city if they will say whether they think this scheme will insure pure water, and also whether it can be accomplished with economy of public money.

The Mayor and his advisers believe that filtered water from nearby is better than unfiltered water from a distance. The Lehigh or the upper Delaware would not give a supply that would for a certainty not require filtration, while the expense of bringing the water from either of these sources would be enormous. It has always seemed to us that the Delaware, a short distance above the city, would give a better supply than the smaller and dirtier Schuylkill. The Delaware valley is not so populous as that of the Schuylkill, while the volume of water is much greater. If we are to drink water from one of these streams that of the Delaware seems preferable. If some plan could be adopted to dispose of the sewage of Bristol and Trenton the people might be satisfied, otherwise there might be supersensitive folks who would not relish sewage even if it were filtered. The same criticism, of course, applies to the sewage of Norristown, Phenixville and Reading.

The International Congress.—The profession in America does not seem as yet to be sufficiently interested in the International Congress to be held at Paris next year. There is every prospect that this meeting will be a great affair. It is not only to be held in Paris (the best city in the world for it), but it is to be held during the exposition. The *Practitioner* seems to be somewhat concerned lest the British contingent at the Congress be overshadowed by the aggressive German crowd. It calls attention to the fact that at the last Congress, held in Moscow, the Teutons went in organized battalions, with a sort of military discipline, and practically took possession of the field. Even the Russians, according to that soberminded journal, were crowded out in their own town, and forced to be mere spectators, while German professors, each with his own trained band of *claquers*, monopolized time and space. An Englishman, it is claimed, could not even get near a buffet. There is something so highly characteristic in all this, that we can easily believe it; although we refer, without permission, to the *Practitioner* for the facts. At Paris, however, there will probably be a more even balance of international power. That city is not a good place, at present, for racial antagonisms, least of all for Germanic ascendency. It is a much more cosmopolitan city than remote, provincial Moscow, and it will probably preserve its traditions next year as the true capital of Europe. If Americans and Britons do not assert themselves, and achieve the distinction they deserve, the fault will be their own, and, in the case of the Americans at least, will be due to the fact that they have not yet learned to be thoroughly independent of continental opinion and leadership. Paris will be a good place for the demonstration of original and forceful American work in medicine and surgery, and we hope the demonstration will be given.

The Influence of Season upon Drunkenness.—It has long been known that an intimate relationship exists between drunkenness and climate, the vice being more common in cold and temperate countries than in the tropics. Dampness, likewise, appears to be a contributing factor. On the other hand, the evil effects of alcoholic intoxication appear earlier and are more profound in warm and tropical than in cold and temperate climates. It would appear further from the statistics that in temperate climates drunkenness is most common during the heated season. The reason for this is, however, not entirely clear. Some observers have attributed the fact to the greater degree of prosperity that exists at this season of the year; others have attributed it to the same influence that is responsible for the greater prevalence of mental disease at the same time; while still others have attributed it to the rapidity of elimination that takes place in consequence of heightened activity of the skin and increased perspiration. At the Seventh International Congress Opposed to the Abuse of Spirituous Liquors, held at Paris in April, 1899, this entire subject was ably discussed by Baer, who attributes the special prevalence of drunkenness in the summer season to a combination of influences, including, among others, the increased thirst due to the heat; the long days of mild weather, during which the people are less confined within doors, and more freely meet in social relations; the retarded bodily metabolism and deficient elimination of alcohol, and the further fact that perhaps the relaxation and fatigue of the brain peculiar to the heated term render this organ more susceptible to the influence of alcohol. Suicide, also, has been found to be more common in summer than at other seasons, and it is possible that there is some connection between the simultaneous prevalence of the two conditions. It has been observed, further, that crimes of person are also most common during the summer. The remedy suggested is the provision of suitable substitutes for alcohol during the heated term.

The Prevention of Surgical Shock.—In a paper recently published in the *St. Louis Courier of Medicine*, Senn lays stress on the importance of proper prophylactic measures with a view to diminishing the liability to shock. He states that in preparing patients for grave operations he has for years been in the habit of administering two ounces of whisky by the stomach or rectum an hour before the time set for the operation, and by injecting $\frac{1}{30}$ grain of strychnin hypodermically a few minutes before anesthesia.

This is by no means a new procedure, but for some reason it does not seem to have come into very general use. It seems to have everything to commend its general adoption and no objection against it. And indeed it would seem that such measures are advisable not only before grave operations but before all operations requiring general anesthesia, for a very large proportion of the deaths from anesthetics, particularly chloroform, occur during the early stages of their administration from sudden cardiac or respiratory failure. The preliminary administration of stimulants would no doubt whip up the vital centers until this dangerous stage was passed. The value of normal salt-solution by enemas, subcutaneous injections, and specially by intravenous infusion, is generally admitted. Some surgeons have seen the value of these measures, even before a state of collapse is reached, and believe that by the use of infusion of salt-solution early in grave operations serious consequences may very often be averted. The early use of strychnin is even more important, for while it normally acts as a powerful stimulant, during shock it may fail to have any effect. Contejeans explains this as the result of the anemic condition of the cord, the blood-supply not being sufficient to carry the remedy to this center of innervation. He found this anemic condition present in animals in which shock was produced experimentally. In reporting the successful removal of a very large sarcomatous kidney from an infant, Abbe (*Annals of Surgery*, September, 1899) emphasizes another well-known but very important prophylactic measure: the prevention of loss of bodily heat. This is accomplished by wrapping the limbs with cotton and flannel, by warming the operating-table and by protecting exposed parts by the use of relays of hot towels during the operation.

Sanitarians now understand very well the importance of preventive measures. No doubt the time will come when others besides them will recognize the significance of the old adage, "It is useless to lock the stable door after the horse is stolen."

Commercial cunning disguised as philanthropy is an old but a certain method of discovering hypocrisy and fraud. In looking back into the history of popular delusions the almost certain way to prove judgment is to ask, "were there sound (or unsound) financial reasons for the leaders to act as they did." The human mind is very expert in hiding its real motives under the sentimentalisms of religion or philanthropy, but, as a rule, when it is to the preacher's profit to preach rather than to hoe, it is pretty certain that the profit has been the motive in the choice of occupation. Time was when the Yankee was sharp in swapping horses or buying wooden nutmegs. That time seems forever to have gone, and like Hans Breitman we can only in sadness ask, "where ish dot Barty now?" And we thus get a glimpse, no, a frank look, at the frankly exposed plots of many modern cranks and cunning twisters to humbug the silly believe-alls, and bait the hook of gain with the fly of sentimentalism. Every crank periodical bears proof of the fisherman's trick. For instance, take up at the newstand a copy of the monthly periodical, *Occult Science Library*, of which six or seven volumes have been published. There are pages upon pages of advertisements of the wonderful books and teaching lessons by the editor! However, it must be noted that the prices are not outrageous; they yield a handsome profit of several hundred percent, possibly, but not of several thousand. Our occultist appeals to common people, not to the hysterics and empties of fashionable society, and cannot make his prices so high as those who deal with Countess of Dunmores, Lady Murrays, and Lord Fincastles, as do the Christian Scientists. Picking up a recent number of the *Christian Science Sentinel*, we find that their Mother Eddy is called "the sweet woman who in all love, meekness, and selflessness has shown the way of freedom to the human race, a freedom much larger than political freedom—a freedom moral, spiritual and physical, freedom from all evils of sin, illness, and the grim enemy 'himself.'" In this issue, however, we note that Mother Eddy has monopolized her photograph business (*i.e.*, photographs of herself) in the hands of one photographer, who has the sole right, etc., to sell this her best portrait, which she "endorses," and adds, "I simply ask that those who love me purchase this portrait." At how many dollars each, dear mother? A few weeks ago we noted that all who love had also to buy a dozen of her souvenir spoons. For years her book-business must have been marvelously profitable. In this issue of the *Christian Science Sentinel*, before us, a dozen or more books by the prolific mother are for sale, ordinary-sized 12mos, at prices from $3.00 to $6.00 each, and pamphlets galore at more than a cent a page. The time must be growing ripe for the "promoter" to syndicate the whole business, like Warner's Safe Cure, or the Sea-Water Gold Mining Co. But, alas, to think of the poor sillies and gullibles who are so atrociously stupid as not to see through all this!

Suggestions to Writers, No. 41. The Split Infinitive.—At a recent medical meeting one speaker's scientific statements were criticised because in the very act of stating them he had committed the literary crime

of the split infinitive. There is, indeed, a certain truth in the proposition that the correctness of a writer's language is an indication of the correctness of his science; because if a man is an accurate observer of facts and a logical reasoner concerning them, he will also naturally be a correct observer of the facts of words, their meanings and uses. Humbug and quackery and medical criminality, when expressing itself in print, creates a new linguistic never before seen by gods or men. But this inference may be drawn too absolutely, and hard and fast logic is not often permissible as regards matters philologic, especially if of the English variety. The London *Academy* recently hit off the split-infinitive sticklers in a delightful skit, of which we can spare space for the last paragraph only:

There was one critic who seemed rather tired, and him I took aside. "Does it really pain you all so very much?" I asked. He glanced round to see that he was not overheard: "Well, it is like this," he said, frankly, "suppose you have to criticise style. You may not know what style is, or you may not have time to look for it. So you just glance at the infinitives. If they are split, the man has no style; if they are not split, he has, and your work is all done without any trouble. That is what it seems to me to really amount to." All unconsciously he had committed the terrible offence. Everybody does.

This, of course, is a humorous exaggeration, designed to say that it is absurd to go daft over the matter. As a rule we agree that it is best to avoid throwing the adverb into the infinitive in this way, because generally it weakens the sentence, and, by placing it elsewhere we can more accurately express what we wish. The last words of the foregoing sentence are, from one point of view, criticisable upon the same grounds as the split infinitive, and were written to bring out this point. "We can more accurately express," strikes us as less forceful than, "We can express what we wish with greater accuracy." Take the two sentences brought in as the best examples the London *Academy* chaffer can find: "We have agreed to unanimously think it wrong;" the critic hastily corrected himself and said, "We have agreed to think it unanimously wrong," thus making matters worse, of course. "We have unanimously agreed, etc.," was naturally omitted by the caricaturist. "This is what it seems to me to really amount to," is a poor justification. There are a dozen more happy ways of writing the sentence. Not alone with those who have occasionally used the split infinitive will the grammarians' purgatory be filled, and yet those who have sinned least in this way will probably be more speedily prayed out.

Medical Sermonets No. 10. Concerning Literary Piracy.—A few months ago a small abstract of an article in the *Medical Record* was made by one of the collaborators of our JOURNAL, who according to the repeated instructions given to all was careful to give proper credit to the original. In the exigencies of the crowded "make-up," the printer accidentally left off this line of credit, which had been placed at the bottom of the paragraph. The Editor of the *Medical Record*, with his characteristic courtesy, charged us with theft, wilful and malicious. We begged his pardon, acknowledged the error, and explained how it occurred. Purple with rage and insult, and with sorry attempts at irony, the urbane editor then editorially repeated his charge of thieving in the old case, and added a lot of new instances of the crime, consisting in the fact of an author synchronously printing his own original writing in two journals with the consent of both editors. All of which on the *Record* editor's part betrayed an animus and a violence of emotion that was allowed to overcome common shrewdness, prudence, and the policy if not the ethics of truthfulness.

In editorial quarrels the readers of journals have little interest, and it is well they have not, otherwise we should not have much dignity in journalism, medical or lay. But in this matter there are great principles, and professional abuses at stake which require plain speaking, however much the speaker may dislike his duty, and however much those spoken of may be irritated. As facts are more convincing than protestations and implications as to one's own virtue we would ask the editor of the *Record* to give us in his own way a statement and answer, (1) To a hitherto ignored article on this subject appearing in Vol. 3, No. 2, of the *Bulletin of the American Academy of Medicine;* (2) As to a long quotation last year by the *Record's* editor from a certain Catholic priest, in which, until compelled to make the acknowledgment, the quotation marks and real authorship had been forgotten; (3) Concerning the following letter copied from the *British Medical Journal* of October 11, 1890:

"SIR:—May I beg your assistance in exposing a glaring case of publisher's piracy of which I have the misfortune to be one of the victims: In November last I published a small book on the treatment of chronic bronchitis. Soon after its appearance, I entered into an arrangement with Messrs. Blakiston, of Philadelphia, for the reproduction of an American edition, which was issued in due course. I have just received information from them that Messrs. Wm. Wood & Co., of New York, have reprinted it, not only without my permission, but without communicating with either my English or American publishers. It would appear that there are firms in New York who appropriate the property of their trade colleagues with as little compunction as they do that of British authors.

On looking down Messrs. Woods', of New York, list of publications I found the names of many of our best known medical writers, and I was curious to learn whether they had been treated with the same want of courtesy which I had experienced. I accordingly communicated with several of them, and the result has been a string of indignant letters, the writers one and all protesting strongly against the unauthorized reproduction of their works.

Dr. Dickinson says: 'The information in your letter that Messrs. Wm. Wood & Co. have reprinted my lectures on the Tongue is new to me. They did the same for my book on Urinary Diseases. I have, of course, given no permission.'

Sir Henry Thompson says: 'I had not heard of the publication of any work of mine by Messrs. Wm. Wood & Co., of New York, until you named it.'

Mr. Bryant says: 'I had no idea my book had been republished in America. It has certainly been done without my permission.'

Mr. Jonathan Hutchinson says: 'I certainly never gave any permission to Messrs. Wood & Co., of New York, to reprint my Pedigree. In a recent Atlas of Skin Diseases, a large portion of the plates are mine without, so far as I can find, a single word of recognition.'

Dr. Richardson says: 'Messrs. Wood & Co., of New York, not only pirated my essay entire, but did so in face of my protest.'

I have received similar communications from Dr. George Harley, Dr. Thin, Mr. Keetley, Mr. Mansell Moullin, Dr. Simon, of Birmingham, Dr. Sinclair, of Manchester, Mr. Mark Hovell, Dr. Lloyd Tuckey, Dr. Whittle, of Brighton, and many others. The only exception is in the case of Dr. Currie, who states that he was offered 'an insignificant percentage, which'—he adds significantly, 'has not up to the present time been received.'

I believe that there is a popular impression that Messrs. Wood & Co., of New York, pay the authors whose work they appropriate, but I cannot find that there is any foundation for this belief. I have talked the matter over with a good many of my American friends, and they are naturally indignant at the manner in which we have been treated. There is, unfortunately, no international copyright law, and we presumably have no legal redress. A constant exposure of such instances of piracy may, it is hoped, eventually ensure adherence to the first principles of commercial morality.

I am, etc.

(Signed) WM. MURRELL, M.D."

It is hardly necessary to add that the design in republish-

ing the foregoing paragraphs is not personal, and is not done to "please ourselves or hurt our enemies," but solely to illustrate the great vice of American medical literature, whereby the profession has allowed itself to be used like a stupid cat for the purpose of pulling very desirable financial chestnuts from the fire. Authors who belong to the profession must demand that their literature shall belong to the profession. If we lend our articles to lay publishers, we must not allow them to be stolen, and we must demand that our publishers shall not steal from our over-sea colleagues.

Finally, why give our literature gratis to lay publishers for their money-making schemes, instead of to professionally controled journals?

The Philadelphia Monthly Medical Journal.—The issues for August, September, and October have been mailed to subscribers. To illustrate their wealth of excellent literature we append the tables of contents:—

August.

1. Obstipation. A Practical Monograph on the Disorders and Diseases of the Rectal Valve. By Thomas Charles Martin, Ph.D., M.D., of Cleveland, Ohio, with 89 illustrations.

September.

1. Lectures on Orthopedic Surgery. By John Ridlon, A.M., M.D., of Chicago; and Robert Jones, F.R.C.S., of Liverpool. Numerous illustrations.
2. On the Clinical Relations of the Papillary Muscles of the Heart. By Henry Sewall, Ph.D., M.D., of Denver, Colo.
3. Placenta Praevia, with Report of Four Cases. By F. Spencer Halsey, M.D., of New York.
4. Cerebrospinal Meningitis with the Tetragenus Micrococcus as Probable Cause. By John E. Greiwe, M.D.; G. A. Fackler, M.D., of Cincinnati, Ohio; E. W. Mitchell, M.D., of Avondale, Ohio, and F. F. Hellman, M.D.
5. Spasmodic Stricture of the Esophagus, with a Report of a Case of Unusual Duration. By Louis Gross, M.D., of San Francisco, Cal.
6. Conservative Operations on the Uterus and Appendages; Illustrative Cases. By J. Coplin Stinson, M.D., C.M., of San Francisco, Cal.

October.

1. Presidential Address at Thirty-Second Annual Meeting of Canadian Medical Association, Toronto, August 30, 1899. By Irving H. Cameron, M.B., of Toronto.
2. Typhoid Infection without Lesions in the Intestines; A Case with Remarks. By A. M'Phedran, M.D., of Toronto.
3. How to Deal with the Consumptive Poor. By E. J. Barrick, M. D., of Toronto.
4. Christian Science. By J. H. Richardson, M.D., M.R.C.S. (Eng.), Toronto.
5. Massage and the Relief of Eyestrain in the Treatment of Glaucoma. By George M. Gould, M.D., of Philadelphia.
6. An Experience in Formaldehyd Disinfection. By F. Montizambert, M.D., F.R.C.S., D.C.L., of Ottawa.
7. Complications and Treatment of Fracture of the Base of the Skull. By J. M. Elder, A.B., M.D, C.M., of Montreal.
8. Recurrent Paralysis of the Oculomotor Nerve. By J. W. Stirling, M.B., of Edinburgh, Can.
9. Observations on Adenoids and Enlarged Tonsils and their Removal. By D. J. Gibb Wishart, M.D., of Toronto.
10. A Case of Subcutaneous Emphysema. By Frederick Fenton, M.D., of Toronto, Can.
11. A Report of a Case of Penetrated Gunshot-Wound of the Abdomen with Lesions of Intestines Successfully Treated by Immediate Operation. By Norman E. McKay, M.D., of Halifax.
12. A Case of Diffuse Hypertrophy of the Breasts. By James Bell, M.D, of Montreal.
13. Pneumothorax from Gas-Producing Bacteria. By F. G. Finley, M.D., of Montreal.
14. Results Already Achieved at the Muskoka Cottage Sanatorium. By J. H. Elliott, M.B., of Gravenhurst, Can.
15. Observations on the Relation of the Uterus to the Thyroid. By Charles R. Dickson, M.D., of Ontario, Can.
16. When is Justifiable Abortion Indicated? By Clarence E. Ide, M.D., of Buffalo, N. Y.
17. Home Treatment of Phthisis by the Hygienic or Open-Air Method. By Albert Abrams, A.M., M.D., of San Francisco.
18. Clinical Observations Upon Traumatic Cataract. By J. H. Woodward, B.S., MD., of New York City.

Surgical Treatment of Nephritis or Bright's Disease.—A. H. Ferguson (*The Medical Standard*, June, 1899) says the recent progress made in the surgery and diagnosis of renal disease signalizes a new era in the treatment of disease in these organs. The author reports two cases of surgical intervention with absolute relief to the patient in conditions that would have been considered amenable to medical treatment only a year or two ago, and in fact are among the earliest cases reported where the surgeon has had the courage of his convictions and operated successfully for conditions he has felt were present and could be relieved by surgical intervention. Such cases are among those that have been and are frequently mistaken for calculous disease. Many of these have been operated on with that diagnosis, and the operators have been surprised to find that the patient has been relieved from pain and all symptoms by the intervention, although no calculus has been found. The author points out that the conditions of congestion and pressure that produce the symptoms must be relieved if we would save the patient's kidney. It is true that they have a natural drainage that helps them to throw off these congestions and inflammatory conditions, but they would be more easily thrown off, and there would be less injury done to the kidney if surgical intervention relieved the tension and the engorged condition under which nature labors. The treatment is rational—it is what would be done in any other situation if the threatened part lay nearer the surface. The two cases operated upon were: nephritis, or Bright's disease, caused by exposure to cold. Pain persisted over left kidney with severe exacerbations for the last three years. Urine contained no albumin at any time, but was scanty. Hyalin casts were present in one specimen of several examinations. Kidney explored and decapsulated. Immediate relief from pain afforded, and patient symptomatically cured on the twenty-second day. The second case had chronic nephritis, Bright's chronic pain over the right kidney for two years, with acute exacerbations, confining her to bed for the last two months. Addicted to morphia for pain. There has been daily rise of temperature and chills for the last eight months. Urine contained no albumin. Kidney decapsulated with immediate relief of pain and symptoms. The author recommends exploration of the kidney when there is: (1) Persistent pain; (2) tenderness; (3) hematuria: (4) albuminuria; (5) pyuria; (6) persistent troublesome abnormal mobility; and (7) persistent enlargement. He believes that nephritis (Bright's) has a valuable surgical relation. It is in its infancy. It should be used in relieving suffering. We should not be pseudoconservative nor cowardly in employing what we find to be good. [C L.L]

Reviews.

Stone, Prostate, and other Urinary Disorders.—By REGINALD HARRISON, F.R.C.S., Surgeon to St. Peter's Hospital, Member of Council Royal College of Surgeons, formerly Senior Surgeon to the Liverpool Royal Infirmary and Lecturer on Clinical Surgery in Victoria University. Illustrated. Pp. 190. Philadelphia: P. Blakiston's Son & Co., 1899. Price, $1.75.

The series of selected papers which make up this book first appeared, for the most part, in the transactions of societies and as journal articles; but readers will be glad to see them revised and collected in this more convenient form. The articles deal with stone, prostatic hypertrophy, vesical pouches and saccules, extroversion, stricture, hydatids, and a number of other subjects in a thorough and scholarly style. Vasectomy is on the whole preferred to castration in the treatment of hypertrophied prostate. Those cases are suitable for this procedure in which the enlargement of the prostate is general, not limited to a pendulous lobe and in which from its "feel" it is evident that the prostate has not become fibrotic but retains a fair proportion of its secreting and muscular element. Suprapubic cystotomy is not favored for the removal of calculi in the aged as the mortality is considerable, the cicatrix left sometimes interferes with micturition, and a rough scar sometimes forms a holding ground for phosphatic concretions. Uretheral irrigation is favored in the treatment of specific urethritis. There is much that is original in the book, and its teachings may be depended upon as reliable. Practitioners interested in this line of work will be glad to add the work to their library.

A Manual of Surgical Treatment. By W. WATSON CHEYNE, M.B., F.R.C.S., F.R.S., Professor of Surgery in King's College, London; Surgeon to King's College Hospital, etc., and F. F. BURGHARD, M.D. and M.S. (Lond.), F.R.C.S., Teacher of Practical Surgery in King's College, London; Surgeon to King's College Hospital, etc. In six imperial octavo volumes, with illustrations. Volume I, 285 pages, with 66 illustrations. Philadelphia and New York: Lea Brothers & Co., 1899. Cloth, $3.00 net.

If the succeeding volumes of this manual are of as high merit as the one before us, the work will indeed have supplied a long-felt need. We know of no book or books that give so full instruction with regard to all the little details of surgery which are so necessary to the success of even the smallest procedure, and furthermore this information is given in a most clear, practical way; it is not the stereotyped rehash of what has appeared in every textbook with only sufficient changes to prevent the charge of plagiarism; it is a record of the observations of a wise teacher and an experienced operator. In this volume the principles of surgery are discussed; chapters are devoted to inflammation, suppuration, ulceration, gangrene, anesthetics. The chapter on anesthetics is full and valuable. No doubt we do not sufficiently appreciate in this country the value of nitrous oxid as an anesthetic for operations of short duration, or the desirability in many cases of beginning anesthesia with one anesthetic and continuing it with some other, but the desirability of using some of the complicated inhalers described is questionable. The five chapters devoted to the discussion of wounds deserve special mention and are easily worth the price of the book to the physician who is called upon to do surgical work but has not had the benefit of hospital experience. Undoubtedly many surgeons will disagree with the writers in advocating antisepsis to the exclusion of asepsis, but on the whole we believe this is the method of preference for the man who does his work without trained assistants, outside a hospital. The constitutional diseases and tumors are treated in the last four chapters of the book. Pathology and theoretical considerations are for the most part not at all taken into account; the book is essentially practical.

Massage Treatment in Diseases of Women for Practitioners. By DR. ROB. ZIEGENSPECK, Professor of Gynecology and Obstetrics at the University of Munich. Authorized translation by DR. F. H. WESTERSCHULTE. With 17 illustrations. Pp. 263.

In this work, translated from the German, the author discusses the value and methods of massage in the treatment of pelvic disease. Particular attention is devoted to the diagnosis of conditions, and to the value of the Thure Brandt method as a means of acquiring diagnostic dexterity. The contraindications for massage are expressed by the laconic words of Brandt, "pus and cancer," interpreted in such a manner as to include under "cancer" every malignant new growth and under "pus" the presence of infectious microorganisms in the internal genitals. In America the medical profession has not employed massage as a therapeutic measure in gynecology as extensively as it has been used in Europe, and this translation of Ziegenspeck's valuable work will no doubt stimulate an interest in this important and conservative method of treatment. The frequency of unpleasant sequels after celiotomy, and the fact that many patients are not restored to health after the sacrificial operations, make it extremely desirable that organ-saving and palliative measures be first tried, leaving the surgical procedure to be used when palliation has failed. Westerschulte believes that retroflexion, fixed uterus, chronic oophoritis, and perioophoritis do not justify laparotomy, unless we have preceded it by a thorough course of massage, taking it for granted that gonorrhea does not participate. Laparotomy must be reserved to those cases in which the health or the life of the woman is in immediate danger.

Nervous and Mental Diseases. By ARCHIBALD CHURCH, M.D., Professor of Clinical Neurology, etc., in the Northwestern University Medical School, Chicago, and FREDERICK PETERSON, M.D., Clinical Professor of Mental Diseases in the Woman's Medical College, New York. With 305 illustrations. Philadelphia: W. B. Saunders, 1899.

This book, as its preface announces, is not the joint work of the two authors, but consists of two separate treatises, which have merely been printed between the same covers. Dr. Church has written on nervous diseases, and Dr. Peterson has composed the section on diseases of the mind. Such a scheme, provided it is well done, is of distinct advantage to the reader, for of course he is practically getting two books for the cost, and has them in conveniently compact form. That the scheme in this instance has been well executed will, we think, be allowed by any impartial critic who puts himself in the attitude of the authors and does not expect something which they have not intended to give. The design is evidently to supply a safe and readable textbook, which shall not be too voluminous, on the one hand, or too sketchy on the other. Dr. Church has managed to present the outlines of neurology in an attractive way, and has based his work evidently on extensive clinical observation, as his many interesting photographs prove. We have found but few glaring errors in his book, and this is saying much for a first edition. We take this occasion to point out two of these errors, merely that they may be corrected. The first is a description of an alleged pontine decussation of the seventh nerves (p. 114), which has evidently been an inadvertence on Dr. Church's part, and the second is the use of the term *double* homonymous hemianopsia instead of *lateral* homonymous hemianopsia (p. 97). The former term means, if anything, a *bilateral* lesion, and would indicate total blindness in both eyes. Dr. Church's clinical descriptions are mostly admirable, and his familiarity with neuropathology has that quality of exactness which permits him to condense the subject in such a way that it is full enough for the demands of the general practitioner and student. To both of these we can recommend the work as reliable.

Dr. Peterson has given us a remarkably able and condensed treatise on psychiatry. He is well acquainted with his subject and the literature of it, and displays a critical acumen that puts him clearly on a level with the best writers on this subject in the English language. In fact, we think his mono-

graph is distinctly better than some of the British works, because it reflects more fairly the continental learning. It will be a useful American textbook and as such we heartily welcome it.

A Textbook of Diseases of the Nose and Throat. By D. Braden Kyle, M.D., Clinical Professor of Laryngology and Rhinology, Jefferson Medical College; Consulting Laryngologist, Rhinologist and Otologist, St. Agnes' Hospital; Bacteriologist to the Philadelphia Orthopedic Hospital and Infirmary for Nervous Diseases; Fellow of the American Laryngological Association, etc. With 175 illustrations, 23 of them in colors. Philadelphia: W. B. Saunders, 1899. Price $4.00, cloth, net.

In these days of multiplicity of textbooks it is a relief to find one which contains evidence of so much original thought and work, done on scientific lines, as the one before us. There are, in consequence of this originality, many things in the book which will provoke much comment and criticism. Great prominence is given, as it should always be, to the pathological conditions underlying the diseased states described. Dr. Kyle has long since made his mark by work in the pathological laboratory, and his book shows the evidence of many hours of patient toil with the microscope in the convincing proofs which he offers in support of the ideas advanced.

The plates and cuts illustrating the various lesions dealt with are a most striking feature of the book. They have evidently been chosen with much care and are in a great part made from specimens prepared by the author.

We would call particular attention to the illustrations of the soft tonsil and the hard tonsil opposite page 380, as showing the author's happy faculty of choosing two contrasted conditions and then confronting them in such a way as to render clear their pathology to the most obtuse.

The figures which illustrate the examination of the nose, pharynx, and larynx are original and convey very clearly the manner in which those examinations should be performed, and what is actually seen by the observer.

The classifications placed at the head of the various chapters will be found of great utility. No doubt many will differ in their views as to the correctness of the system used by Dr. Kyle, but this is bound to occur in every such attempt to systematize knowledge.

The book is intended for the student and the general practitioner, and it certainly would seem to be be well adapted to fulfil its purpose. The student can readily look up in it the subjects necessary for him to study, and will find the matter so well classified that his labors will be greatly facilitated.

The portions of the book dealing with syphilis and tuberberculosis of the air-passages are worthy of careful perusal. In his description of the pathology, symptomatology, and treatment of these conditions, which unfortunately presents so much of vital interest to every practitioner, and not alone to the specialist, the author is most full. He believes most implicitly in the use of antitoxin as a prophylactic and curative measure in diphtheria.

The publishers have ably seconded the efforts of Dr. Kyle, and the work is well printed, on good paper, and neatly bound. The artistic elegance of the cuts is beyond criticism.

The Diseases of the Nervous System. A Text-book for Physicians and Students. By Ludwig Hirt, Professor at the University of Breslau. Translated by August Hoch, M.D., assisted by Frank R. Smith, A.M., M.D., with an Introduction by Wm. Osler, M.D., F.R.C.P., F.R.S. New York: D. Appleton & Co., 1899.

This book has been rather extravagantly praised in this country—rather more so, we think, than it altogether merits. It is the work of a care-taking, conscientious German writer, whose reading in neurology has been largely confined to German literature, and whose original work in the same field has not, so far as we know, been conspicuous. The style, although marred by occasional disagreeable teutonisms, is sufficiently clear and precise, and the clinical descriptions are in the main trustworthy; so that we should say the book is on the whole reliable, without being brilliant or original. We do not, however, see any reason why it should be preferred by an American practitioner to any one of several first-rate American textbooks as a reference book for the library. As reflecting German thought and method it will, of course, have a supplementary value for advanced practitioners who want to pursue the mysteries of neurology farther than to merely make a bedside diagnosis.

Some of Hirt's ideas and points of view strike us as decidedly odd. For instance, he states dogmatically that leptomeningitis of the convexity is always secondary, while of the base it is always primary. This, for him, is a rule that knows few if any exceptions; but in spite of this he proceeds to describe tuberculous meningitis as common at the base and yet as probably always secondary. What, we should like to ask, is the case in cerebrospinal meningitis? Surely this affection often enough involves the convexity, and surely, too, it is not, in the usual sense, always secondary. Such distinctions do not admit of such dogmatic statements. The chapter on migraine is one of the curiosities of medical literature. It is badly arranged, does not nearly exhaust the clinical features of this most interesting disease, and is largely devoted to a dissertation on sleeplessness (which the author claims is a common intervallary condition in migraine) and to a catalog of injurious narcotics, which are recommended for migrainous victims. The important dietary and abortive remedies (especially laxatives) are almost ignored.

Hirt's book is exceedingly old-fashioned in its histology and pathology. The neuron is hardly so much as mentioned. This defect is glaringly shown in the description (if it can be called such) of the optic nerves. These are said to derive their fibers from the occipital lobes, quadrigeminal bodies, external geniculate bodies, etc.—in other words, from central structures—whereas it is well known that the vast majority of the optic fibers arise from neuron-bodies in the deep ganglionic layers of the retinae. This may serve as an index of Hirt's histology.

The chapter on hysteria is good, and shows all through it the influence of the French school. This is noteworthy, for the Germans, as a rule, are, next to the English, the worst and most slovenly writers on hysteria.

We can speak in sincere praise of the chapters on locomotor ataxia and general paresis. These affections are grouped together in the section on general nervous diseases—a good plan, for tabes is no more confined to the spinal cord than dementia paralytica is to the brain-cortex. Both these chapters show a minute and exhaustive study of these diseases, and are in themselves, as mere clinical studies, enough to give Hirt's book a highly respectable place in literature. We regret that in this second edition (for such this translation seems to be, although the fact is nowhere announced) the author has not brought his work up to date, especially in its histology and pathology, and has not avoided what seems to us a certain air of German provincialism in his practice.

Paralysis of the Serratus Magnus.—Jones and Newbold (*Liverpool Medico-Chirurgical Journal*, July, 1899) have seen 5 cases of paralysis of the serratus magnus during the past 4 years. As to the causes, 1 followed and 1 preceded parturition, 1 followed an injury to the shoulder, and 1 was supposed to be due to carrying a heavy child. A fifth case, the only one occurring in the male, was probably of rheumatic origin. In 4 out of 5 cases the right side was affected; the most marked symptoms are inability to raise the arm above the right angle, inability to reach forward as compared with the opposite side, and projection of the scapula as a wing when the patient raises the arm and holds it directly forward. The condition must not be confounded with the projection of the shoulderblades so often seen in weakly children. Patients were treated by rough massage, slinging the arm up so as to raise the shoulder, and by muscle-patting. Perfect recovery resulted in one case, and improvement, of greater or less degree, in the others. The prognosis is generally good if the patients are taken in hand at once and the treatment is persevered in, but the cases are likely to run a prolonged course and the patient apt to get weary of treatment before recovery is complete. [M.B.T.]

Correspondence.

OBSCURE DISEASE AT SUMMER RESORTS.

BY GEORGE DOCK, M.D.,
of Ann Arbor, Mich.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

THE experience described below may help to throw some light on obscure cases of disease not infrequently seen in summer resorts. Not long since I visited a celebrated waterfall, one of the many falls where, in the summer season, the water is dammed up and the "fall" only produced for a pecuniary consideration. Beside the fall is a popular hotel, and the fall is visited by large numbers of people during the season. While I was examining the rock-formation below and behind the fall, the water was turned on for some other visitors who stood directly in the spray while they took photographs of the fall. Crossing over to a lower part of the fall where I was exposed to the edge of the spray, I was struck by the strong fecal odor of the water. I called to the young men that the water smelled suspiciously of sewage, but they were too intent on their camera to pay attention to what I said. At the top of the fall I was told by the young lady who turned on the water that the water was nothing else than the stored-up sewage of the hotel, which was kept for the purpose. My surprise at this information was not lessened when the young lady went on to say that many people who visited the fall, thinking no doubt of Bryant's description of the "sweet light spray of the mountain springs," go down to the bottom of the fall and drink this same water. It is hardly necessary to enlarge upon the possible consequences of these draughts.

QUARANTINE SUPERVISION.

BY H. W. AUSTIN,
Surgeon M. H. S.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

REFERRING to newspaper items stating that Dr. Doty has gone abroad to effect certain quarantine and emigration arrangements, it may be as well to remind your readers that, under the law of 1893, regulations have been published by the Treasury Department providing for all necessary quarantine measures for vessels at foreign ports under the United States consuls, which they are obliged to certify as having been enforced when the bills of health are given. When necessary, the law provides also for the detail of medical officers of the Marine Hospital Service to aid the consuls under this law. Already this season a surgeon of the Marine Hospital Service has inspected the ports of Lisbon and Oporto in Portugal where plague has been reported, also in Barcelona, Spain, and the Marine Hospital Service has a commissioned officer stationed at Naples, Italy, through which port much of the emigration to the United States comes. It has also sent an officer to Alexandria and Cairo, Egypt, for quarantine inspection. Other inspections have been ordered. Inquiry at the State Department at Washington shows that no special authority has been given to Dr. Doty in the matter of inspection of various ports. He was simply given a letter of introduction, which is given to any reputable traveler on special application to the State Department. Neither has the immigration bureau of Treasury Department any official communication concerning the matter. Emigrants from all European ports are subject to stringent consular supervision, each emigrant being given an individual consular inspection card, and when leaving an infected port, or coming from an infected district, their detention is required by the United States quarantine regulations. The proposed imposition of two weeks' detention of all emigrants at ports of embarkation, and at the expense of the emigrants, some of whom may have purchased their tickets at interior places, might be regarded as a measure unjust to the emigrants, and one the expense of which they would frequently be unable to meet. An officer of the immigration bureau at Washington has just completed a thorough inspection of the ports of Liverpool, London, Havre, Marseilles, Rotterdam, Bremen, Hamburg, and will make all necessary recommendations to the Secretary of the Treasury.

AN UNUSUAL GUNSHOT-WOUND.

BY D. M. B. THOM, M.D.,
of Mardin, Turkey-in-Asia.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

LAST fall Ibrahim Pasha, the head of a tribe of Hamideh, sent a raiding party against some of the Shumar Arabs, to bring off what horses and camels they could find. The result was a fight, in which a number were killed and wounded. One of these latter came to me long after with an open sinus, the source of which was the neck of the right humerus.

He gave the following history: "I was in the thick of the fight, riding my horse, the halter-rope in my left hand, while my right hand was high above my head carrying the long Arab spear, 10 to 15 feet long, when suddenly my arm dropped, and I was no longer able to raise it again. I found I was wounded, a bullet having entered my body through the supraspinous fossa of left scapula, making its exit through the neck of the right humerus, where it splintered the bone, leaving undetached pieces that prevented the healing of the wound." Seven or eight months later he came to me for treatment, when I cut down, removing the partially detached spicula, giving the wound a chance to heal up; but the power to elevate the arm seems quite destroyed.

The query is, What route did that bullet take to avoid all the vital points that were in the way of its passage, from its point of entrance to its point of exit? as the only inconvenience produced by its passage was the wound of exit.

Bear in mind the position of the man's arm when the bullet made its passage, and give a solution of the peculiar phenomenon. I have tried to study it in all its bearings, but have failed to come to a satisfactory conclusion of the case.

Bone Necrosis Following Typhoid Fever.—F. Finney (*Colorado Medical Journal*, September, 1899) reports 4 operations for necrosis following enteric fever. A man, 35 years old, suffered from soreness over the sixth left rib near the sternum, coming on 3 weeks after recovery. An abscess developed which was opened and discharged pus for 3 weeks. When the opening was enlarged, necrosed bone was scooped out, and the wound quickly healed. In a second case a man of 36 was taken with symptoms of necrosis of the sixth left rib, coming on more than a year after the attack of fever. The diseased bone was removed, but healing did not take place until after a second operation. In a third case a boy of 16 was taken with periostitis of the tibia about 4 months after his recovery from fever. Three operations were necessary to remove all the necrosed bone. In a fourth case necrosis also of the sixth rib and costal cartilage followed 3 months after the attack of fever. Suppuration lasted nearly a year before an operation was permitted for removal of the diseased bone. [M B.T.]

Special Article.

ADDRESS AT THE OPENING OF THE NEW MEDICAL HALL AT THE JEFFERSON MEDICAL COLLEGE.

By PHINEAS S. CONNER, M.D., LL.D.,
of Cincinnati, Ohio.

Son and grandson of Jefferson, it is with no ordinary pleasure that I extend heartiest congratulations to Trustees, Faculty, and Students on the completion of the new home so generously provided for our "Cherishing Mother." Elegant in design, complete in appointment, thoroughly adapted to present needs, this last of the three buildings that have in turn opened their doors to incoming classes is indicative, as were its predecessors, of the status of medical education in our country.

The years of Jefferson cover more than one-half of the period in which there has been collegiate training in America, and when, in 1825, McClellan, Eberle, Smith, and their colleagues began their labors, medical teaching in the few existing schools was hardly other than supplementary to private instruction in the offices of preceptors. Scarcely a decade had passed since there were but a half-dozen medical schools, their graduates but few; few in fact, still more in proportion to the whole number of doctors throughout the rapidly extending inhabited area of the nation. Prior to 1813 there were but 2 medical colleges in New England, 4 in the Middle States, not one south of the Potomac or west of the Alleghenies. When Jefferson was founded, the medical department of the University of South Carolina was the only school in the South a year old, Transylvania and the Medical College of Ohio the only ones in the West. A large part of the prospective practitioners were still acquiring such professional knowledge as they could from the doctors in their neighborhood, in whose offices they read such books as they might find, compounded pills, powders, and potions as directed, saw such cases as the preceptor would show them, and not seldom were servants as well as students. Their training was necessarily largely defective, for too often their teachers were unlearned, unskilful. Exceptions there were; here and there was to be found a man of marvelous perception, of extraordinary adaptability, of wonderful knowledge, if not of books, of cases, ready for any emergency, able to decide upon a proper remedy and to dispense it, knowing when to operate it and how; and years-long pupilage under such a teacher was at once an education and an inspiration. The 3 or 4 years office-training ended, the student became a doctor, sometimes after examination by a committee of a district or State medical society, more often in virtue of a certificate from his preceptor. It has been with no little interest that I have looked upon the first of such certificates issued in the West, which reads:

"Cincinnati, State of Ohio, August 1, 1805.

"I do certify that Mr. Daniel Drake has pursued under my direction for 4 years the study of Physic, Surgery and Midwifery. From his good abilities and marked attention to the prosecution of his studies I am fully convinced that he is well qualified to practise in these branches.

Wm. Goforth,
Surgeon-General 1st Division Ohio Militia."

Daniel Drake, the first medical student in the "Interior Valley of the Mississippi," the first to cross the mountains and bring back the diploma of a Doctor of Medicine, professor in Transylvania in 1817; founder of the Medical College of Ohio in 1819; professor of Theory and Practice in Jefferson in 1830; teacher, writer, man of science and of letters, whose life and labors are among the glories of American medicine!

The years in which the original building of our College was occupied were those when schools were being established in considerable number, many of them in small towns in sparsely settled districts. The teachers in these "country schools" were, with few exceptions, men of energy, of ambition, of learning, and of skill, many in later years holding professional and professorial positions of high distinction, among them and representative of them, Bartlett and Mussey and Holmes and Parsons and, a little later, Clark and Peaslee and Ford.

More and more the training under preceptors was being completed by or supplanted by that in the schools, where didactic instruction of high order could be secured and clinical advantages were afforded. As a necessity, as classes grew larger, more room for them was required. After twenty years' occupation of the original buildings here, a second, more spacious, architecturally more imposing, was erected, about which with many of us clusters the recollection of student days. The changes of 1846 and the additions of 1879 were not so much because more had to be taught and that in a different way, but that the numbers in attendance compelled enlargements. For a generation the method of teaching remained in general the same, and by didactic courses, largely repetitional, with practical work in the dissecting room, was taught the science and art of medicine. Two years of college training answered the requirements for the doctorate here as everywhere in our country, and for a long time, even down to the beginning of my own teaching, in most of the schools ten years of practice was accepted in lieu of the first course. Looking at it from the standpoint of today, the only wonder is, not that the recent graduate knew so little, but that he had learned so much. It is to be remembered, though, that a generation ago there was less to be taught, and in Jefferson and in not a few of the other colleges the teachers were Masters of Medicine. The student then, of fairly trained mind, could under such instruction as he was receiving learn in a two years' course to recognize and to treat the ordinary diseases and injuries; and this after all was the chief object of undergraduate study for a large proportion of those in training.

But in the last generation times have changed and we have changed with them. Slowly and by degrees the teaching became more full, the subjects taught more numerous, the specialties were being created and developed, laboratory work in one department and then another was instituted and the period of pupilage was extended to three years, quite recently to four. The old-time faculty of 7 professors, with a demonstrator of anatomy, gave place little by little to one of 10 or 12 or more full professors, with as many more clinical, associate and adjunct professors, with demonstrators and assistants in numbers proportionate to the size of the classes and the demands of the several departments.

The advisability and then the necessity of a hospital service in immediate relation with the didactic teaching and practical work was recognized, and from small beginnings, such as the little two-room hospital here that I well remember, came larger and better appointed college hospitals, until, in connection with a number of our medical schools there are hospitals of ample size, thoroughly equipped, excellently administered and of great importance in the scheme of instruction. The Jefferson Hospital, as it now is, was among those organized comparatively early, to steadily grow in favor until its capacity is now strained to the utmost, and

the need is imperative of marked enlargement, as we are informed soon to be made.

As has been the case with the science and art of the profession, so with the fulness of their teaching, the change has come steadily—by evolution, not revolution. Students have been instructed in the new pathology, as its truth was demonstrated and its field enlarged, in the new therapeutics as remedies were introduced and their value established, in the new wound-treatment and the surgical operations that such treatment made feasible, in the new physiology that shed much light on vital actions and rendered intelligible many morbid processes, in the special departments, as they have become more essential parts of professional practice.

The consideration of the medical education of today includes that of what is to be taught, who are to be taught, and how they are to be taught. Precedent to all study of disease and injury there must be that of structure and of function. Anatomy and physiology are the fundamental studies, and the more thoroughly they are pursued the more accurate and extensive the knowledge of them, the better qualified the student will be to care for the sick and the wounded, and this, be it ever remembered, is the great office of the doctor, to relieve as he can, to comfort as he may. The prime object of medical education is not to make investigators, scientists, men of learning, but skilful practitioners. Of the knowing and the doing, the doing is the greater. Let anatomy and physiology, then, be well taught and well studied—so taught that they may be studied as means rather than ends; the various parts of each dwelt upon in accordance with their practical value. The time allotted to anatomy and physiology here, as indicated in the program of lectures, time spent in the lecture-room and the laboratories, the abundance of material and full equipment of apparatus for experimentation and investigation, the thorough qualifications and long experience of the occupants of the chairs and the goodly number of trained assistants,—all indicate how well the authorities of the college appreciate the demands of the day, and the rooms so commodious, so well adapted to the work that is to be done in them, are among the chief excellences of this new building.

Chemistry and therapeutics are the other foundation studies, knowledge of which is essential to the proper training in the practical departments—medicine, surgery and obstetrics. The chemistry which should be taught is that of the secretions and excretions; that of the products of cell-action in the human body. The time has passed when it was proper and necessary to spend any portion of the years allotted to medical study in the consideration of so much of inorganic and organic chemistry, as taught in high school and college, is a part of the required preliminary training of those who would, in the professional school, fit themselves for the duties of medical life.

The therapeutic teaching of today is that of the influence, correcting, controling, removing of medicinal agents upon pathologic conditions. Because of the great advances that have been made in the pharmacy, resulting in the presenting to us of active agents in concentrated form and of great strength, it is no longer necessary that there should be taught the botany of medicinal plants, or the mechanical preparation of the remedies to be dispensed. The training in this department is in the line of making clear the action of remedies, classified according to their constructive, or destructive, or modifying character, and in the experimental determination upon animals of the effects of drugs and the ways in which they are produced. To every one familiar, in even slight degree, with the history of medicine and with the story of the multitude of drugs that have been recommended, vaunted, tested and abandoned; to every one who realizes how often, even in these present days, sound judgment and careful observation are wanting in those who burden the literature of the profession with reports of cases treated with this remedy and with that, to every such one it is apparent that never before was it so necessary as now for the teacher of therapeutics to see accurately, to reason correctly, to discriminate carefully and to impress upon the minds of students only established facts and well-grounded opinions. Less and less each year should it be true of physicians that they are putting drugs, of which they know little, in bodies of which they know less.

In no other departments of medicine have there been in the last generation such advances in knowledge, such advantageous changes in treatment, as in practice and surgery, and never before has it been possible to teach so much and with so much accuracy and certainty. Of many of the diseases now coming under care, it may be truly said that we know their natural history, what causes them, what will be their course if left to themselves, how they may be controled; further, how they may be prevented. The speculations of the past have given place to the certainties of the present, for belief too often evolved from inner consciousness have been substituted facts ascertained by scientific investigation, their truth demonstrated by experiments upon animals or man. Of a large proportion of the more common and more severe morbid affections, the exciting cause has been isolated and cultivated, and by inoculation the disease produced in the previously healthy. The unknown something, so long sought and believed to be in airs or waters, in inherited structure or acquired habit, can now be seen under the glass, a living organism. Wider and wider experimentation, with technical methods more and more perfected, is constantly enlarging our knowledge of etiology, and year by year fewer and fewer are the diseases long recognized clinically, of which the exciting cause remains undetermined. Of malaria, cholera, typhoid fever, the bubonic pest, the great white plague, diphtheria, of the wound-complications, with their resulting septicemias, of, in brief, all the dangerous diseases that ordinarily come under care, except syphilis and cancer, perhaps yellow fever, the determining organism has been discovered. To know the physical properties and effects at least of the chemical products of pathogenic microorganisms has become as essential a part of undergraduate study as the clinical appearances and proper therapy of medical and surgical diseases, and the symptoms and treatment of injuries and growths. There must then be bacteriologic study to an extent sufficient at least to enable the youngest practitioner to diagnose the ordinary maladies from microscopic evidence, by themselves or in association with due recognition of long-known symptoms. In less measure now than ever before is it true that diagnosis is but the estimation of probabilities. The improved therapy, pharmacal and mechanical, largely in the way of anticipating and controling the infectious processes, has not only abbreviated the time limit and diminished the mortality of medical and surgical affections, but has lessened the difficulties in the way of explaining and understanding them.

The extreme importance that the surgical specialties have lately assumed has made necessary their consideration during the college course, and, as a rule, the last year is largely devoted to it.

How far shall the study of these specialties be a necessary

how far an elective, part of the curriculum? The question cannot yet be answered; perhaps never will be with exactness.

My own feeling is that the demanded training should be to such extent, and such only, as will enable the general practitioner to recognize the more ordinary morbid states, and to treat them judiciously, or refer them to those more skilled, according to severity and the nature of the remedial measures demanded, leaving all else to elective and post-graduate study. From the latter, properly carried out, much good must come; but time and again, in the last twenty years, postgraduate school instruction has been an almost unmitigated evil, developing through a six or eight or twelve weeks' training (personal and practical in only a most limited way) specialists of assurance, not skill—dangerous in direct proportion to the practice secured.

In a limited degree, but still to a degree, there has been effected in the last few years a change in the quality, so to speak, of those under medical training—a change far more marked in the lower than in the higher grade schools. Through the influence exerted by the profession at large, by State boards of health and of registration, and by college associations, a minimum of preliminary education has been established, certainly none too high when it bars entrance to the professional school to those only who have not pursued an ordinary high or normal school course. But with respect to one class of students (that of the graduates in arts, letters, or science) there exists a difficulty which is attracting no little attention among not only undergraduates, but the authorities of our literary colleges. The advisability of broad academic training, the many advantages connected with the education, general and special, that leads to the securing of the degree of A. B., B. L, or B. S., cannot be questioned; but there is yearly arising more and more of a doubt in the minds of students, and of those responsible for them, whether or not the average collegian, intending ultimately to study medicine, can be expected to or afford to devote the required time and money to the securing of an academic degree when 4 years more must afterward be spent as a professional student. Within the period with which many of us are familiar, the college graduate was a doctor of medicine and ready to begin his active life-work at the age of 22, 23, or 24. Today he will probably be from 2 to 4 years older, and it is very doubtful if he can properly give these additional years unless possessed of somewhat ample means or purposing to fit himself for professorial rather than ordinary professional work. Not a few of our higher class colleges are so arranging a schedule of elective studies as will permit of the taking of the first (some even of the first and the second) courses of medical study in the senior or junior and senior years of college life. But in certain of our States 4 full years of post-academic collegiate study is demanded of those who would practise within their limits, and modification of the laws regulating the practice of medicine must be made before any fusion of college and medical school education can be effected. And further, if the last, still more the last 2 years of academic life are to be devoted to strictly technical work, the reality will be largely lost of the true collegiate training which is intended to furnish that general education which shall underlie and be preparatory to any line of study in after life.

The reiterated declaration of enthusiasts and faultfinders, that medical schools were turning out multitudes of ignorant and half-educated doctors, a declaration that had in it only such small modicum of truth as to afford it a shadow of plausibility, will, it is to be feared, give place to the sober, true statement that, as the years go by, fewer and fewer college graduates will find in medicine a proper field for the exercise of their well-trained powers of study, their disciplined habits of observation, their developed logical thought, their acquired facility of expression. Whatever may be gained in technical skill, it will be a sad day for Medicine when it ceases to be a learned profession.

One thought more in this connection. If extensive protracted study is required of every one who would be a doctor, what will be the medical care of the sick and the injured in the poorer, sparsely settled, uneducated sections of our country, where there is neither agreeable association nor pecuniary rewards to satisfy in any degree the demands of one who has spent so much time and money in preparation for practice. Under the conditions existing and likely to exist in many a place West and South (I will not say North and East), would not a doctor of the old type, having little book knowledge, yet attentive, watchful, and therefore fairly successful, be better than the "good wives' simples" or the patent medicines of the cross-roads store?

May it not be that in these later years there has been too much law mixed up with medicine, too many regulations and statutes? Might it not be well to let the community at large ask for what it would have, and should it not be reasonably expected to be somewhat governed in matters medical by the old rule, "*caveat emptor?*"

Under the new order of things, undergraduate training in a medical school necessitates a much enlarged teaching force and many and varied appliances for investigation, demonstration and individual work on the part of students. How must modern medicine be taught? By didactic instruction, by recitations, by laboratory work, by clinics and by section teaching in hospital and dispensary. From far and wide there are coming protests against didactic lectures and declarations of their want of value in the instruction of today. That the trustees and faculty of Jefferson do not believe that such protests are well based, such declarations correct and judicious, is indicated by the spacious and comfortable lecture-rooms in this new building. Didactic lectures in the past have been of two kinds. Of little worth, often of positive injury, have been those monotonous readings of old manuscripts, those parrot-like repetitions of textbooks, those ill-considered dogmatic assertions, accompanied too often by oratoric flourishes or by broad stories of cases and experiences unbecoming the professorial dignity, and a poor compliment, even positive insult, to the intelligence of the student. Such didactics have no place in the teaching of today. But the logical condensed presentation in lecture form of the wisdom of the past, the science of the present, as they have become a part of the accomplished scholar, the well-trained practitioner, the experienced surgeon, the dextrous experimenter, given in language terse, lucid, graceful it may be, didactic lectures of such quality are far more impressive, far more instructive, far more effective, at the time and later than the study of any or of many textbooks. But this just-mentioned study has a place, and an important one, in the earlier preparatory teaching in each department, and has in these later years been given proper position in undergraduate training, from which it is not likely to be removed. Into every modern scheme of teaching the sciences, laboratory work on the part of students under direction of skilled instructors largely enters, and in the medical school, anatomy, normal and pathological, chemistry, physiology, therapeutics, pharmacy, are studied with lens or test-tube, or experi-

ments upon animals, with resulting acquisition of knowledge of structure and of the changes produced by substances from without, and yet more of the power to see, to infer, to reason, to anticipate. What, above everything else, the student needs to acquire is accuracy—accuracy of observation, accuracy of comprehension, accuracy of expression; and laboratory training largely conduces to such acquisition. But to possess the necessary appliances for the just-mentioned varieties of work-room instruction, there must be liberal expenditures for place and apparatus. The day has gone by when a room, a table and a chair constituted the equipment of a medical college. From the impossibility of securing buildings, hospitals, apparatus, teachers such as are even now being demanded and will be yet more, will come, it is very likely, the spontaneous elimination of those weaker medical schools in our country, which, however it may have been in the past or may be in the present, will in the future have no reason for existence.

Essential as are didactic and laboratory instruction, clinical training at the proper time and in due amount is yet more so, familiarizing the student, as it does, with the practical work of professional life. Even though such teaching be, as of necessity it must at times, in a measure didactic rather than demonstrative, it is at once attractive and instructive, and by the combination of what is said and what is shown, lasting impressions are made upon the student's mind. When, because of the size of the classes and fewness of patients, amphitheater clinics only can be held, their real value may be questioned; but when, and so far as it is possible to bring the student beside the bed or the operating table to permit him to use eye, ear and finger, in actually learning for himself the morbid conditions present, the benefit he can derive from such training cannot be overestimated. Just here is the great advantage of the college hospital and dispensary, with a wealth of material that can be carefully, thoroughly, scientifically utilized.

Beyond all question, hospitals and dispensaries have been multiplied to a degree far in excess of what is required and what is best, best for the community, best for patients, best for doctors. The subject of gratuitous and semi gratuitous care of the sick and injured is manysided and too wide for present consideration; but, as it seems to me, every patient supported at public expense and treated without cost, should be used for purposes of instruction, if such use is thought desirable and will not endanger life.

The students of today in colleges like this, in their opportunities to do work, a few at a time, in hospital ward and dispensary room, studying case after case of general and special disease and injury, have an enormous advantage over those in earlier days, who were not and could not be brought in close relation with patients, whose first real knowledge of the rose-spot, the fracture crepitus, the feel of the fetal head, was acquired only when the responsibilities of attendance were resting with almost crushing weight upon the young doctor. The ideal clinical instruction, an ideal being rapidly realized in not a few of our colleges, is that in which every student shall be practically trained in the details of the examinations of the sick and injured. But never, it is to be hoped, will such training be had at the cost of human suffering, still more of human life. Rudeness and coarseness, and unkindness to the poor and wretched, have no place in the teaching of medicine in America.

You gentlemen of the classes now assembled will, I am sure, place high estimate upon the conveniences for study here, and now afforded you through the enlightened generosity of citizens of Philadelphia, and the Trustees and Faculty of the College. Your opportunities are great; see to it that you learn both much and many things. Remember that to whom much is given of him much will be required. The older men of Jefferson look to you and your successors to advance its honors and its dignities, to serve well in whatever station you may be placed. For three-quarters of a century Jefferson and Jefferson training has profoundly influenced American medicine. You are to continue the work. By life and labor, by tongue and hand and pen you are to benefit the world, to honor the profession.

The Alumni scattered far and wide, in highland and lowland and isles of the sea, with heartfelt gratitude for the lessons of wisdom learned in that old building, now a thing of the past, rejoicing in the prosperity of the present, sure of that greater yet to come, are largely with us in spirit tonight. With familiar faces before us of the honored ones long gone, in our ears many a well-remembered voice to be heard no more, there is something of sadness in the heart as we realize that old things have passed away, but with it full assurance of the future. Medical education of the highest order should be attainable in America, and where more properly than in this old "School of the Prophets," honored and aided as she proves herself worthy.

The earnest wish of each loyal son for the College, ever young, is and will be, "*Floreat Sempiternum.*"

Selection.

NOSTRUM JOURNALISM.[1]

THE publishers of the *Medical Standard* are in receipt of the following from the publishers of the *Medical Record* of New York:

"In the *Medical Standard* of September we notice that you have copied from the *Medical Record* extract of an article on Ovarian Tumor, and illustration. Will you kindly give us your authority for this action, as both article and illustration are copyrighted."

The article referred to in the above gentle reminder is not "copied," nor is it, either technically or by implication, an "extract," but simply the customary abstract with due credit to the *Record*, such as by civilized courtesy and universal usage is quite within the province of medical journalism, and which no churlish criticism should, or can, affect.

The *Medical Standard* derives its "authority" from the presumable interest of medical publications in behalf of professional knowledge, and indirectly the welfare of the community and the alleviation of human suffering. It is of the very least consequence whether other journals are actuated by higher motives than selfish, narrow-minded interest. An instructive paraphrase or an intelligent abstract, or even verbatim extract, due credit being always carefully given, is an acknowledged and unassailable right, pertaining to the publisher, whether layman or physician, and, by every law of common-sense, due to the medical profession. Were this universal privilege in abeyance, the stock of scientific knowledge would be either speedily depleted, or confined to a few channels of communication, capable, perhaps, of distorting facts in the pursuit of private aggrandizement, or suppressing information of paramount importance to medi-

[1] *Medical Standard*, October, 1899.

cal science and to mankind. We cordially disdain to cater to any such egoistic and shortsighted policy.

"'Tis true 'tis pity, pity 'tis 'tis true" that every now and then some atrabilious individual, "drest in a little brief authority," seeks to defy the "sweet reasonableness" which should obtain among gentlemen, defies the ethics of good taste, and obtrudes his poor personality upon a thoughtful, generous world. Something of this arrogance and purblind animus appears to have descended like a blight upon "our esteemed contemporary." Happily for our race in general and medical science in particular, the malady is of exceedingly rare occurrence and not infectious. Were it to become endemic all journalism, whether lay or professional, indeed all literature and science, would be arrested.

We have little toleration for this spirit of pretentious privilege which would gainsay the equitable claim of the community to the untrammelled enjoyment of knowledge, least of all where such arrogation affects human weal. We do not envy one who, having it in his power to serve his fellow-men, from confessedly selfish motives seeks to impose restrictions upon their share in his assumed prerogative, or, still worse, contemptibly withholds from them the service he is by every dictate of manhood and justice bound to confer. It is high time to suppress inexorably the slightest tendency towards the pernicious principle which such men fatuously seek to establish, and which we doubt not the medical press of the country, fortunately gifted with a larger comprehension and more liberal views, would vigorously resent.

Rational argument is apparently wasted in the premises, yet we may ask our contemporary what would become of our invaluable year-books and collective records of surgery and therapeutics were its inhibition generally imposed?

At the risk of mortally offending the editors and publishers of the Philadelphia Medical Journal and evoking a fulmination of their wrath, we venture, without an iota of permission and in transparent scorn of the sacred privilege of copyright, to quote from an article in the issue of September 9, 1899, with malice prepense.[2]

We commend the foregoing extract to the most tranquil consideration and least hysterical common sense of our New York contemporary.

Foreign Body in the Heart.—W. Ophuls (*Occidental Medical Times*, August, 1899). In making a necropsy on the body of a man who had died from pulmonary tuberculosis, a needle was found projecting 7 mm. into the cavity of the left ventricle, not far from the septum and the aortic valves. It was surrounded by a cone-shaped mass of dense white scar tissue and was imbedded in the tip of one of the papillary muscles of the tricuspid valve. The entire needle was about 2.5 cm. long and consisted of a central solid piece of brass 1 mm. thick, and with a sharply pointed end surrounded by a hollow tube of another metal. The scar-tissue surrounding showed that it must have been in its position for some time. There was no evidence of thrombus, although the needle projected to some extent into the cavity of the left ventricle. This may be explained partly by the smooth surface of the foreign body, partly by the rapidity of the blood-current in the heart. There had been no clinical symptoms during life which could have been attributed to its presence, and there is no clue as to how it got into the heart. It is thought, however, that the most probable explanation is that a physician attempted exploratory puncture of the pericardium, and by a sudden unexpected motion of the patient the instrument was driven in too far and in the attempt to withdraw it it was broken off. Ophuls has found in literature 47 cases in which foreign bodies have remained in the heart while the patient was living. A bibliography is given and the cases are discussed. [M.B.T.]

[2] See the Philadelphia Medical Journal, September 9, 1899, page 452, quoted by the editor of the *Medical Standard*.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending October 21:

Tuesday, October 17—College of Physicians, Section on Ophthalmology.

Wednesday, October 18—County Medical Society, Business Meeting.—College of Physicians, Section on Otology and Laryngology.

Thursday, October 19—College of Physicians, Section on Gynecology.

The Bacteriological and Pathological Laboratory of the Delaware State Board of Health has determined to issue quarterly a small bulletin, to contain matters of interest concerning the work of the laboratory, and its relations to the health of the State and the needs of the physician.

Dr. John H. Musser and Dr. Alfred Stengel, professors of clinical medicine in the University of Pennsylvania, entertained Dr. James Tyson, professor of the principles and practice of medicine and of clinical medicine, and the various instructors in the department of clinical medicine in the University, at dinner, at the University Club, October 7.

The Philadelphia Medical Emergency Corps recently opened a hospital on the grounds of the National Export Exposition. All the surgeons of the corps have tendered their services, and two will be assigned for duty on the grounds every day, one for day and the other for night duty. Each of the three captains, Drs. Wessells, Zeigler, and Schwenk, will have charge two days each week, and the hospital will be under the general supervision of Dr. Thomas H. Andrews, chief of the corps, and his assistant, Dr. R. Green Hulshizer.

Philadelphia Obstetrical Society.—At the regular meeting held October 5, Dr. Frank C. Hammond presented an interesting specimen of a sloughing submucous **fibroid tumor** of the uterus, which had been removed by supravaginal hysterectomy. Drs. Chas. P. Noble and W. Wayne Babcock presented a paper entitled, **Remarks upon a new method of diagnosis of tuberculosis of the kidney.** The method is that invented by Reynolds of securing separate urines by the catheterization of the ureters, and then injecting the sediment into guineapigs, which are killed after 5 or 6 weeks, and are examined for tuberculous lesions. In the case reported by the authors the kidney lesion was far advanced and the method was not strictly necessary. The results of the test, however, were entirely satisfactory, although tubercle-bacilli had not been found in the urine by the staining-method. The results obtained by this method, in the small number of cases thus far reported, have been very satisfactory, and its more general use to aid in the diagnosis of primary renal tuberculosis in its early stages is strongly commended. Experimental proof was offered indicating that the difficulty in finding tubercle-bacilli in urine was due chiefly to the difficulty of obtaining proper adhesions to the glass, or to the small number of the organisms, rather than to any inhibiting influence of the urine. Discussed by Drs. L. J. Hammond, Downes, and Williams.

College of Physicians of Philadelphia.—At a meeting held October 4, Dr. David L. Edsall read a paper entitled: **The effects of immoderate water-drinking upon metabolism and absorption.** This question was discussed in relation to the evil results frequently seen clinically from excessive use of fluids. The possibility that the

bad effects often seen when circulatory and digestive abnormalities do not ensue, are due to the influence upon metabolism, was considered and a series of investigations of the nitrogen-metabolism carried out in the Pepper Laboratory over a period of almost two months was reported, the subject being given normal amounts of fluids during part of the time, while during the remainder he was taking large quantities of water. The determination of the intake and outgo of nitrogen showed that there was a large relative loss during the periods when water was taken in excess, and considering these results in connection with the most authoritative work of others, it was decided that excessive quantities of fluids cause a noteworthy tissue-loss, and that probably much of the ill-effect of such excess is attributable to this. The effects upon nitrogen and fat absorption were studied also, the results varied and no definite conclusion upon this point could be drawn, but it seemed probable that absorption was little if at all influenced.

DR.. W. JOSEPH HEARN reported a case of **aneurysmal varix in Scarpa's triangle.** The patient was a man who began to complain in May,1899. At the end of one month there had developed in Scarpa's triangle a tumor the size of a cocoanut. This pulsated, was expansile, and revealed upon auscultation a distinct bruit. It increased in size so rapidly that it was determined to operate at once. At operation the large sac formed by the femoral artery was found to communicate directly with the femoral vein, and excessive hemorrhage resulted until the nature of the condition was recognized and the artery and vein properly ligated. The patient made a good recovery.

Vital Statistics of Philadelphia for the week ended October 7, 1899:—

Total mortality		428
Diseases.	Cases.	Deaths.
Pulmonary tuberculosis 58, laryngeal tuberculosis 1		59
Marasmus 24, debility 12, inanition 7		43
Pneumonia 33, congestion of the lungs 4		37
Nephritis 15, uremia 16		31
Heart-disease 28, neuralgia of the heart 2		30
Apoplexy 20, paralysis 6, softening of the brain 4		30
Gastroenteritis 16, cholera infantum 10		26
Carcinoma 20, sarcoma 3, tumor 3		26
Diphtheria 15, membranous croup 7	85	22
Casualties 11, burns and scalds 7		18
Inflammation of the brain 9, congestion of the brain 1		10
Typhoid fever	39	9
Scarlet fever	53	2
Peritonitis 7, cirrhosis of the liver 6, senility 6, convulsions 6, pertussis 5, dropsy 5, bronchitis 4, asthma 3, gangrene 3, alcoholism 2, asphyxia 2, parturition 2, cyanosis 2, septicemia 2, suicide 2, tetanus 2, psoas abscess 1, concussion of the brain 1, diabetes 1, diarrhea 1, dysentery 1, epilepsy 1, malarial fever 1, bilious fever 1, hernia 1, homicide 1, cystitis 1, laryngitis 1, pericarditis 1, tonsillitis 1, inflammation of the knee 1, insanity 1, intussusception 1, laparotomy 1, malformation 1, necrosis of the jaw 1, poisoning 1, pyemia 1, sclerosis 1, scrofula 1, syphilis 1, tabes mesenterica 1.		

College of Physicians of Philadelphia—Section on General Medicine.—At a meeting held October 9, DR. A. A. ESHNER presented a patient with **syphilitic osteitis.** The patient, a man, aged 30 years, a year prior to coming under observation had had a venereal infection with multiple ulcers and suppuration of the inguinal glands. He presented himself complaining of pain in the right arm. Examination revealed a swelling of the left humerus which was hard and slightly tender to percussion. There were also spots of tenderness and pain in the right arm and both legs. The left arm had also grown weaker. In making the diagnosis, myositis (especially ossifying myositis), osteitis deformans, and rachitis had been excluded, and despite the somewhat indefinite history of syphilitic infection, the probabilities were considered to point to syphilitic osteitis. The administration of mercury and iodids resulted in slight improvement. In reply to a question from DR. JAMES TYSON as to whether or not he considered that periostitis would cover the condition, Dr. Eshner replied that it would be difficult to draw a distinction between osteitis and periostitis. From the hardness and symmetry of the condition he considered that there had been a considerable deposit of bone. DR. A. B. HIRSCH referred to a case of syphilitic myositis that had been under his care some years ago. DR. ALFRED STENGEL referred to a patient with probable syphilitic osteitis of a rib who had been under his care recently, and noted the similarity in the clinical manifestations of his patient and Dr. Eshner's. He mentioned that he had at one time received a tibia that had been removed during some excavations in Florida, and which presented evidences of syphilitic osteitis. It was interesting as indicating the existence of syphilis in America in prehistoric times.

DR. S. MCC. HAMILL presented a patient with **aortic incompetency and probable mitral incompetency.** The interesting feature of the case was a very loud musical murmur heard throughout the trunk, but with point of maximum intensity in the fourth interspace close to the left edge of the sternum. The patient is said to have had at times during the past 5 years evidences of failing compensation. In view of the fact that 15 years ago he received a certificate of perfect health, an interesting question arose as to whether or not any connection could be established between this murmur and a saber wound in the region of the apex-beat that the patient had received some 7 years ago. This gave rise to some discussion, but was considered improbable.

DR. ALFRED STENGEL reported a case of **hysteric dyspnea.** The patient was a woman, aged 28 years, who, following a fright, developed very rapid breathing with normal pulse-rate and normal temperature. There was also at times a slight, ineffectual cough, which was evidently volitional, and there occurred also several pulmonary hemorrhages. There were, however, no abnormal physical signs in the chest, and the hysteric nature of the case was further indicated by various stigmata, particularly marked contracture of the visual fields, reversal and contracture of the color-fields, and a large central scotoma with perfect acuity of vision. Some reference was made to the literature of hysteric dyspnea. In the discussion, DR. J. H. MUSSER mentioned several cases that had been under his observation. In one of these the condition had persisted for 15 years. DR. RIESMAN referred also to several cases that he had observed —2 in adults and 2 in children. In the latter the respirations had been 64 and 81 per minute respectively.

DR. J. D. STEELE read a paper prepared by DR. J. H. MUSSER and himself on **dilatation of the stomach.** Four cases of dilatation of the stomach from motor insufficiency in young adults were reported, and emphasis directed to the fact that the condition is comparatively easy of recognition. Reference was made to the methods of diagnosis, particular attention being directed to inflation with air. Mention was made of the preferable classification of dilatation, of the differential diagnosis, the etiology and the treatment. Lavage, tonic doses of nux vomica, and intestinal antiseptics gave the best results. In the discussion, Dr. Musser drew attention to the occurrence of dilatation of the stomach in such young subjects (between the ages of 20 and 30 years), and stated that the cases reported were but a few of those he had observed. DR. STENGEL spoke of the classification of cases of dilatation of the stomach, and emphasized the necessity of determining the position of the lesser curvature. He mentioned the inadequacy of auscultatory percussion in making the diagnosis, and the many cases in which the diagnosis is not made by the attending physician. DR. J. A. SCOTT spoke of the infrequency of vomiting in such cases.

Pittsburg (Pa.) Academy of Medicine.—At a meeting held September 25, DR. E. E. MAYER read a paper entitled **Mild types of the periodical psychoses.** Every disease which repeats itself during a lifetime, *e. g.*, erysipelas, is not to be termed periodical. Recurrence in itself is not the factor in periodical diseases, but recurrence without an exciting cause, without any known reason except causes

which lie within the system of the afflicted person. Mild psychic disturbances which are not regarded as abnormal are not uncommon in mental workers, especially artists; and that peculiar to the female at the time of her menstrual epoch is familiar to all. In no other type of psychical anomalies do we find that heredity plays a more prominent part—a parent with periodical insanity begetting children with some periodical disorder. This is not often observed during childhood, however. In young adults are found the first signs of mild periodical mania—increased emotions with rapid alterations thereof, flighty ideas and involuntary movements. The delirium, hallucinations and impaired intelligence of the severer types are not noticed. A part of the cases of so-called kleptomania (which as such does not exist) are such cases of periodical mania (or maniacal phase of periodical insanity). Cases of mild pure periodical mania occur more rarely than mild cases of the circular form and the mild periodical conditions of depression. Mild simple melancholia is periodical in character, the patient in the interval being apparently perfectly normal. The third type of a periodical psychosis is the so-called circular insanity. This, since it was first described 50 years ago, has aroused great interest from the sudden change in the symptoms from melancholia to the apparently opposite condition of mania. Excluding progressive paralysis it is the most common mental disorder. These patients are at times lively and frolicsome, energetic, and willing to work, friendly and sociable; again, depressed, erratic, worried, and hypochondriacal. In some of these cases the symptoms of melancholia and mania become so marked that true mania or melancholia may be simulated. Even the physical appearance alters itself considerably in the two stages. In the interval of periodical psychoses generally are found the same nervous or psychical peculiarities which are common to every hereditary nervous diathesis—lessened intelligence,decreased esthetic and ethical tone, and irritability. The possibility of a periodical disease should be thought of on the first appearance of a melancholic depression or of maniacal excitement, especially if marked hereditary influences are noticeable. A rapid onset of the symptoms, never reaching a severe type, a mild course and a rapid recovery, all speak for its periodic character. Phases of excitability varying with moodiness coming on in the fourth or fifth decennium should always make one think not only of a circular psychosis, but also of progressive paralysis. The prognosis of such attacks is good, but the disease itself is incurable. The chief danger, the development of the secondary psychical alterations, is not great in the periodical psychoses. Treatment is varied and prophylaxis is an important part of it. Marriage should be prevented if possible. Children of such patients require careful physical care and mental training. Overexertion, mental and physical, should be guarded against. Especial care is needed at the time of puberty. In a developed case all exertion should be avoided and the patient induced to lead a quiet, even existence. Hospital treatment may be required. Large watering places are not only of no value but are usually injurious. In severe cases, rest in bed, warm baths, good food, opium, and the bromids are, as a rule, demanded. All treatment is symptomatic—drugs do not cure, but are of value in tiding over the attack.

Dr. J. C. Thompson reported a case of **foreign body (grain of corn) in the nares of a child** 4 years old. It was removed with difficulty.

Philadelphia Pediatric Society.—At a meeting held October 10, Dr. F. A. Packard showed a colored boy, 4 years old, extremely **rachitic** and unable to walk. He was breast-fed up to 9 months of age, and then put on condensed milk and crackers. When admitted to the hospital, 4 weeks ago, signs of **scurvy** were present, an enlargement and tenderness of the femoral epiphyses and a tendency of the gums to bleed on touching them. These symptoms disappeared on giving orange-juice and a change in diet. Dr. Griffith spoke of the frequency with which scorbutic children show signs of rachitis, and referred to the unanimity of opinion in ascribing no causal connection between rickets and scurvy.

Dr. Packard exhibited an ounce of fluid, clear, but containing small flakes of lymph, obtained by lumbar puncture a few hours previously from a patient with **meningitis following traumatism.** Dr. Graham spoke of the difficulty often experienced of obtaining spinal fluid by lumbar puncture, and suggested that the spinal membranes are pushed forward by the trocar in cases giving a dry tap.

Dr. McKee exhibited a boy, 1 year old, having distinct signs of **rickets** and feeble digestive powers. He had been breast-fed for 6 months, and was then put on sterilized milk. At the fifth month there had been an attack, diagnosed by the attending physician as spinal meningitis, and at the eleventh month a somewhat similar attack with the added symptoms of cholera infantum. In this attack there were marked nervous symptoms including unconscious spells and opisthotonos; the right arm became enlarged and sore with loss of power. The possibility of some of these manifestations being scorbutic was considered, the only guide being the history and the prompt recovery.

Dr. L. C. Peter presented a boy, 10 years old, with **Bell's palsy** of 3 weeks' duration, affecting the right facial nerve, a herpes having appeared in the paralyzed area 3 days after the onset, interesting in view of the belief that the facial nerve was purely motor. Dr. Pearce referred to a case which seemed to show the presence of sensory fibers in the facial nerve, sensation remaining after excision of the fifth nerve for tic douloureux. Dr. McKee said that the facial nerve was known to have secretory and trophic fibers as well as motor, but sensory fibers had not been demonstrated. Dr. Eshner spoke of disturbances of sensation in some cases of Bell's palsy. Dr. Schamberg referred to herpes as being a trophic and not a sensory disturbance.

Dr. J. F. Schamberg read a paper on **A clinical study of the lymphatic glands in 100 cases of scarlet fever.** The cases were studied in the Municipal Hospital of Philadelphia; the glands in the different regions were found enlarged as follows:

Inguinal glands	100%
Axillary glands	96%
Maxillary glands	95%
Anterior cervical glands	44%
Submaxillary glands	36%
Epitrochlear glands	26%
Sublingual glands	25%

The results do not offer any definite conclusions for aid in differential diagnosis, except possibly with regard to cases of diphtheria presenting erythemas, the glandular enlargement here being much less general.

Dr. A. Marcy, Jr., read a paper on **Autointoxication as a cause of cyclic vomiting,** and reported three cases with recurrent attacks, in two cases the final attacks being so severe as to terminate fatally.

NEW YORK.

The New Mount Sinai Hospital.—The trustees of the Mount Sinai Hospital last week took title to a piece of ground which completes their purchase of the new site on which they are to build. The new structure will occupy the whole west frontage of Madison Avenue between 100th and 101st Streets. In the purchase of each of these parcels of property the consideration has been specified as nominal, but it is known that a large sum has been expended in the purchase of the real estate, which is in a most desirable situation.

Medicine Illegally Practised.—The Health Department last week effected the arrest of an uptown chemist for the practice of medicine without license. The complaining witness makes out a case which is technically complete. He knew the chemist slightly, and through that fact was able to secure a simple prescription. To the offending chemist he detailed symptoms of a hard cold, pains in the chest and loss of appetite, submitting to an examination of the tongue

and the pulse. Based on these symptoms he received two prescriptions, and followed them up by a complaint against his obliging acquaintance. The chemist appears to have violated the law and will have to stand his trial for his offense. Still it should be noted that much more harmful medicine is practised every day in New York in open violation of the law, it advertises in the secular press for customers, and the Department of Health takes no action.

Needs of Medical Charity.—John W. Keller, president of the City Commission of Charities, was summoned last week before the Board of Estimate and Apportionment to defend his request for funds to be devoted to the maintenance of his department next year. For Bellevue Hospital he asked more help, particularly in the lower grades, for the reason that less help is received from the prisoners of the Department of Correction. For the same hospital he preferred a requisition for two new ambulances. For the present Harlem Hospital he showed a reduction of $1,000 in the estimate for help, but he explained that if he secured the new hospital for which he asked he would need more help. The Training School for Nurses would need $900 more for help. The Metropolitan Hospital shows a reduction of $320. If all prison help were given up there would be a very slight increase in the allowance for labor in connection with the Department. The decrease of $10,000 in the appropriation for the Infants' Hospital is due to the fact that wet nurses have been given up and sterilized milk is used instead, the change being favorably shown in the death-rate, which was 40% in 1897, 20% in 1898, and even lower for the present year according to the partially completed statistics. For the new Harlem Hospital $150,000 is asked out of a total appropriation of $200,000 available for new buildings.

Bertillon's Mistakes.—The Society of Medical Jurisprudence held its 144th regular meeting on Monday evening at the Academy of Medicine, the topic for discussion being presented by Dr. Edward C. Spitzka, in a paper entitled "Extremes in Anthropometry with reference to the Bertillon System." He criticised that system of measurement of habitual criminals quite severely. By way of illustration he adduced the testimony of Bertillon in the Dreyfus court-martial in which he had treated of the Esterhazy forgery of the incriminating document. This incident he used as the groundwork of an attack on the theories of Bertillon and Lombroso, saying with much warmth of feeling, "If that expert is the one responsible for the so-called accurate measurement system now being introduced into this country, then God help us!" He declared that there exist no data in the measurement of the human skull, ears and fingers, on which to found any revelation of the moral traits of the individual. It is to be noted that in this country those police officials who have their bureaus equipped with the appliances of the Bertillon measurement system claim for it nothing more than a means of identification. An effort is being made for the establishment of a central Bertillon bureau in New York, to which duplicate cards from every section of the country shall be contributed.

Perfection of Quarantine Abroad.—On the accepted principle of the superiority of prevention over cure, Dr. Doty, the State Quarantine Officer of the port of New York, sailed this week for Europe, in order to give his personal attention to the perfection of certain quarantine methods which his experience at his post of duty has shown him to be advantageous. He will consult with the health officials at the principal European ports which ship emigrants to this country, and will seek to devise some working system whereby it may be possible to prevent the sailing of persons infected with smallpox, typhoid fever, and other quarantinable diseases. He has been in correspondence with these officials, and hopes that a personal conference will effect a solution of the difficulties which he has encountered. The foreign service of the United States Marine Hospital has long been engaged in doing just this sort of duty, but that is a Federal department, and quite disconnected with the work which Dr. Doty performs for the State of New York. Dr. Doty proceeds on the assumption that the work of the Federal corps is not meeting with success in establishing a vigorous system of weeding out medically undesirable immigrants, and he says that the number of infected persons arriving in this port has rather increased than diminished in the past year. The State Quarantine and the Immigrant Inspection of the Marine-Hospital Service at this port work independently of one another, although in parallel lines. The State officials may admit a ship to pratique, or withhold it, according to the rules established for its governance, but the Federal inspectors are constantly refusing admission to persons who have passed the State Quarantine, and in this work they have the advantage of the inspection made abroad by the surgeons of that corps, on whose work Dr. Doty animadverts unfavorably. In explanation of his position in the matter, Dr. Doty said, just before sailing: "We are getting a poor class of Russians here, who are giving us a good deal of unnecessary trouble. The trouble will easily be avoided if the health-officers and the officials of the steamship companies at foreign ports, especially at Bremen, will agree upon a more careful examination of emigrants bound for this country. At present emigrants coming from Russia to Bremen on the way to the United States, are detained at the latter port 4 or 5 days, looked over by the health-officer, and then packed off here. The result is that many of those shipped here as healthy are really infected. Their symptoms develop during the voyage, and when they arrive here we have to take off 400 or 500 people, and quarantine them at the expense of the steamship companies. I shall propose that emigrants be detained for the full period of incubation of smallpox and typhus. At the end of that period the inspector can pick out the infected ones. Those who do not develop symptoms of disease during that detention are almost certain to be healthy. If this is done, we shall not have so many cases breaking out on shipboard, and so much wholesale quarantining here. A little earnest cooperation between the foreign health-officers and the steamship folks would accomplish what is needed. The latter could put up a sort of boarding-house as a place of detention at Bremen, and it would cost them less money than it does now when they bring over a steerage full of infected people, and are obliged to pay the expenses of their detention. The scheme is practicable, and I shall do my best to bring it about. I am strongly in favor of international agreements for the health inspection of emigrants, and I hope to take one step forward by securing the arrangement I have described."

CHICAGO AND WESTERN STATES.

The Wayne County Medical Society (Detroit) held its annual meeting October 5. Total membership is 249. Meetings held during the year, 36. The officers elected were as follows: President, Dr. George A. Kirker; vice-president, Dr. F. D. Summers; secretary, Dr. Walter J. Cree; treasurer, Dr. C. Henri Leonard; board of directors, Dr. R. H. Honner, David Inglis, E. G. Knill, D. H. O'Donnell, E. T. Milligan.

The Quarantine Against Consumptives.—The State Board of Health has decided not to quarantine California against the consumptives of other States. It has adopted a resolution, however, recommending that in all State institutions those afflicted with tuberculosis shall be separated from the other inmates.

Chicago Pathological Society.—At a meeting held October 9, Dr. Emanuel Friend demonstrated a **dermoid cystoadenoma removed from a child two years of age.** Dr. James B. Herrick exhibited specimens from a **case of diffuse, infiltrating, melanotic sarcoma of the liver.** Dr. Ludvig Hektoen read a paper upon **The relations of ray fungi to bacteria.** Dr. E. R. LeCount demonstrated **a heart containing two distinct aneurysms, opening separately into the left ventricle.**

Chicago Medical Society.—At a clinical meeting held October 4, Dr. T. J. Watkins reported a case of **intestinal obstruction following vaginal hysterectomy.**

Dr. H. D. Peterson presented a case of **ovarian cyst complicating labor.**

Dr. Frank Billings read a report of cases of **pernicious anemia,** in which he said: During the last year it has been my fortune to see several cases of what appeared to be, with the present knowledge of the case, pernicious anemia. Six of these cases have been under my own observation from the first, and 5 of them I have seen from time to time in consultation with other physicians. One of my patients has been kind enough to come here tonight for your observation. His history is as follows:

T. S., aged 36, married, collector, Irish-American, was seen first on May 19, 1899. The family history was negative. Until this year his health had always been good. He denies specific disease. Uses alcohol very moderately. Has not used tobacco for ten years. January, 1899, he had what was called the grip and was confined to bed for 10 days. Since that time he has never felt well. The most marked complaint was weakness amounting sometimes to prostration, with want of endurance and pallor of the skin and visible mucous membranes which he himself noticed. There was dizziness upon changing the position of the body or upon exertion and also dyspnea upon exertion of any kind. His extremities were cold, especially if he became tired. There was a slight cough with slight mucopurulent expectoration. His appetite was fair, his digestion good, bowels slightly constipated and urination normal. He had no pain anywhere. For the two nights preceding his coming to me he had a slight chill followed by sweat. An examination showed marked pallor of the skin and visible mucous membranes and the skin was of a noticeable lemon or canary-yellow color. Small petechial spots were observed in the roof of the mouth, in the skin covering the base of the neck and the front of the chest. He stated that he had not lost any appreciable amount in weight, his normal weight being 150 pounds and his present weight 147 pounds. His muscles appeared fairly strong and but for his extreme pallor, his appearance was good. There was nothing abnormal to be found in the lungs. There was a growing systolic murmur heard over the base of the heart transferred into the vessels of the neck; otherwise, the heart, negative. There was no venous hum in the neck. The spleen was not palpable and the liver of apparently normal size. There was no edema of the legs. A specimen of urine gave a specific gravity of 1.020, acid reaction, no albumin, no blood, no casts, and 2% of urea. A blood-examination showed no plasmodia of malaria. The hemoglobin showed 40% of the normal and the red cells 2,000,000 per cubic millimeter with the hematocrit. He was put upon iron and arsenic and told to return for an early reexamination. On June 20 the blood was examined by Dr. Evans, of La Crosse, Wis., who reported two counts of the red cells showing 1,106,000 and 820,000 respectively. There was marked irregularity of the red cells both in size and form and a stained specimen showed one megaloblast. Between May 19 and May 30 three specimens of sputa were examined and no tubercle-bacilli were found. The cough became steadily less and there was finally no expectoration. July 21 a blood-examination showed hemoglobin 33.6% (v. Fleischl) red cells (Thoma-Zeiss) 900,000 or 18%. A stained specimen showed in counting 1,000 white cells, two normoblasts and one megaloblast. There were a few petechial spots still present and slight bleeding of the gums. There was a faint systolic murmur heard at the apex of the heart and not transmitted and the second pulmonary sound was strongly accentuated. The urine at this date was negative. The iron and arsenic treatment was continued. August 9, a reexamination of the blood showed the following: Specific gravity 1.029, which indicates about 24% of hemoglobin with 1,110,000 red cells and 4,000 white cells. A stained specimen showed in counting, 1,000 white cells, 4 normoblasts and 6 megaloblasts. Polychromatism was present. There was no karyokinesis. Poikilocytosis marked. The patient complained of pain in the shins. There was some puffiness of the lower eyelids and he complained of cloudy vision. There were a few ecchymotic spots on the thighs. There was a loud systolic bruit in the neck and also at the apex of the heart. An ophthalmoscopic examination was negative. The iron and arsenic was continued and a sterilized sirup of hemoglobin was given in addition. September 7, blood showed hemoglobin 27% (v. Fleischl), specific gravity 1.031, red cells 1,008,000, white cells 5,000. In counting 1,000 white cells, 80 nucleated red cells were found. Of these 20 were normoblasts, 40 megaloblasts, and 20 microblasts. Karyokinesis was present. Poikilocytosis was marked. Polychromatism was also present. The patient felt about the same and the treatment was continued. On September 30, the red cells were 1,300,000, the hemoglobin 30%, specific gravity 1.033, and white cells 1,500. There were no nucleated red cells. Polychromatism and poikilocytosis marked. The main facts presented by this patient were that there was no apparent cause for his illness unless the attack of the grip could be considered sufficient cause for it. The main feature has been an anemia characterized by a great pallor, subjective weakness, prostration and want of endurance, a peculiar lemon-yellow hue of the skin, petechial hemorrhage of the mucous membranes and of the skin at times and blood-finding representing a profound anemia characterized by a great diminution in the red cells, with marked irregularity in form of the cells, with many very large and many small cells, polychromatism, the presence of nucleated red cells, which gradually increased in number until the megaloblasts were found in double the number of the normoblasts and with karyokinesis moderately present. Associated with this condition of the red cells was a relatively larger percentage of hemoglobin than the percentage of red cells, which would give on an average in this case a so-called high color index.

The usual conditions which are laid down as essential to a diagnosis of pernicious anemia are the absence of a disease which ordinarily would produce symptomatic anemia, with a progressive and persistent anemia, characterized by marked diminution in the number of red cells, with marked irregularity of form and size of red cells, including the presence of very large cells and of very small ones. A change in the color reaction of the body of red cells (polychromatism) and the presence of nucleated red cells which increase progressively with the disease, and sooner or later the megaloblasts equalling or outnumbering all other nucleated cells. Further each individual red cell relatively rich in hemoglobin, so that the hemoglobin as represented by the specific gravity of the blood or the color-test shows a larger percentage of hemoglobin present than the number of red cells, would indicate a symptomatic anemia. In the anemia due to intestinal parasites, especially the Ankylostoma duodenale and the Bothriocephalus latus the blood-finding is practically that of the idiopathic pernicious anemia, although the anemia due to these parasites is of course a symptomatic one. The lemon yellow color of the skin, due it is said to a hematogenous icterus because of the great amount of iron deposited in the liver during the course of the disease, is considered by many as an important diagnostic point.

The disease is found probably more frequently in the female than in the male and between the thirtieth and fiftieth year, although cases are on record of the disease occurring in infancy and in the very aged. It occurs in all climates and in all civilized countries. It has been especially prevalent in Switzerland where the larger number of cases may be due to a closer observation of patients suffering from anemia and also possibly to the presence of the Ankylostoma duodenale.

In addition to the cases reported I have data of 10 other cases in which the diagnosis of pernicious anemia has been made. Of these, 4 were fatal. A postmortem examination was made upon two. In 1 the diagnosis was verified; in the other the diagnosis was neither confirmed nor denied. In the 2 other cases, unfortunately, autopsy could not be obtained, but the symptoms were so characteristic and the blood-finding so pathognomonic that there could be no question of the diagnosis. Of these cases 5 were in females and 6 in males. The youngest was 25 years of age and the oldest 60. In the youngest the course was rapid, certainly not more than 3 months from the beginning of the first symptom until death. In another the duration was about 2½ months; the longest was about 1½ years. There was an irregular course of fever in most of the cases; in all where the temperature was taken with some irregularity. There were murmurs heard at some time in the course of the disease in the precordial region of all, and a venous hum in the neck in three. The spleen was enlarged in four and very large in one. There was dyspnea on exertion in all and a feeling of air-hunger in two without exertion. There was hemorrhage into the skin in three,

and in the mucous membranes in three. There was hemoglobinuria in one. There was hemorrhage from the uterus in one. There was retinal hemorrhage in two. Headache was a prominent symptom in two. Insomnia was a marked symptom in three. There was neuritis in two and myelitis in one. There was sensory disturbance in the form of numbness, formication, etc., in seven. There was constipation in seven; constipation, alternating with diarrhea, in one; chronic diarrhea in two. Infusoria were found in the stool of one. One patient suffered from emphysema, interstitial nephritis, and general arteriosclerosis. One had albumin in the urine. In one, hydrochloric acid was absent from the stomach, and lactic acid was increased; and in one there was marked jaundice, with an acute yellow atrophy of the liver, with a pregnancy of 10 weeks. In all there was a marked diminution in the red cells, with marked poikilocytosis, marked polychromatism, marked irregularity in size of red cells, with many macrocytes and microcytes; nucleated red cells present at some time in the course of all; and in those fatal, a marked preponderance of megaloblasts; and in all, karyokinesis. Myelocytes were present in all the cases in small percentage. The hemoglobin was in larger percentage than the red cells, which gave an increased color-index in every case. The white cells were uniformly diminished, except in one case, in which but one examination was made, and in another one just before death, and in the patient who suffered from probable sepsis, associated with a miscarriage.

DR. G. FUTTERER presented a case of **actinomycosis hominis.**

DR. HAROLD N. MOYER demonstrated a case of **Raynaud's disease.**

DR. NICHOLAS SENN reported a case of **secondary partial nephrotomy** and a case of **abdominal hysterectomy for multiple myofibromata.**

DR. EMIL RIES presented: (1) **Pregnancy of 6 months after bilateral salpingostomy** and operation for retroflexion by a new vaginal method. (2) **Cirrhosis of liver** operated on after Talma's method. Relief of all symptoms 6 weeks after operation. Gain in weight 17 pounds. Patient is able to do hard work. (3) **Gastroenterostomy** for pyloric carcinoma with hepatic metastasis. Gain in weight 25 pounds in 10 weeks. Digestion without disturbance. All cases sat up in bed 24 hours after operation, were up in chair 48 hours after operation, walked on the third day. Cases 1 and 2 left hospital 7 days after operation and resumed work. Case 3 remained 15 days in hospital, resumed work 8 weeks after operation. Cases 2 and 3 have perfect scars, neither of them wears any abdominal supporter of any kind.

DRS. L. L. MCARTHUR and G. KOLISHER presented a case of **plastic construction of an entire female urethra.**

DR. CARL BECK presented a case of **rhinoplasty** and a case of **implantation of both ureters into the sigmoid flexure.**

SOUTHERN STATES.

Dr. Richardson and the Government Insane Asylum at Washington.—Dr. A. B. Richardson, as has been announced, was recently appointed to the position of Superintendent of the Government Hospital for the Insane at Washington. This institution has had only two superintendents since its foundation in 1855, Dr. Nichols and Dr. Godding, whom Dr. Richardson succeeds. Dr. Richardson is well known as an alienist and an active member of the American Medico Psychological Society. He has been superintendent of two institutions in Ohio and was later appointed to construct and organize the new State Insane Hospital at Massillon, which is to have accommodations for 1,400 inmates. The high standing and the well-known special qualifications of Dr. Richardson give great promise of a successful administration of the Government institution, the wards of which now contain upwards of 2,000 patients.

MISCELLANY.

Exophthalmic Goiter and the Snake-Cure.—A correspondent suggests that "we know how much suggestion, and the direction of certain strata of the consciousness, can do in the way of trophic modification. The generally shared horror of snakes common to the sons of Adam makes the treatment referred to a most impressive one. Are not the mental impression and concentration of attention on the part of more importance than massage and constriction incident to the performance?"

Obituary.—DR. JOHN W. NASH, Williamsburg, Va., September 21, aged 73 years.—DR. HENRY C. CUNNELLY, Hackensack, N. J., September 30.—DR. JOHN T. GRIMES, Hagerstown, Md., October 7, aged 72 years.—DR. H. B. BARNES, Ionia, Mich., September 29, aged 65 years.—DR. A. L. RANSOME, Hyattstown, Md., September 30, aged 52 years.—DR. E. B. SIMPSON, Harney, Carroll County, Md., October 7, aged 60 years.—DR. FREDERICK OLIN WHITE, New Haven, Conn., October 6, aged 74 years.—DR. EDWARD E. LLOYD, Scranton, Pa., October 3.

Health Reports.—The following cases of smallpox, yellow fever, cholera, and plague have been reported to the Surgeon-General of the U. S. Marine Hospital-Service, during the week ended October 7, 1899:

SMALLPOX.—UNITED STATES.

			Cases.	Deaths.
MASSACHUSETTS:	Chelsea	Sept. 23-30	3	
"	Everett	" "	1	
MICHIGAN:	Battle Creek	Sept. 16-23	Present.	
"	Maple Grove	" "	Present.	
OHIO:	Cincinnati	Sept. 22-29	1	
"	Dayton	Sept. 23-30	1	
VIRGINIA:	Portsmouth	Sept. 23-30	1	
WASHINGTON:	Seattle	Sept. 16-23	2	

SMALLPOX—FOREIGN.

BELGIUM:	Antwerp	Sept. 9-16	2	
GERMANY:	Düsseldorf	Sept. 2-9	1	
GREECE:	Athens	Sept. 9-16	15	2
INDIA:	Bombay	Aug. 29-Sept. 5		1
MEXICO:	Chihuahua	Sept. 16-23		2
"	Mexico	Sept. 3-17	6	6
RUSSIA:	Moscow	Sept. 2-9		1
"	St. Petersburg	" "	2	1
"	Warsaw	Sept. 9-16		1
STRAITS SETTLEMENTS:	Singapore	Aug. 12-19		1

YELLOW FEVER.—UNITED STATES.

FLORIDA:	Key West	Sept. 29-Oct. 5	232	8
LOUISIANA:	New Orleans	Sept. 23-Oct. 4	18	2
		To date	33	10
MISSISSIPPI:	Centreville	Sept. 29	2	
"	Jackson	Oct. 2	12	4
"	Mississippi City	Sept. 29		
		From outbreak.	26	1

YELLOW FEVER.—FOREIGN.

COLOMBIA:	Barranquilla	Sept. 9-16	1	1
"	Panama	Sept. 5-19	7	
CUBA:	Havana	Sept. 15-22	10	4
"	Santiago	Sept. 9-16	3	1
MEXICO:	Tuxpan	Sept. 11-25		11
"	Vera Cruz	Sept. 21-28		4

PLAGUE.

AFRICA:	Magunde, Delagoa Bay	Sept. 22	Present.	
CHINA:	Niuchwang	Sept. 12, sporadic		5-10 daily.
EGYPT:	Alexandria	Sept. 3-10	2	
INDIA:	Bombay	Aug. 29-Sept. 5		96
"	Calcutta	Aug. 19-26		42
RUSSIA:	Koloborka, Govt. of Astrakhan	July 16-Aug. 12	24	23 suspected.

CHOLERA.

INDIA:	Calcutta	Aug. 19-26		5
"	Madras	Aug. 26-Sept. 1		1

American Public Health Association.—The twenty-seventh annual meeting will be held at Minneapolis, Minn., beginning October 31, and continuing four days. The Executive Committee has selected the following topics for consideration:

1. The Pollution of Water Supplies; 2. The Disposal of Garbage and Refuse; 3. Animal Diseases and Animal Food; 4. Car Sanitation; 5. Steamship and Steamboat Sanitation; 6. The Etiology of Yellow Fever; 7. The Relation of Forestry to the Public Health; 8. Demography and Statistics in their Sanitary Relations; 9. The Cause and Prevention of Infectious Diseases; 10. Public Health and Legislation; 11. The Cause and Prevention of Infant Mortality; 12. The Period during which each Contagious Disease is Transmissible and the Length of Time for which each Patient is Dangerous to the Community; 13. Sanitation, with Special Reference to Drainage, Plumbing and Ventilation of Public and Private Buildings; 14. Method of International Arrangement for Protection against the Transmission of Infectious Diseases; 15. Disinfectants; 16. To Examine into the Existing Sanitary Municipal Organizations of the Countries belonging to the Association, with a View to Report upon those most Successful in Practical Results; 17. Laboratories; 18. To Define what Constitutes an Epidemic; 19. National Leper Home; 20. Revision of Classification of Diseases; 21. Dangers to the Public Health from Illuminating Gas Leakage.

Upon all the above subjects special committees have been appointed to report. Papers will be received upon other sanitary subjects.

Changes in the Medical Corps of the U. S. Army, for the week ended October 7, 1899:

Fuess, J. H., acting assistant surgeon, is granted leave for one month with permission to leave the limits of the division of Cuba.

McConathy, H. M., acting assistant surgeon, is assigned to duty as surgeon, Adjuntus, P. R.

Williams, A. D., acting assistant surgeon, is relieved from duty at Adjuntus, P. R., and will proceed to the United States, and report by letter to the Surgeon-General of the Army for annulment of contract.

Powell, Major Junius L., surgeon, will proceed to the Presidio for temporary duty as surgeon in charge at the camps of recruits.

Powell, Major Junius L., surgeon, now at the camp of recruits, Presidio, will, in addition to his other duties, temporarily act as medical inspector of camps on the Presidio Reservation.

Wilson, Captain William H., assistant surgeon, is relieved from duty at the Presidio Reservation.

Moseley, Major Edward B., surgeon, now at the Presido, will proceed to the Philippine Islands on the transport "Sheridan," and upon arrival in Manila report to the commanding general, department of the Pacific and Eighth Army Corps, for assignment to duty. The medical officers, hospital attendants and nurses attached to the U. S. hospital ship "Relief," with the exception of the commanding officer, the quartermaster, one hospital steward and one commissary sergeant, to be designated by Major H. O. Perley, surgeon, in charge, are relieved from further duty on the "Relief." One assistant surgeon and 3 acting assistant surgeons, 8 female nurses and 40 enlisted men of the hospital corps, of those indicated above, will proceed to the Philippine Islands on the transport "Sherman."

The 98 enlisted men of the hospital ship "Relief," as passengers, will be sent to the transport "Grant," for transportation to the Philippine Islands.

The 21 female nurses, now on the U. S. hospital ship "Relief" as passengers, are assigned to the transport "City of Rio de Janeiro," for transportation to the Philippine Islands.

Esterly, Milton T., hospital steward, is relieved from temporary duty at the U. S. General Hospital, Presidio, awaiting transportation to the Philippine Islands, and assigned to duty at that hospital.

Girard, Major Alfred C., surgeon, is granted leave for 12 days.

Lippincott, Lieutenant-Colonel Henry, district surgeon-general, chief surgeon of the department of Colorado, during his absence on detached service the duties of chief surgeon at headquarters, department of the Colorado, will be performed by Major Curtis E. Munn, surgeon, in addition to his duties at Fort Logan.

Balch, Major Lewis, surgeon, is relieved from temporary duty at the U. S. General Hospital, Presidio, and will proceed to the Philippine Islands on the transport "Sheridan" and report on arrival in Manila to the commanding general, department of the Pacific for instructions.

Koerper, Lieutenant-Colonel Egon A., district surgeon-general, will proceed in the order named to Fort Leavenworth, Jefferson Barracks, Fort Riley, and Fort Cook, and make a thorough sanitary inspection of the volunteer regiments and their camps now at the above-named posts. Temporary camps that may be established for the purpose of target practice will be included in the inspection. A written report on each regiment will be submitted.

A board of medical officers is appointed to meet at headquarters, department of the Colorado, October 4, for the purpose of determining whether the physical condition of Colonel William J. Volkmar, assistant surgeon-general, will admit of his being ordered to duty, and if not, whether he should again be ordered before a retiring board. Detail: Lieutenant-Colonel Henry Lippincott, district surgeon-general; Major Edwin F. Gardner, surgeon; Major Henry P. Birmingham, surgeon.

Merrill, Major James C., surgeon, librarian of the Surgeon-General's office, will proceed from this city to Philadelphia and attend the meeting of the Association of Medical Librarians on October 5.

Carroll, Joseph H., acting assisting surgeon, will proceed from Columbus, Ohio, to Jefferson Barracks, Mo., and report to the commanding officer, Forty-ninth Infantry, U. S. Volunteers, for duty to accompany the regiment to the Philippine Islands.

Porter, Elias H., acting assistant surgeon, is relieved from further duty at Fort Hancock, N. J., and will proceed to Fort Crook, Neb., and report to the commanding officer, Thirty-ninth Infantry, U.S. Volunteers, for duty to accompany that regiment to Manila.

Winn, Robert N., acting assisting surgeon, will proceed from New York City to South Framingham, Mass., and report to the commanding officer, Forty-sixth Infantry, U. S. Volunteers, for duty to accompany that repiment to the Philippine Islands.

McCleave, Thomas Crooke, acting assistant surgeon, is relieved from duty at San Diego Barracks, Cal., and will proceed to San Francisco, Cal., and report to the commanding general, department of California, for duty with troops going to the Philippine Islands.

Kramer, Major Simon P., surgeon, will proceed from New York City to Washington, D. C., and report to the Surgeon-General of the Army for duty.

Ware, Captain Isaac P., assistant surgeon, having been found by an Army Retiring Board incapacitated for active service, on account of disability, which is not the result of any incident of service, the Secretary of War announces that he has been wholly retired from active service by the President, to take effect September 29, under the provisions of Sections 1252 and 1275, Revised Statutes, and that his name will be henceforward omitted from the Army Register.

Higgins, Aubray F., acting assistant surgeon, is relieved from further duty at Fort Hamilton and will proceed to Jefferson Barracks for duty.

Clossman, August Von, acting assistant surgeon, is relieved from duty at Jefferson Barracks and will proceed to St. Louis, Mo., for duty as attending surgeon and examiner of recruits.

Owen, Captain Wm. O., assistant surgeon, is relieved from duty at St. Louis, Mo., and will proceed to San Francisco, Cal., and report to the commanding general, department of California, for duty as sanitary inspector.

Greenleaf, Colonel Charles R., assistant surgeon-general, will proceed from San Francisco, Cal., to Manila, P. I., and report to the commanding general, department of the Pacific and Eighth Army Corps, for duty as chief sanitary inspector of that department.

Lewis, John C., acting assistant surgeon, will proceed from Georgetown, Ky., to Camp Meade, Pa., and report to the commanding officer, Forty-first Infantry, U. S. Volunteers, for duty to accompany that regiment to the Philippine Islands.

Curtis, J. Webb, acting assistant surgeon, will proceed from Chicago, Ill., to Fort Thomas and report to the commanding officer, Forty-eighth Infantry, U. S. Volunteers, for duty, to accompany that regiment to the Philippine Islands.

de Niedeman, Major William F., surgeon, is relieved from further duty in the department of the Province of Havana and Pinar del Rio, and upon the expiration of his present sick leave will proceed to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

Morse, Arthur W., acting assistant surgeon, will proceed from Joliet, Ill., to Fort Riley, and report to the commanding officer, Fortieth Infantry, U. S. Volunteers, for duty, to accompany that regiment to the Philippine Islands.

Edger, Jr., First Lieutenant Benjamin J., assistant surgeon, is detailed to act as quartermaster and commissary of subsistence at the Josiah Simpson U. S. Geneal Hospital, near Fort Monroe, Va.

Richards, Alfred, acting assistant surgeon, is relieved from further duty at Fort Washington, and will report at Fort Hunt for duty.

Hart, James W., acting assistant surgeon, is relieved from duty at Fort Hunt, who will report to the commanding officer, Fort Washington, for duty.

Gonzales, S. M., acting assistant surgeon, now in New York City, will proceed to Pensacola, Fla., for annulment of contract.

Usher, First Lieutenant F. M. C., assistant surgeon, is granted leave for one month with permission to visit the United States.

Cohen, Hymen M., acting assistant surgeon, now at Fort Winfield Scott, will report to the commanding general, department of California, for assignment to duty with troops going to the Philippines.

Kirk, William Redin, acting assistant surgeon, now at the U. S. General Hospital, San Francisco, Cal., will report to the commanding general, department of California, for assignment to duty with troops going to the Philippines.

Van Tuyl, W. R., acting asistant surgeon, is relieved from further duty at the U. S. Army General Hospital, San Francisco, Cal., and will proceed to Leavenworth, Kan., and report by letter to the Surgeon-General of the Army for annulment of his contract.

Changes in the Medical Corps of the U. S. Navy, for the week ending September 30, 1899:

HANCOCK, F. B., assistant surgeon, detached from the "Eagle," and when relieved, ordered home to wait orders.

CRAWFORD, C. A., assistant surgeon, detached from the "Massachusetts," and ordered to the "Eagle."

BLAKEMAN, R. S., passed assistant surgeon, promoted to passed assistant surgeon, from May 27, 1899.

LOUIS, L. G., pharmacist, retired from September 30.

EAGLING, E., pharmacist, ordered to the Naval Hospital, Yokohama, Japan, immediately.

DRENNAN, M. C, medical director, detached from the Naval Recruiting Rendezvous, Philadelphia, Pa., and ordered to Washington, D. C., October 11, for examination for retirement, and then home, and to wait orders.

GROW, E. J, assistant surgeon, detached from the "New Orleans," and ordered to the "Massachusetts," immediately.

Changes in the U. S. Marine-Hospital Service, for the week ended October 5, 1899:

MURRAY, R. D., surgeon, to proceed to Miami, Fla., for special temporary duty. October 3.

GARDNER, C. H., passed assistant surgeon, granted leave of absence for 2 days. October 4.

CORPUT, G. M., assistant surgeon, to report to medical officer in command, Baltimore, Md., for duty and assignment to quarters. September 29.

FOX, CARROLL, assistant surgeon, relieved from duty at Baltimore, Md., and directed to report to medical officer in command of Reedy Island Quarantine Station for duty and assignment to quarters. September 29.

PRIMROSE, R. S., acting assistant surgeon, granted leave of absence for 6 days. October 4.

MILLER, CHARLES, hospital steward, granted leave of absence for 21 days, from October 8. October 5.

Typhoid Bacilli in the Urine.—M. W. Richardson (*Journal of the Massachusetts Association of Boards of Health*, July, 1899) has carried out a series of investigations in the wards and pathologic laboratories of the Massachusetts General Hospital to determine the frequency with which typhoid bacilli are found in the urine. Positive results were obtained in 23 cases out of 100 examinations. This result is in accord with the conclusions reached by other investigators, the typhoid organisms being found present in the urine of about 25% of the cases.

The number of the bacilli is often enormous. Indeed, the urine may be distinctly cloudy simply from the organisms present, and the bacilli may persist in the urine for weeks, months, or even years after convalescence begins. The virulence of the bacilli obtained from the urine was tested in one instance, and their pathogenic power equalled in every respect that of cultures obtained from the internal organs and the stools. The urines of typhoid patients should therefore not only be rigorously disinfected during the disease, but should also be supervised carefully during convalescence. As the result of a series of experiments to determine the best method of disinfecting the urine, Richardson found that irrigation of the bladder with boric acid (5%) was of no avail. Corrosive sublimate (1:7000) was effective. Salol by the mouth, 10 grains t. i. d., was effective in a single case. In 2 cases the bacilli persisted in undiminished numbers. Urotropin was used in 9 cases in a dosage of 10 grains 3 times daily, and with excellent results. In every instance the organisms were removed. Moreover, this happy result was obtained oftentimes in 24 to 36 hours. In 2 cases when the urotropin was stopped the bacteria returned to the urine; but a second or third dose of the drug sufficed to remove them entirely. The importance of this infection of the urine was recognized nearly 10 years ago, but has never received the attention which it has deserved. In fact, the urines in typhoid fever have been utterly neglected, while the stools were rigorously disinfected. The urines, however, are much more to be feared than the stools. To be sure, only 25% of the cases show infected urines; but the enormous numbers of the bacteria, and their persistence into convalescence, make them extremely dangerous.

The urines as well as the feces must be carefully disinfected throughout the disease. Then, as the temperature reaches the normal point, the urine should be examined bacteriologically, to determine the presence or absence of bacilli. If no bacilli are found, then, of course, no active measures are indicated. Before the patient is allowed to go abroad, however—that is to say, after from 2 to 3 weeks—a second and final examination should be made. [M.B.T.]

Foreign News and Notes.

GREAT BRITAIN.

Dr. Theodore Puschman.—The death is announced in the English medical papers of Dr. Theodore Puschman, professor of medical history in the Vienna University. Professor Puschman was well known in England through the translation into English of his "History of Medicine in Vienna During the Last Century."

The Open-Air Treatment of Consumption in London.—The committee of the North London Hospital for Consumption, which is situated on the healthy heights of Hampstead, are having a series of enormous balconies added to their beautiful building, so that their patients may enjoy the now universally accepted treatment by open air. The balconies will cost some £3,000.

The Medical Society of London.—"The hundred and twenty-seventh session of the Medical Society of London will commence," writes a correspondent under date September 30, "on Monday, October 9, when an address will be delivered by the incoming president, Dr. Frederick T. Roberts. Dr. Roberts is physician to University College Hospital and the Brompton Consumption Hospital. He is a recognized authority upon diseases of the chest, and the author of a popular handbook upon medicine. After the presidential address, a debate will be held upon 'Personal experience in relation to serum-therapeutics and antitoxin-treatment.'"

Several communications have been published in England from Major Ronald Ross, R.A.M.C., who is at Sierra Leone in charge of the committee sent out by the Liverpool School of Tropical Medicine to investigate the **causes of malaria,** and from his assistants, to the effect that numerous breeding-places of the anopheles and culex (which are supposed to be the peccant agents in the spread of malaria) have been found in various parts of Freetown. Major Ross believes that the insects can be destroyed by kerosene at a very moderate cost, while they are in puddles in their larval state. It is too early to express any definite opinion upon the value of the work of the Liverpool expedition, but there can be no doubt that it is being carried on in the right spirit of earnest, painstaking research.

The lunacy figures of London are contained in a bulky volume which has just been issued by the Asylum Committee of the London County Council. The volume is the committee's report for the year ending with March, 1899, at which date the County Council had under its charge in the asylums at Banstead, Cave Hill, Claybury, Colney Hatch, and Hanwell, upwards of 15,000 persons of unsound mind. The total was 10,000 nine or ten years ago, so that the annual increase averages about 500. The Council are constructing too more enormous asylums in the suburbs of Bexley and Horton, to cope with impending overcrowding, and must view with some apprehension their future liabilities in the same direction. Some of the London medical schools are taking advantage of the mass of psychological material accumulating at their gates. The students of St. George's Hospital are, for example, learning the elements of lunacy practice at Hanwell, while the female students of the London School of Medicine for women attend classes at Colney Hatch. This practical teaching of psychology is an excellent departure.

A Fatal Blunder.—An Eastburne medical man, Mr. John Dick, has just died under extraordinary circumstances. He prescribed for a patient, and made up the prescription himself, a mixture of iron bitters and (as he believed) chloroform water. The patient complained to another medical man that the medicine made her very ill. Mr. Dick, to prove that there was nothing noxious in his remedy, took two drinks out of the bottle, but on reaching home shortly afterward he fell down in the agonies of strychnin-poisoning. At the inquest it was elicited that he had by a terrible error used a solution of strychnin instead of chloroform water in making up the medicine.

The John Usher Institute of Public Health in Edinburgh.—Plans were pased in Edinburgh at the end of September for the building of the Institute, the cost of which has been generously defrayed by Sir John Usher. Ths design is what is known as the classic renaissance. The building is to be of three stories, the ground floor comprising the usual offices and storage departments and the rooms for special research work, the first floor accommodating the chemical and optical laboratories and the reading room, while the second and top floor will contain the lecture, theater and the bacteriological laboratory. The cost of the Institute will be limited to the sum given by Sir John Usher, viz., £20,000.

The annual report of the British Commissioners of Prisons has just been issued and contains, among much information of interest to the sociologist and the philanthropist, certain passages that will be satisfactory reading for medical men. Medical men, especially hospital physicians, have often had under their care unfortunate people who have been in prison, and they had come to regard certain fixed dietaries in these places of punishment as no better than a course of slow starvation. This view has been impressed upon Parliament, and recently a committee was appointed by Government to inquire into the matter. As a result of the inquiry this committee recommended the abolition of two of the most scanty of the diets prescribed hitherto, and the substitution for them of allowances of food more generous in quantity and wholesome in quality and better fitted to ensure that the prisoner will be in sufficiently robust health upon his discharge to begin to earn his living by work, instead of attending the out-patient department of a hospital.

The Public Health of Kensington.—Kensington, the old London parish where Queen Victoria was born, has during the past century been transformed from a village on the outskirts of the city to a populous district with a ratable area equivalent to about one-sixteenth of that of the whole metropolis. In 1801 the population of the parish was 8,556; in 1898 it was, according to figures recently published by Dr. Orme Dudfield, the medical officer of health for the district, 172,000. Seventy years ago its ratable value was estimated at about £76,000, now it is £2,136,000. Dr. Orme Dudfield's annual report upon the public health of his district also shows clearly that Kensington preserves some of the characteristics of town and country in its buildings, and that the combination is not a happy one from a sanitary point of view. There is a district in the north of Kensington known as Notting Dale, where the tiny tenements date from times previous to the covering of the Kensington fields with expensive mansions. As cottages surrounded by fresh air and open country these dwellings may have served their purposes well; but shut in and cramped by larger buildings and devoid as they are of all modern accommodations, they have become the home of a squalid and debased population and a center of infectious disease. The general death-rate of Kensington is 16.3 per 1,000 (or 2.4 below the death-rate of London as a whole); the death-rate of the Notting Dale district is 45.5 in a population of some 4,000, while the infantile mortality reached during 1898 the astounding figure of 419 per 1,000 registered births. It seems a little extraordinary that the wealthy landlords and well-to-do residents of the "Royal Village" do not combine to take suppressive measures against this plague-spot.

The New English Vaccination Act in Operation.—A return has been issued as a Parliamentary paper showing the number of certificates of successful primary vaccination received by the vaccination officers of the various Poor-law Unions of England and Wales during the periods between January 1 and June 30 (both days inclusive) of the years 1898 and 1899 respectively. The total number of certificates of successful primary vaccinations received by the vaccination officers during the first 6 months of 1899 was 355,987 as compared with 278,588 such certificates received during the first 6 months of 1898. This means that 77,399 more successful primary vaccinations, or an increase of 27.78%, were effected during the 6 months of the working of the new act than were effected in the exactly comparable period of the year before the act came into force. The weak points in the new Vaccination Act are not hard to find, and the English medical journals have not been slow in pointing them out; still the Act is clearly doing good despite its incomplete character and the fanatic opposition of the Anti-vaccination League.

CONTINENTAL EUROPE.

Medical Abstainers in Germany.—The Association of Medical Abstainers held its fourth annual meeting at Munich, September 17. Addresses were delivered by Professor Kraepelin on Recent Physiological Researches on the Effects of Alcohol; by Dr. Colla on Recent Clinical Researches on the Effects of Alcohol; and by Dr. Bunge on the Increasing Inability of Women to Nurse their Infants, and on the Connection between that Inability and Alcoholism.

Prevention of Tuberculosis in Spain and the Argentine Republic.—According to the *British Medical Journal*, a league against tuberculosis is being organized in Spain. What it is hoped will be the nucleus of a national association was recently formed at a largely attended meeting of the members of the Medical Institute of Valencia convened for the purpose by Dr. Moliner, Professor of Pathology in the Medical Faculty of the University of that city. The league in its main lines is organized on the model of our own National Association for the Prevention of Consumption and other Forms of Tuberculosis. On the initiative of Dr. Samuel Gache a league against tuberculosis was on July 7 founded in the Argentine Republic, where consumption claims 8,000 victims each year.

Congress of Spiritualists.—The wonders of the Paris Exposition of 1900 do not cease growing. According to a contemporary, the latest to be announced is a Spiritualist congress, at which the shades of Blavatsky and all the Mahatmas in India will be invoked at so much per head. A special effort is to be made, it is said, to reconcile two schools of Spiritualists who hold different opinions on the subject of metempsychosis. One school maintains that men have successive lives on earth, the other that their successive lives run their appointed span in other worlds. Strenuous endeavors are to be made to get to the bottom of this matter and to settle it once for all. In the meantime the circular invites all competent persons to send in full and particular

accounts of any reminiscences they may have of a previous existence, of any communication from spirits who have declared that they have lived several times on the earth, especially if they can identify the spirits, and of any "realized predictions made by spirits" to the effect that they meant returning to this mundane globe being recognized on their arrival.

Typhoid Fever and the Widal Reaction.—Dr. Nageli, assistant physician at Professor Sahli's clinic at Bern, has published an interesting account of a typhoid-fever epidemic which broke out in a pauper asylum of the canton of Bern. Of the 45 inmates 30 received hospital treatment. The Widal reaction and the microscopic and numeric examination of the different blood-cells proved that 12 other inmates who had suffered only from slight symptoms, such as headache, slight fever, and diarrhea, and were confined to bed either not at all or only for a few days, must have had genuine typhoid fever in an abortive form. The infection could be traced to the man who milked the cows of the establishment, who, as it was afterwards ascertained, suffered from night-sweats, bad dreams, and continuous diarrhea for several weeks, and completely lost his appetite, but who never discontinued his occupation for a single day. A milk-infection explains the sudden onset of the epidemic, there being only one other case in the adjoining villages, one of which had the same water-supply. Altogether, typhoid fever could be diagnosed in 42 out of 45 inmates—a quite unusually high percentage pointing to the frequent occurrence of abortive forms of this fever. The Widal reaction secures the diagnosis of typhoid fever even months after the patient has quite recovered from his slight symptoms.—[*Lancet.*]

Charges for Ambulance Service in Paris.—According to the *Lancet*, the Prefect of the Seine has issued an order fixing the charges to be made for the conveyance of patients both within Paris and outside. Several scales of charges have been laid down by this order. For the *ambulances municipales* the rates are as follows:—(1) Conveyance at the request of private individuals and noncontributory communes within the limits of Paris, 5 fr.; from Paris to the Department of the Seine and vice versa, first zone, 8 fr., second zone, 12 fr.; beyond the Department of the Seine, 15 fr. a day or any part of a day, for the vehicle only. (2) Conveyance at the request of the communes, the Assistance Publique, and the prefect of police: From Paris to the Department of the Seine and vice versa, first zone, 6 fr., second zone, 10 fr.; beyond the Department of the Seine 10 fr. a day or any part of a day for the vehicle only. For the *ambulances urbaines* the charges are as follows:—(1) Conveyance at the request of private individuals and noncontributory communes: in Paris 5 fr. for accidents and 10 fr. for other cases; from Paris to the Department of the Seine and vice versa, first zone 10 fr., second zone 25 fr.; beyond the Department of the Seine 35 fr. a day or any part of a day for the vehicle only. (2) Conveyance at the request of contributory communes, the Assistance Publique, and the prefect of police: From Paris to the Department of the Seine, first zone 10 fr., second zone 15 fr.; beyond the Department 20 fr. a day or any part of a day for the vehicle only.

MISCELLANY.

University Appointments.—MARBURG: Professor L. Krehl, of Jena, has been called to the directorship of the Polyclinic, to succeed Prof. Friedrich Muller. ROSTOCK: Prof. O. Lubarsch has been invited to assume the directorship of the pathologic-anatomic division of the Hygienic Institute in Posen. STOCKHOLM: Dr. C. G. Muller has been appointed ordinary professor of anatomy. WARSAW: Dr. Kostenicz has been appointed extraordinary professor of ophthalmology. CRACOW: Dr. L. V. Orlov, professor of surgical pathology, has been appointed professor of surgical pathology to succeed the late Professor Grube. MONTEVIDEO: Dr. James L. Oliver has been appointed professor of operative surgery to succeed Prof. Gerardo Arrizabalaga.

International Congress on Hypnotism.—The second International Congress on Hypnotism will be held in Paris from August 12 to 16, 1900, under the presidency of Dr. Jules Voisin. The questions proposed for discussion are: (1) The formation of a vocabulary concerning the terminology of hypnotism and the phenomena connected therewith. (2) The relation of hypnotism with hysteria; (3) The application of hypnotism to general therapeutics; (4) The indications for hypnotism and suggestions in the treatment of mental disease and alcoholism; (5) The application of hypnotism to general pedagogy and mental orthopedics; (6) The value of hypnotism as a means of psychologic investigations; (7) Hypnotism in relation to the (French) law of November 30, 1892, as to the practice of medicine; (8) Suggestion and hypnotism in relation to jurisprudence; (9) Special responsibilities arising from the practice of experimental hypnotism.

Ophthalmic Diseases at Jerusalem.—The annual report of the administration of the British Ophthalmic Hospital at Jerusalem (belonging to the Grand Priory of the Order of the Hospital of St. John of Jerusalem in England) shows that the work of the last year, as compared with that of its predecessor, was almost stationary, mainly from the cause that it was as much as Dr. W. E. Cant alone could by any possibility accomplish. The applicants for admission were 1,182, the in-patients admitted 598, the new out-patients 4,481, the attendances on out-patients 12,080, the operations 1,330, and the administrations of anesthetics 683. Treatment at the hospital was, as in former years, greatly appreciated both by the inhabitants of Jerusalem and by the fellaheen of the surrounding country districts; and the Chapter of the Order of St. John has since the issue of the report sanctioned the appointment of an assistant-surgeon to Dr. Cant, so that out-patients may be seen 6 days a week. We observe that of the 598 in-patients 364 were admitted for trichiasis with superficial keratitis, and that of the 1,330 operations 917 were Snellen's operation (extended) for trichiasis of upper lid. There were 43 extractions of senile cataract. Amongst the 4,441 out-patients 712 had superficial keratitis, 696 keratitis with trichiasis, 437 chronic organic conjunctivitis, 422 adherent leukoma with cicatrix, and 170 were cases of cataract. The work done at the hospital certainly seems to merit generous support.—[*British Medical Journal*]

The Medical Curriculum in Melbourne.—According to the *British Medical Journal* some very important alterations have been suggested by the Faculty of Medicine in the Melbourne University course. The Faculty finds that the working year is too short; it is overcrowded with systematic lectures, and that consequently there is not sufficient time for practical work, particularly in the clinical side. It is stated that as the result of the present curriculum the student develops into a scientist and not into a medical practitioner. The necessity to alter the curriculum has arisen through the action of the English Medical Council which, in 1891, found that the course then in existence was deficient in the matter of clinical work. So far the first year of the Melbourne University has been a scientific year, and now the faculty wished to add to it by making the students do some practical work. It is thought that the year was hard enough as it is. Biology and natural philosophy were both subjects of the year, and required elaborate work. The first year seemed as at present constructed a year of cram, weakening and deteriorating in effect the student's mental powers by overcrowding. Dr. John Williams opposes the recommendation of systematic lectures in the fifth year, as he fully agrees with the views expressed by the General Medical Council of Medical Education and Registration that the last year of the course should be devoted and limited to clinical and practical work. The whole matter of the recasting of the curriculum has been referred to a large committee of medical men, who will report on the subject to the Senate of the University. It is not improbable that a concession will be made by leaving the attendance on lectures during the last course optional with the student.

Society Reports.

SEVENTY-FIRST ANNUAL MEETING OF THE GERMAN ASSOCIATION OF SCIENTISTS AND PHYSICIANS,

Held at Munich, September 18–23, 1899.

[From our Special Correspondent.]

GENERAL MEETINGS.

MONDAY.

In the presence of royalty and of a tremendous crowd of populace, von Winckel, of Munich, opened the Convention in the Hoftheater. He recalled the history of the association that in its 78 years of life it had held 70 conventions (3 were omitted [1852, 1873, 1892] because of cholera, 3 because of war, and 1 because of the revolution of 1848). Of the conventions 33 were in university cities, 7 in Austria, 15 in large commercial cities, 10 in residence cities, 5 in bathing places. He spoke also of the fearful damage Munich had just suffered from the freshets.

Next came the honorary president, Prince Ludwig Ferdinand, and greeted the convention in the name of the Prince Regent. Then came greetings from the government (Ritter von Landmann); from the city (Mayor von Borscht); from the Science Academy (Dr. von Zittel); from the Ludwigs-Maximilian University (Rector von Heigel); and from the Technical University (Dr. von Hoher).

After this long introductory process appeared the hero of the hour, Frithjof Nansen, and spoke on the **Scientific results of his Polar expedition.** He spoke of the voyage along the coast of Siberia, where they saw real fiords, and evidences of former volcanoes. The depth of the ocean at 78° varied from 10 to 120 meters—or in other words there exists an extensive submarine plateau in that neighborhood—then came depths of 3,000 to 4,000 meters. North of Franz Joseph Land lie perhaps more small islands; at any rate, the North Siberian islands extend farther north than previously supposed. Franz Joseph Land is largely basalt, and this and other evidences go to show that once immense forests existed there and that in the Jura time it was much warmer there than now. The most important geographical discovery was that of the polar depths—the greatest being 3,850 meters. In the greatest depths there is but little lime, and much manganese. Gravity, contrary to expectation, was normal. The ocean is covered with ice from 77° on. The currents proved to be what Nansen had expected, though they were not in straight lines. In the pools of fresh water caused by the melting ice, Arctic flora was abundant (algae and diatones). At 200 meters' depth the ocean temperature is 0° Celsius, thence it rises to + 1° at 800 meters. The water is less salty than normal ocean-water, so that the water could be drunk. The lowest temperature was —53° Celsius in winter and 0° in summer. The average speed of the wind was 5½ meters per second (maximum 15–16 meters per second). Calms were rare. Clouds were light. Moon-rings frequent; northern lights almost daily. Life was found in summer everywhere.

Nansen's address received hearty applause. He was followed by Dr. von Bergmann, of Berlin, on the **use of Röntgen-rays in surgical diseases.** He spoke rather skeptically of the therapeutic action of the rays, the only effect thus far proved being the reddening and inflammation of the exposed surface. For internal diseases the rays were of small value. But for the bones and the skeleton generally the rays had made themselves indispensable. Dr. Förster, of Berlin, followed with an address on astronomy. The time was so short that he had to omit the last third of it.

FRIDAY.

Prince Ludwig Ferdinand conducted this session also. Dr. Birch-Hirschfeld, of Leipsic, delivered the first address, it being **Science and the Art of Healing.** He showed that science and medicine have always gone hand in hand. Lately the connection has become closer; largely due to Virchow with his scientific explanation of disease. Then followed that newest development of medicine, hygiene, which should include prophylaxis, operative surgery, etc. Koch's discovery of the tubercle-bacillus has inspired the renewal of contest with tuberculosis, the greatest of all plagues. The improvements in sanitation are the direct result of this new union of science and medicine. Yet medicine must still fight occultism and quackery. The results of which are only occasionally good, but enough to lead the laity astray, and the people should receive police protection from the worst at least of these swindles. The material situation of physicians is growing worse, because of the increased competition and of the increased demands for an educated profession, and not because physicians must study science at the universities. This scientific foundation is the only means whereby medicine can make steady advancement, can rid itself of superstition, and fight quackery.

Dr. Boltzmann, of Vienna, then addressed the assembly on the newest developments in **theoretical physics,** an able essay which commanded close attention.

After him came Prof. Dr. G. Klemperer, of Berlin, who delivered the final address of the convention: **Justus v. Liebig and Medicine.** The leading thought of this seventy-first convention had been the union of science and medicine. This present union is largely due to the work of 3 men: Rudolph Virchow, Hermann Helmholtz, and Justus Liebig. The latter had been honored by all the branches of science with which he had been connected, yet physicians have not given him due public honor. That this honor was due him from the physicians is shown by the fact that he founded medical chemistry—or, in other words, made modern medicine possible—he was a second Paracelsus. He it was who studied scientifically medical drugs, especially plants, and determined their active principles. He thereby reduced and unified the lists. He, further, discovered new drugs; as, in 1832, chloroform, paraldehyd, and chloral. He founded, also, modern pharmacology by introducing the study of the physiological effects of the various drugs and of their active principles. But above all he indroduced that which is the basis of modern medical treatment, dietetic therapeutics; and made true the saying, "*Qui bene curat, bene nutrit.*" His systematic study of the physiology of foods, and the originating of his meat extract has made his name justly famous, and in connection therewith his work on animal heat has been of great assistance to medicine. True, Liebig made mistakes; but yet, as Pettenkoffer expressed it, "it is wonderful how many of his statements have been verified." His fever-diet; his treatment of diseases of the digestive organs and of diabetes, all deserve mention; and finally, if for no other reason, he should be remembered for his work as a teacher and writer in raising the standards of physiology and medicine.

Dr. Neumayer, the president of the association, then summed up the work of the week, and Dr. von Winkel made the closing remarks.

GENERAL MEETING FOR MEDICAL GROUPS.

THURSDAY.

Professor Virchow presided, and in his opening remarks spoke of the disappearing mysticism in pathology; of the work of the Vienna school in seeking the laws governing the origin of disease; and of the "Keimblatt Theorie," which was still in the process of making.

The first speaker, Prof. Rabl, of Prague, speaking on the general subject of the session: **The position of pathological anatomy, and especially of general pathology with reference to the theory of development and especially to the "Keimblatt Theorie,"** said that medicine greeted new theories and ideas too enthusiastically. Thus transfusion and transplantation have proved useful only in cases of individuals of like species. Different species have permanent peculiarities in blood and tissue, which peculiarities are given by the unfertilized ovum. And the peculiarities of the ovum prevent any deviations from the established course of development. Prof. Marchand, of Marburg, followed and went into detail about chronic inflammation, tumors, and the regeneration of tissue; but said that as yet we have no real scientific theory, and as long as we have not the histogenesis we must content ourselves with the study of the morphology.

MEETING OF THE PERMANENT TUBERCULOSIS COMMISSION.

WEDNESDAY.

PROF. HUEPPE, of Prague, presided, and spoke of the history of the commission, and of the necessity of discussing the subject both in popular and scientific form. He also spoke forcibly of the necessity of sanitary measures in the homes of the working people, and in the schools. The physician must become a social *Hygieniker*, if he would meet with changed industrial and social conditions. We can at least work for the benefit of coming generations by providing for them better sanitary surroundings.

DR. BLASIUS, of Brunswick, read the report of the Berlin congress. PROF. CHIARI, of Vienna, spoke on tuberculosis of the larynx and neighboring mucous membranes. In 30% of the cases of lung tuberculosis, larynx tuberculosis is also found. Tuberculosis of the throat occurs as primary, but mostly as secondary. The infection is aspirated. Tuberculosis of the tonsils is more frequent than formerly supposed, the infection coming from both sputum and air. The upper air-passages can be infected by breathing, but more frequently by infected food and other foreign substances, as the fingers. The lymph-passages can also bring infection backwards from the lungs. Scrofulitic tendencies render the membrane more liable to infection. As to the prophylaxis of the disease: (1) The sputum of *phthisikers* should be destroyed; (2) people, especially children, should be kept from too close intimacy with consumptives. Consumptive parents should not kiss their children; (3) no uncooked milk should be drunk. The therapeutics demands: (1) Strengthening of susceptible children, since anemia assists the development of the bacilli; (2) relief of catarrhs; (3) radical extirpation of isolated infected spots as of lupus, and in tonsils and larynx. Since tonsil tuberculosis is often latent, every extirpated tonsil should have a histological examination; when, if tuberculosis be found, a radical operation should take place; (4) extirpation of the regional lymph-passages where an isolated case in the upper air-passages occurs is the best way to protect the general organism.

PROF. JADASSOHN, of Berlin, delivered an address on **tuberculosis of the skin.** He discussed methods of diagnosis of the various forms. Lupus is the type form, and the infection is hematogen, especially after scarlet fever and measles. It occurs both in scattered spots and as elephantiasis. He named the various kinds of lupus and gave the details of the therapeutics, especially by means of warm air and Röntgen-rays. DR. ITALO CONTA, of Milan, recommended legal steps for the improvement of workshops, and for the instruction of the people, and also for compulsory disinfection.

On the next day this meeting was continued. DR. BLUMENFELD, of Wiesbaden, described several cases to illustrate nutrition in lung-tuberculosis. DR. MARAGLIANO, of Genoa, spoke on **serum-therapeutics,** and DR. PETRUSCHKY, of Danzig, on **specific treatment of tuberculosis.** The two were quite similar, and sought to restore Koch's tuberculin to favor. The trouble has been that physicians sought too quick results and in too late a stage of the disease. It is possible to cure permanently only a few tuberculous patients; and except at the beginning a serum is useless.

PROF. DR. KLEBS, of Chicago, reported on his cases of tuberculosis, spoke of the disadvantageous methods of sanatorium treatment, and condemned the iodin treatment.

(To be continued.)

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

The Twenty-fifth Annual Meeting, Held at Chicago, October 3, 4, 5, and 6.

[From our Special Correspondent.]

ADDRESSES of welcome were delivered by JUDGE CAVANAUGH and DR. FRANK BILLINGS. The reports of the Secretary and Treasurer showed a large increase in membership, and a healthy condition of the Society's finances. President DUNCAN EVE discussed in his address **malpractice and the damage suit,** urging in a forcible manner that the profession should stand as a unit by the innocent victim when unjustly attacked, as if it were a matter of personal concern to each, remembering that when one member suffers, the reflex action is felt by all. We give a condensed report of the more interesting papers that were read.

DR. JACOB FRANK, of Chicago, read a paper on **Vesicorectal anastomosis.** He said that experiments have been conducted by him on the implantation of the ureters into the rectum, which justify the conclusion, that in every instance there is an ascending infection of the ureters, which terminates in the kidney. Since this is an established fact, as verified by both microscopic and macroscopic study of the operated dogs, he has every reason to believe that no better result could be attained in the human being, and from this circumstance alone the implantation of one or both ureters can never become popular. Various operators have devised different methods for the relief of exstrophy of the bladder, but Maydl's is the safest and best because, according to his technic, the ureteral openings are not anatomically interfered with, hence a fortification against ascending infection. Why should the ureters be cut away from a healthy bladder when it is possible for the viscus to be left almost untouched, and still accomplish the desired results? As some of the lower animals and birds have the bladder and rectum as one cloaca, the question arose, Why cannot human beings live comfortably in the same condition? It is his object to place the unfortunate individual requiring this operation in the embryologic state by combining the bladder and rectum into one common receptacle, from which the urine and the feces pass. The operation consists of anastomosing the bladder to the rectum with his decalcified-bone coupler, a description of which can be found in the *Journal of the American Medical Association*, June 19, 1897, and in *Medicine*, January, 1897. The technic is as follows: In a male dog the incision is made in the groin, and in a bitch in the median line. Generally the bladder is found distended, and is emptied by squeezing it gently with the hand, when the urine escapes through the natural channel. The rectum is next picked up and freed of its contents, as in any intestinal operation. The bladder and rectum are then brought forward and placed in position for anastomosis. Two or three interrupted Lembert sutures are now taken about half an inch below the lower ends of the incisions determined upon in the bladder and rectum, care being exercised in selecting them that the coupler, when it is inserted, will not encroach upon the ureteral openings. A longitudinal incision is then made in the bladder large enough for the coupler selected, and a puckering string applied over and over the cut margin. The rectum is next opened in its long axis and a puckering string similarly applied. The suture should be taken so that the free ends lie uppermost, thus facilitating easy tying. The operator now slips the coupler into the bladder opening, at the same time gently spreading the collars apart, while an assistant makes one knot and draws down on the puckering string until the rubber tubing is felt; another knot is made and the ligature cut off short. The other half of the coupler is then slipped into the rectal opening and likewise tied and cut off. Several interrupted Lembert sutures are taken around the borders to make the work more secure. The operation is simple and can be accomplished in 10 or 15 minutes. He has not had an opportunity of trying this new method on the human being yet, although it was tried on the cadaver and the technic carried out nicely. Of the 15 dogs operated upon, 10 recovered, and 5 died. In the first 2 experiments the technic was imperfect and a great deal of unnecessary work was done, which undoubtedly contributed largely to the failures. As a rule, the dogs are quite sick for the first few days, and show signs of pain, with rise of temperature. For a week after the operation urine and feces are voided oftener than after this period. Dogs hoist their legs as though in the act of urinating, without accomplishing anything, and finally squat down and micturate from the rectum. The animals that have been kept accustomed themselves to their condition and urinate periodically. The feces were passed in a liquid form, being softened by the urine.

He believes that vesicorectal anastomosis will not only become popular for exstrophy, but will be resorted to for other diseased conditions of the bladder, especially when a suprapublic or perineal section is merely performed for temporary relief. The field for vesicorectal anastomosis is much larger than that for gastroenterostomy, and the results of the former operation will be more perma-

nent than those of the latter. One great advantage that the human being will have over the lower animal is in irrigation, as the operated parts can be kept clean with antiseptic solutions at will, thus limiting the unavoidable, but only temporary, cystitis. Another point is that the human being is kept quiet on his back after the operation; hence feces are less liable to get into the bladder. The reverse is true of dogs. In exstrophy of the bladder the anastomosis should be made first, and the plastic operation later. Two of the dogs which were operated on about 6 months ago are alive and in good health. The result of the microscopic and bacteriologic study of vesicorectal anastomosis is much more gratifying than that of implantation of the ureters into the rectum. Dr. M. Herzog, professor of pathology in the Chicago Polyclinic, made for the essayist a number of postmortem examinations, including a bacteriologic and histologic study of the material obtained from several of the dogs operated upon by the above described method, and furnished a short abstract of his detailed report which accompanied the paper. A uniformly striking feature of the histologic examination in all cases is the very complete and firm union of the vesical and rectal tissue at the site of the anastomosis. In all his experiments of ureteral implantation an infection of the kidney resulted, and this fact led him to devise the new operation described. Of all the literature accessible on ureteral implantation, few contain a microscopic report, and therefore are absolutely worthless as to kidney-infection. Two points are closely observed: (1) That the recovery of the dog and the macroscopic appearance of the tissues do not necessarily signify absence of infection. (2) That in the dogs killed thus far, the operation of vesicorectal anastomosis can be performed without a resulting kidney-infection.

(To be continued.)

The Treatment of Traumatic Shock.—Nicholas Senn (*St. Louis Courier of Medicine*, July, 1899) states that for years he has been in the habit of preparing patients for grave operations by administering 2 ounces of whisky by the stomach or rectum an hour before the time of operating, and by injecting $\frac{1}{30}$ grain of strychnin hypodermically a few minutes before anesthetizing the patient. He believes that these measures are of great value in lessening the danger from anesthetics and the shock of the operation. It is also important to prevent loss of heat and favor peripheral circulation by enveloping the body and limbs during the operation. In the treatment of traumatic shock, copious enemas of hot, normal salt-solution are always valuable and should never be neglected. In the treatment of pronounced cases subcutaneous or intravenous infusion of the same solution has also been followed by most encouraging results. The absorption of all drugs is always slow, hence it is necessary to guard against cumulative action. The therapeutic value of strychnin in the treatment of shock is doubtful, this has been explained by the fact that in animals in the state of shock the spinal cord is anemic and not supplied by sufficient blood to convey the remedy to this center of innervation. [M.B T.]

Hip-joint Tuberculosis in its Surgical Aspect.—L. L. McArthur (*Chicago Medical Record*, June 18, 1899) calls special attention to the necessity of making a careful examination of the sinuses about a joint before opening it by the classic incision. The sinus may lead to carious bone outside the capsule, and this simple procedure may save the patient a useful joint. The treatment is influenced by the social condition of the patient, but no case should be submitted to a routine treatment consisting of extension, injection, operation, as one or the other fails. He would limit the use of iodoform injections to those cases in which the clinical history and x-ray examination seem to show that only soft structures are involved. It will be justifiable to operate when failure of relief of suffering follows appropriate conservative treatment. He emphasizes the following facts: Healing may occur in any stage of the disease. Operations are justified in the old cases of ankylosis with poor functional capacity, by trochanteric section, with uniformly good results. Hip-disease is no longer a sufficiently refined diagnosis. In greatly emaciated patients with metastases, operation is not necessarily contraindicated, judgment in the particular case is to be used. Total septic arthritis is a bugbear that is past. [C.L L.]

The Latest Literature.

British Medical Journal.

September 23, 1899. [No. 2021.]

1. A Discussion on the Pathologic Significance of Sympathetic Irritation, and its Connection, if any, with Sympathetic Ophthalmitis. F. Richardson Cross, Prof. Landolt, Malcolm M. McHardy, Henry Caley, C. Devereux Marshall, G. E. de Schweinítz, R. A. Reeve, Adolph Bronner, and John Hern.
2. The Use of Homatropin in Some Cases of Muscular Asthenopia. Adolph Bronner.
3. A Consecutive Series of Cases of Removal of the Lens in High Myopia. Samuel Lodge.
4. A Discussion on Visual Tests. H. Caley, E. Landolt, George Mackay, Malcolm McHardy, C. D. Marshall, E. F. Drake-Brockman, and F. R. Cross.
5. Color-blindness and Defective Sight in the Mercantile Marine. Do the Board-of-Trade Regulations Exclude Color-blind and Nautically-blind Sailors from the Sea-service? T. H. Bickerton.
6. Primary Sarcoma of the Fornix Conjunctivae. John Griffith.
7. The Use of Euphthalmin: a New Mydriatic. James Hinshelwood.
8. The Stereoscope as a Test for Inefficiency of the Ocular Muscles. George J. Bull.
9. The Correction of Hyperphoria. W. Watson Griffin and R. A. Reeve.
10. The Correction of Refractive Errors in the Treatment of Trachoma. Arnold Lawson.
11. The Eye-symptoms in So-called "Hay Fever." John Hern.
12. A Case of Destructive Ulceration of the Eyelids. Kenneth Scott.
13. The Asphyxial Problem in Convulsive Seizures. J. F. Briscoe.
14. Note on Post-operative Insanity. S. Rutherford Macphail.
15. On "Double Consciousness." Theo. B. Hyslop.
16. Morbid Self-assurance. Harry Campbell.
17. Outbreak of Food-poisoning at Nuneaton. Nason.

1.—The discussion on **sympathetic ophthalmitis** only went to verify the accurateness of the statements of Mr. Cross. He said that a damaged eyeball is prejudicial more or less to its fellow and may predispose to various kinds of discomforts, if not diseases, and that those which possess no useful sight should be removed or eviscerated. The pathology of sympathetic cases seemed to show that neither the microbic theory nor that of reflex neurosis was definitely proved. But there was the possibility of a general septicemia being the cause when a septic uveitis had developed in the sympathizing eye. [G.B W]

2.—Bronner says that often in cases of **asthenopia** when the pain is not relieved by glasses that a 1% solution of homatropin hydrobromate dropped into the eyes at bedtime will often give the best of results. [G.B.W.]

6.—This case is unique almost in that the fornix conjunctiva was the position of **sarcoma,** these growths generally originating in the limbus conjunctivae. The patient was a woman 45 years of age and the tumor had caused her little inconvenience. [G B W.]

7.—Euphthalmin when employed **as a mydriatic** should be used in a 5% solution, and the best results are obtained by the primary instillation of one drop of a 1% solution of holocain. A maximum dilatation is then reached in about 20 minutes, which puts it on a par with homatropin for rapidity of action. The great advantage of euphthalmin over all other mydriatics is that it weakens the accommodation only temporarily, and then only to a very slight extent. The eye regains its normal power in from $1\frac{1}{2}$ to 2 hours. [G.B.W.]

8.—The advantage which the Holmes' **stereoscope** possesses over other methods of testing for insufficiency of the ocular muscles, is that the examination is not conducted under unnatural and bewildering circumstances, as in the case of prisms, candle flames, etc. [G B.W.]

10.—Lawson reports 2 cases of **trachoma** which had been treated with various local applications without much benefit. The first case on examination was found to have a high degree of astigmatism. This was corrected and in 3 months he was perfectly well. The second case also suffered from astigmatism, and on correcting the error of vision the eyes began rapidly to improve and at this writing are almost well. [G.B.W.]

11.—The **eye-condition** which acccompanies **hay fever** is an intense conjunctivitis with swelling and edema of the whole conjunctiva. There is the sensation of hot sand in the eye and the suffering is intense. The only treatment of any avail is a change of climate, though cocain may give temporary relief. [G.B.W.]

13.—In **asphyxia** the right cavities of the heart are generally found to contain blood, while those of the left side are either empty or contain much less than those of the right. During the latter stages, when the blood has become entirely deoxidized, the pulmonary arterioles contract and cause extreme distention of the right cavities, with anemia of the pulmonary capillaries and a corresponding defective blood-supply to the left cavities of the heart. The extreme distention of the right cavities of the heart while the left are flaccid and comparatively empty, the minute tissue of the lungs being pale and bloodless, clearly indicates an impediment to the flow of blood between the right ventricle and the pulmonary capillaries. Such an impediment is explained by the contraction of the pulmonary arterioles, the vaso-constrictors of the lungs. According to Briscoe, convulsions may occur in cases in which arterial contraction is the result of a purely nervous or reflex influence, or in cases in which arterial spasm is a result of blood-poisoning. Epilepsy is an instance of the former; uremia of the latter. A fit of epilepsy consists of the aura, the cry, pallor, the convulsions, the asphyxia, and the recovery. The cry is the result of bilateral spasm of the larynx; the pallor the outcome of arterial contraction, and the asphyxia the result of the spasm of the pulmonary arterioles. Epileptic convulsions may be so violent and continued as to produce the condition status convulsivus. The venous system having become gorged, a hemorrhage into any organ or tissue may occur after the deoxygenated blood has produced disastrous consequences, so that at the last the patient dies from asphyxia if unrelieved. The only measures of relief available at this juncture are chloroform, amyl nitrite, or venesection. Nitrites convert the hemoglobin into methemoglobin, thus preventing oxidation of the tissues. This renders the use of nitrites questionable, and, in fact, makes them dangerous in the last stages of epilepsy. The extreme degree of spasm to which the arterial system is put during a seizure would seem to paralyze its action, and the right side of the heart and the venous system become distended to their utmost, both of which facts emphasize the importance of bloodletting in convulsive seizures anterior to the development of such a state of affairs. One of the most important features in studying the pathology, and more particularly the secondary and tertiary consequences of a convulsive storm, is the cerebral venous congestion, although similar changes occur in other parts of the body. If this venous distention is not relieved by venesection extravasation follows. These hemorrhages occur not only in the nervous organs, but are extensively distributed in the various tissues ot the body. Very important changes in the brain, muscles and other organs have been found in persons dying after prolonged epileptiform convulsions. Briscoe is inclined to believe that these tertiary consequences of a convulsive seizure are the result of venous congestion, and that probably similar appearances are present as a clot on the brain of an epileptic after years of convulsive seizures, quite apart from, or as a consequence of the patient having died in the status epilepticus. In order to demonstrate the efficacy of bloodletting a case of divers' asphyxia, in which it is probable that a convulsive seizure occurred, is related. When the subject was brought to the surface he was unconscious and breathing had ceased. He was cyanosed and one could just discern feeble heart-sounds. Artificial respiration being without effect, the conjunctiva insensitive, and the pupils dilated the patient was bled, about 30 ounces of blood being removed from a vein in the right wrist. When 15 ounces had been withdrawn, the patient gave an involuntary respiration and began to move his limbs. On the second day he passed bloody urine and bloody stools. The surface of the body was covered with a petechial eruption; there were extensive retinal hemorrhages; he was apparently deaf. From this condition he gradually made a complete recovery. [S.M.H.]

14.—MacPhail considers gynecologic operations and ophthalmic operations the two kinds most likely to be followed by **postoperative insanity.** This condition, however, may be a sequel to almost any variety of operation. The most common type of insanity observed under these conditions is a transitory form of acute mania, with mental confusion and hallucination. Any form of insanity, however, may be a sequel to surgical interference. The majority of cases occur in persons over 40 years of age. The older the patient, the greater the chance of mental disorder. If gynecologic procedures be excluded there is little difference between the sexes. An hereditary tendency, the mental type of the individual operated upon, and the alcoholic habit influences the causation of the insanity. The majority of these cases are of short duration, not very acute, and do not require asylum treatment. MacPhail has observed 40 cases. In this number, only 9 possessed an hereditary predisposition. The types observed were: Melancholia, 19 cases; mania, 16 cases; general paralysis, 2 cases; dementia, 2 cases; epileptic insanity, 1 case. Twenty-four of the cases dated from the first or second week after operation, the average day of incidence being about the tenth. Of the cases 24 recovered after being under treatment from 2 to 9 months; 8 were fatal, and 8 became chronic. [S.M.H.]

15.—Hyslop places the cases of **double consciousness** under the following types: (1) Those occurring in early life and in which the abnormal state is preceded by night-terrors, by somnambulism, or by both; (2) types in which the abnormal state is preceded by profound sleep, and in which the normal state is only again reached by prolonged sleep; (3) types due to temporary or periodic amnesia acquired as the result of accident, injury or disease; (4) epileptiform types; (5) insane types; (6) hysteric anesthetic types; (7) types in which during the abnormal state the subject assumes the possession of mediumship. He reports 4 cases illustrative of the first division, and says that the hypothesis that dual consciousness is only complete somnambulism is deserving of consideration. There is not only a close analogy between some dream-states and insanity, but the analogy also extends to somnambulism. In any event, not infrequently night-terrors are followed by hallucinations, somnambulism, and epilepsy. He briefly describes 3 cases gathered from literature illustrating the second type. After an injury or shock the power to recall mnemonic images may be inhibited, and recent events may, for the time being, be obliterated. According to Ribot this inhibitory process may extend both backwards and forwards, and there may or may not be recovery from the loss. It is assumed that either the registration of anterior states is interfered with or effaced, or if persisting their power of revivification by association is destroyed. It is to be presumed that in organic brain disease the former is the case, whereas, in most of the known cases of double consciousness the latter is the probable explanation, and the coupling apparatus between the past and present is rendered inert by some defect in its organization. One case illustrative of this type is recorded. In epileptic states the most characteristic instances of loss of memory are to be found. To account for these states of mental automatism, two hypotheses have been advanced: (1) That the period is not accompanied by consciousness, so that nothing can be reproduced; consciousness does exist, but in so weak a form that amnesia ensues. The latter view finds most favor with psychologists. The instances of alternation of **two personalities** in the insane, for the sake of convenience, Hyslop divides into two main groups, according as the alternation is complete or incomplete. In complete alternation, the personality of the individual is entirely different in the two states. There is no continuity of thought, and the memory of one state is absent during the occurrence of the other. In the incomplete alternation one finds every stage of variation in the alternation of the personality. One illustrative case is given under this type. The anesthetic hysterical type comprises those cases, chiefly hysterical, in which there is a noticeable amount of anesthesia, together with a temporary amnesia, which bring them within the category of double consciousness. The mediumship or possessions type includes those cases in which during the second-

ary stage the subjects speak, write, or act as if animated by others, living or dead. These states vary from the occurrence of automatic writing, inspirational speaking and trance utterances, to higher intellectual flights and theatrical scenes. The subject when of a hysterical type has no memory of what has transpired during the secondary state, and in the deepest degrees of trance, the thoughts, language and actions purport to be those of the individual represented by the medium. Considering these various types from a psychological standpoint, Hyslop concludes: (1) That in the abnormal states the prominent group or mass of feelings is only in part or slightly subject to the power of volition. (2) There are wanting those conscious accompaniments which raise the apperceptions into our self-consciousness. (3) The disjoining of these bodily feelings and images which go to make up the ego arms the background of awareness of self, and (4) The condition is one of "sciousness," inasmuch as it does not include those elements or adjustments which go to make up complete self and which constitute consciousness. The primary origin of these organs of dual and multiple personality is so recondite that so long as psychology finds itself unable to settle upon a tangible and clear basis for memory it is doubtful whether they will ever be explained. [S.M.H.]

16.—Morbid self-assurance, like many other morbid mental state, is merely an exaggerated degree of a normal condition. Campbell divides the cases into those occurring in the sane, the borderland cases, and those occurring in abortive cases of general paralysis of the insane. The first class is illustrated by those possessing irrepressible self-conceit in respect to personal attractiveness or intellectual capability. In the borderland cases it is difficult to say whether one has to deal with a wholly sane individual or with an incipient abortive case of general paralysis of the insane. The third class of cases are those of general paralysis which do not pass beyond the incipient stage, remaining stationary for years. Psychologic self-assurance is fostered by the feeling of well-being. This feeling is largely due to the presence in the blood of stimulating substances, either taken in with the food or manufactured in the body. The sense of exuberant well-being observed in the general paralytic is caused by autogenetic stimulants, similar in nature to alcohol, the patient being in a state of chronic autointoxication; the feeling of well-being thus engendered determining the direction the delusions take. The influence of morbid self-assurance is helpful. The self-confident man advances, while his brother, much more highly gifted, perhaps, but lacking his self-assurance, is left behind. The success of the self-assured man is doubtless in large part the outcome of the sense of well-being and exuberant energy accompanying it. [S.M.H.]

17.—Nason observed an **outbreak of food-poisoning** in a district from which he was able to obtain histories of 42 cases. The most marked symptoms were abdominal pain, vomiting, and purging, more or less collapse, muscular cramps or pains, and sensations of heat and cold. It was ascertained that all persons thus affected had eaten, on the 2 days preceding, "chitterlings" (the prepared entrails of a pig). The chitterlings, it was ascertained, had been prepared in precisely the same way as on former occasions. In all the cases in which the food was eaten cold, without being recooked from the time it was boiled in the process of preparation, there were symptoms of poisoning. In 5 instances in which it had been reboiled before being eaten there were no evidences of poisoning. The pigs, so far as it was able to ascertain, were perfectly healthy. The period which elapsed between the ingestion and the appearance of the symptoms was not influenced by the amount of the food taken, although the severity of the attack was. That which was kept for the longest time before being eaten gave rise to the most marked symptoms, but the interval of time before the onset of the symptoms was not lessened. There was no evidence of illness having been conveyed from one person to another, and those members of the family who failed to eat the food escaped entirely. It seems probable that the chitterlings became infected, most likely with the Bacillus enteritidis, immediately after their separation into two portions, and possibly from the hamper in which they were placed. While this gives a very short time for the development of the poisonous properties which they were found to possess, no medium could be imagined more suitable for the growth and development of this bacillus than the gelatinous, unstable material of which the chitterlings consisted. The two points of greatest interest in the outbreak were the long interval before the onset of the symptoms, during which interval the individuals were in their usual health, and the fact that recooking the food removed all their poisonous properties. Both of these facts point very strongly to the symptoms having been caused by the ingestion of living organisms, which subsequently developed and produced powerful toxins, and not to already-formed poisons of the nature of ptomains. No chitterlings could be obtained for bacteriologic investigation. [S.M.H.]

Lancet.

September 23, 1899. [No. 3969.]

1. General Relation of the Motor Nerves to the Tissues of the Body. John Newport Langley.
2. Treatment of Strabismus in Young Children. Priestly Smith.
3. The Law of Incompatibility in Treatment. J. Gordon Sharp.
4. Tumors of Gigantic Size. W. Roger Williams.
5. On the Regeneration of Nerves. Robert Kennedy.
6. A Case of Elephantiasis Scroti Complicated by a Large Hernia; Operation; Recovery. W. M. Elliott
7. The Prevention of Sickness after Anesthetics. J. Blumfeld.
8. Strychnin Poisoning and its Detection in Exhumed Bodies. Walter H. Haw.
9. Fetal Anomalies. G. Stewart Abram.
10. Otitis Externa Tropica. P. N. Gerrard.
11. Neurectomy a Preventive of Masturbation. With Report on the Operation. A. Campbell Clark and Henry E. Clark.
12. Notes, Clinical and Pathological, of a Case of General Paralysis of the Insane Occurring in Early Life. Hamilton Marr.
13. A Case of Ruptured Aortic Aneurysm and Gamma of the Heart at 26 Years of Age. L. E. Shaw.
14. A Case of Injury to the Spinal Cord. B. G. A. Moynihan.

4.—Much interest attaches to the study of **extreme types of pathologic variation.** Williams has collected the tumors of ovary, uterus, and breast, of gigantic size. To the uterus belongs the distinction of having produced the largest tumor on record, the weight of this gigantic growth being 195 pounds. It was a cystic myoma. The abdominal distention was enormous, the patient measuring 6 feet at the level of the umbilicus. The subcutaneous veins were very prominent and the skin was edematous and eroded. The patient was under the care of Severanu, of Bucharest, who removed the tumor. Several instances of myomatous tumors weighing over 100 pounds have been recorded. Dr. Elizabeth Reifsnyder, of Shanghai, has described the largest ovarian tumor extant. This colossal growth, weighing 169 pounds, was removed from a small Chinese woman, aged 25 years, who without the tumor weighed only 77 pounds. The tumor consisted of one very large cyst, which contained 88 quarts of brownish fluid. The empty sac weighed 6½ pounds. The patient made a good recovery. Among the largest mammary tumors must be reckoned those which result from that mysterious disease called "diffuse hypertrophy." In an instance of this kind reported by Durston in which both breasts were involved, the left weighed 64 pounds and the right 40 pounds. [W.K.]

5.—Four cases of **secondary nerve-suture** are reported. In the first case the median and ulnar nerves had been divided 6½ months, there was loss of sensation and motion in the area of distribution, and marked atrophic changes; by the end of a month after operation of nerve-suturing sensation was almost perfect; the improvement in motion was slow and imperfect. In the second case, suture of the median nerve was undertaken 3 months after complete division. Both sensation and motion speedily improved, and at the end of a year recovery was almost perfect. In a third case, the median, musculospiral and ulnar were involved in a scar at the seat of fracture at the elbow-joint; suture was undertaken 2 months after the accident. The case was under observation for 6 weeks, at which time no improvement in motion had occurred. In a fourth case the

ulnar nerve was sutured 18 months after division. At the end of 6 weeks sensation was almost perfect, motion not improved. The return of sensation is regarded as indicating restored conductivity of the divided nerve, the imperfect motion is believed to be due to atrophic changes in the muscles, which may amount to destruction, after which recovery is impossible. Microscopic examination of the portion removed previous to sutures showed bundles of nerve-fibers in both the central and peripheral nerve-ends. When the nerve was united by scar-tissue there was a dense network of young fibers in the scar. There was no evidence of ascending degeneration, as described by Krause. Young nerve-fibers develop in the peripheral as well as the central end, often when there was no connection between the ends. These young nerve-fibers originated within the sheath of Schwann. As conductivity was not established, development of the fibers proceeded only to a certain stage. It was shown that the cicatricial tissue might be permeated by young fibers without the establishment of function. [M.B.T.]

6.—A negro, 40 years old, had an irreducible left inguinal **hernia, elephantiasis of the scrotum, and double hydrocele**; the tumor hung to 4 inches below the knees. As the patient was very anxious that something should be done, operation was undertaken first for the cure of the hernia. Incision was made over it, the sac was opened, and its contents were returned to the abdomen with difficulty, causing distention and some collapse. The middle third of the sac was detached and removed, the lower part of the sac was dropped back into the scrotum, and the incision was closed. For 11 days after the operation there had been symptoms of infection, high temperature, and foul-smelling discharge. A tourniquet was placed around the base of the tumor, and the testicle and sac, which had sloughed, were removed. Healing was slow, but recovery eventually followed. [M.B.T.]

7.—In a series of 572 patients, Blumfeld found **sickness after anesthesia** in a quarter of the cases. It is impossible to say definitely whether a patient will be sick, as this depends, to some extent, on idiosyncrasy, but he believes that those who use large quantities of alcohol or tobacco habitually, are less likely to it. There are 2 important guides in the matter: the extent to which the anesthetic excites the secretion of mucus, and the length of time under anesthesia. If mucus trickles down into the stomach during the operation the patient is almost certain to vomit, and in most cases the vomited material consists of mucus with some gastric juice and bile. To avoid sickness the use of the stomach-tube before the patient becomes conscious is advised. If the mucus is removed in this way the result is usually very satisfactory. As little of the anesthetic as possible should be given, and in long operations chloroform may be substituted for ether after three quarters of an hour. The patient should be moved as little as possible after the operation, and nothing but hot thin liquids should be given in small quantities for at least 8 hours. In this way the sickness may be avoided in about a third of the cases. [M.B.T.]

8.—Haw was called to see a man who had been taken suddenly ill with rather peculiar symptoms. Before he reached the house the patient died. He had been in good health up to the previous evening, and 1 year previously had passed an examination for insurance, indicating that there was no organic lesions to account for the death. The character of the death and the discovery of a bottle labeled "strychnin" in his bed, suggested the **possibility of suicide.** About 8 months after the patient's death a **claim** was made for **life-insurance.** The company disputed the claim on the ground that the deceased had committed suicide. In order to gather all the testimony possible, the body was ordered exhumed. This was done just 9 months and 1 week after burial. The body was in a remarkable state of preservation. The internal organs were easily identified with the exception of the spleen and right kidney. In the position of the spleen a quantity of reddish-brown material, of the consistency of a thick porridge, was found. A most careful search failed to reveal the right kidney. The stomach, intestines, liver, the remains of the spleen, the left kidney, the spinal cord, the brain, the heart, and the fluid from the thoracic and abdominal cavities were analyzed chemically for the recovery of strychnia, and $\frac{1}{20}$ mg. was obtained. At the trial, judgment was given in favor of the company. [S.M.H.]

9.—Abram reports 4 cases, showing that **anomalous developments of the fetus** are far more common than is generally taught. Three of these cases were anencephalic monstrosities. and all occurred within a limited district, and small obstetric practice. The total number of cases attended during the period referred to was 223, giving a percentage of 2.5 of anomalous development of the fetus. [W.K]

11.—In certain classes of neurotics, moral suasion and mechanical means are useless to prevent **masturbation.** In such cases, Clark recommends the **division of the afferent nerve,** so that sensation is impossible. A transverse incision is made about one-half an inch from the right of the penis. The nerves are not easily identified or isolated, being wrapped in superficial fascia; they are sought on the lateral margins of the dorsum close to the dorsal arteries. The arteries are attached to the capsule of the corpus caverna, and hence are not likely to be injured. The nerves are raised by a blunt hook, and about one-half an inch is resected. A case is reported in which a middle-aged man, who had been insane for about 3 years, was operated upon in this way. He was much depressed for a time, but his condition has very much improved mentally, a year after the operation. [M.B.T.]

12.—Marr had under his care a girl aged 14 years, the subject of **general paralysis of the insane.** The child's mother and paternal grandmother had died in asylums. The mother was probably a general paralytic. There was no evidence of a syphilitic taint. The patient had been healthy until the age of 6 years, when she became restless and very destructive in her habits. Her mental state at the present time was complete dementia. She died at the age of 15 years. The autopsy showed the dura mater thickened. In the subdural space false membranes consisting of fibrin covered the whole of the upper surfaces of the hemispheres. The pia mater was thickened and showed milky patches, especially in the region of the cerebral veins. A gelatinous deposit filled the sulci. Clear serous fluid was present in some quantity in the spaces of the meninges and ventricular cavities. The convolutions were fairly well marked. The brain weighed 24 ounces. Microscopic examination showed marked thickening of the pia mater and infiltration of leukocytes. There was marked subpial felting. The bloodvessels showed hyalin change, marked periarteritis and extravasation of blood-corpuscles. The neuroglial cells were proliferating, and the neuroglial fibers increased in density and number caused extensive fibrosis. The nerve-cells were much disintegrated. [S.M.H.]

13.—A man, 26 years old, was brought to the hospital in collapse. He had always been a steady man and had had good health; no syphilitic history could be obtained and he had 3 healthy children. Death followed in a short time. At the necropsy the pericardium was distended with blood, and opening into it was an **aneurysm** about the size of a hen's egg, projecting to the right from the first part **of the aorta.** In front of the apex of the left ventricle was a yellowish-gray gelatinous area the size of a sixpence, which proved on microscopic examination to be a **gumma;** there was also a gumma of the pancreas. [M.B.T.]

New York Medical Journal.

October 7, 1899. [Vol. lxx, No. 14.]

1. A Report of Five Cases of Scoliosis and One Case of Flat Foot Treated by the Teschner Method. Louise Erich.
2. Acute Suppurative Processes in the Faucial Tonsils. J. L. Goodale.
3. Tonsillar and Circumtonsillar Abscess. George A. Leland.
4. The Amœba Ciliata in Disease. Henry Gereon Graham.
5. Purpura Rheumatica. Remarks. Two Cases in the Extremes of Life. W. L. Johnson.
6. The Primary Lesion of Tuberculosis: How Located. W. H. Weaver.

1.—Erich descibes the method of treating **scoliosis** by physical measures which originated with Teschner, and reports 5 cases which have been treated successfully by this method. [M.B.T]

2.—Goodale reports 8 case of **acute suppurative processes in the faucial tonsils.** The phenomena observed in these cases he summarizes as follows: (1) In cases of numerous intrafollicular foci of suppuration, the streptococcus pyogenes was found to be more abundant than forms of staphylococci. (2) Intratonsillar abscesses were found in 2

cases with and in 6 cases without circumtonsillar inflammation; 3 cases represented clinically a severe infection, as shown by the fever and constitutional disturbance, joint-pains and connected cervical lymphadenitis. (3) The tonsils in most cases presented *no* clinical features that would enable one to determine the presence of the intrafollicular abscess. In a few cases subepithelial white spots were seen, which were conjectured to be abscesses situated immediately beneath the epithelium of the exposed surface. (4) The histologic phenomena are as follows: (1) The suppurative foci were few in some tonsils and numerous in others. They varied often in size in the same specimen; in some follicles the abscesses were seen to have already broken through the lymphoid ring, and to have discharged their contents into the adjacent crypts. (2) The amount of fibrinous exudate in the crypts was more marked in these cases than generally exists in simple proliferative amygdalitis. (3) In the 6 cases not attended by circumtonsillar inflammation the intrafollicular lymph-channels and connective-tissue spaces near the base of the tonsil contained few or no polynuclear neutrophils. On the other hand, in the 2 cases accompanied by peritonsillar inflammation, the connective-tissue spaces adjoining the reticulum were crowded with polynuclear neutrophils, and in one of these cases these cells were seen to extend in direct continuity from an abscess situated in the anterior of the tonsil toward the base of the organ. From a study of these cases the following hypotheses are suggested by Goodale as having a reasonable degree of probability: (1) The pyogenic infection of the follicles is probably secondary to a previous infection of the crypts by the streptococcus pyogenes. (2) In the 2 cases accompanied by circumtonsillar inflammation this complication may have been due to the discharge observed of the abscess into the efferent lymph-channels. [S.M.H.]

3.—In opening **circumtonsillar abscesses** Leland recommends the use of the finger after the tonsil has been split by the sickle knife. The abscess-cavity can then be exactly located and the finger tears through the tonsil into the throat. Pockets of pus are readily found in this manner, there is no danger of wounding the branch of the ascending pharyngeal artery, and the abscess drains from the bottom. In the cases which have been operated upon in this way no recurrence has followed. [M.B.T.]

5.—According to Johnson, one may see a purpura of any type from the following causes: (1) mechanical, including nervous, from vasomotor derangements, causing changes in blood-pressure, etc. (3) Toxic, in general, to drugs, as drugs, toxins and organic matter. (3) Purpuric disease, specific and communicable. He relates 2 cases that he places under the head of **purpura rheumatica.** [S M H.]

6.—Weaver, from a study of the literature relating to the **primary lesion of tuberculosis,** concludes (1) that the infection comes through food or moist germs inhaled, swallowed, and possibly through infection of tonsillar tissue. (2) In the great majority of cases the infection occurs in the posterior portion of the lung apex, that being the most vulnerable point, as a direct result of a discharge of infected chyle into the vena cava. (3) Should that portion of the lung apex be healthy, and not a suitable nidus for the germs, they may pass on with the current of the blood to find lodgment in some other area, unless the blood has exerted its bacterial power over them, when they may be removed by the action of the phagocytes. The theory of Cornet relating to the transmission of tuberculosis by inhalation of fine dust from dried sputum has not produced the results expected in the prophylaxis of tuberculosis. Weaver considers this mode of infection a rare possibility, and believes the majority of cases are dependent upon the stream of bacilli constantly flowing into the blood through the lacteals capable of producing infection in the lungs. [S M.H.]

Medical Record.

October 7, 1899. [Vol. 56, No. 15.]

1. On Some Important Points Regarding Perfection of Asepsis. Carl Beck.
2. The Surgical Treatment of Gallstones. Frank C. Ferguson.
3. A New Method of Reducing Old Dislocations of the Lower Jaw. Theodore A. McGraw.
4. Supplementary Note on the Etiology of Scarlatina. W. J. Class.
5. The Pulsatory Hand and Foot Phenomena. W. Moser.
6. Anomaly of the Long Tendon of the Biceps Muscle of the Arm. Joseph D. Craig.
7. A Tack in the Lung for Seven Years. Andrew V. Jova.
8. Empyema, Sacculated Between the Heart and the Lung. William S. Dodd.
9. A Severe Case of Eclampsia Complicated by a Marked Erythema Multiforme. James D. Voorhees.
10. Excision of the Hip; with Skiagraph Taken After Five Years. A. E. Isaacs.
11. Bullet Wounds of Intestine; Operation: Recovery. George Sherrill.
12. The Dracunculus Medinensis. John Patterson.
13. Typhoid Perforation in a Case in Which the Widal Reaction was Absent; Operation; Death. Thomas W. Jackson.
14. Wood-Pulp as a Material for Poultices and Surgical Dressings. Frederick T. Gordon.

1.—In considering the methods of **perfection of asepsis** Beck expresses his belief that skin-bacteria are the great stumbling-block. They are imbedded in the epidermis and inaccessible, there is not so much need of their destruction as of removal. This is accomplished by scrubbing with soap and water, then a poultice of green soap is applied to the skin to macerate the dried cells and the scrubbing process is repeated just before operation. In incising, the skin-glands are cut open, exposing the bacteria in them, hence the knife used for the skin-incision should not be used for further incisions, to avoid contamination of the wound. The incision is made carefully and slowly through the integument alone, as far as possible, and then sterile napkins are fastened to the subcutaneous tissues with forceps, which Beck has devised, so that the skin-margins are well covered. In uniting the wound the subcutaneous method is preferred. Forcible manipulations should be avoided. The use of caps is advised for the assistants, and the one who attends to the instruments and wound should wear gloves. [M.B.T.]

2.—Cholelithiasis is considered a purely surgical disease; the anatomic relations of the gallbladder are such that it is uncertain what course calculi will take if left to themselves, and surgery affords a means of removing these dangerous bodies with little risk to life. In case the gallbladder is extensively diseased or greatly atrophied, attachment to the colon or duodenum is impracticable and cholecystotomy or cholecystectomy may be done; in all other cases cholecystenterostomy is the ideal operation because drainage is made into the intestinal canal, convalescence is more rapid and the patient is permanently cured. One case of cholecystotomy and 2 cases of cholecystenterostomy are reported, in all of which the patients made good recoveries, two deaths are reported in cases in which operation was not performed. [M.B T.]

3.—A man, aged 32, fell while walking and **dislocated his jaw.** The dislocation was reduced, but when the patient was first seen, 5 months later, the mouth was open, the chin protruded, motion was limited, mastication was impossible and speech was impaired. Under anesthesia a protracted effort was made to replace the jaw by traction by inserting wedges by Nélaton's method with complete failure. A strong steel hook was made with a short prong bent parallel to the shaft, the space between the prong and the shaft just wide enough to permit the hook to pass over and grasp the jaw at the sigmoid fossa. Incisions were made under each zygoma and the hook was passed in front of the condyle on each side, and after repeated efforts pulling downward and backward the bone slipped into place. He was kept bandaged for 2 weeks, and left the hospital with the function of the jaw perfectly restored. [M.B.T.]

4.—The chief importance in Class's note is that in making cultures to distinguish the micrococcus which he considers to be the **cause of scarlet fever** the primary growth should be inoculated on several tubes of agar and the ultimate growth examined. The organisms grow first in masses, then in tetrads, later in the form of diplococci, and finally as single cocci. Extraneous organisms often grow in the glutinous substance surrounding the organisms, and these are likely to give rise to errors unless the cultures are carried through several inoculations. [D.L.E.]

5.—Moser notes that when the hands are held with the palms together as in prayer there is a slight pulsation to be seen which becomes very marked in certain affections, particularly in aortic regurgitation. He considers this pulsation a useful sign of **aortic regurgitation** when it is pronounced and advises more careful observation for it. [D.L.E.]

6.—The **long bicipital tendon** in this case arose normally from the belly of the muscle and ran upward along the bicipital groove, but was not surrounded by a sheath of synovial membrane as is usual, and had numerous lateral fasciculi which were attached to the margins of the groove. The tendon stopped at the interval between the tuberosities, and did not enter the shoulder-joint, and Flood's ligament was absent. The long tendon was attached at the point where it stopped to the bottom of the groove and to the surrounding structures. [D.L.E.]

7.—A boy of 17 had had severe cough, fetid expectoration and a slight hemorrage. During the night he **coughed up a tack** $\frac{7}{8}$ of an inch long, covered with rust and surrounded by thick dark mucus. The tack had been swallowed 7 years previously while playing. Since this time the patient has practically recovered. [M.B.T.]

8.—A man, 57 years old, had **empyema** following pneumonia of the lower lobe of the left lung, 2 inches of the eighth rib was resected in the midaxillary line and the pus evacuated. In spite of the operation the cough became more violent and paroxysmal and the expectoration was purulent. Death took place 12 days later, the necropsy showed the cause of death to have been embolism of the brain. There was also an encapsulated abscess between the pericardium and the lung. [M.B.T.]

9.—Voorhees reports a case of **eclampsia** complicated by a marked erythema multiforma of a bullous character, and he considers the skin lesion very rare during the puerperium. As to the etiology of the eruption, perhaps the liver in its resolution elaborated a toxin which affected the skin. Kaposi puts the cause of this skin eruption under four headings: (*a*) Change of seasons; (*b*) angio-neuroses which occur principally in women; (*c*) instability of the vasomotor centers; (*d*) autoinfection, *i. e.*, toxic substances which have entered the blood as the result of some internal disease, as chronic nephritis. The case cited probably comes under the last division. [W.K.]

10.—A man, 28 years old, entered the hospital with an abscess in the region of the left hip, the **hip,** and neck of the bone were **resected,** the cavity was cleansed and the wound packed, extension was applied and recovery followed with 2 inches shortening. An x-ray photograph taken 5 years after the operation shows a mushroom-like expansion the upper end of the femur, which is located under the enlarged projecting upper part of the rim of the acetabulum. The weight of the body is evidently supported on this dense enlarged rim, giving the man a good freely movable and serviceable joint. [M.B.T.]

11.—A case is reported in which celiotomy was performed for **gunshot wounds of the intestine,** 14 perforations of the small intestine were closed with the continuous and Lembert suture, the abdominal cavity was flushed with saline solution, drained with gauze, and recovery followed. [M.B.T.]

12.—The patient whose case is reported was a Frenchman, 29 years old, who had once been on the Gold Coast, but had had no symptoms until more than a year later. At that time he scalded his foot while at Gibraltar, and later had an abscess on the upper part of the left tibia, which was incised, and from which a portion of a worm 4 inches long, was said to have escaped. In the early part of this year he was treated for an abscess and sinus of the left calf, and after this was healed had a **swelling** posterior to the inner malleolus of the same leg, which upon incision **proved to contain a worm** 25 inches long which had a perfect caudal extremity but the head was absent. Patterson believes that the parasite entered through the alimentary canal, as he does not think that there was opportunity for infection through any other source. [D.L.E.]

13.—A cavalryman, 26 years old, was admitted to his post-hospital suffering with a moderate fever which was diagnosed as **typhoid fever.** One week later there was a drop in temperature with slight pain, vomiting and hiccough; the symptoms of peritonitis developed, and 3 days later an operation was undertaken for suspected **perforation.** When the abdomen was opened an abscess was found in the right inguinal region, there was stinking gas and brown fecal-smelling fluid in the general peritoneal cavity, and the small intestine was obstructed by adhesive inflammation. The abdomen was flushed with salt-solution, the abscess-cavity was drained and walled off with gauze, and the incision was left open, packed with gauze. Death followed about an hour later, and at the necropsy a perforation was found opposite the abscess-cavity; there were typhoid ulcerations in the ilium, and a second one was on the point of perforation. [M.B.T.]

14.—**Wood pulp** is recommended as a material **for** poultice and **surgical dressing** on account of its great capacity for absorbing and retaining heat and moisture, the fact that it is easily sterilized by heating, is lighter than similar poultice materials, requires no cloths nor mixing, and is very cheap. It may be impregnated with antiseptic drugs if considered desirable. [M.B.T.]

Medical News.

October 14, 1899. [Vol. lxxv, No. 16]

1. Further Observations on the Treatment of Congenital Dislocation of the Hip. ROYAL WHITMAN.
2. Sanitaria in the Treatment of Tuberculosis. VINCENT Y. BOWDITCH.
3. Vaginal Celiotomy; Its Scope and Limitations. J. RIDDLE GOFFE.
4. Fracture of the Femur; Convalescence Complicated by an X-ray Burn. J. COPLIN STINSON.

1.—Congenital dislocation of the hip must be considered as a progressive deformity and one which calls for radical treatment at the earliest possible moment. The success of the treatment of this deformity depends: (1) On the proper performance of the operation of replacement and on the quality of the after-treatment; (2) on the age of the child and the acquired abnormalities of structure and function; and (3) on the congenital malformations not amenable to correction. The two accepted methods of treatment are: (1) Forcible replacement with immediate use—the functional "weighting method" of Lorenz; (2) the open operation of Hoffa as modified by Lorenz. Sometimes in cases of forcible replacement where the capsule forms a fold so as to keep the head of the femur out of the acetabulum, the open method as a secondary operation often gives most favorable results. The operation of forcible replacement used, is similar to that of Lorenz except that manual traction took the place of instrumental. In the open operation the head of the bone is approached between the gluteus medius and the tensor vaginae femorus. The capsule is opened in a line with the neck of the femur, the acetabulum excavated and the head placed therein. The limb is kept in an abducted position in a plaster cast for from 2 to 3 months, when a proper brace may be substituted. Whitman gives as his opinion that the open method of treating congenital hip-dislocations is not likely to be superadded. [G.B.W.]

2.—Bowditch after discussing the success of the **Sanatorium treatment,** especially in Europe and America, calls attention to the advantage of sanatoria near the large cities, using the Sharon Sanatorium as an example. He believes that much more can be accomplished in this way than by an attempt to treat the patients at their homes. He gives the statistics of 34 cases discharged with the disease apparently arrested. Of these, 6 died, 1 passed from observation, 24 have maintained their good health for from one to seven years, and 3 still have pulmonary symptoms, but are apparently quite well. As for the treatment, specifics are useless. Open air, creasote to improve the appetite, and pulmonary calisthenics, chiefly performed in the pneumatic cabinet, are the most essential features. [J.S.]

3.—See PHILADELPHIA MEDICAL JOURNAL, Vol. III, p. 1204.

4.—The patient was thrown from his bicycle and **fractured his thigh** near the hip-joint. He was examined by the x-rays, twice under pretty long exposures. About 6 weeks later, while the leg was in a plaster cast, there was an exfoliation of the skin in the inguinal region. This grew worse until quite an extensive slough formed, which, however, finally came away and the wound left healed up. [G.B.W.]

Boston Medical and Surgical Journal.

October 5, 1899. [Vol. cxli, No. 14.]

1. The Treatment of Cerebral Tumors. Philip Coombs Knapp.
2. School Seats. E. H. Bradford and J. S. Stone.
3. The Boston Dispensary Clinic in Mental Diseases. Arthur C. Jelly.
4. Division of a Ureter with Successful End-to-End Suture of the Same in a Case of Horseshoe-Kidney. Dudley P. Allen and C. E. Briggs.

1.—Cerebral tumors were found in 305 out of 26,030 collected autopsies. Medical treatment of cerebral tumors only holds a secondary place to surgical interference, though when operation is contraindicated or refused much may be done in a palliative measure. About 8% of all cases of cerebral tumor are suitable for operation as shown by autopsies and clinic experience, and of this 8% only ¼ of them made a complete recovery, the rest dying as a direct result of the operation or from a recurrence of the growth. Even, however, with this awful array of figures before us, we should not dismiss the possibility of operation, as it holds out a ray of hope for complete recovery, and failing this, at least temporary relief is most apt to be a sequence of the even partial removal of the tumors. [G B W.]

2.—Bradford, after a discussion of the various **malpositions assumed by children** upon their school-seats, particularly when the latter are not carefully adjusted, describes the Miller chair. This consists essentially of a seat arranged on two oscillatory supports that diverge from one another, the front being longer than the rear support, so that when the chair is tilted backward, the seat is inclined. The back has two transverse supports, one designed to be opposite the lumbar, and one opposite the dorsal, portion. Each is adjustable for height, and the lower one can be moved forwards and backwards. He believes, however, that a combination of this chair, with the improved back of a typewriter's chair, would give the most ideal arrangement. Of course, all these mechanisms are designed to prevent various forms of curvature of the spine. [It would, perhaps, be even more desirable if we could introduce thorough gymnastic training adapted to the needs of each individual child.—J.S]

3.—Jelly continues his paper on **cases of mental disease,** presenting themselves at the Boston Outdoor Dispensary. One case, a girl of 22, with neuropathic heredity, and deaf at the age of 10 from scarlet fever, was very nervous and afraid to perform the most simple acts. She had suicidal tendencies, and as her home surroundings were unfavorable, she finally was conveyed to an asylum. Another patient, a domestic of 30, had delusions of persecution, was restless and melancholic; she had no desire for food and neglected her religious duties. She was admitted to a hospital as a voluntary patient, improved greatly, and returned to Sweden. Another patient, a seamstress, 27 years of age, came to the dispensary in a state of extreme nervousness, with delusions of persecution. She was finally conveyed to an asylum. Jelly goes on to suggest that it is exceedingly desirable that there should be some provision made for patients on the border line of insanity, which should not be known as an asylum, but should, nevertheless, provide for their care until a certain diagnosis could be made. He then describes the various methods of taking care of this class used in some of the larger cities in the world. [J S.]

4.—This interesting case of end-to-end **suture of a ureter** was in a woman 33 years of age. She was operated on because of a mass in the right iliac fossa. On attempting to remove it a ureter was cut across, and the tumor was found to be a large horseshoe-kidney. The only course open was to suture the accidentally divided ureter; and because of a portion of it having been crushed, it was too short for anything but an end-to-end anastomosis. The seat of operation was shut off from the peritoneal cavity by a flap from the anterior wall of the pelvis, and then drained through the vagina. Following the operation there was considerable leakage of urine through the vaginal wound, but this finally ceased, and the patient made a good recovery. [G B.W.]

Journal American Medical Association.

October 7, 1899. [Vol. xxxiii, No. 15.]

1. Memorial Address on the Life and Character of Lawson Tait. Charles A. L. Reed.
2. Treatment of the Abdominal Viscera Through the Colon. Fenton B. Turck.
3. A Further Report on the Use of "Anti-Phthisic Serum, T.R." (Fisch) in Tuberculosis. A. Mansfield Holmes.
4. Value of Muscle-Training in Treatment of Vocal Defects. G. Hudson Makuen.
5. Relation of the Nasal and Accessory Cavities and Dental Lesions. D. Braden Kyle.
6. The Semeology of the Attitude and Motor State in Children. Samuel W. Kelley.
7. Emergency Surgery, with Especial Reference to Work in Homes of the Poor. R. C. Dugan.
8. The Proper Place for Proprietaries. J. E. Beery.
9. Injuries to the Eyes from Electric-Light Flash. William H. Fox.

2.—Turck has carried out a series of experiments on animals to determine the effects of **irrigation of the colon** on various bodily functions. He finds that when the temperature of the water is raised to 55° C. there is immediate stimulation of the heart and vasomotor centers, lasting for about 30 minutes. Water of 48° to 50° C. produced no increased leukocytosis, but sometimes the reverse, while water at 55° C. had considerable effect in increasing the number of white corpuscles. Lavage with water at 55° C. also increases peristalsis and in the treatment of patients at once provokes peristaltic pains. These pains are very much lessened, however, by first using water at 50° C. and then increasing its temperature. The urine secretion and urea elimination by the kidney indicates clearly that the functional activity of this organ is stimulated. Turck has used colon lavage in treating various conditions and from his observations believes that the treatment is of special value in dealing with uremia and many forms of autointoxication. [M.B.T.]

3.—See this Journal, Vol. III, p. 1329.
4.— " " " " IV, p. 16.
5.— " " " " " p. 16.
6.— " " " " " p. 12.
7.— " " " " III, p. 1331.
8.— " " " " IV, p. 17.

American Journal of Obstetrics.

June, 1899.

1. The Treatment of Labor in Abnormal Pelves. Edward P. Davis.
2. The Surgery of the Puerperium. Denslow Lewis.
3. The Walcher, the Trendelenburg, and the Mercurio Postures in Midwifery. Bibliographical Notes. Robert L. Dickinson.
4. The Prophylaxis and Treatment of Puerperal Fever, with Report of Three Cases of Streptococcus Infection Successfully Treated with Antistreptococcus Serum. John F. Moran.
5. The Occurrence of the Streptococcus Pyogenes in Gynecological Diseases. G. Brown Miller.
6. Some Considerations on Gonorrhea in the Female. E. E. Morse.
7. A Case of Symphysiotomy. John F. Moran.
8. Intestinal Obstruction from Ascarides. Basil M. Taylor.

1.—Davis reports the records of work done in the Jefferson Maternity during the past two years and summarizes the statements made in his paper as follows: (1) In 466 women examined by pelvimetry 32% had **abnormal pelves.** (2) Among these, 20% required obstetric operations for safe delivery. The mortality of these operations, which included the range of modern obstetric surgery, was nil from infection and hemorrhage. One patient died from nephritis. The fetal mortality of these cases, from birth-pressure or injury to the fetus during delivery, was 1. (4) The experience of the writer in the Cesarean section and symphyseotomy includes 14 of the former and 8 of the latter. The mortality-rate of these operations for the mother was nil in cases where the patient was uninfected and sound before delivery. When death occurred in the mothers it was from previously existing streptococcus or pneumococcus infection, or from infection with the bacillus coli communis before labor, or from eclampsia. In the 14 Cesarean operations and 8 symphysiotomies, one child perished from inspiration pneumonia, its mother being infected before admission to the

hospital. (5) In our experience, celiohysterectomy with intrapelvic treatment of the stump, celiohysterectomy, symphysiotomy, forceps extraction in Walcher's position, version and embryotomy, in patients not infected before these operations were performed, have given excellent results. [W.K.]

2.—Lewis discusses the **surgery of the puerperium.** No surgical measure should be employed without definite indication, and he cautions against the vaginal examination of the puerperal woman without good reason; at the same time it must be admitted that many and many a woman has died because her medical attendant failed to interpret the symptoms presented and neglected to apply the proper surgical interference which alone could save life. Cervical lacerations extending beyond the portio vaginalis may cause an excessive and alarming hemorrhage. Lacerations of the anterior and posterior vaginal walls are often overlooked. The condition of lochiometra is often present and not always recognized. A uterine douche of creolin washes away the bloodclots and the systemic symptoms subside. The writer details the surgical methods to be employed in the various complications of the puerperium. [W.K.]

3.—Dickinson, in an interesting paper, gives the history of various **postures employed in obstetrics.** The Mercurio, Walcher, and Trendelenburg postures are described and their relative value discussed. The following practical deductions from these studies are evident: (1) Posture will notably alter the shape of the pelvis in late pregnancy. (2) Increase in available room in the pelvic cavity as a whole cannot be brought about. (3) To obtain the longest conjugate at the inlet the hanging dorsal posture is to be employed. The gain is nearly 1 centimeter. (4) To obtain the longest conjugate at the outlet the full-flexed dorsal posture is necessary. The increase promises to be from 1.5 to 2 centimeters. [W.K.]

4.—Moran discusses the prevention and treatment of **puerperal sepsis** and reports 3 cases successfully treated with the antistreptococcic serum. In these cases bacteriological investigation demonstrated streptococcic infection, as it is important to determine whether the case be due to simple streptococcus, mixed infection, or some other pathogenic organism. Curative effect is claimed only for simple streptococcic infection, although some cases of mixed infection are reported in which, after the use of local treatment in conjunction with the serum, recovery has followed. [W.K.]

5.—Miller, in investigating the bacteriologic records of the gynecologic department of Johns Hopkins Hospital, finds that the **streptococcus pyogenes** is seldom encountered as the **cause of inflammatory conditions.** In a series of 127 cases of inflammatory conditions of the pelvic structures the streptococcus pyogenes was found seven times. The histories of the cases are briefly related and a study made of the frequency, point of entrance and manner of infection, route of invasion, characteristic lesions, and life-history of this microorganism. In considering the indications for operation he believes that as the exudate begins usually in the true pelvis, it should, when possible, be approached from the vagina, and the peritoneal cavity should not be invaded. Of course when the diagnosis is not certain an exploratory laparatomy is often necessary. Where it is impossible to reach the mass from the vagina, the incision should be into it where it lies in contact with the abdominal wall. Incision or puncture, with a free opening up of the mass with the fingers or by blunt dissection followed by free drainage, is always indicated. In case 6 there was no pus, but by this method of treatment the mass quickly decreased in size and the patient was discharged greatly improved in two weeks. Excision of the tubes, ovaries, or uterus is rarely indicated. Where the uterine appendages are removed for a streptococcic parametritis, that more harm is done than good is self-evident. [W.K.]

6.—It has been stated that fully one-eighth of all gynecologic cases are caused by **gonorrhea.** Morse discusses the difficulty in the accurate diagnosis of this disease in women and the lesions produced by it. The great danger in a specific inflammation of the endometrium is its extension to the uterine appendages. Involvement of the tubes and ovaries in gonorrhea is by all means the most serious complication of the disease. [W.K.]

7.—Moran reports a successful **symphysiotomy.** The indication for operation was a contracted anterior-posterior diameter, with a relatively large head presenting at the superior strait. After repeated and ineffectual attempts to engage the head in the superior strait by means of axis-traction forceps, the safety of mother and child demanded operative interference, and the Morisani incision was made, symphysiotomy performed, and a living child delivered. [W.K.]

8.—Taylor reports a case of **intestinal obstruction** due to a mass of ascarides. An operation was performed, but the patient, a boy of 4 years, died on the third day following operation. [W.K.]

Centralblatt für Chirurgie.

September 16, 1899. [26. Jahrg., No. 37.]

1. The Removal of Lymph Glands from the Inguinal Region and along the Iliac and Obturator Arteries. K. G. LENNANDER.

1.—After the removal of malignant new growths from the skin of the lower extremities or from the penis very often there follows inoperable metastases in the **lymph-glands of the iliac fossa.** The lymph-glands of the inguinal region receive nearly all the lymph-vessels from the lower extremities, and the abdomen below the umbilicus, and for the most part they empty in the deep lymph-glands of the inguinal region, from which large lymph-vessels grow direct along the femoral and iliac arteries into the region of the iliac fossa. The most important of the glands in the iliac fossa are located along the external and internal iliac vessels, and the obturator vessels. In this way it is possible for a metastasis from a malignant growth of the penis to affect, at the same time, the group of glands in the inguinal region and in the region of the adductor muscles. In every operation for malignant growth it is important to remove, not only the nearest glands, but those next removed from the growth. Lennander has made a series of dissections on the cadaver to determine the best way of removing these glands. He has also operated in 2 cases; in one case for tuberculosis of the inguinal glands, the wound healing by first intention, and in a second case for involvement of the glands with carcinoma of the penis, the patient died 14 days after the operation of cachexia. He recommends the following operation: An incision is made from the symphysis along Poupart's ligament to the anterior superior spine of the ilium and along the anterior one-third of the crest of the ilium; from this transverse incision a longitudinal incision is made in the direction of the femoral artery; Poupart's ligament is separated from the tubercle of the pubic bone, from the fascia lata and from the iliac fascia. The epigastric and internal circumflex vessels are tied and cut, the abdominal vessels are then divided, and the peritoneum is separated away from the iliac fossa and the neighboring part of the pelvis. The lymph-glands can then be extirpated completely all along the femoral and external iliac artery, internal iliac artery, the obturator artery, and the common iliac. After removal of infected glands a drainage tube surrounded with gauze is inserted in the bottom of the wound, Poupart's ligament is sewed in its old position with great care, and the abdominal muscles are then sutured in place. [M B.T.]

September 23, 1899. [26. Jahrg., No. 38.]

1. A New Trocar for the Exploration of Pathologic Tissue. O. SGAMBATI.
2. The Operative Treatment of Hypospadias of the Glans Penis. WATTEN.

1.—In many cases it is desirable to make a diagnosis of a pathologic condition from microscopic examination in case there is doubt as to the character of the growth; as, for example, in adenoma, sarcoma or carcinoma of the breast. Most of the contrivances devised to get tissue from morbid growths tear apart too much or give only very small pieces. Sgambati has devised a **trocar** 9 cm. long, about 2.5 mm. in diameter, which is stuck into a canula 8 cm. long. At the handle is a screw for fixing the trocar; near the point of the trocar, about half of the substance of the instrument is taken away and just below this depression is a thin sharp blade. During the insertion of the trocar the blade is drawn up into the canula; it is then pushed out into the growth by the screw of the handle and cuts from it a cylindric piece, which is drawn out with the withdrawal of the instrument. [M B.T.]

2.—A slight modification of the operation for **hypospadias** of the glans penis described by Beck is given. [M.B T.]

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.

Fissure of the Hands.

℞.—Menthol..... 1 part.
Salol..... 2 parts.
Olive oil..... 10 parts.
Lanolin..... 30 parts.
Sig.—Apply night and morning.

—*Therapeutic Progress.*

Nutrient Enemas.—Roux (*Gazette des Hôpitaux*, May 27, 1899, and *The Medical and Surgical Review of Reviews*, London, July, 1899) says that Huber has shown by experiments on subjects in nitrogenous equilibrium that the large intestine absorbs 25 to 35% of the nitrogen of raw eggs given as an enema, 70% of the nitrogen of eggs mixed with sodium-chlorid, and nearly 75% of the nitrogen of peptonized eggs. Voit and Bauer claim that under the most favorable circumstances only a quarter of the albumins necessary for life could be derived from enemas. These observers have proved that starchy substances introduced into the large intestine of animals are perfectly absorbed. An enema of starch which remains 24 hours in the large intestine is completely absorbed, being first converted into sugar. But if large quantities are injected the sugar formed causes diarrhea. Deucher concluded that in man even under the most favorable conditions only 20 grams of an enema of oil, in the form of an emulsion, are absorbed, that the enema should not be large (30 grams of fat is sufficient), that 6% of sodium-chlorid should be added, and that the enema should remain a long time in the large intestine. Thus, in health the absorption of carbohydrates is complete but limited, of albumins is insufficient, of fat is very slight. During absolute fasting in animals and in man the loss of weight is considerable in the first few days, and after that it is much less, but it is uniform. For example, Cetti, a professional fasting man, observed by Senator, during a fast of 10 days, lost in the first 5 days 28 oz. a day, in the last 5 only 13½. But very few complete observations of patients fed exclusively on nutrient enemas are recorded. Nearly all are to be found in the thesis of Gros (Lyons, 1898). In foreign literature there is only an observation of Fiechter *Correspondenz-Bl. f. Schw. Aerzte*, 1875) and a paper by Ratjen (*Deutsche med. Wochenschr.*, 1896). These observations show that sometimes the enemas only delayed more or less the progress of the wasting, sometimes on the contrary they sufficed to maintain the weight of the patient for a long time.

Privation of water has been shown to produce wasting when food is supplied. Unverricht found that in a man who was rapidly wasting from cancer of the stomach, weight was put on when saline enemas were given.

The limited value of nutrient enemas being established, the question remains as to what are the best. All writers agree that the addition of sodium chlorid is indispensable. Neither egg albumin nor fat are absorbed without it. The reason is not easy to give; when it is used, the nutriments, instead of being simply driven towards the rectum, appear to spread over the mucous surface. In 1872, Leube recommended minced meat mixed with pancreas, which was used with success. Peptones are absorbed, but Ewald has shown that eggs are as well absorbed and that the nitrogen so absorbed is much better taken up by the tissues than the nitrogen of the peptones of commerce. Moreover, according to Fiquet, the latter contain toxic substances. The tendency is therefore to give simply enemas of eggs. Mathieu has three eggs beaten up in a little cold water, 9 oz. of warm water or milk, and 30 grains of salt to each egg are added. Four or five of these enemas are given daily. The nutrient enema should be preceded by an evacuating one. Recently Aldor has used large enemas of milk; he injects 35 oz. This quantity is retained if injected high, and is quickly absorbed. After an hour no trace of lactose is found in the intestine and 38% of the albumin and 95% of fat are absorbed.

Feeding by nutrient enemas is, therefore, only a temporary expedient. It can be employed only for about 2 to 4 weeks. It is useful after operations on the mouth or upper digestive tract when nothing can be swallowed for several days, and in pyloric stenosis whilst waiting until dilatation is sufficient to allow swallowing. It is useless in stricture of the esophagus; when gastrostomy becomes necessary it should be performed at once, for it is an illusion to suppose that the patient will recover strength on nutrient enemas. For the same reason the results in cancer of the stomach are poor, although pain is relieved; the patient is further enfeebled and the prospects of operation are injured. On the contrary, nutrient enemas are useful in certain cases of pyloric stenosis—when there is great dilatation, alimentary stasis in the morning whilst fasting, and frequent vomiting. The rest given to the stomach may bring it back to its normal dimensions, and for a time at least cause the stasis and hypersecretion to disappear. In atonic dilatation without pyloric obstruction the results are much better; after 10 to 12 days' rectal feeding the improvement obtained may last several months. In painful gastritis the treatment is also beneficial. But in ulcer of the stomach the most brilliant results are obtained, particularly after great hematemesis, and in chronic cases with intense pain. In the latter the pains cease, and if the exclusively rectal feeding is kept up long enough (for 10 days at least), food can be again taken in the ordinary way.

On rectal feeding patients waste rapidly, often as rapidly as under absolute inanition. But when cure is completed they eat well and often surpass their previous weight. Thus, in a case of gastric ulcer, the patient gained 35 pounds in 55 days, and surpassed his previous weight by 24 pounds.

Cough in Phthisis.

℞.—Terpin hydrate..... 15 grains.
Codein..... 1½ grains.
Extract of hyoscyamus..... 1½ grains.
Extract of belladonna..... ¾ grain.
Mass of cynoglossum..... 7½ grains.
Make into ten pills. One four times a day between meals.

—*Jour. des Prat.*

Treatment of Mercurial Stomatitis.—Fábregas (*El Siglo Med.*, No. 2374, 1899) advises as a preventive of stomatitis during a mercurial course, frequent gargling and washing of the mouth with antiseptic solutions. In hospital practice he prescribes a solution of acetate of alumina (1 to 2 teaspoonfuls in a glass of water), and he touches the gums twice a day with a mixture of rhatany and gallic acid, of each 3 drams, resorcin, 75 grains, and menthol, 4 grains. If, in spite of precaution, stomatitis should occur, the first step to be taken is to suspend the mercury, while purgatives and sudorifics are to be given. Zitmann's decoction is useful, and hot-air and water baths. But local treatment is the most important, especially antiseptic lotions, such as perchlorid solution, 1:4000. Oxygenated water is very useful, as it is a powerful antiseptic and is not toxic. Solutions of 2% quickly destroy the fetid odor, and free the teeth and gums from the débris which gathers so quickly. If the ulceration is so severe that frequent gargling is distressing, the remedies must be applied with an irrigator or syringe, or by insufflation. The salivation which accompanies such stomatitis, the writer regards as reflex, and as requiring no special treatment. When there is much pain he uses orthoform in preference to cocain.—*Medical and Surgical Review of Reviews*, London, July, 1899.

The Use of Gelato-Glycerin Bougies in the Treatment of Earache.—Richards (*The Laryngoscope*, August, 1899) states that further experience has convinced him more than ever of the value of gelato-glycerin bougies in an early stage of acute otitis media and in acute otitis externa. They can be inserted in the ear without difficulty by simply washing off the lycopodium powder, with which they are covered; they are then very slippery, and with the affected ear uppermost, easily slip down into the canal. Here the bougie soon dissolves, the anodyne is brought directly into contact with the inflamed surfaces, and the pain is relieved, Besides being a medium for the exhibition of other remedies, the glycerin is of itself distinctly curative, in that it tends to draw out some serum from within and lessen the tension. This favors absorption, and a paracentesis may be prevented. After insertion, the ear should be stoppered with absorbent cotton or gauze, and a lightly-filled hot-water bottle placed at the side of,

or over, the ear. Cases which have gone beyond an early stage are, of course, beyond relief with this remedy, and demand treatment appropriate to the condition, whether paracentesis or otherwise. Many a case of acute earache in children will, if promptly treated in this manner, at once subside without going on to severe inflammation. The following formula is recommended:

℞.—Carbolic acid	7 minims.
Fluid extract of opium	6 minims.
Cocain	3 grains.
Atropin sulfate	3 grains.
Water	52 minims.
Gelatin	18 grains.
Glycerin	158 grains.

To make 42 bougies.

After making, they should be covered with lycopodium, and dispensed in a bottle, as they are hygroscopic. They should be no larger than will readily slip in the external canal. The size made in a urethral bougie-mould has proved satisfactory.

The Treatment of Erysipelas.—Fisher (*St. Petersb. Med. Woch.*, No. 38, 1898) makes a careful study of the various methods lately employed in the treatment of cutaneous erysipelas. As the result, he gives the following conclusions regarding the treatment by alcohol, which he has employed with unvarying success for the past five years in all cases where the local conditions permitted its employment: After a part had been carefully bandaged with two layers of loose bandage, 85% to 95% alcohol was poured on, till the bandage was well soaked, and the patient was instructed to keep them moist with more alcohol. The employment of from one to three quarts of alcohol generally sufficed to produce the cure. The course of the disease was checked; suppurative processes, though not always checked, were rendered more amenable to operative treatment, and healed rapidly. In the 25 cases treated, there was no gangrene present, and no deaths occurred. The success obtained by various other authors fully justifies the author in his belief in the method. Its adaptation to the treatment of phlegmonous and other severe inflammatory processes shows that it has a wider field then the one he points out.

—*International Medical Magazine*, April, 1899.

The Hypodermic Injection of Mercury Rendered Painless by the Addition of Guaiacol.—Bazin (*Semaine Méd.*, March 22, 1899) states that guaiacol will render painless intramuscular injections of gray oil, oil with calomel, and especially oily solutions of biniodid of mercury, frequently employed for a long time in the treatment of syphilis. Bazin regards it as sufficient to incorporate with the preparation to be used 3% of the purified drug. Here is the formula which Lagrange recommends in his supplementary course on ophthalmology in the Bordeaux Faculty of Medicine:

℞.—Sterilized olive oil	20 drams.
Mercury biniodid	6 grains.
Synthetic guaiacol	36 grains.

Should the physician inject every day, or every second day, in the region of the thigh, say, 30 grains of this solution, it will represent about ¼ of a grain of mercury biniodid. It is a well-known fact that mercury salts, and particulary iodin-mercury, preparations cannot be combined with cocain without precipitating the latter and rendering it useless as an anesthetic. All such remedies for hypodermic use will probably work well with guaiacol.—*Merck's Archives*, June, 1899.

Treatment of Cerebral Affections from Lead-Poisoning.—Goidin (*Thèse de Paris*, January, 1899, and *British Medical Journal*) gives the results of observations made on saturnine encephalopathy, and on its treatment by bleeding and the injection of artificial serum. His conclusions are: (1) cerebral affections may constitute the first symptoms of lead-poisoning; (2) drunkenness, exposure, suffering and privation are determining causes of encephalopathy; (3) as regards treatment, it is found that normal saline solution sterilized and warmed to the temperature of the body may be injected subcutaneously in large doses (1 to 1¼ pints), and this is the treatment found most satisfactory. Bleeding to the extent of about half the amount of the proposed injection should be carried out at the same time; (4) in case of grave issues threatening from convulsions and coma, bleeding and saline injections is the only remedy to meet the urgency of the case; in no case have ill effects been known to follow the adoption of this treatment, while the albuminuria which is present in these cases is also found to disappear completely with the same treatment.

Facial Neuralgia.

℞.—Butylchloral hydrate, Alcohol, of each	2½ drams.
Glycerin	5 drams.
Water	30 drams.

Sig.—One to two teaspoonfuls daily. —*Progrès Médical.*

Dionin in the Morphin-Habit.—Heinrich (*Wiener medizinische Blätter*, No. 11, 1899) states that dionin is the most valuable of all the morphin substitutes heretofore introduced as a cure in the morphin-habit. It is particularly useful because of its very ready solubility, and because its solutions are absolutely neutral in reaction, hence insuring painless injections. So far as the dose is concerned, the author finds that about one-third more is required than when morphin is given, but the exhilaration following the injection is not nearly so great as that following morphin; therefore, all danger of a habit is obviated. A slight itching of the skin is usually observed a few minutes after the exhibition of the dionin, just as generally follows an injection of morphin or any of its derivatives. The itching, however, disappears in at most 10 minutes, even when of the most aggravated form. The good action of the dionin is ascribed to its not causing exhilaration, or conditions resembling it, and to its great solubility, in consequence of which it is rapidly absorbed and as rapidly eliminated. This latter prevents any cumulative action, and it makes little difference by what channel it is eliminated, whether by the gastric mucosa, and from here passed into the intestines and voided with the feces, or whether, as Landsberg assumes with morphin, it passes into the blood-circulation gradually from the subcutaneous cellular tissue and is decomposed by the alkalinity of the blood, or the gases in the latter, or perhaps by some ferment, so that only a part of the dionin is excreted unchanged.

In conclusion, the author states his belief that dionin is also useful in many other cases as a valuable substitute for morphin.—*Merck's Archives.*

Aspirin.—Wohlgemuth (*Therapeutische Monatshefte*, May, 1899) recommends aspirin in the treatment of acute articular rheumatism. This drug is obtained by the action of acetic acid anhydride on salicylic acid. It is preferred to sodium salicylate since it is nonirritating to the stomach. It was used in ten cases and the results compared very favorably with those obtained from sodium salicylate. It caused neither anorexia nor tinnitus. The drug should be given in powders. The dose is 15 grains three or four times a day.

Red Bone-Marrow in Anemia.—Fowler (*The Scottish Medical and Surgical Journal*, September, 1899) has made a series of experiments with the view of discovering, experimentally, whether bone-marrow has any direct effect on the blood in anemia. Four young rabbits were taken from the same litter, one fed on a diet poor in iron, one on a diet poor both in iron and proteid, a third on a diet poor in proteid, but containing a sufficiency of organic iron, while the fourth was kept on ordinary food. It was found that while all three defective diets produced anemia, the greatest fall in hemoglobin took place when the iron was deficient, and the greatest fall in corpuscles when the proteid was deficient, the exclusively carbohydrate diet producing the greatest alterations in the blood. This diet, therefore, was selected as most likely to give results comparable with what happens in anemia occurring in man. An extract of perfectly fresh marrow was made by grinding with normal salt-solution and filtering. This was then injected into the peritoneal cavity or beneath the skin. The results of the experiments, 11 in all, were as follows: (1) Subcutaneous injections of bone-marrow have no action in the red corpuscles or hemoglobin of a healthy animal; (2) when the red corpuscles and hemoglobin fall below their normal limits, injections of marrow produce a decided rise in both. This rise is well marked, sudden, and of short duration. (3) Along with the increase in the red corpuscles there is no corresponding improvement in the form of the cells. (4) The active principle is present in the aqueous, but not in an alcoholic extract of marrow, it is not precipitated by boiling, it does not contain iron, and may possibly be a deutro-proteose.

Original Articles.

NONTUBERCULOUS INFECTIOUS PROCESSES IN BONE.[1]

By ARTHUR L. CHUTE, M.D., and E. H. BRADFORD, M.D.,
of Boston, Mass.

Holmes says in his System of Surgery that osteomyelitis is a disease more frequently recognized on the autopsy table than at the bedside. The statement is less true now in these days of bacteriology, though undoubtedly cases are not recognized as frequently or as early as is desirable.

When Chassaignac first described this condition in 1853, he called it "typhus of the limbs;" recognizing at that time only these fulminating cases in which the patient so quickly falls into the typhoidal condition, with disseminated foci of suppuration, but it is now known that the symptoms may vary very widely according to the nature of the infecting organism, the virulence of the culture and apparently the resistance offered by the individual to this infection. Cases may end fatally in 36 hours as described by Park, or others of a subacute or chronic form and equally due to pus-producing organisms may continue for a long time with but slight rise of temperature.

The disease is almost unknown in the aged, is rare in adults, while in infants and particularly in young children from 5 to 12 or 15 years of age it is very common. Its favorite seat is in the shaft of one of the long bones near the epiphysis.

As regards sex, in infants it is about equally divided, but the disease among older children is more common in boys, due doubtless to the greater frequency with which they receive blows and injuries, which seem to act as a predisposing cause, as well as to the greater frequency with which they have small infected wounds, which give entry to the infecting organisms. Nor does the disease always confine itself to a single bone, two adjacent bones may be involved, though this is rare. Occasionally, though rarely, we find two separate foci which appear simultaneously; this form of the disease seems to be more common in infants.

It is now known that osteomyelitis, the name which has been applied generally to all infections of bone, is not the simple disease it was at one time supposed to be: that is, an infection of the bone-marrows by the staphylococcus aureus (with occasionally the albus replacing the aureus). Klebs found that the streptococcus could produce the lesion; then the bacillus of Eberth was found to be a cause; later the pneumococcus of Fränkel, the colon-bacillus, the staphylococcus citreus and bacillus pyocyaneus were all found in the pus of these cases. The various forms of staphylococci are undoubtedly the most frequent cause. Rosenberg found in 15 cases staphylococci, and in 14 streptococci; but once Lannelongue out of 130 cases found 103 in which the staphylococcus was present. On the other hand Koplik and Van Arsdale found the streptococcus in 4 successive cases. Keen, Parsons and several other writers report a large number of cases in which the typhoid bacillus was found, while of late numerous cases of pneumococcus-infection have been noted. Among others, Blecher gives 9 cases, following a lung-infection, 3 in adults, 6 in children. In one of the cases of infection ascribed to the pneumococcus the child had a nasal discharge, which give a culture of pneumococci, but no consolidation was found in the lungs.

As regards the method of infection two conditions must be present: there must be a region of lowered resistance, a vulnerable spot, also an avenue of infection.

The point of lowered resistance may be brought about by a slight injury, such as a blow or kick; exposure to cold seems to have been a sufficient cause in many instances. Lamothe has found the trouble more prevalent in the winter months. Senn also has spoken of the influence of cold acting by producing circulatory disturbances. Acute disease often lowers the power of resistance, so that the affection is not uncommon following the exanthemata. The usual seat of the infection is undoubtedly the marrow of the long bones, near the epiphysis; however, it may occur elsewhere, even in the epiphysis itself. Lannelongue denies that primary infection can take place just under the periosteum. This, however, probably occurs at times.

It is also probable that the infection is able to pass from without in, as well as from within out.

The infection is brought by the blood-stream, and as in the leg the nutrient arteries run toward the joint, we find the lesions occurring most commonly in either the upper end of the tibia or lower end of the femur. They are much more common here than in the upper limb, quite possibly due to the more frequent blows received. Some writers consider the tibia the bone most often infected, others the femur. In the cases we have investigated the femur was infected most often, but both are infected with nearly equal frequency.

In the upper limb, the infection also travels in the direction of the blood-stream, so we find the head of the humerus and the lower end of the forearm the common places. While the above mentioned are the places that are most often attacked, no bone seems to be exempt, the tarsals and carpals, the ribs, vertebrae, sacrum, ilium and skull being occasionally the seat. The exanthemata, and, in certain cases, tonsillitis, scarlet fever, typhoid, and pneumonia act in both capacities, furnishing both the lowered state of general health and the infecting organisms.

The source of infection is often a slight external

[1] Read before the American Orthopedic Association at the Thirteenth Annual Meeting held in New York, May 31, June 1 and 2, 1899.

wound or abrasion, which has become septic. Apparently a little break in the skin, such as a blister caused by a poorly-fitting shoe, has given entry to the infection. With the newborn the stump of the umbilical cord is a common channel of infection; the lesions in the various gastrointestinal disturbances, bronchitis, ophthalmia, otitis media, all have acted as the port of entry for the organisms. As the infection is through the circulation, any way in which pus-producing organisms may be brought in contact with the blood-stream may act as the immediate cause of this trouble.

Nichols describes the pathology in substance thus: Organisms are deposited in the marrow by means of the blood, the toxins produced bring about a necrosis of the surrounding cells. There is an exudation of polynuclear leukocytes, injection of the vessels and more or less hemorrhage. This process may extend up or down the shaft. If in the medulla, this suppuration often extends through the haversian canals and strips the periosteum up for a considerable extent. This stripping-up of the periosteum is combined with more or less thrombosis in the vessels of the bone.

From the pathologic appearance it would seem that the epiphyseal line acts as a barrier to the progress of disease. It is certainly true that a process beginning in the shaft seldom extends into the epiphysis, but perhaps this is due to the fact that the epiphyseal line acts as a vent, rather than as a barrier.

In observations on quite a number of cases giving a history of a medullary infection, abscesses appeared in the region of the epiphyseal line.

Symptoms.—The disease in the typical case begins with an acute onset; usually pain and tenderness over the region of a bone, a rapid pulse and high temperature, and with these there are also the usual symptoms which accompany the onset of acute febrile disease in children—vomiting, convulsions, restlessness, and delirium. Redness of the skin does not appear as a rule until the condition has gone on some little time, nor does fluctuation or any considerable amount of brawniness appear before the pus has perforated the bone, and usually the periosteum also. There can, however, be a certain definite thickening of the bone, said to be due to swelling.

The above describes a typical case, but many cases are met in which the onset is quite different. In some cases reported by Koplik and Van Arsdale, the children were very ill, and yet the only sign presented was an effusion in certain joints: these were opened and contained pus, which showed streptococci. In all 4 cases it was found that the original focus was in the bone, some distance away. Of these, 4 cases were fatal.

Differing from these are the post-typhoid cases, in which a subacute condition is present, the only symptom being more or less pain over a bone; in some cases without a rise of temperature, but with the subsequent development of a sinus leading to necrotic bone. In a certain number of these cases pure cultures of typhoid bacilli are found, in other cases mixed cultures of typhoid and some pyogenic organism.

One particular type of this disease, to which Edmund Owen has called attention, and of which the writers have observed cases, is that attacking the head of the femur or the ilium. The symptoms are those of hip-disease, unusually acute in onset and unusually severe, and until it has progressed to a considerable extent it can only be diagnosed by inference; the more acute onset, greater prostration and the greater leukocytosis being of significance.

Besides these there is the septicemic or fulminating type, of which great prostration and delirium, with high temperature and rapid pulse, and early death are characteristic; with metastasis in nearly all the joints and the skin, percarditis and pleurisy.

To recapitulate, the symptoms may be definite and classical, or on the other hand they may be most vague, and present in certain cases nothing definite, but simply the picture of a severe illness.

Diagnosis.—In making the diagnosis, we must consider rheumatism, particularly in those cases where the lesion is near a joint, and the joint symptoms are the predominant ones; here the presence or absence of leukocytosis may be of aid to us. However, if there is any serious doubt, a clean aspirating needle properly used is certainly fairly free from danger.

In those cases which are near the hip we will have to consider tuberculous osteitis, but the more acute onset of the acute infectious disease will usually make the diagnosis fairly plain.

Prognosis.—The prognosis which in these cases depends on several factors is, as a rule good, so far as life is concerned. The prognosis in the individual case depends on the seat of the disease, the sort of organisms present; the virulence of the culture, the resistance of the individual, and upon early and vigorous treatment.

As regards the different organisms, the streptococcus is generally supposed to be most dreaded. Koplik and Van Arsdale lost 3 cases out of 4, in which there was a streptococcus-infection of the joints secondary to a focus in the bone. It is true that most of the fulminating cases which show signs of general septicemia are due to streptococci. This infection seems to be rather more common in infants and more apt to involve the joints.

The various forms of the staphylococci, which are the organisms commonly found, seem to produce a more destructive process locally, and there seems to be a greater tendency to have abscesses burrowing about in the surrounding tissues. A very large number of the fatal cases have shown this organism, but that is to be expected as this organism is found in by far the majority of cases reported. The tendency to joint-involvement seems to be somewhat less.

Of the pneumococcus cases, most seem to be marked

by their rather benign course, though fatal cases are recorded.

The same applies to the typhoid cases, though Klein has reported a fatal case in the femur. In this case, however, the typhoid-bacilli were associated with colon-bacilli. Their peculiarity is the persistence of the sinus. A case has been reported opening spontaneously, in which the typhoid-bacilli alone were found, after 6 years. From this it would appear that many of the so-called "fever-sores" with histories of having persisted for years, may be due to this cause.

One interesting case is reported by Bosquier, a case of 39 years' duration, in which on operating he found little, perfectly distinct areas of disease. These contained the staphylococcus albus in pure culture. The cultures from this, at first, produced no action in guineapigs, and took stain badly, but after being cultivated a little time, they regained their usual characteristics and virulence.

Lediard has recently tried the antistreptococcus-serum in a case with general infection. The patient died, but as the culture showed diplococci as well as streptococci, one could not have expected success from the use of the serum.

In the diagnosis of sequestrums that could not be felt by the probe, Hahn and Birch-Hirschfeld have recently been successful in locating these by skiagraphs.

Separation of the epiphysis may occur, and in these cases the growth of bone in length is greatly curtailed. In the hip, the head of the bone has been found in an abscess-cavity, after an attack of 3 or 4 days' duration. In certain cases, as in the lower leg and forearm, we may have a great compensatory hypertrophy of the sound bone, which partially makes good the deficiency. On the other hand, by the growth of the healthy bone, when the center of growth in the other has been destroyed, we may have the limb greatly bent.

In rare instances a spontaneous fracture occurs when the shaft is necrotic, and the involucrum of bone is too weak to support weight. Such a case has been recently reported by Birch-Hirschfeld.

Besides these we see a certain number of cases in which ankylosis of the joint has followed, although during the active disease there has been no evidence of suppurative osteitis other than pain and swelling about the joints. In these cases contraction at the joints accompanied by ankylosis produces a disability which may seriously cripple.

Little need be said as to the treatment of these cases, as the surgical indications are clear. Free incisions with active antisepsis should be made wherever there is reason to suspect the development of suppuration, or that suppuration will develop, and in cases of high temperature, if the place for incision can be determined by pain or swelling, trephining and chiseling of the bone for the drainage of pus may be necessary.

The following illustrative cases may be quoted as indicative of the variety of symptoms presented.

Case 1.—A girl, aged 5 years, whose family history was unimportant. Four days ago she was jumped upon while at play. There was pain that day, which increased later, and the patient has not been able to bear weight on the leg since. There is no motion in the affected hip and no swelling, but marked tenderness in the parts, and night cries, also an elevated temperature with a rapid pulse. An incision was made on the anterior surface of the upper part of the thigh, outside the vessels, and 2 ounces of pus were found below the neck of the femur.

After the first operation the temperature fell, but subsequently rose. The patient was again anesthetized and the neck of the femur trephined; no focus was found, the wound was washed with corrosive sublimate. The patient's condition improved. The culture showed staphylococci.

Case 2.—A boy, aged 8 years, who fell upon the ice 11 days before, striking his right leg. Two days after the accident the child had a good deal of pain, and the leg became hot and tender; all these symptoms persisted.

On entrance to hosp tal, the right leg was found swollen from just above the ankle to half way up the thigh; the swelling was most marked just below the knee, where it was fluctuant. The knee was held in a position of 45° of flexion, and fluctuation was made out in the joint.

An incision was made over the upper and inner part of the tibia; the periosteum was found dissected up, from the line of the epiphysis above, some little distance downward. A half ounce of pus was evacuated. The tibia was opened with a chisel for about 6½ inches; the cancellous tissue of the head and shaft was found purulent and removed, though the proximity of the epiphysis prevented the complete removal above; staphylococci were found in the purulent material. The fluid in the knee-joint persisted, and 10 days afterward the knee was aspirated, because the child had had a chill. Pus was found, which showed streptococci. The joint was then opened freely and some three ounces of pus were evacuated. After that the child made a good recovery.

Case 3.—This boy, aged 8 years, was brought to the hospital with a temperature of 102.5°. The history was that he was well up to 4 days ago, when he had a fall, which was followed shortly by pain in his right hip. This pain was severe enough to keep him awake at nights. Yesterday he could walk, but it was painful and he limped badly, today he cannot walk at all.

Examination.—Leg held in a position of flexion. The knee is somewhat red and swollen, and very sensitive to manipulation. Over the outer condyle is a brawny mass the size of half an English walnut, which is painful and tender. Child was put up in a plaster bandage extending from the toes to the groin.

On the following day an incision 3 inches long was made above the internal condyle. This was carried down to the periosteum, which was found distended and fluctuant; the pus had dissected the periosteum up from the greater part of the lower third of the femur. The periosteum was incised and exit given to pus, the bone beneath was bare and seemed necrotic. Over the outer condyle a similar incision was made and a little pus evacuated.

Cultures from the pus showed the staphylococcus albus. Several months later a sequestrum about 1½ inches long was removed. The first operation was two years ago. The boy, when last seen some months ago, still had a discharging sinus.

Case 4.—This was in a girl, 3 years old, who fell on the floor 2 weeks before and had had pain in the left thigh since that time. She had walked a little, but it hurt her; and she limped a good deal. Three days after the fall her mother noticed a swelling on the inside of the left thigh, which has increased steadily. Her appetite has been poor.

Examination showed left thigh much swollen and tender, also considerable redness. The tenderness was more marked in front. There was deep fluctuation with induration on the edges. Motion at both the knee and hip was limited. The day after entrance an 8-inch incision was made on the front of the thigh, which was carried through the tissues down to the bone. Some 6 ounces of pus was evacuated and the periosteum found stripped from the femur for a distance of about 6 inches. Culture from the pus gave staphylococci. Four months later the wound was solidly healed.

Case 5.—This was in a boy, 9 years old, who gave a history

of a bad cold some 6 weeks before. After the cold his thigh was bruised by being struck with a stone. After the blow the thigh grew steadily more painful, up to the day before entrance, when there was a sudden increase in the amount of pain.

Examination showed a poor pulse with a temperature of 101.2°. The right foot and leg were much atrophied, while the right thigh was very much swollen and tender; no fluctuation could be made out. The hip was held in a position of flexion and abduction, and admitted of no motion.

Though the boy ran a constant temperature, which often went above 102°, and had a leukocytosis of 23,000, yet something made it seem like a sarcoma, so operation was delayed.

One month after entrance an incision 2½ inches long was made parallel with the axis of the thigh and just anterior and below the great trochanter. Just under the fascia, a layer of inflammatory tissue 1 inch thick was cut through. On incising the periosteum, 4 to 5 ounces of pus escaped, and the periosteum was found dissected up for from one-quarter to one-third the length of the femur.

The cultures from the pus showed the staphylococcus albus. The child made a good recovery, but when it disappeared from observation, some 4 months later, he still had a discharging sinus.

CASE 6.—A female child, 10 months old, who had been well save for an occasional gastrointestinal attack.

Four days before entrance the child began to cry incessantly. There was, apparently, tenderness and pain about the right arm and shoulder. For the 2 days just previous to admission the child was apparently feverish, and had a slight gastrointestinal attack with vomiting and green dejections. There was no history of any injury.

Examination showed face flushed, tongue coated, a temperature of 103.6°, with rapid pulse and respiration. Right upper arm was swollen and fluctuant, with the fluctuation most marked on the anterior surface of the arm. There was great tenderness on manipulation, also enlargement of the axillary glands. On the day after admission an incision was made on the anterior surface of the arm from the coracoid process above nearly to the elbow. It was carried down to the bone near the bicipital groove, when about a half an ounce of bloody pus was found. Bacteriologic examination showed an abundant growth of streptococci. The child made a good convalescence, and 10 months later the wound was solidly healed, with nearly full motion in the shoulder-joint.

CASE 7.—This boy, 7 years old, had a swelling of one elbow some 6 months ago. Some time later his left knee became swollen, which was followed shortly by pain in the right hip. Since that time he has not been able to stand, and is unable to use right hip or left knee.

Examination showed both thighs flexed on abdomen, the right in a position of adduction, the left in an abducted position. The left knee cannot be extended beyond a right angle. The pelvis is tilted so that the boy stands like a case of congenital dislocation of the hip. One week after entrance both hips and the left knee were straightened manually; 12 days later the boy developed measles; 6 days after the onset of the measles the child had pain in his left knee; 4 days later the knee was red, tender, swollen, and fluctuated. The right knee then became flexed and was straightened under ether, at the same time the left knee was incised and pus evacuated. The culture from this pus showed staphylococcus albus.

In a few days the boy developed an abscess below the left knee, which was opened, also one over the sacrum, which was also incised. At the time this paper was written the child was still in the hospital and convalescence was well advanced, though he still had discharging sinuses.

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COLLOID CANCER IN THE ABDOMEN, AND ITS SIGNIFICANCE RELATIVE TO INFECTION.[1]

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THOUGH it may appear somewhat out of place for one not skilled in the methods of modern pathologic investigations, to pass in review and sit in judgment on the findings of those who may claim through training and research the right to speak with authority, still there are occasions in the progress of medicine when the nonexpert may with propriety weigh the evidence which has been accumulated, and in particular is this proper and possibly useful when the testimony is of a conflicting character, or conclusions are presented on insufficient grounds.

The frequent assertion from a variety of sources during recent years that cancer is rapidly increasing, and the appearance of numerous partisans of the theory of the microbic origin of the disease, have invested this terrible malady with new elements of interest, an interest of terror at the reported numerical and relative increase, and an interest of hope, or at least of curiosity in the claim that its origin and propagation depend on a specific microorganism.

My interest in this latter phase of the subject was stimulated by a recent case of "colloid cancer" in the abdomen, this case calling to mind one that occurred about 15 years ago.

This first case, in point of time, occurred in the person of a man about 60 years of age, on whom I made an abdominal section as an exploratory measure, with the expectation that it would result in finding an inoperable cancerous growth. The expectation was justified by finding several disseminated cancerous masses in the abdomen, no one of which could be selected as the parent disease, while the general peritoneal cavity contained a "pailful" of colloid material, some of the material being free, and some contained in vesicles of varying size, which in many instances were readily separated from their slender or slight attachment. The entire peritoneal surface of the abdomen was studded with small colloid cysts, or masses of adherent colloid material, with numerous deposits of solid cancer of the epithelioma type, at places however showing a scirrhous hardness.

The patient recovered from the operation to die soon after from the natural progress of the disease.

About November 1, 1898, I was consulted by a woman, 55 years of age, who presented notable abdom-

[1] Read by invitation at the April meeting of the New York County Medical Association.

inal enlargement, with areas of increased resistance on palpation, and dulness mingled with tympanites and fluctuation over the entire abdominal wall. Examination by the vagina showed the uterus less movable than normal and apparently blending with a solid mass extending to the right side of the pelvic brim. The diagnosis was probable cancer with some ascites, but, as a doubt existed as to the dependence of the condition on cancerous disease, it was decided to open the abdomen, which was done on November 7.

The section revealed the presence of a large amount of colloid material, colloid masses, and a firm cancerous mass in the right iliac fossa. There were many small secondary cancerous growths throughout the peritoneal cavity, in fact nearly all the peritoneal surface was roughened where not more grossly involved. I scooped out with my hands a large amount of the tremulous glue-like material and removed the curious rope-like specimen which I exhibit, and which I found attached by each extremity to the mesentery. The histology of the specimen seems rather indefinite, as I have been unable to have it classified by those who have examined it, and in whose anatomic knowledge I had confidence. It seems to be composed of a fibrous envelop filled with colloid material. The patient recovered from the operation and had a measure of relief from the distention and other abdominal discomforts, and has remained more comfortable to the present time, though I understand that the progress of exhaustion has continued so that her demise is expected in the near future.

The development of a colloid change is to be differentiated from mucoid softening, but it has this of interest in it, *i. e.*, the process will invade the cells of a certain nest, and after changing the cells so as to destroy their structure by converting them into glue-like substance, the walls of the nest will give way either by pressure or through a similar softening process, so that a greater or less number of nests or pockets are formed into a cyst, and this cyst in time may break into contiguous parts. In this case it ruptured into the free peritoneal cavity, bringing the colloid material in contact with parts presumably not hitherto involved in the cancerous disease. Observation shows that the epitheloid cells in nests invaded by the colloid change are not simultaneously attacked and destroyed, many cells, particularly in the central areas, remaining quite distinguishable in a mass of debris and colloid material; hence, when the rupture occurs, and the glue-like material escapes, it must carry with it cells which probably retain their original anatomic and pathologic characteristics.

It is at this point that the line of consideration relating to the dissemination of cancer should be taken up. We will all accept that multiple foci of cancerous growth are formed in the peritoneal cavity in cases of abdominal cancer when there is colloid change and escape of colloid material from its investment. Granting that a cancer-microbe exists, that some of the germs should escape the colloid change and float away with the freed colloid material to infect new areas is a simple and rational proposition. But is it necessary to invoke one of the many cancer-germs which have been described to explain the metastasis? And when we speak of infection, is it necessary always to think of a germ? And does the idea of a germ aid us in forming clearer conceptions of the processes which are associated with the progress and dissemination of tumors?

We should endeavor to view the subject from a non-partisan standpoint, for history teaches that many things which have been bitterly opposed had to be accepted eventually on account of demonstration; but history also teaches, that many theories which at first appeared to be supported by adequate evidence finally vanished before other and positive proof.

Laboratory experiments relative to the infective nature of cancer have been prosecuted many years, and some evidence has been accumulated which tends to support the claim that cancer, and sarcoma as well, may be communicated by inoculation, and in view of the valuable aid in general pathology afforded by the study of microorganisms, it is natural that attention should be given to experiments intended to ascertain whether microorganisms were present as causative agents in cancer. The interest in the subject has been widespread, and the investigations have been numerous, though from Italy we have heard the strongest statements of success in recognizing and cultivating the parasites, and in the induction of the disease by inoculation with cultures of the germ.

Only recently the subject acquired a popular interest through the publication in the *Figaro* of the discovery in Paris of the "cancer-germ," though this "germ" is not accepted by other "discoverers." Germany does not seem to have given so much attention to the subject as we might have expected from the general interest shown there in every department of experimental medicine, but some attention has been given to the subject there, as well as in England and in this country. In our own State a special legislative appropriation has been made to aid a laboratory connected with a medical college in prosecuting investigations relative to the causation, the increase, and the prevention or cure of cancer.

Out of all this has come a class which may be denominated as partisans of the parasitic origin of malignant tumors, and who say that "the old theories of irritation, of perverted nerve-centers, of heredity, etc., cannot for a moment stand in view of the searching scientific methods of today."

Without stopping to consider the characteristies of any of the several microorganisms which it is claimed have been discovered in malignant tumors, leaving to microscopists and biologists the controversies as to what class-divisions their various "finds" should be assigned,

let us in a brief way see if it is not possible to conceive of the development by infection of these tumors without invoking the aid of a parasite.

In the first place every tumor is composed of anatomic elements natural to the body, hence it is only in the collocation of their elements that they can be said to be pathologic, unless perchance it be finally demonstrated that some parasite is an essential element in the growth. The fact that the parts or elements constituting a tumor have been differentiated more or less from similar elements of the body does not require the intervention of a microbe. All nutritive changes, both in health and disease, take place under certain conditions, which conditions are subject to change. When the single cell of an ovum divides into two cells, one larger than the other, the one destined to develop into the epiblast, and the other into the hypoblast, is a bacillus necessary? Or when in some way the cells of the mesoblast are formed, where is the parasite which has wrought the change? Who would invoke the idea of an extraneous microagent to account for the development of all the varied structures of the body from the original ovum-cell, or the appropriation and incorporation of cells by organs in which the peculiar qualities of the organ are stamped on the appropriated cell? In this last act we have the idea of infection, in that the special qualities of one cell have been carried into and made part of another.

In that first division of the ovum-cell we recognize a principle of differentiation; we see it as a fact, but we know nothing of the law under which it occurs. This process of differentiation extends until the varied elements of the body result from the original single cell, and give us persons of varying appearance and size, and organs of great diversity of form and function. This shows that conditions have varied results, and when color of eyes, hair, etc., do not exactly conform to a single type, it is evident that the law or rule of construction and repair must be subject to variation. These variations are all brought about without occasion to have recourse to the idea of an extrinsic microorganism. In addition the process of repair of waste may be considered as an infection, in that the cells coming into the new construction receive the impress and bear the characteristics of the preexisting cells.

In the process of skin-grafting we often use this property of mature cells to impress their character on embryonic cells, a property which seems to be very lasting, for the cells of the epidermis may be removed in sheets by a blister, dried, kept for some time, and then used to cover an ulcer, where even if they do reverify under favorable conditions, they must ultimately be cast off, but they leave behind a brood which they have infected with their peculiar qualities.

In spite of this well-known fact a recent writer cites as proof of the parasitic origin of tumors the fact that fragments of sarcoma from a person three days dead were successfully inoculated into an animal. Such experiments only go to prove that an infection-process has occurred, but does not in any way define the special element serving to produce the infection, and until those whom we have reason to believe have equal claims to our confidence agree in the main in their results, it is idle for a few to speak as though the main evidence in favor of the parasitic origin of cancer and sarcoma has been demonstrated.

To say that the old theory of irritation as a cause of cancer has been discredited by recent research is without warrant from facts, though it may readily be conceded that such irritation may be contributory rather than direct in its causative influence.

When we reflect that the lips, the mouth, the pylorus, the rectum, the cecum, the vagina, the cervix, and the breast, which constitute only a small portion of the epithelial parts of the body and yet furnish the locus for nearly all the cases of cancer, it seems apparent that in some way irritation is a factor, direct or indirect, in its development, for at these several areas conditions exist rendering them specially subject to irritation, a fact which cannot be swept away as immaterial by any evidence at present available.

It is not my wish or intention to minimize the importance of the investigations of such pathologists as Sanfelice and Roncali in Italy, and others in other countries, or even in our own, in the experimental production of tumors. The whole subject is so recent that it is too soon to claim that we have passed the "period of accurate observation and inaccurate conclusion"; for there is no agreement as to the special parasites found, and not even an approach to agreement as to the clinical results achieved from inoculation.

Then again granting that morbid changes follow the introduction of some of the microorganisms found, it is too soon to accept any claim that those morbid changes are of the nature of cancer as clinically encountered in man.

In view of the great frequency of cancer of the genital tract in women, the fact that only 28 cases of cancer of the penis in men having wives with cancer of the vulva, vagina, or cervix can be found, is negative evidence of some value on the theory of transmission by microbal infection. That cancer of one side of the vulva should infect the opposing side has a different principle, for here the personal element of the equation comes in with an indeterminate, though we must believe positive, influence.

The study of xylomata or tumors in trees has an interest, and may be instructive as Paget and Bland-Sutton have taught, but to apply observations in the botanical world to the explanation of tumors in animals is premature, unless the analogy, or identity of process, is supported by more distinct evidence than at present exists. The "inclusive" idea of Cohnheim, that embryonal elements have "rested" in the tissues to take

on active growth under accidental and favoring conditions, has much of logic, and we may say of clinical utility, and is not to be entirely displaced by the new pathologic cult because it, like other theories, is incapable of explaining all observed facts, but the underlying idea in every cell-doctrine of the growth of cancerous tumors, admits in some sense the idea of infection in that elements from the tumor may be transported to remote parts and reestablish a new focus or growth.

The problems connected with "cancer houses" and cancer localities have been often referred to, and to say the least many striking instances of some local influence have been found, but the efforts to explain the occurrence of these local outbreaks of the disease have not resulted in any valuable conclusions. To ascribe the frequency of cancer along the Thames in contrast with districts back from the river, to the influence of marshy surroundings would hardly be supported by evidence available along the extended river system of our country. As for myself, I prefer to abstain from any effort to explain such phenomena, feeling that at present such instances are only of value in showing that some conditions exist favoring the spread of the disease, but are of no value with available evidence in giving the clue to the special cause of such a result.

Concerning the statistics showing the increase of cancer, while such data have been gathered for a sufficient term of years in England to give a presumptive basis for conclusions, yet so many factors may be involved that even here it may be unwise to draw conclusions at present. From any knowledge we have at present of the causation of cancer, there is no reason to be given for an increase so great as is claimed by some, unless the aggregation of the population into cities may be in some way operative, and of this there is no more evidence than of the table use of tomatoes causing cancer of the stomach, which was a popular notion some years ago.

The fact that the English death-rate from cancer has risen gradually from 1 in about 5,500 in the year 1840 to 1 in 1,300 in 1896, taken in connection with a nearly doubling of the death-rate from the disease in this State during 10 years just passed, claims attention, but it is not proof of such an actual increase, for such classification of the causes of death is the result of the reports of many persons with varying notions of the column to which individual cases should be assigned.

The fact that appendicitis appears as a more important element in our mortality lists than it did 10 years ago, may not be a good illustration in this connection of a change in figures without a probable equivalent change in facts, but the contention is proper to make that statistics of this kind, in which individual ideas are important elements, and even general notions are subject to change, have not the value which would at first appear in the tabular statement.

Cancer is a disease which has existed as long as the history of medicine, and during all that time has prevailed to an extent to cause it to be well known, in its external forms at least, and to be dreaded as one of the nearly hopeless maladies. It would be more strange that this recent and marked increase in the number of cases should actually exist, than that the increasing care in the diagnosis of internal diseases should change the statistics. In all this matter of the increase of cancer, whether it is actual or only apparent, and if true, whether it is permanent or temporary, we must wait for a longer and wider gathering of statistics before we can rely on the figures for conclusions.

After a somewhat careful review of the evidence relative to the parasitic origin of cancer, and the statistics of the numerical and relative increase of the disease, the conclusions which appeal to my judgment are as follows:

1. The dissemination of cancer to or through remote areas of an individual patient's body is a fact so frequently observed that we must accept the idea of some kind of infection.

2. The rarity of direct infection from person to person, though the opportunity for such infection must have occurred in a great multitude of instances, as between husband and wife, surgeon and patient, and in other ways, shows that the infective agent is one not readily transplanted, or that it requires a specially-prepared soil.

3. The vital properties of the anatomic elements of the growths furnish fully as adequate an explanation of this limited infective power, as would any protozoan bacillus, or yeast fungus; on the other hand, we are not in a position to deny the existence of extraneous organisms which may be the source of an irritation to the cells which results in the production of cancerous growths.

In regard to the increase of the cases of the disease, I may quote Shield in his recent work, when he says "like a number of other statements regarding this terrible malady, it is a question whether this one has foundation in hard facts, the increased recognition and diagnosis of the disease sufficiently accounting for the supposition."

Out of the processes of "colloid" change in two cases of abdominal cancer came these reflections on my part, and it seems fully as logical to me to recognize and explain the infection of the different portions of the peritoneal cavity by this method of diffusion of the cellular elements from the original focus of disease, as to invoke the intervention of a special microbe, until such an organism has been demonstrated as a causative agent.

It may be added that at present this idea of autoinfection from the cancer-elements themselves furnishes a basis for the most hopeful line of treatment yet devised, namely thorough and extensive removal of the parts involved at the earliest practicable moment.

LOCATING FOREIGN BODIES IN THE EYE: RESULTS OF TWO YEARS' WORK WITH THE RÖNTGEN-RAYS.[1]

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THE ease and accuracy with which the presence of foreign bodies in the eyeball or orbit may be determined and their exact position indicated by means of the Röntgen-rays, renders this a most valuable method of diagnosis in injuries of the eyes when the cloudiness of the media prevents the use of the ophthalmoscope. At the meeting in Philadelphia in 1897, I presented to this Section the results of experiments with the x-rays in locating pieces of metal in the eye, and described a method of determining the position of the body in the eye from the shadow cast upon the photographic plate when studied in relation to the shadows of two metal indicators of known position. With the view of showing the value of the x-rays in ophthalmic surgery, and the accuracy of the method of localization, I briefly present the results of my work during the two years since reading the first paper.

During this time I have employed the rays for diagnostic purposes in 35 cases of injuries of the eyes, in which the character of the traumatism indicated the possibility of a foreign body having entered the globe. In 13 cases there was shown to be no foreign body lodged either in the eye or structures immediately adjacent, and the findings were verified in many of the patients by the subsequent removal of an opaque lens or by the clearing of a previously clouded vitreous. In the remaining 22 cases there was shown to be a foreign body either in the eyeball or orbit, the localization being verified in 16 cases by magnet-extraction or by enucleation, and in two cases by the ophthalmoscope. Three cases were gunshot-injuries, and no operation was performed for the removal of the shot, while one patient did not reappear after the radiographs were made. Below is given a brief history of the 18 cases in which the findings of the radiographs were verified.

Cases 1 to 8: These cases have been previously reported,[2] and include one case of foreign body in the lens, successfully removed, and 7 cases of pieces of steel in the vitreous chamber, the metal being removed by the small magnet in 5 cases with preservation of the eyeball, and the findings verified in 1 patient by the ophthalmoscope and in 1 after enucleation.

CASE 9.—Chip of steel rivet in choroid, superior nasal portion. Removed by Hirschberg magnet through incision in sclera. Six months later partial retinal detachment.

C. M., aged 35, Philadelphia. Chipping from steel rivet entered left eye at lower outer quadrant of cornea, causing laceration of iris and partial opacity of lens. Entered Jefferson Hospital 3 weeks after accident, service of Dr. H. F. Hansell. Radiograph indicated body to be in choroid, upper nasal portion, and slightly in front of equator. Metal removed by Hirschberg magnet through incision in sclera. Eye rapidly cleared up, the lowered vision, $\frac{20}{200}$, being largely due to lenticular opacity. Six months later partial retinal detachment in lower half of globe.

CASE 10.—Injury of right eye by piece of percussion cap, which was located in upper ciliary region. Removed by forceps. Six months later symptoms of sympathetic inflammation. Enucleation.

S. H., aged 15, Shamokin, Pa. A fragment of percussion-cap from a toy-pistol entered right eye July 4, 1898. Inflammation subsided in a few weeks, with faint light-perception in eye. Entered Jefferson Hospital, service of Dr. H. F. Hansell, October 1, 1898, with iridocyclitis. Radiographs showed metal to be in upper ciliary region. Body removed by small forceps through an incision in the sclera. Considerable reaction followed, but subsided under treatment. In April, 1899, eye again became painful, with attacks of photophobia in the other eye, and boy returned to hospital, during the term of service of Dr. G. E. de Schweinitz. Enucleation May 19.

CASE 11.—Fragment of tinned railroad torpedo in optic nerve. Attempted removal by forceps failed. Enucleation.

G. K., aged 30, Philadelphia. Piece of railroad torpedo struck right eye October 24, 1898, causing wound of sclera at nasal side. Entered German Hospital a week later, service of Dr Chas. S. Turnbull. Vitreous filled with blood; faint light-perception. Radiographs indicated body to be situated at optic nerve entrance. Six weeks later attempt made to remove body by forceps, but while substance could be distinctly felt, it could not be dislodged. Enucleation. Body imbedded two-thirds of its length in the optic nerve, one end projecting into vitreous.

CASE 12.—Small shot in left eye. Located by radiographs in optic nerve. Iridocyclitis 3 months later. Enucleation. Body at indicated position.

J. W., aged 16, Carbondale, Pa. Small shot entered left eye November 2, 1898. Entered Jefferson Hospital November 8, service of Dr. H. F. Hansell. Radiographs showed shot to be situated just outside of eyeball in optic nerve. Iridocyclitis 3 months after returning home. Enucleation. Shot found in optic nerve, as indicated by radiographs.

CASE 13.—Fragment of copper cap in choroid, inferior temporal portion, back of equator. Panophthalmitis. Enucleation.

T. Y., aged 14, Mt. Carmel, Pa. Fragment of copper cartridge shell entered right eye July 29, 1898. Entered Wills Eye Hospital, August 19, service of Dr. W. F. Norris. Deep ciliary injection, immobile pupil, light-perception, dense vitreous opacities. Radiographs located body in the lower temporal portion of choroid, back of equator. An attempt made by Dr. Zentmayer to remove body showed purulent inflammation of vitreous. Enucleation. Body found at spot indicated by radiographs.

CASE 14.—Small piece of steel in lens. Radiographic findings verified subsequently by ophthalmoscope after full mydriasis. No operation.

Miss G., aged 20, Philadelphia. Patient of Dr. G. E. de Schweinitz. While watching her brother pounding a piece of iron, felt a sudden pain in right eye. Radiographs indicated a minute metallic body in lens, the latter being streaked with opacity. Findings subsequently verified by ophthalmoscope, after pupil was fully dilated.

CASE 15.—Piece of steel in vitreous, close to ciliary body. Marked iridocyclitis. Enucleation 16 days after injury. Magnet not used.

C. K. M., aged 35, Altoona, Pa. Chipping of steel struck right eye at lower portion of sclera. When seen by Dr. Ross, the attending physician, 30 hours after accident, the vitreous was cloudy, and no view of fundus possible. Entered Wills Eye Hospital August 23, 1898, service of Dr. Conrad Behrens. Marked ciliary congestion, and tenderness over ciliary region. Fingers at 2 feet. Radiographs located body close to ciliary body in the lower temporal portion of vitreous.

[1] Read before the Section on Ophthalmology, American Medical Association, Columbus meeting, June 6-9, 1899.

[2] *Transactions*, Section on Ophthalmology, College of Physicians of Philadelphia; *Archives of Ophthalmology*, No. 4, 1898.

Magnet not used. Enucleation. Body at spot indicated by radiographs.

Case 16.—Piece of steel in vitreous, with symptoms of sympathetic inflammation 12 years after injury. Enucleation. Magnet not used.

F. R., aged 40, Philadelphia. Right eye struck by a piece of steel 12 years ago. Eye remained quiet until February 24, 1899, when he entered Wills Eye Hospital, service of Dr. William Thomson, with symptoms of sympathetic inflammation. Lens cataractous and no view of fundus could be obtained. Body located in lower temporal portion of ciliary region. Magnet not used, owing to the certainty of body being encysted. Enucleation. Body at indicated location.

Case 17.—Fragment of steel in vitreous. Panophthalmitis. Enucleation. Magnet not used.

M. B., aged 40, Jermyn, Pa. Struck in the left eye by a chipping of rivet-head, causing wound of cornea-scleral margin with prolapse of iris. Entered Wills Eye Hospital, service of Dr. William Thomson, March 23, 1899. Pupil fixed, vitreous filled with opacities, light-perception, ciliary congestion and tenderness. Body located in vitreous close to lower portion of ciliary body, and a second piece of metal indicated to be in the skin of the eyebrow. Eye showed indications of panophthalmitis, and magnet not tried. Enucleation. Situation of steel in eyeball corresponded to findings of radiographs, and the position of second body proved by passing magnet point over spot, when skin was drawn towards magnet.

Case 18.[3]—Small fragment of file in vitreous, close to ciliary body. Removed by Hirschberg magnet through incision in sclera.

W. T. L., aged 19, Wilmington, Del. Patient of Dr. Geo. M. Gould. While striking a file with a hammer on June 20, 1899, a small piece of file entered cornea near lower outer border, passing upward and inward through the lens into the vitreus. Radiographs indicated that the body was situated in the lower portion of vitreous chamber close to the ciliary body. The body was removed by Hirschberg magnet through an incision in the sclera one month after accident. Lowered vision, $\frac{20}{200}$, due to lenticular opacity. Steel weighed .0015 gm.

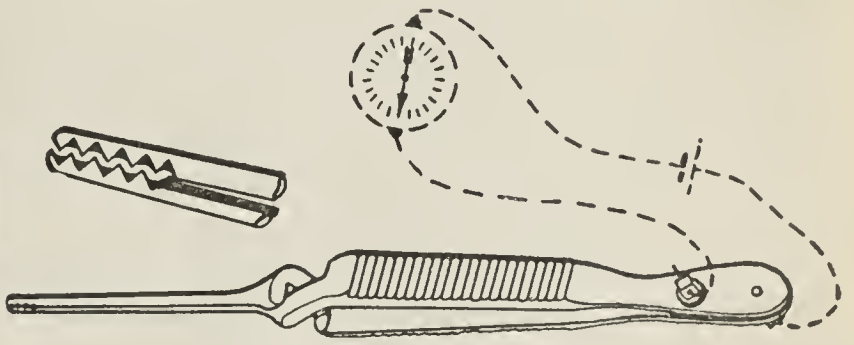
The above report of cases indicates an accuracy in the determination of the situation of foreign bodies in the eye by the use of the Röntgen-rays that is, I believe, not equaled by any other means. The correctness of the determinations is not influenced by the character of the metal, nor by the situation of the body, whether in the posterior or anterior portion of the globe or in the orbit. The results in the 16 cases that came to operation were as follows:

Vision $\frac{20}{20}$	1 case.
Vision $\frac{20}{70}$	1 case.
Vision $\frac{20}{200}$	2 cases.
Light perception	4 cases.
Enucleation	8 cases.

No fair comparison, however, can be made of the above summary with the results achieved by other operators, notably Hirschberg, since the majority of the cases were not seen until destructive inflammation had already begun. In 3 cases no attempt was made to extract the metal by the magnet, and in 2 others, the body being copper, forceps extraction was necessary. Several of the cases showing only light-perception had cataract, the removal of which would have probably increased the visual acuity.

Until there is a more general appreciation of the importance of early diagnosis in injuries of this character, the percentage of failure to save the eye must necessarily be large. A foreign body in the eye is always a source of danger, and its presence should be promptly determined and the metal as promptly removed. I believe that in every case of injury to the eye from flying pieces of metal, where the clouded media prevents the use of the ophthalmoscope, a radiograph should be made at once to determine whether the metal has lodged in the eyeball. If the examination is negative, both surgeon and patient are reassured, whereas, if the radiographs indicate that a foreign body is in the eye, an attempt to remove it may be made before a firm exudate has formed about it. To wait until the inflammation has subsided in the hope of determining the situation of the metal by the ophthalmoscope, consumes valuable time and menaces the safety not only of the injured but of the sound eye.

Since the nonmagnetic quality of copper compels the use of forceps for its extraction, the work is rendered much easier by a knowledge of the exact position of the body in the eye, as shown by the x-rays. I have recently had made a pair of forceps especially intended for the removal of copper from the eye, but as yet no



Forceps for removing copper from the eye.

opportunity has presented to determine their value. The two arms of the forceps are insulated from each other by a sheet of fibrous material at the riveted end and by enamel at the toothed portion. The extreme end of the latter part is uncovered, as is also the point of each tooth. The two arms are connected by wires to a galvanometer and battery.

The forceps when closed are passed through an incision in the sclera to the spot at which the copper has been previously located. If the two ends of the forceps touch the body the electric circuit is closed, and is indicated upon the galvanometer. The forceps being opened the body is grasped, and since the point of each tooth is not covered by enamel, the fact that the body is held by the forceps is shown by the galvanometer continuing to record the circuit as being closed. When the body is covered by exudate, the use of the forceps will become more difficult, but the sharp teeth will permit the body to be grasped through exudate or blood-clots, and the galvanometer will indicate the contact of the metal. In any event the forceps would appear to be superior to the ordinary form for this purpose, since the latter must be removed from the eye from time to time to see if the body has been caught.

[3] Added since reading of paper.

A CASE OF CONGENITAL DEFICIENCY OF BOTH CLAVICLES.

BY W. F. HAMILTON, M.D.,

of Montreal, Can.

Lecturer in Clinical Medicine, McGill University, Assistant Physician to the Royal Victoria Hospital.

THE subject of this anomaly was admitted to the Royal Victoria Hospital complaining of pains in the back and legs, of weakness and of inability to sleep.

She was a fairly well developed woman, 38 years of age and unmarried. Her shoulders were sloping and her gait was marked by slight swaying from side to side with lordosis. She had worn a plaster jacket for the last three years, as she felt her back needed more support than her muscles afforded.

It was found on inquiry that she had "always been troubled with a weak back." As a babe she was not strong. Her first teeth came at 2 years of age and thereafter. They were not lost until after her fifteenth year, and the second teeth were very poorly developed, few of them appearing above the gums. She began to walk at 3 years of age.

She is one of a family of 8 children, all of whom are living and well with the exception of one brother who died of pulmonary tuberculosis. She has had measles, scarlet-fever and whooping-cough. Her height is 5 feet, and she weighed on admission about 120 pounds. The frontal eminences are prominent and separated by a wide and shallow furrow, running back over the crown. The upper teeth are artificial, the palate is high and

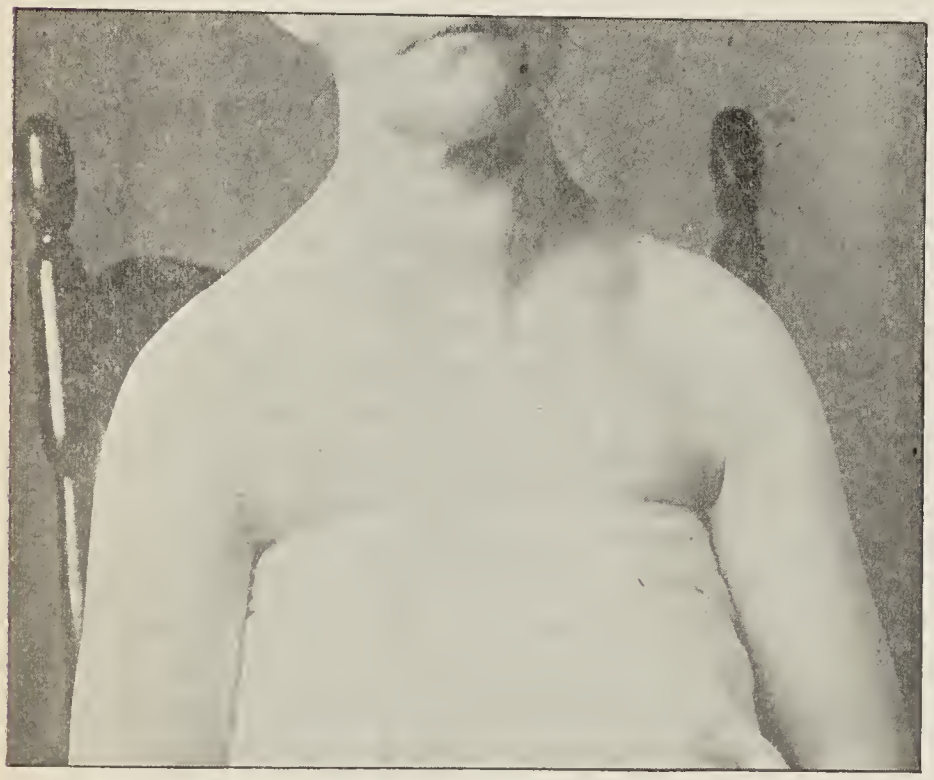


FIG. 1.

arched. The joints generally are lax. There is double talipes planus, but no bone deformity nor deficiency is noticed anywhere except that presented by the clavicles. The scapulas are somewhat winged when the patient is erect.

On examination of the clavicles one finds only the sternal end of each bone with about one-third the shaft. Each ends abruptly about $2\frac{1}{4}$ inches from the sterno-clavicular articulation and the remainder of the distance to the acromion process is spanned by a fibrous cord, more readily felt on the left than on the right side. There does not appear to be any abnormality in



FIG. 2.

the muscles about the clavicle, although one cannot be certain on this point without dissection. At all events, all the ordinary movements of arms and shoulders are well performed, and the patient has experienced no disability on account of this abnormality.

Such a condition is very rare indeed, and a careful search over medical literature is not rewarded with finding many examples of the kind.

Gustave Schorstein reports a case similar in the greater number of characteristic points. George Carpenter gives a report of another patient undergoing treatment for impetigo contagiosa in whom deficiency of the clavicles was discovered. The patient whose case is described by Dr. Carpenter was one of six belonging to the same family in whom clavicular deformities, among other anomalies, are described. The father's clavicles were divided near the center; one brother, aged 14 years, had a divided right clavicle; a sister, aged 12, and a brother, aged 7, presented a similar condition. In another brother, aged 19, a peculiar kink was observed in the position where, in the other cases, the fragments were divided.

In reviewing the literature as suggested by these two recent writers in the *Lancet*, we find that 20 cases showing clavicular deficiency in some part have been re-

ported. This case now reported makes 21. The sternal end of the bone seems to be generally present while the acromion or outer portion of the shaft is represented by a fibrous band.

Todd, of St. Louis, as quoted by Carpenter, discovered in the dissecting-room "a subject without clavicles. Rudiments of the clavicles were attached to the acromion process and to the sternum—the intermediate portions being wanting."

An attempt was made to take a skiagraph of our case, but it showed so poorly in this way that no effort has been made to reproduce it for this report.

I am indebted to Dr. H. B. Cushing, house physician, for references to the literature on this case, and to Dr. Patrick for the photographs.

CLINICAL CASES AND INTERESTING IDEAS.[1]

By SAMUEL F. BROTHERS, Ph.G., M.D.,
of New York.
Professor of Anatomy at the New York Post-Graduate Midwifery School.

[Continued from page 671.]

Instruments.

The idea which I advanced some time ago, that the maternal parts should be first dilated, in protracted delivery, before attempting the use of the forceps, is already, I learn, being adopted in Europe, although I have thus far been given no credit for it.

I have devised a little instrument for the dilatation of a rigid perineum; on a smaller scale, it will be constructed as a uterine dilator. The principle is simply a number of very small flattened bars, crossing each other and fastened so as to form a rounded network or grating, by which a cylindrical cavity can be symmetrically enlarged with the aid of an appropriate screw arrangement.

A glass penis-syringe, constructed so as to show the proper shape of the tip, very blunt at the end, and flattened from side to side, is very useful. The pharmacist ought to keep these in different sizes, and they should be kept under water constantly, as they are rarely in a fit condition to use when the cotton of the piston is dried out. A dram syringe is large enough when first used, but later a larger one should be employed. I frequently use a half-ounce glass or hard rubber syringe when making rectal injections of chloral during a protracted first stage of labor.

An ordinary magnifying glass has been of the utmost value to me, especially in nasal disease. One or two instances of supposed phthisis, in which I failed to discover an ulcer of the anterior portion of the septum nasi until I used it, recall its importance to mind. In vaginal, rectal, and urethral disease it is also useful.

The difficulty with wire nasal speculums is that the wires protrude in the way. I am having one made so that the wires will lie almost against the upper face, dilating both nostrils at once.

The question is constantly being asked, what is the most hygienic way of preventing conception? and the reply is given, continence. If a woman will wear a combination of a close-fitting pair of rubber tights, affixed to a modified condom, the problem is solved. The rubber must be of the very thin and distensible variety used in toy balloons, so as to be almost imperceptible, and the condom portion needs only to be a small depression. This can be readily washed, inside and out.

Obstetrics.

Cases have occurred in my obstetric practice when pieces of adherent tissues remained in the uterus with no untoward effects (not being seen in the discharges), when nothing but copious vaginal injections had been ordered. On remitting the douches, however, perceptible rises in temperature were observed. In other cases, again, the placenta was apparently readily and completely discharged (healthy-looking), yet several days later a distinct mass of membrane was either partially or completely expelled through the vulva. In other instances, again, continued small but depressing hemorrhages, resulting in acute anemia (especially in delicate, hysterical individuals, easily alarmed), has forced me to manually explore and remove remaining tissues, although no relaxation of the uterus was present. In still others, tissue was removed on the twelfth day, by passing curet, without dilator or speculum. In this case the temperature never went above 101°, but there was retention of urine the whole time.

It seems from many observations that lives are sacrificed unnecessarily in cases of infection by overactivity, especially in entering the uterus (even with the douche). I believe that no uterus should be interfered with in these cases until it has been demonstrated that the vaginal douche has failed. On the other hand, the fear of the douche is, in my opinion, another cause of mortality in midwifery practice. A gynecologist, about a year ago, appeared almost incredulous, at a medical meeting, that the douche should still be used by a medical man. And yet, no doubt, he would have been the first to use it on the appearance of any suspicious rise of temperature. Such actions, although meant, like in hospital statistics, to refer to uncomplicated cases of labor only, usually give the impression that douches are never used at all in their practice. If it were not that it is impracticable in private practice, I would advise a thorough but careful examination of every uterus, on the least suspicion.

Speaking of turning in obstetrics, I would like to remark on the ease with which a pelvic presentation is changed to one of the head, at the beginning of labor. In a recent case in which I failed to reach anything by the vagina, in spite of all the effort which I dared to

[1] Read at the New York Society for Medical Progress, May 10, 1899.

exert, I distinctly felt the head in the left upper abdominal region. By external pressure I succeeded in forcing the head around until it was well within the pelvis. The patient complained but little. In order not to frighten her I said nothing on leaving her for awhile, although I barely could reach the head by the vagina. On my return I was almost surprised to find that the head had engaged nicely, and labor progressed without any exceptional trouble, although the waters escaped rather prematurely; I found the cord, though, around the child's neck.

Speaking of cords around children's necks brings to mind some interesting phases of the subject. In the case just recorded, the head passed the perineum so rapidly that I decided not to attempt to pull the cord down and over the head, and everything turned out well. I just allowed the body to slip through the relaxed funis. In a previous case, in which I pulled down the cord, as insisted on in the books, it was broken off so close to the abdomen, that if the infant had not been stillborn, and hemorrhage occurred, I would have been able to stop it only with an artery-forceps. As the cord was torn and not cut, the hemorrhage was but slight. In other cases, again, the cord is not really around the neck at all, but only over the shoulder, when its disengagement is all that is required. Whenever the end is clearly short, when around the neck, the best procedure is to just slip it over the shoulders and allow the body to pass through.

It is interesting to note that none of the ordinary obstetric books give any directions for the control of a hemorrhage from a lacerated cervix. I have seen serious hemorrhages from this source. Mild hemorrhages are usually allowed to stop of themselves, but it is my practice in serious ones to first expel the placenta with the utmost despatch; a pad of absorbent cotton or other material is then applied to the bleeding surface, and the skin and tissues on each side compressed against this, until the bleeding has ceased. If this recurs after removal of the pad, it is replaced for a longer period. The perineal wound is usually first cleansed with a bichlorid cotton sponge. In some cases, however, the perineum itself is not so much implicated as is the posterior vaginal wall, in which cases we have had to suture the lacerated tissues to suppress the hemorrhage. In still other cases, hot, cold, acid, or persulfate of iron applications have been found preferable.

The pain from an insignificant laceration is sometimes so intensely annoying to the patient that I have applied a $\frac{1}{4}$-gr. cocain tablet (hypodermic) right to the wound, or have prescribed a cocain lotion or ointment, antisepticized.

In a case of contracted pelvis, when no better procedure was desirable, would there be any insuperable obstacle to the performance of an iliosacral symphysiotomy on the left side? It may seem bold for me to advance such an operation, which seems on its face to be a desperate one; yet many of those operations performed today appeared likewise desperate on their first attempt. If such an operation could be performed successfully, the immense advantage of it would require no defense. Anatomically, at least, the operation seems plausible; the great sacrosciatic ligament, if it formed any obstruction, should be easily reached from behind. In the *Annals of Surgery* of February, 1893, Drs. John Ridlon and Robert Jones contribute an interesting article on disease of the sacroiliac articulation.

To return to the case of a moderately lacerated perineum, it is often found inadvisable to suture immediately, although some other procedure might be adopted. I am awaiting a suitable case in which I can try to coapt the edges of the wound either immediately or upon the following day, and keep them so with the aid of thick guttapercha tissue, made adherent by the application of chloroform or other less painful solvent to the surface. (This name should be pronounced percha and not perka; Webster erroneously places the principal accent on the first word.)

Case of transverse presentation. On examination I felt fingers on the right side, and what I took for a foot on the left side; on applying traction with finger, the other hand came down. This exemplifies how readily errors may occur, even if the physician does deny it. There was considerable delay before help came for the purpose of administering an anesthetic, but the case terminated successfully with a stillbirth. This was the patient's twelfth child, and she had never annoyed even a midwife up to the present confinement. The waters had broken 24 hours previously, and by the time I got started the right hand was visible externally as far as the elbow. I have frequently had to introduce the forearm nearly up to the elbow in such cases, but in this I actually had to introduce it above the elbow. Even after grasping the lower extremity of the fetus, I found it impossible to get it down until I withdrew my hand and forced the protruding fetal arm and hand far back into the uterine cavity. Even after this, the most exhausting efforts were required, with both hands alternately, before the foot was extracted. To say that the ankle was dislocated is only what might have been expected in such a case, although such dislocations are readily reduced after the traction is discontinued.

But now comes the uncertain part of the operation. I have seen no authorities who give definite and explicit instructions as to the delivery of the head in such cases. If we delay by leaving the case to nature, the fetus is surely asphyxiated, because pressure on the cord and the loosening of the placenta are almost inevitable; if we deliver in a hurry, we produce the new complication of extended arms over the head, not to speak of the extension of the head itself. In replacing the arms, besides its difficulty, fractures and dislocations are almost unavoidable on account of the close confines of the working space; and no doubt many

stillbirths are directly traceable to the shock caused by such necessarily forcible extraction.

A method of delivery that I have resorted to a great deal is pressure on the uterus, on the Credé principle. In this way I prevent extension of the upper limbs and of the head (in rapid delivery by the feet), and also succeed often in delivering the after-coming head itself. The placenta sometimes follows at the same time.

I have a blighted ovum, which I have estimated to correspond to a six-weeks fetus, and which is a specimen I referred to in discussing an exhibit of Dr. Proben's recently, at the New York County Medical Association. The patient gave me a history of an abortion at the sixth month, the physician in charge having called in a consultant who cureted the patient's uterus. I was rather perplexed at first, but after a careful examination became positive that some foreign tissues were in the uterus. I prescribed ergot, and on the following day found in the vagina a placenta, about the size of a large fist. The blighted ovum was barely visible in the mass.

Some years ago I had a difficult head-presentation. The patient and her family were so contrary that I called down a consultant. He manipulated the head for awhile, and then told me "not to worry," as she had six hours' time yet, and I would better leave her alone for awhile. About a half hour after I left, the child was born with the aid of a midwife. The husband did not take the trouble to call me, nor has he paid since.

Puerperal cellulitis is too frequently treated as septic endometritis. A physician, several days after labor, finds his patient suddenly developing a high temperature, and at once, without a proper examination, jumps to the conclusion that she has puerperal fever, and after irrigating the uterus without reducing the temperature, he calls in a friend and curets, thus adding another complication to a case which would probably have terminated in a pelvic abscess opening spontaneously into the vagina, and ending in cure. It seems to me further, that many of these pelvic cellulites are overlooked (especially by incompetent midwives) when the cases are mild; a vigorous patient among the lower classes will get up in spite of the subacute pain, and the case ends either in subsidence or disappearance of the inflammation, resolution of the abscess caused by it, or emptying of the abscess through the vaginal fornix. The discharge of pus is considered by the attendant as nothing but a protracted leucorrheal discharge. In some of my cases patients have gotten up against orders, and in one I could not find the fistula of exit in either fornix by manual examination.

So long as women will be too ignorant or be unable to readily prevent pregnancy, they will seek after methods for ridding themselves of the objectionable uterine contents through abortions. And they almost always succeed. If there is such a fixed desire for something which can only injure the person herself, why make it criminal? To say that a fetus, which is not viable, is a separate human being, is making a broad assertion. At any rate, criminal abortions are being produced by the thousands annually, be they legal or illegal. If this procedure was legalized, at least the victim would have the advantage of experience and skill. But as it is now, even the physician's wife herself has to rely on such doubtful assistance that her life is endangered, if not lost. Thomas records such a fatal case. Physiology, mental as well as physical, should be the physician's standard, and not religion. The jurist, who lays down the law with such stress, has a wife who performs abortion upon herself; and the clergyman, who quotes the Bible as being opposed to it, likewise.

If you intend to administer a remedy to dissipate the breast-milk after a stillbirth, bear in mind that any remedy, even potassium iodid, is useless, unless administered before the milk has collected; then the happiest results may be expected. But when the breasts have once become congested, pressure is the only remedy to be relied on, either by bandaging or the use of contractile collodion. Iodin tincture or ointment may be applied, but above all, friction of any kind should be avoided.

It should be borne in mind that infection after childbirth may occur without odor, as well as without uterine relaxation. The possibility of resorption fever, however, should also be thought of in these cases.

On the suspicion of retained tissues, it is often worth while to try to expel them by pressure upon the uterus through the abdomen.

Internal.

Aneurysm of the aorta mistaken for a pericarditis. This patient had been to several clinics and physicians without relief. The remarkable part of the case was that after a year or two he developed an abdominal dropsy. He was taking 50 drops of a saturated solution of potassium iodid, or was supposed to be taking it. The solution was certainly not saturated, but the pharmacist should not be blamed for this, as this remedy is decidedly expensive, and the patient evidently would not pay the price of the full strength. I tapped the dropsy four times, each time at a greater interval, but the last time failed, in spite of my best efforts, even with the aid of Dieulafoy's aspirator, only obtaining a few ounces of fluid. I could not understand the cause of this, as the abdomen was carefully percussed in advance. The Röntgen-rays should be useful in such perplexing cases. The bruit in this patient's case had been loud at all times.

I have certain specimens of tapeworms that remind me of a branch of medicine which is still a considerable source of income for quack-practitioners. These men charge $10 for the removal of such a worm, doing noth-

ing more than administer a dose of male fern, pomegranate, pumpkin-seed, or the like, and then making a great show of effort by pulling gently on the tape-worm as it is being expelled, telling the patient that he is coaxing the head down. In one of these instances, he failed. I believe, however, that frequently the whole worm is discharged, even though the head has not been observed.

The examination of urine will often present the most perplexing characteristics. I have found, in urine a few days old, distinct indications of albumin with the heat and acid test, and yet have been mystified to discover no indication whatever by the cold test. As the case was an obstetric one, its importance can be imagined. Albumin was undoubtedly present. Above all, never forget that urine must be perfectly clear before testing.

The use of the clinical thermometer seems to be very much neglected in office practice. I have frequently discovered, in apparently subacute and chronic disease, temperatures that would never have been suspected. The exact study of temperature in chronic disease presents a good field for investigation.

Many people are constantly subject to very mild rheumatic attacks, both muscular and articular, who never dream that they have any illness.

The frequency with which chronic nasal disease is mistaken for phthisis is remarkable, but not surprising, when it is considered that many of these patients insist that they felt the blood come up from the chest.

HYGIENE.

The comfort of the physical body should be a branch of hygiene, just as food is. For this reason, such popular questions should be considered and discussed by the profession, as the discomfort of passengers in vehicles. The car-seat question has been discussed among the lay papers over and over again, and yet, in my judgment, the only true solution of the problem is to have upper stories on each car. The Fifth-Avenue stages have long ago had seats on the roof. Of course, there are objections, but not insurmountable ones. With the aid of extra employes and proper arrangements, passengers can get on and off with as much facility as ever, and, in most cases, where the elevated roads would interfere, girders could be removed, as is done now at the Grand-Street Station of the Third-Avenue road.

Physicians should interest themselves in foods as well as in medicines. I observed once before that foods are medicines for the well, just as medicines are foods for the sick. Coffee is frequently made in the most abominable way. It is not the quality of the bean that counts so much as its method of preparation; when made right, a cheap coffee is just as palatable as an expensive one. But coffee, once prepared, should never be allowed to macerate in the grounds until served. A tablespoonful of any kind of coffee must be used to each cup; and immediately after thorough boiling, it should be removed from the fire, strained and poured into about one-third as much of boiling milk. In this condition it may be kept for any length of time.

A mother should look after the food of her child, but it seems to us foolish to see such a mother say, "you can have no meat until you eat your bread first." In my opinion many children become rachitic or mentally deficient through the withdrawal of proper nourishment. The appetite in such is the best guide to the way of treatment by food; of course, excess, as with fruit, confectionery or pastry, should be guarded against.

SUGGESTION.

When I started the policy of requiring frequent visits from patients during the latter months of pregnancy, many were so worried by autosuggestion (thinking their condition must be serious) that I had a larger percentage of abnormal labors than ever before—cords around the neck, pelvic presentations, premature ruptures of the bag of waters, hydrocephalus, stillbirths, retained portions of placenta, unexpected deliveries, etc. And a recent author on the subject claims that mothers can prevent and cure the effects of bad maternal impressions by autosuggestion.

The determination of sex is undoubtedly hypnotic, as well as are most conditions of abnormal pregnancy and labor. Schenck's mistaken thesis on diet (which really is only a good method for producing hypnotic suggestion at systematically regulated intervals) shows that the cause of failure to create the sex desired by autosuggestion, resides in the fact that the autosuggestive and heterohypnotic stimuli have not taken effect, as they should, some time before impregnation. A patient complained to me that she lost her second child sooner than her first (from obscure cerebral trouble), although she said to herself, "this child will live," during pregnancy. She failed through the want of system, and through not beginning before pregnancy occurred. I believe also that the male must also enter this state of mentality at this time. Even though the sex of the fetus cannot be discriminated at first, the germ must be created during impregnation; any treatment after this must have little value.

Dr. Proben has brought relics from Porto Rico, showing the form of hypnotism used there during pregnancy to obtain the sex desired. Abnormal pregnancy and labor, of course, may be influenced at other times. Hypnotism is essentially an artificial product, even though fundamentally natural. Moralists tell us that polygamy is unnatural; obstetricians tell us that multiple pregnancy is likewise unnatural—the latter, you will admit, is at least unavoidable, in the present state of our knowledge. On the other hand, again, Schopenhauer, the great German philosopher, and many others, hold that the natural desires should not be suppressed, and there is no doubt but that immorality can be

practised under certain limitations, without physical injury.

A patient, coming with confidence to a physician, is hypnotized before the doctor has been seen. This "confidence"—itself one of many hypnotic terms used in ordinary language—has been created by "recommendation," or other hypnotic process, through hearing or reading; of course, the number, character and duration of the "stimuli" necessary, will vary with the receptive condition of the individual's cerebral ganglia, representing his subconscious brain. In fact, the quickest road to "fame" would be the keeping of one's self continually before the popular mind, if it were not for the effects of the countersuggestions of others.

The capacity for hypnotism in a given individual is limited in quantity, at a given time. If this energy is directed to a certain channel, it will be wanting, to just that extent, in other directions.

As an indication of the attraction and repulsion exhibited by individuals, we might take, as an example, that shown in public conveyances. A woman sitting in a car attracts both women and men; a man, on the other hand, does not attract another man, and repels a woman. This indicates also the artificial character of civilized religion.

The scales of our mental equilibrium are not in balance; if they were we would be able to see ourselves as we see others, and as others see us.

To show the value of repeated suggestion in hypnotism, we only have to take the case of a person invited to a lunch, cigars, or drinks; the first time he will refuse point-blank, the second time with less firmness, but at last accepts.

Insanity.

In a given case of infanticide, how are we to exclude insanity at the time of the act? Suppose, for instance, a young girl, deceived, and discovered, is driven by popular superstition from place to place, until she reaches this country, to give birth to a child after nine long months. She struggles for a time to care for it, but finds it an obstacle even to her own means of subsistence. Considering the effect of such a long-continued, persistent strain on the mental faculties of a sensitive nature, the depressing effect of despondency, neglect of hygienic surroundings, continuing for weeks and weeks, is it any wonder that at last the subject enters into a settled state of melancholia, and at some time or another, when the mental scales can no longer stand the weight of the cerebral depression, the patient's mind becomes so far unbalanced as to allow her to commit the crime of tying a brick to the infant's neck, and throwing it into the closet. The cause of the melancholia being removed, sanity returns. Dr. Spitzka, in his manual of insanity, considers many cases of neurasthenia (in which he does not believe) and mild cases of melancholia as self-limited, curable diseases, usually treated by physicians under the name of malaria and other diseases. It is well known that the most pronounced lunatics sometimes have lucid intervals of extraordinary intelligence.

It is my belief that many forms of insanity have yet to be properly classified. The "rage," typified by Mrs. Place, recently electrocuted, is the indication of one form, and the "disgrace" condition of mentality, another. One might say that according to this, the majority of vices must be considered as forms of insanity, unless we consider all mental aberrations as hypnotic disease. It seems to be a fact, that so-called "degenerates" are nothing but individuals with the "insane diathesis," if I may be permitted to use such a term here.

On hearing of the case of suicide recently reported, in which the victim gave as the reason the intense pain and suffering from a rheumatism, I was reminded of the fact that many patients are driven to the point of frenzy from constant suffering, and yet the physician will not attempt to prescribe an opiate because he was taught "not to." He will go further, and even reprimand the physician who does. I frequently have patients come to me with statements like this, "I could have driven my head against the wall with the pain." Now, do such statements reflect any credit on our great advances in medicine? Would it not have been better for the case of suicide just cited that opiates, even to excess, be prescribed? If these eventually killed him, to my mind, it would have been preferable. There is a claim by some, and perhaps rightfully, that many patients must be hurt to appreciate their treatment. But such instances, in my opinion, should be judged carefully, and limited properly. Some physicians, again, have no objection to prescribing Dover's powder, paregoric, or Stokes' expectorant, but morphin, never!

On the other hand, we all have felt at times that patients are so mean and stupid that they do not deserve to live. I recently prescribed for a case of intense migraine, in which the patient returned in great fright, being sure that she had an inflammation of the brain. On questioning her, I discovered that she had half a bottle of her previous medicine left, and had not taken any for 24 hours, although she was distinctly instructed to take it every hour until relieved. Her aggravated condition was caused by a stormy change in the weather, as she was rheumatic.

Pediatrics.

Intubation for Dr. X. Introduction was easy, and on the fourth day I removed tube readily, but dyspnea recurring, decided to reintroduce. I did so, but removed the silk too hastily. Dyspnea returned, while tube was in situ, and all efforts at reaching it with extractor failed dismally, the tube passing further and further down, until I had to stop on account of the

child's exhaustion, although the epiglottis was distinctly felt, and the larynx surrounded the end of finger like a thin glove. The rim of the tube was felt through the posterior laryngeal wall. The patient was later tracheotomized, but passed from my observation.

Dr. Louis Fischer reported a case of postpharyngeal abscess, in an article in the *Medical Record*, in which all the signs pointed to true croup up to the last moment. As the prognosis is usually reported as favorable in these cases, it is interesting to note that this case terminated fatally, some time after the abscess was incised through the mouth. An amusing part of the case is, that the physician who wrote the death-certificate diagnosed it as tuberculous meningitis.

I recently had occasion to tracheotomize a child whom Drs. X and Y failed to intubate with hard-rubber tubes. In this case I had the opportunity of demonstrating the great value of my "attachment," the tube entering without the least difficulty. After the second day, however, the dyspnea returned, and as the child was apparently very low, I decided to tracheotomize at once, leaving the tube where it was. Relief followed immediately, but the canula was pulled out by the infant in some way on the following day, the case resulting fatally.

It seems to me that no matter how refined or healthy parents appear, cases of persistent snuffles in infants should be treated as cases of syphilis, especially when no other symptoms of coryza are present. Where we find such a child even with an unusual temperature, it should be remembered that a cold may be merely a complication. I find calomel to be the best mercurial for these cases.

I advanced, at one time, the possibility of relieving laryngeal stenosis by incision of the posterior wall of the larynx with appropriate scissors, to avoid the necessity of intubation or tracheotomy. I have had no opportunity of practising it yet.

It sometimes happens, in vaccinating a child with a capillary tube, that a clean needle is not at hand; in such instances, the broken end of the tube itself may be employed, being cautious, naturally, that no splinters of glass are present. I usually prescribe an antiseptic application, as soon as the papules have shown themselves or sooner.

It is my opinion that many cases of erythema in children, with or without accompanying diseases, are really scarlatinal, even if the "strawberry tongue" is absent. If this is not the case, why is it that many of these cases occur when scarlet fever is admitted to be prevalent?

THERAPEUTICS.

A form of medication which, I believe, has never been used, is the injection of air and other gases (not vapors), either normal, compressed, or attenuated, elementary, compound or mixed, into the "open cavities." The physiologic properties and pathologic uses of these remedies seem to have been studied to a very limited degree, and these only on the respiratory organs. The effect of systematic injections of compressed air, for instance (simple or medicated), on urethral, cystic, renal, ureteral, bowel, stomach, vaginal, uterine, oviductal, or peritoneal disease, has never been attempted, so far as I can recall, except in the case of the surgical treatment of intussusception. The action of air itself may be compared to that of hydrogen dioxid and the ozone preparations.

My principal experiments have been limited to the genital organs—in the treatment of gonorrhea especially. For the female, I have used a "reflow syringe" with the reflow tube stopped off, the air being introduced by the use of a bulb syringe or bicycle pump; for the male, I directed the patient to get a two-dram hard-rubber syringe, and force in the syringeful of air after each urination, holding the glans to prevent its escape for a few minutes, and also holding the penis upright. Of course, the internal temperature caused the compressed air to expand, and then it would pass the sphincter with a faint gurgling feeling. On relieving the pressure upon the glans penis, the air would escape with the usual sound of imprisoned gas. Later on, foaming pus or urine would exude from the meatus, and gas would escape during subsequent urination.

I must say that I saw remarkable improvement in two of these cases of long standing. Of course the degree of compression was only approximately determined in these cases, depending as it did upon the tonicity of the parts. With the aid of my compressed-air apparatus, however, this could be better adjusted.

The great value of acetanilid as an analgesic ought to be more appreciated by the profession, since opiates have serious objections. Since the patent for antipyrin has run out, this coal-tar product, soluble in water, may also be freely prescribed. In combination with caffein citrate, I have found it a good substitute in almost every prescription where morphin or its like was written; especially when it was desirable to alternate the two classes of drugs. Phenacetin and the other patented coal-tar products, I have seen no use for.

We need have no fear, however, in prescribing opiates for chronic diseases, provided we take the precaution, first, to see that the patient never knows that he or she is taking it, and, secondly, that it is stopped when no longer needed. A pharmacist will never renew such a prescription repeatedly without consulting the physician. It should be a rule, however, among pharmacists, when a patient has a copy compounded too often, to leave the opiate out of the prescription.

(To be concluded.)

Obituary.—DR. CONSTANTIN PETROWITSCH KOWALOWSKY, ordinary professor of hygiene in the University of Warsaw, aged 45 years.

PRELIMINARY REPORT OF A CASE OF ACUTE GENERAL SEPTIC PERITONITIS TREATED BY CONTINUOUS IRRIGATION WITH WARM NORMAL SALT-SOLUTION.[1]

By ERNEST LAPLACE, M.D.,

of Philadelphia.

Professor of Surgery in the Medico-Chirurgical College; Surgeon to the Philadelphia and St. Agnes' Hospitals.

Mrs. B. P. was admitted to the St. Agnes' Hospital, Philadelphia, September 24, 1899, suffering with violent pains over the abdomen during the last 24 hours. She had such attacks before, but never so violent. During the past 6 days, she had suffered with headaches and shooting pains throughout the abdomen, which finally became most intense in the right inguinal region. The bowels were regular until the day before admission, when a profuse diarrhea began. She gave no previous history of any interest. On physical examination, there was great distention and tenderness over the whole abdomen. Dr. B. F. Stahl, under whose care she was, referred her to me on September 26, 72 hours after the access of violent symptoms. I saw her at 3 P.M. She was in great pain, with constipation, distention of the abdomen, and tenderness. There had been continued vomiting during the last 24 hours. The pulse-rate was 100, the temperature 100.4°. A diagnosis of acute peritonitis was made, probably caused by appendicitis. She was immediately prepared for operation, which consisted of the ordinary incision for appendicitis.

On opening the peritoneum about 8 ounces of thin foul pus escaped. The colon presented itself adherent to coils of intestines, very red and inflamed, revealing a condition of probable general peritonitis. The incision was enlarged and the intestines drawn out. These were very much inflamed, covered in many places with fibrinous exudate, exceedingly adherent to the peritoneal surface of the gut. Such exudates existed in various places over the mesentery. The omentum was very inflamed at its attachment, while its extremity was thoroughly gangrenous. The appendix was found adherent, elongated, and inflamed. While the intestines were out of the abdominal cavity, a stream of warm normal salt-solution was kept flowing over them. During this time the gangrenous omentum was resected after multiple ligatures. All the flakes of plastic lymph were carefully removed from the intestines and mesentery, and finally the appendix was resected. This took fully 45 minutes to do, so disseminated and adherent was this fibrinous exudate. It was found that rubbing it off, by means of a dry sterile gauze sponge, was the most expeditious way of removing it. The appendix was highly inflamed and contained a mucosanguinolent fluid.

The prognosis was grave, as I had never seen a case like this recover. I then thought of constant irrigation, as possibly able to stop the infection in the peritoneum, as it is known to do in violent acute inflammations of the surface of the body.

To this end the glass nozzle of the irrigator still attached to the rubber tube was introduced down to the Douglas culdesac. The tube was then fixed to the abdominal wall by means of a suture at the lower extremity of the incision. An ordinary glass drainage tube, with rubber tubing was placed about 3 inches above. The rest of the incision was closed above the second tube. The wound between the first and second tubes was packed. A small gauze dressing was loosely laid on the wound and secured by a piece of plaster. The patient was placed in bed on a Kelly pad communicating with a bucket under the bed. An irrigator was arranged above the bed and put in connection with the first tube. Warm normal salt-solution (0.6%), at a temperature of 100° F., was allowed to flow continually through the abdominal cavity, and drain through the second tube and through the wound into the Kelly pad, thence into the bucket under the bed. This was kept up continuously day and night for 72 hours from the time of the operation, at the rate of 10 pints every 15 minutes, making a total flow of 360 gallons of normal salt-solution, through the patient's peritoneal cavity in 72 hours. Strychnin sulphate, grain $\frac{1}{30}$, was given every 3 hours.

September 27. The patient had no pain during the night, and says she can feel the warm water circulating through her abdomen. The pulse, which had risen to 180 during the operation, has fallen to 98, while the temperature is 100° and respiration 26. The general condition is good, and the tongue moist.

September 28. The patient slept 1½ hours last night; but complains of intermittent pains in abdomen due to the formation of gas. This is immediately relieved by the introduction of the rectal tube. She passed five yards of tapeworm, head not found. The temperature is 99.4° and the pulse-rate 70.

September 29. Irrigation was stopped at 3 P.M. The first tube removed, but the second tube left in position. The condition is good, the temperature 99°, the pulse-rate 60.

September 30. The second tube was removed for cleansing, and was found filled with a fibrinopurulent fluid. The general condition was excellent, and the tube was placed back. The temperature was 98.5°, the pulse-rate 60. The wound is irrigated.

October 4. The patient is in excellent condition, convalescence having uneventful course. She has been menstruating since the 28th, having a rather copious flow.

Urine, normal except for a trace of albumin and indican.

I regret very much that it was not possible, at the time of the operation, to make a bacteriologic examination of the pus and fibrinous exudate. The gangrenous condition of the omentum and general violent inflammation are strong clinical evidences, however, of the virulent nature of attack. I am indebted to Dr. Moore, resident physician, for faithfully carrying out the treatment.

It would appear from the above history:

1. That the peritoneal cavity stands with perfect safety a continuous irrigation with normal salt-solution at a temperature of 100°, during 74 hours.

2. That in this case, the infection of the peritoneum, which had been so violent and rapid, effectually ceased under this treatment. The symptoms, pain, vomiting, and distention, ceased, and there was no constipation.

3. The patient stood the irrigation with comfort; not complaining of cold, for the warm water was so copious in its flow as not to have time to cool.

4. The copious irrigation, it is believed, dissolved and carried off the toxins as they formed; it reached the most dependent portions of the peritoneal cavity, and removed infectious material; therefore, effectual drainage was established. It acted as a tonic to the heart. No doubt some of this solution was absorbed into the system. During 3 days the infection was held in abeyance by the antiseptic action of the salt, and phagocytosis had free scope to destroy the infectious bacteria permanently.

5. This method has not to my knowledge been used before. It has given great benefit in an apparently hopeless case. The method is in accord with already well-established surgical principles, only novel in its application to the peritoneum. It may prove a valuable aid in the treatment of heretofore fatal cases of peritonitis, and I trust, therefore, that it may be worthy of further trial.

[1] Read before the Philadelphia County Medical Society, October 11, 1899.

A SIMPLE METHOD TO DISTINGUISH THE COLONIES OF TYPHOID BACILLI FROM COLI.

BY J. A. CASE, M.D.,

of Berlin.

A VERY simple and positive means of distinguishing the typhoid bacillus from the coli communis has been introduced by Dr. Piorkoski, of Berlin, who finds that in a specially prepared culture-medium, the typhoid colonies grow with a very luxuriant striation of small flagella, whereas the coli grow in their characteristic round form with well-defined outline. Dr. Piorkoski has made numerous experiments and has proved beyond a doubt that these colonies are composed of the typhoid bacilli.

The culture-medium is prepared as follows: Take 100 parts of urine that has undergone the ammoniacal fermentation and add $\frac{5}{10}$ parts of peptone and $3\frac{3}{10}$ parts of gelatin, the whole heated over a water bath for one hour, filtered and put into test-tubes with the usual precautions, sterilized in a steam bath of a temperature of 100° C. for 15 minutes. The following day they are sterilized for only 10 minutes in order not to impoverish the solidifying properties of the gelatin. Then three tubes are inoculated as follows: The first tube is inoculated by two loops of the stool that has been rubbed up in a mortar, and a second tube is inoculated from this first one by four loops and a third by six or eight loops from the second dilution. The contents of each tube are then poured into sterilized Petri dishes, of course using a dish for the contents of each tube, stood upon ice for 10 minutes or in a cool place for an hour, to allow of moderate coagulation of the solutions. The dishes are next put into an oven and kept at a temperature of 22° C. for 24 hours, when the typhoid colonies are perceptible as transparent filamentous bodies alongside of the coli colonies, which are rounded with well-defined edges. The colonies may be found in all three dilutions, but more abundantly in the first and second, whereas a few hours longer may be required to find them in the third dilution.

We have made cover-glass preparations from these colonies and have found the bacilli of Eberth in each case. We also made the other well-known tests to distinguish them from the coli, and each one proved positive. Next we transplanted them to the ordinary culture-medium, where they grow as they are known to do and from which it was impossible to distinguish the coli.

The typhoid colonies have been found so early as the third day of the patient's indisposition, and Dr. Piorkoski claims that they may be demonstrated in every case in that time. They have been found in the dejecta of convalescent cases, and in one patient dead of typhoid they have been cultivated from the splenic pulp. In all there have been 26 cases tested to date, in all of which there was a positive result and their subsequent clinical history proved the accuracy of the test.

I have seen the test made many times and in six cases we had the typhoid colonies in 24 hours, and all proved to be typhoid by their subsequent history. Dr. Piorkoski has made innumerable control-experiments and feels that he has an accurate and simple means of positively diagnosing typhoid fever and recommends his method for trial.

Three Deaths from Emigration of Round Worms.—F. Katsurada (*Sei-I-Kwai Medical Journal*, April 30, 1899) reports the following cases: A man of 63, who had been suffering for about 15 days with febrile disturbance, accompanied with much prostration, was admitted to the hospital. His condition gradually became worse and he died at the end of the second week after admission. A necropsy was performed and on examination of the liver there was found a broken cyst in the substance of the liver occupying its upper and back parts and containing a large round worm. The abscess was in about the middle of the right lobe, was about 2 cm. in diameter, its interior was irregular alveolar and was filled with yellowish-green pus, further back in the left corner of the right lobe was a second abscess about the size of an egg. In a second case occurring in a girl aged 14, death resulted from purulent peritonitis. About a month before coming to the hospital the girl had diarrhea with an occasional rise of temperature and abdominal pain. On entrance she was in a state of extreme prostration, the abdomen was greatly distended and tense. Celiotomy was performed and the intestines were found glued together and covered with fibrinous masses. No perforation or other cause for the condition was discovered. The girl died 2 days later, and at the necropsy the spleen was found adherent to all the surrounding structures and between it and the under surface of the diaphragm was a large round worm enclosed in an irregular cavity partly filled with dirty green pus. In a third case a woman, 42 years old, entered the hospital with a swelling in the abdomen, apparently a tumor consisting of two parts. The lower one arose from the pelvis and reached toward the umbilicus, with the size of the fetal head. It was irregular in shape and only partly movable. The upper one lying toward the right of the abdomen and reaching above the costal margin. Death occurred 15 days after admission apparently from asphyxia and heart-failure. On opening the abdomen there was found to be purulent peritonitis; offensive gas escaped and there was much dry yellow purulent fluid containing flocculent matter. A large round worm was found immediately beneath the end surface of the liver and between the right lobe of the liver and the diaphragm was found, curled up, a second round worm partly enclosed in newly formed connective tissue. In none of these cases was there found any aperture through which the worm escaped. These three cases occurred in a series of 354 postmortem examinations which were carried out at the Okayama hospital. [M B.T]

Exophthalmic Goiter Successfully Treated.—R. Cox (*Montreal Medical Journal*, August, 1899) reports the case of a married woman, 29 years old, whose goiter was quite prominent, her eyeballs protruded, the pulse-rate was 135; there was loss of strength and appetite, and great prostration. Treatment was begun with arterial stimulants and iodin, but had to be discontinued because of the irritability of the gastrointestinal tract. The patient was then put on thyroid extract; later bismuth salicylate and salol were administered as intestinal antiseptics and intestinal irrigation was practised. The patient was kept in bed for several weeks and her general condition steadily improved. She is now able to attend to her usual duties, her pulse is 82, strong and regular, her eyes have a perfectly natural appearance and close examination is necessary to distinguish any thyroid enlargement. The improvement is attributed to the use of the intestinal antiseptics. [M.B.T]

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A revolution in the management of hospitals and medical colleges is quietly taking place that is of profound and far-reaching importance. Lay governors and lay boards of trustees are becoming the depositaries of power in all things not pertaining to the cure and prevention of disease. As to the reasons for it, these may differ in each case, but as to the result on the whole it may be said that, where it has been tried, the lay government of these institutions has proved better than was that of the profession. The work of medical men is with disease and therapeutics; that of business and nonmedical men is with finance and social life. In some hospitals and colleges it has been found best that even the choice and appointment of medical men themselves to positions is best left to the lay boards. The change is of inestimable benefit to the profession and to the public; we are relieved from onerous work for which we have no training, and are permitted to expend our whole energies on teaching and prophylaxis and therapeutics; the public wins thereby and by the work of laymen in new fields. It is an illustration of the beneficence of the law of differentiation of function in civilization.

Uterine Pregnancy after Supravaginal Hysterectomy.—A remarkable case, destined probably to become one of the curiosities of medicine, has just been reported by Jaboulay, of Lyons. In January, 1898, he removed a large part of the uterus of a young woman of 25 years on account of an interstitial fibroid, which, after extirpation, weighed eleven pounds. Having been assured by the personnel of the hospital that childbearing was impossible, the woman left the Hôtel-Dieu. Shortly afterwards she began to have a monthly sanguineous discharge from the vagina and from a small aperture in the abdominal scar, that from the latter always preceding the vaginal flow by two days. In July, 1899, she returned to the hospital presenting all the signs of gestation. Examination showed her to be pregnant about six and a half months. Within a few weeks a profuse hemorrhage occurred from the ulcerated point in the abdominal scar, and repeated itself several times to such an alarming extent that Jaboulay performed Cesarean section. The uterus was found open, and the child was readily extracted through the rent, which did not have to be enlarged. The rent was an old one, and represented the original line of incision made at the time of the hysterectomy. From appearances it was judged that the placenta had implanted itself at the place of the original uterine section, and that as it grew it probably perforated the uterine cicatrix, the villi eventually eroding and penetrating the abdominal wall. Two other cases of pregnancy after hysterectomy are on record, but they were both examples of extrauterine gestation. Jaboulay's case, however, is clearly one of intrauterine pregnancy.

Public Funds for Private Enterprises.—The indiscriminate manner in which public funds are diverted to private channels has always been a source of insidious and undermining mischief. There is no wish to deprive a worthy cause of deserved support and encouragement, but as things go the plums must fall to the managers with the longest and the strongest pull. It is to be hoped that a change will now be brought about in this undesirable state of affairs, and we welcome as the harbinger of better things the action taken by the New York Board of Estimate with regard to a plan for a reorganization of the system of municipal aid to private charities as suggested by Comptroller Coler. This plan provides for the payment of a uniform rate of $2 a week for the maintenance of children over two years of age, and of 38 cents a day for infants; the abolition of lump sum payments to hospitals, and the substitution of a uniform rate of $1 a day for surgical cases, and 70 cents a day for medical cases; the limitation of the amount paid by the city to be 50% of the amount received by institutions from private sources; the ultimate abolition of homes for the aged, and to that end the cutting down of the expenses of such institutions for 1900 to half the amount received in 1899; the discontinuance of outdoor relief, and the placing of institutions favored by legislative enactment on the same footing as all others receiving aid from the city. This seems to be a most sensible and a most equitable, as well as a considerate, disposition of a matter that has threatened to become a serious evil, and the underlying principle is worthy of general application. Politics has many incompatibilities, and among them are charity and philanthropy.

A Plea for the Elevation of the Medical Service of Prisons.—Dr. John B. Chapin, of the Pennsylvania Hospital for the Insane, presented a paper on this subject to the recent International Prison Association, Bel-

gium. His wide experience with both the insane and criminal classes has evidently impressed him with the fact that too little attention is paid in our prisons to the scientific study of criminality. Dr. Chapin is evidently one of those who believe that crime, and especially the insane criminal, is the product of natural causes, and that a civilized state has not done its whole duty when it builds jails, imprisons lunatics, pays for their board and keeps them generally out of harm's way. The present routine medical treatment in many of the prisons is not, in his judgment, a system that gives satisfactory data for a scientific understanding of criminal insanity.

After a brief analysis of the psychology of criminals Dr. Chapin unfolds a scheme for a more advanced study of these cases than is usual in the jails. He assumes that the prison-physician is able to differentiate cases of insanity; and he advises that this official occupy a rather higher plane than at present in controling the daily life of the convict. The gist of the author's contention, however, is that the prison-physician should be trained and habituated to daily systematized observation of the prisoners, and should keep accurate records of his observations. An effort should be made "to individualize" the prisoner, and to study especially his mental and moral characteristics, as well as his antecedents. After unfolding this scheme in detail, Dr. Chapin concludes with an appeal for raising the standard of the medical service in prisons, and for collecting facts in order to determine the best principles applicable to this medical and sanitary service, and how far the authority of the physician should extend in questions of nourishment, clothing, work, and punishment.

We do not doubt that Dr. Chapin's ideas on this subject are of the greatest value, and that less of ordinary routine and more of earnest and intelligent study of the criminal are what the public has a right to demand of the prison officials.

Mortality Statistics in the Twelfth Census.—The census authorities are making a supreme effort to secure uniform mortality statistics for this country, especially for the census of 1900. Mr. W. A. King, the Chief Statistician, has sent out a circular of information to which we wish to call attention. The plan is to obtain the mortality statistics of the whole United States for the year 1900. Two great obstacles to this plan exist. The first is the fact that such statistics are not collected in every locality in this country, but only in such States or municipalities as have chosen to do so, and the second is that there is no uniformity in the certificates, but each State or city uses its own form. Mr. King calls attention to the fact that under the Act of Congress, authorizing the twelfth census, certain details of information respecting each decedent, must be returned, consequently a uniform blank is essential for the whole country. The census enumerators have power themselves to collect these data, but experience proves that these enumerators cannot collect more than about 60% of deaths, as their time and opportunities are limited. Hence the census authorities will rely, wherever they can, upon local registers, *i. e.*, such as are kept by the States and cities. In order, however, that these may be available, they must conform to the specifications of the Act of Congress. An appeal is made to all persons who are officially concerned in making or collecting mortality statistics, and especially to physicians, to assist the census by using a uniform blank. A copy of such a blank is inclosed in the circular. Already, Mr. King says, he has had many favorable replies.

This is a matter of great importance. Mortality statistics are of the greatest use to both the scientist and the publicist, but they must be compiled on a uniform system. The custom in this country of leaving this matter to each individual State, or city, or town, is most unfortunate, and we hope that a uniform system, such as that required for the next census, will ultimately be adopted for permanent use by all the States under the lead of the General Government.

Our only suggestion is that especial pains be taken to secure a uniform nomenclature for the *causes* of death. We recently commented in these columns on the Bertillon system, and say again that that system is worthy of close study. Mortality statistics are not vitiated in any other particular so much as by a careless and inaccurate nomenclature of disease.

Interstate Registration for License to Practise.—In no particular relating to medicine does our country compare so unfavorably with the other cultivated nations of the world as in the requirements for medical registration. In no other country with one central government is it necessary for the physician to go to the trouble and expense of another examination and registration if he wishes to look after a patient a few miles over the invisible boundary between two adjoining States or in case he finds it to his advantage to change his location to another State within his country. There has been some excuse for this condition in the past, for in some of the rough, newly settled and sparsely populated districts there has been little inducement for the highly educated physician to settle, and such communities have often been glad to have a medical man among them even if he had little more than the first rudiments of medical knowledge. At present, however, there seems to be no reason why there should not be a minimum uniform requirement and reciprocity, at least between the great majority of States and territories. The Wayne County (Michigan) Medical Society has shown great enterprise in sending out circulars to the authorities in different States and territories, asking if they approve the plan of reciprocity between States and

territories having practically the same requirements and if they would join in working out a memorandum to be presented to legislative bodies of different States with the view of introducing bills. Approval and encouragement have come from nearly all sources. The movement deserves the heartiest support; if our journals will give the matter proper notice, if all our societies will at once appoint and instruct committees, if physicians will use their united influence with friends in authority, there can be no doubt the effort will be successful. Of course, an absolutely uniform examination requirement is impossible; even if the same questions are asked, the judgment of different men as to the merits of answers will vary, but the requirements should be of a practical character and should cover the same subjects. In any case there seems to be no good reason why a man who has passed a reasonable examination, who has been in honorable practice for a number of years and is a member in good standing of his local medical society, should not be admitted to practice in another State without the trouble and expense of another examination. The profession in Canada has been interested for some time in endeavoring to secure intercolonial registration, and Dr. Roddick, one of the chief workers toward this end, is confident of success. Can we afford to be outdone in enterprise and progressive spirit by our good friends over the border?

Regeneration of Divided Nerves.—A recent paper by Horsley (*Practitioner*, August, 1899) calls attention once more to this subject. The author believes that the regeneration occurs by outgrowth from the divided axis-cylinder in the proximal end of the injured or divided nerve, *i. e.*, from the portion of the axis-cylinder which is still continuous with the cell-body of the neuron. The same histological process occurs whether the nerve has been bruised, crushed or completely divided. Scar-tissue is the most complete bar to this process. Horsley very wisely reminds surgeons that this process requires time, and that many months may elapse before it is complete: hence he cautions against hasty operation. He claims that a period of at least eighteen months may elapse before function is restored. Divided nerve-ends should be sutured promptly, of course. It is satisfactory to note this conservative paper from a surgeon, because surgeons as a rule have been prone to accept erroneous views about this regeneration of nerves. Even as recent a writer as Bowlby accepts the theory of the regeneration of the axis-cylinder from the nuclei of the sheath of Schwan—a preposterous notion, at variance alike with histology, pathology, and embryology. He therefore readily gives credence to Glück's claims that the divided ends of a nerve in the monkey and fowl can unite in a few days, even hours, with complete restoration of function. Bowlby's writings on this subject are, in fact, highly uncritical and misleading; and as his book has had considerable sway, we think the fact that one of his confreres, of recognized skill both as a surgeon and experimenter, has given a more accurately scientific statement of this process, is fortunate.

Stroebe (*Ziegler's Beiträge*, xiii, 1893) is the one to whom we owe probably the most on this subject. His observations were made on nerves in the rabbit's ear. By compression the axis-cylinder was broken without the sheath of Schwan being destroyed. The new fibers were seen to develop from the nerve-stump of the proximal end by a process of budding. These new and very delicate fibers sprang from the sound portion of the divided axis cylinders. Several of them might spring from one old axis-cylinder. They tended to grow towards the periphery, and even to force themselves through considerable obstacles, as, for instance, the seat of injury, such as contusion or compression. They seemed to follow the paths of least resistance, and even proceeded through the old sheaths of Schwan. The distal portion of the nerve was entirely passive, acting merely as a conducting tube. Stroebe saw this process beginning on the sixth day after injury. Such a process is evidently an embryonal impulse of growth, and conduces to a restoration of function by simply supplying the parts of the old axis-cylinder that have been cut off or destroyed. This process must obviously take a long time. It would be effectually barred by dense scar-tissue—a fact which surgeons should remember—and it requires, of course, that divided ends of the nerve be sutured.

Vital Statistics of Massachusetts.—Some interesting data are furnished by a study of the vital statistics of Massachusetts between the years 1856 and 1895, as prepared by Dr. Samuel W. Abbott, secretary of the State Board of Health. During this period there were, according to the returns, which may be considered as approximately correct, of

Marriages	630,680
Births	1,780,872
Deaths	1,317,453
Still births	56,005

From 1855 to 1895 the population underwent an increase from 1,132,369 to 2,500,183, of which 904,395 consisted of immigrants from other States and countries, and 463,419 were represented by the excess of births over deaths. In the census-enumeration, females have invariably been in excess, the smallest difference having been noted in 1840, when the ratio was 1,019 to 1,000, and the greatest difference in 1865, when the ratio was 1,105 to 1,000; in 1895, the ratio was 1,058 to 1,000. The whole number of marriages registered in Massachusetts in 1856 was 12,265, making a marriage-rate of 10.65 per 1,000 of the living population; in 1895, the number of marriages was 23,102 and the marriage-rate 9.24. The maximum marriage-rate was 11.07, in 1866, and the minimum 7.46, in 1878. The

mean age of men at marriage increased from 28.85 years in 1856, to 29 years in 1895, while that of women increased from 24.92 to 25.41 years. The largest proportion of marriages took place in November, the smallest in March. The fecundity for all marriages was found to be for those that occurred

Between	1851	and	1855 = 2.8	children	per	marriage.
"	1856	"	1860 = 2.7	"	"	"
"	1861	"	1865 = 3.1	"	"	"
"	1866	"	1870 = 3.	"	"	"
"	1871	"	1875 = 2.7	"	"	"
"	1876	"	1880 = 3.5	"	"	"
"	1881	"	1885 = 3.1	"	"	"
"	1886	"	1890 = 3.4	"	"	"

The whole number of living births registered in 1856 was 34,455; the birth-rate per 1,000 of the living population being 29.91; in 1895 the number was 67,545 and the birth-rate 27.02. The ratio of male to female living children was, in 1895, 1,052 to 1,000, and from 1876 to 1895, 1,053 to 1,000, as against 1,059 to 1,000 from 1856 to 1875. The mean daily number of births was, in 1856, 94.1; in 1895, 185.4; from 1856 to 1875, 100.03, and, from 1876 to 1895, 143.7. In the year 1895 the number of cases of plural births was 745, of which 736 were cases of twin-births and 9 cases of triplets; the number of cases was, from 1856 to 1875, 6,928, and, from 1876 to 1895, 9,559. The number of still-births registered was, from 1856 to 1875, 20,569 (1,501 males to 1,000 females), from 1876 to 1895, 35,436 (1,489 males to 1,000 females), and in 1895, 2,367 (1,436 males to 1,000 females. The number of illegitimate children was from 1856 to 1875, 6,805 (9.3 per 1,000 births), 1,054 females to 1,000 males, and from 1876 to 1890, 14,485 (18.5 per 1,000 births), 941 females to 1,000 males; it fluctuated between 237 (6.7 per 1,000 births) in 1859 and 1,206 (20.9 per 1,000 births) in 1890.

The number of deaths from 1856 to 1875 was 525,683 (19.49 per 1,000 mean), from 1876 to 1895, 791,770 (19.51 per 1,000 mean), in 1856, 20,734 (18 per 1,000), and, in 1895, 47,540 (19.01 per 1,000). The largest number of deaths occurred in August. The commonest causes of death were pulmonary tuberculosis, diseases of the brain, pneumonia, old age, disease of the heart, and diphtheria and croup.

The Propagation of Malaria by Mosquitos.—Although the malarial fevers have been amenable to treatment for more than two centuries it is only within two decades that their causative agents have been known. Since the discovery of the hematozoon by Laveran in 1880 the subject has been pursued with commendable industry and zeal, and with most productive results. Most admirable work has been done in this connection by Italian investigators, as well as by our own American colleagues, and communications of a highly important character have lately been made by English surgeons in the Indian service and by German and Italian investigators, particularly with reference to the transmission of malaria through the intermediation of mosquitos. The sphere of various lower animals in human pathology is thus being gradually enlarged. The part played by swine and cattle in the etiology of tapeworms, by dogs in that of hydatids, by ticks in that of Texas cattle-fever, by mosquitos in that of filariæ and probably also of relapsing fever, by earthworms in that of anthrax, by rats in that of plague, by flies and other insects in that of cholera, typhoid fever, etc., amply prepares the way for an analagous explanation for the conveyance of malaria, which was long ago hinted at by an acute American observer, and which the recent investigations seem already to have established.

A correspondent of the *British Medical Journal* (September 30, 1899, page 869), in a recent communication recites some of the conclusions reached by an expedition sent to Sierra Leone for the purpose of studying this most interesting subject. It has already been learned that malaria is not conveyed by all varieties of mosquito, the anopheles being here the offending insect. Some of the distinguishing features of this insect are described as follows: Its palpi are long, when seated on a wall the axis of its body is almost vertical to the wall; its wings generally have several dark spots along the anterior edge; the proboscis appears peculiarly thick and long. Anopheles vary much in color, from a light fawn to a dark, greenish-black. Individuals vary in size, from 3 mm. to 5 mm. in length. The local species seem to bite at night and to sleep by day. The larvæ of anopheles are provided with two respiratory apertures near the tail, and when at rest they lie flat on the surface of water like sticks. When disturbed they may either wriggle down to the bottom of the water or, more commonly, move with a few rapid jerks along the surface. The eggs are boat-shaped and are laid separately. They attach themselves to each other or to floating objects or to the rim of the water, and then float in characteristic triangular patterns, each egg constituting the side of a triangle. Under artificial conditions they require 24 hours to hatch out. Anopheles are puddle-breeding mosquitos; but they require certain kinds of puddles. The larvæ are generally found in (1) small, shallow runnels flowing on soil and containing algæ—green, flocculent water-weed; (2) small puddles containing algæ, and frequently replenished during rain by the overflow from the foregoing; (3) stagnant and fairly permanent collections of rain-water containing algæ or green fungus, and not capable of being scoured out during rain.

While malaria is no longer the fatal disease it once was it is still a serious menace in itself and through its complications, and it will be a great step forward if the studies of its biology, now progressing with activity and promise, shall lead to its successful prophylaxis. It has long been known that the prevalence of malaria can be diminished by drainage, by the avoidance of

vegetable decomposition, by protection from the night-air, and it has recently been shown that anopheles larvæ can be destroyed by means of kerosene-oil. Too much praise cannot be awarded the patient and faithful investigators of this most important subject.

Suggestions to Writers, No. 42. Sentences that suffer from spastic paraplegia are altogether too common even in the writings of good thinkers and scientists. Let us choose the last sentence that we tried to make stand steadily on its feet:

"Examination with the endoscope has, in a number of cases, demonstrated that the inflammatory process, even after long duration, may not extend, and, in the majority of cases does not, deeper in this disease than to the mucous membrane, although, in some chronic cases, especially if following the history of stone, the muscular tissue, in some parts, and irregularly, may, more or less, be also implicated."

It is such sentences as this that drive editors to drink or to suicide. Shall one let them go, or endeavor to cure their sorry disease? One way for authors to correct this paraplegic syntax is to attempt to transpose the modifying, explanatory, and subordinate clauses, and to place them so that the reader's mind is not every second brought up with a jerk. One often feels as if he were being driven slowly over a bad corduroy road. So far as possible a good writer will enable his reader's attention to flow as uninterruptedly as possible, or with a slow rhythm that is very different from the "bumpety-bump" of the foregoing citation. In the first place all sentences should be of a length that between periods and semicolons they can be read aloud during a single expiration. Then, if we throw the qualifying and adjectival clauses in front we are able to get a flow, instead of spurts, of meaning. For example: "In a number of cases examination with the endoscope has demonstrated that the inflammatory process does not usually extend deeper than the mucous membrane. Under certain conditions, such as chronicity, or the history of stone, some portions of the muscular tissue may be more or less implicated."

Resection of the Rectum and Bladder.—C. G. Levison (*Occidental Medical Times*, September 15, 1899) reports the case of a man, aged 65, who had for some time suffered great difficulty in defecation together with loss of blood with the stools; there had been no appreciable loss in weight or other symptoms, but a diagnosis of carcinoma of the rectum was made. A preliminary colostomy was performed, and after the rectum had been thoroughly disinfected for 8 days, removal of the growth was undertaken. A transverse incision was made over the lower portion of the sacrum and then was connected with a long oblique incision along the left border of the sacrum, the bone was then divided by a chain saw and the flap including it was drawn downward and to the right. The growth extended from the anus 2 inches up the rectum, involving its entire walls, together with the base of the bladder and the prostate. The rectum was severed above the growth and the lower end, including the base of the bladder, prostate, sphincter, and anus, were all removed, working from above downward. The upper end of the intestine was attached by sutures to the skin and the bladder was closed with sutures. Recovery from the operation was uneventful. On microscopic examination a diagnosis of adenocarcinoma was made. [M.B T.]

Correspondence.

DIPLOMA-MILL PRACTITIONERS.

By CHARLES E. HOOKER, M.D.,
of Grand Rapids, Mich.

To the Editor of The Philadelphia Medical Journal:—

Dear Sir:—In the September 23d number of the Journal I notice a brief item entitled "Diploma-Mill Practitioners," in which item, as quoted from the *Evening Post*, Michigan is said to possess no medical law. By way of correction, and in justice to the Michigan profession and to the champions of the bill, I desire to state that Michigan has a law, passed last June, which will exclude "graduates" of "diploma-mills." The Board authorized by the bill met first October 10, 1899.

DYSPHONIA.

By T. C. CHRISTY, M.D.,
of Pittsburg, Pa.

To the Editor of The Philadelphia Medical Journal:—

The article on "Dysphonia," published September 9, in the Philadelphia Medical Journal, has brought to the writer several inquiries as to the method of using the constant current, and may be summarized as follows: (1) The active electrode. (2) The relative position of either electrode. (3) The strength of the current. (4) The duration of each treatment.

An electrode that adjusts itself to the episternal notch is a convenient size. The active electrode generally should be positive and applied first over the trachea at the episternal notch; the negative to the nape of neck close to hair-line or over the thick muscular layers on either side of neck, with the maximum current indicated. The anterior electrode may be replaced to any part of the larynx available; the posterior is changed only to relieve the burning sensation caused by the continued current which at times becomes quite acute.

The strength of the current must be adapted to each individual patient, and increased or diminished during the sitting according to the susceptibility of the patient, the condition of the skin and tissues directly beneath the active electrode and the degree of inflammation existing. As the voice improves under treatment the current strength must be diminished as the degree of improvement regulates the current. The operator should always test the current before applying it.

The duration of each treatment depends on the strength of current employed and the local effects to the skin, as it soon reddens, becoming painful if the treatment is prolonged.

Sending a current through the larynx, reduce the original current about one half, and tilt the electrodes on their edges and apply on either side of the larynx.

Keep the electrodes as moist as possible with hot salt-solution.

Do not change the position of the electrodes without removing them from the patient.

The aim is to secure a current which is perfectly agreeable and soothing during the application and which relieves the condition existing if judiciously employed.

THE BERTILLON SYSTEM.

BY E. C. SPITZKA, M.D.,
of New York.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

DEAR SIR:—The reference to my paper, read before the New York Society of Medical Jurisprudence, in your issue of October repeats an error of the daily journals. I attach the highest importance to the teratological anomalies and physiological peculiarities underlying the identification of personality. I stated that even the feature whose almost invariability I accentuated, the external ear's contour, might become sufficiently modified—and had so become, in two observed cases—as to render arbitrary conclusions unsafe, and particularly unsafe systems based on figures or standards in the hands of narrowminded, of unsound, or of designing advocates and interpreters, such as Bertillon!

I objected to the introduction of the Bertillon "trade mark," as the anthropometric system is really Broca's; and both Baer, of Germany, a French authority whose name now escapes me, and West, of Massachusetts, have devised better and simpler systems.

The association of the matter with the Lombroso extravagances naturally grew out of their common relation to teratology and anthropology and the joint error of both Bertillon and Lombroso, of onesidedness—as I regarded it. Nothing could be further from me than to underrate the anthropometric methods, as such; it strikes me as an irony of fate, that *my enunciation of their value* at the Guiteau trial earned me a ridicule which I would *now* merit, if I held the position attributed to me *and underrated them.*

In compliance with "ethical requirements," I had hitherto not furnished abstracts of my papers to the representatives of newspapers. In future I shall certainly furnish them such—it were the lesser evil.

Congenital Diaphragmatic Hernia.—S. S. Kelley (*Cleveland Medical Gazette*, August, 1899). A woman who had given birth to five healthy children was delivered of a child after an easy labor. The child cried feebly, and as it was noticed that the respirations were not strong, artificial respiration was undertaken after tying the cord, but the child merely gasped a few times and died 20 minutes after birth. A necropsy was undertaken and on opening the thorax it was found to contain the stomach and a large number of the small intestines. [M.B.T.]

Resection of the Stomach.—S. Inoko (*Sei-I-Kwai Medical Journal*, July 31, 1899) reports the case of a man, 50 years old, who had had a tumor in the left hypochondrium for a year and 8 months. For about 6 months he had been troubled with vomiting after meals, and there was marked emaciation. On palpation the tumor was found to be easily movable, there had never been hematemesis. A longitudinal incision was made along the linea alba from the tip of the ensiform cartilage to the umbilicus, the stomach was found to be dilated, and the pylorus was adherent to the omentum, but not to other viscera. The growth occupied the pylorus, spreading along the posterior wall of the stomach to the greater and lesser curvatures, affecting about one-third of the organ. Other abdominal organs were free from carcinomatous deposits. The affected portion was excised from the healthy part in such a manner that as a portion was cut away the portion left was stitched up to prevent the escape of stomach-contents. After the diseased portion had been removed the duodenum was sutured to the stomach, the abdominal cavity was wiped clean and its walls closed. Nutrient enemata were given for 3 days. Eight days after the operation the wound was healed by first intention, and since then the patient's health has considerably improved and he has left the hospital. [M.B.T.]

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending October 28, 1899:

Wednesday, October 25—County Medical Society.
Thursday, October 26—Pathological Society.

Pathological Society of Philadelphia.—At a meeting held October 12, the president, Dr. W. E. Hughes, delivered the **presidential address,** in which he reviewed the work of the society during the past year. The following officers were elected for the ensuing year: President, Dr. Frederick A. Packard; vice-presidents, Dr. Joseph McFarland, Dr. Charles W. Burr, Dr. Alfred Stengel, and Dr. William M. L. Coplin; secretary, Dr. J. Dutton Steele; treasurer, Dr. Thompson S. Westcott; recorder, Dr. David Riesman; curator, Dr. W. Wayne Babcock; committee on membership, Dr. Alfred Hand, Dr. A. O. J. Kelly, and Dr. John H. Jopson; committee on publication, Dr. Alfred Stengel, Dr. A. A. Eshner, and Dr. Joseph McFarland; committee on morbid growths, Dr. W. S. Robertson, Dr. David Riesman, and Dr. Thomas S. Kirkbride, Jr.; business committee, Dr. A. C. Abbott, Dr. Joseph Sailer, Dr. David L. Edsall, Dr. John M. Swan, and Dr. H. M. L. Landis.

Typhus Fever in Philadelphia.—After the Red Star Line steamer *Aragonia* had been permitted to pass quarantine and unload her cargo at this port, on October 12, it was discovered that 2 of her passengers were suffering with typhus fever. They were immediately removed to the Municipal Hospital, where one of them, a Russian woman, aged 37 years, died on October 14. The other patient at present writing is considered on a fair way to recovery. After the nature of the malady had been discovered, an effort was made to ascertain the whereabouts of the other passengers who had already scattered throughout the city; 28 were located in different portions of the city, and were promptly removed to the Municipal Hospital for observation. It was asserted that some had gone to New York and other places. The local health authorities having been informed of the probable destination of passengers, three were located in New York, others elsewhere, and all are under surveillance. There seems a difference of opinion as to who is responsible for this introduction of typhus fever into Philadelphia, and naturally none of the interested persons cares to shoulder the blame.

Philadelphia County Medical Society.—At a meeting held October 11, DR. J. M. ANDERS read a paper entitled: **Gallstone crepitus and friction, with illustrative cases.** He referred to the many cases of latent cholelithiasis, to instances in which a calculus is in the common duct causing jaundice, but in which the other clinical manifestations are insufficient to establish a diagnosis, and to other anomalous cases. In all of these the detection by palpation of crepitus is of the utmost value in the diagnosis. The combination of auscultation with palpation (which may be termed auscultatory palpation) is often of still greater value. Cases illustrating the significance of these signs in establishing a diagnosis were related, and the preferable methods described. In the discussion DR. MORDECAI PRICE related a case in which crepitus had been caused by the friction against each other of carcinomatous glands. DR. ERNEST LAPLACE spoke of the value of the signs and their limitations. DR. JOSEPH PRICE spoke of the necessity of early diagnosis in cases of cholelithiasis and of the assistance that may be rendered by these signs. The president, DR. S. SOLIS COHEN, spoke of the value of the signs in anomalous cases and stated that by their assistance

cases may be recognized early and surgical intervention often be averted.

Dr. Ernest Laplace reported a case of **acute general septic peritonitis treated by continuous irrigation with warm normal salt-solution,** which was published in the Journal of October 7, page 727.

Vital Statistics of Philadelphia for the week ended October 14, 1899:—

Total mortality		382
Diseases.	Cases.	Deaths.
Pulmonary tuberculosis		51
Heart-disease 32, fatty degeneration of the heart 4, neuralgia of the heart 1		37
Marasmus 17, inanition 9, debility 11		37
Nephritis 27, uremia 8		35
Apoplexy 15, paralysis 7, softening of the brain 3		25
Pneumonia 15, congestion of the lungs 3		18
Diphtheria 17, membranous croup 1	86	18
Gastroenteritis 8, cholera infantum 9		17
Inflammation of the brain 13, congestion of the brain 1		14
Convulsions		14
Carcinoma 12, sarcoma 1		13
Casualties 10, burns and scalds 3		13
Senility		11
Typhoid fever	33	4
Scarlet fever	85	3
Cerebrospinal meningitis		1

Bronchitis 6, peritonitis 6, pleuritis 6, cyanosis 4, diabetes 4, intestinal obstruction 4, pertussis 4, suicide 3, aneurysm 2, atheroma 2, disease of lungs 2, homicide 2, pericarditis 2, septicemia 2, tetanus 2, abdominal tumor 2, abscess of brain 1, alcoholism 1, asphyxia 1, parturition 1, concussion of the brain 1, diarrhea 1, diseases of the liver 1, gangrene 1, hemorrhage 2, influenza 1, cystitis 1, appendicitis 1, tonsillitis 1, insanity 1, locomotor ataxia 1, necrosis of rib 1, poisoning by gas 1, poisoning by strychnin 1, rheumatism 1, shock 1.

NEW YORK.

One of the most progressive citizens' organizations has memorialized the Department of Health to regulate the unsanitary conditions arising from the reckless opening of street surfaces over extensive areas and for weeks at a time.

The Coroners have made a demand for higher pay. Their request was promptly met with the positive refusal of the Mayor to consider their plea, the refusal being couched in the Mayor's usual sharp tone when matters of more money are involved.

The City Department of Health has authorized an exhibit at the Paris Exposition to be composed of photographs of the several hospitals for contagious diseases, the production of serums and vaccine lymph, and sanitary work in the tenements, together with a file of reports.

New York Skin and Cancer Hospital.—The Governors of the New York Skin and Cancer Hospital announce that Dr. L. Duncan Bulkley will give a second series of clinical lectures on diseases of the skin in the out-patient hall of the hospital on Wednesday afternoons, commencing November 1, 1899, at 4.15 o'clock.

Fatal Case of Hydrophobia.—The health officer of Jersey City last week reported a case of hydrophobia which proved fatal to a 7-year-old boy 6 weeks after the bite of the dog which caused the infection of rabies. The symptoms seem to have been very well manifested—violent convulsions in the attempt to swallow fluids, relaxed kneejerk, and dilated pupils. Bacteriologists were not called in until the disease was too far advanced to offer any prospect of success, and it was decided to employ the Bouisson hot vapor treatment. The extreme youth of the patient seems to eliminate the possibility of suggestion in the production of the classical symptoms.

The appearance of success in the case of fracture of the cervical vertebrae operated on recently at Roosevelt Hospital has led the staff to consider the chances of operating in a similar case now at the hospital. The patient is a lad of 18 who fell down an air-shaft and fractured the spine in very nearly the same place as Mr. Duryea.

Medical Inspection of Schools.—At a meeting of the Alumni of the City Charity Hospital, held on Wednesday evening of last week, Dr. Henry Graham McAdam delivered an interesting address on the Medical School Inspection System of the Department of Health. According to his figures the inspectors, in 1898, denied admittance to the schools in the case of 7,606 children suffering from contagious disease in a total attendance of rather more than 450,000. The principal causes for exclusion are the class of parasitic diseases of the head, 3,502, and contagious diseases of the eye, 1,627; the next most numerous class is that of skin diseases, with but 703.

Municipal Medical Charity.—Last month this Journal presented a summary statement of the reasons why Comptroller Coler proposed a reform in the method of apportioning public funds for the support of the indigent sick in private hospitals. The hospital authorities have held several conferences and have concluded not to venture any opposition to the Comptroller's reforms. According to this plan the city will not pay for indigent sick in private hospitals unless it is certified that there are no available accommodations in the municipal institutions, and in that contingency will pay a flat rate of seventy cents a day for medical and one dollar for surgical cases. Approval was signified by authorized representatives of the J. Hood Wright Memorial, the New York Polyclinic, Long Island College, Mount Sinai, Brooklyn Memorial, Jamaica, Flushing, and Long Island Hospitals. The institutions which had opposed the plan contented themselves by neglecting to protest.

Fire at the Loomis Sanitarium.—At noon on Saturday last the explosion of an alcohol lamp caused a fire at the Loomis Sanitarium near Liberty in the mountains of Sullivan County. Owing to the rapidity with which the flames spread and the length of time involved in securing assistance from Liberty and the scanty water supply, the main or administration building was totally destroyed, the stone walls and chimneys still standing, but so much injured by the heat as to make it problematical if they can be used in rebuilding. The building was the gift of J. Pierpont Morgan and was covered by an insurance policy for $50,000; the loss is estimated at $75,000. When the fire broke out the greater number of the patients quartered in the building were out in the park-like grounds for their daily constitutional. Dr. Stubbert and the medical staff were in the office and promptly cared for the few patients who remained in the building. The physicians and patients who were able to assist were able to save some of the furniture from the lower floor. When assistance from the town reached the spot the administration building was beyond saving, and the volunteer bucket brigade devoted its attention to preventing the spread of the fire to the nine surrounding cottages. Work was begun the same day on a temporary structure for the housing of the patients who had been burned out. There are about one hundred patients at the Sanitarium. In addition to the building just destroyed there remain ten buildings in

the establishment: the Casino, the gift of Mrs. George Lewis; the Sloane Cottage, the gift of Mrs. William Douglas Sloane; the Marcy Lester Cottage, the gift of Miss Emily A. Watson; the Watson-Walker Cottage, the gift of Mrs. M. J. Walker; the Rebecca Babbitt Pavilion, the gift of Mrs. Clarence M. Hyde; the Kellog Cottage, the gift of Mrs. A. D. Kellog; the Winthrop Cottage, the gift of Mrs. Robert Winthrop; the Irvin Cottage, the gift of Mrs. Richard Irvin; the Hillside Cottage and the Infirmary. The administration building bore a tablet with the inscription "Erected in Loving Memory of Alfred L. Loomis, M.D." It afforded accommodations for a few patients, and was otherwise used as a dining hall, dispensary, and quarters for the resident physicians, of whom there are four in addition to Dr. Stubbert. The Liberty Sanitarium is for incipient cases of consumption. The cases which are considered incurable are taken at the branch hospital at 104 W. 49th Street, which is supported only by voluntary contributions. It has 10 beds with endowments of $200 each. It has at present 22 patients, of whom only 3 make any payments at all, one of $5 and the other two of $7 weekly. The need for funds is so great at the branch that there are grave difficulties in the way of the further continuance of the work unless the charitable come to its rescue.

Buffalo (N. Y.) Academy of Medicine. Section on Medicine.—At a meeting October 10, DR. IRVING P. LYON read a paper upon **The inoculation of malaria by the mosquito,** in which he gave an exhaustive summary of the literature thereon, sketching the development of our knowledge on the subject step by step from the theoretical enunciation by Manson, in 1894, through the first experimental work of Ross in India, and that subsequently of Grassi, Bignami, Bastianelli, Dionisi, MacCallum, Koch, and others, down to the present status of the theory, *i. e.*, its complete experimental proof. He concluded from the evidence that so far as yet known the mosquito (of certain species) is the only agent of infection for malaria, and that the same individual mosquito that first bites a malarial subject is the inoculating agent of malaria, on a second (healthy) man. He detailed the experiments showing that a mosquito infected with one type of malarial organism biting a patient infected with another type of malarial organism lost the original organism and developed that absorbed from the patient, while the patient lost the organism with which he was infected and developed that of the biting mosquito. He said that there was no evidence that the infected mosquito infected its eggs or its young, nor that it infected water, air or any external media of conveyance; that the malarial spores found in infected mosquitos had been swallowed with impunity by the experimenters; that the ground-air and ground-water theories have no experimental evidence to sustain them. Only mosquitos of the genus anopheles are known to act as host and inoculating agent for the malarial organism. He said the three principal methods of attack against the mosquito may be employed with practical results; each is directed against the larvae rather than the adult mosquitos, first by drainage of the breeding pools, second by the introduction of fish to kill them, and third, by the use of petroleum or other chemical agent on the surface of the pools. All cases of active malarial disease in a locality in which the anopheles exist should be isolated to prevent the spread of the disease. In discussion, DR. C. G. STOCKTON thinks the theory very attractive, and that it has made out a case, but that the limitation of the life of malarial organisms to mosquitos and man should be accepted very slowly. The theory and its scientific verification, like other facts of this kind, have been presaged by clinical findings, the change of type in malarial disease in a given individual is quite baffling, but the mosquito destroying one organism while introducing another very prettily accounts for it. If infection is not transmitted to progeny then the isolation from mosquitos of malarial cases will soon destroy the disease, but unfortunately the clinical evidence presented by the infection of the newcomer into a previously uninhabited district is against the assumption of man being a necessary host. Again, the infection of man in cities is inconsistent with the stand of the theory. DR. CHAS. CASY challenged the conclusions of the theory because clinical findings go to show that for Buffalo no cases of malaria occure except those imported, while the mosquito is here in all his various forms, and yet there is no doubt that malaria is carried by inoculation. DR. H. R. HOPKINS thought that a weak point in the conclusion was that it did not account for the origin of the parasite outside the body. DR. G. JACK believes that the plasmodium malariae is but the result of precipitation in the blood of some substance mistaken for an organism, which precipitation is caused by ground-gases. DR. J. W. GROSVENOR recalled the experiment of Salisbury in the South in which he caught from the air upon suspended glass in malarial districts a poison which produced malarial symptoms. DR. ALLEN JONES thought the theory was but a parallel of the relation between the housefly and diseased conditions produced thereby. DR. H. U. WILLIAMS emphasized the extraordinary fine technic by which sections of the stomach of mosquitos were made for study, and called attention to the fact that certain observers believe that there are other intermediary hosts beside man.

New York State Medical Association.—The following is the program of the sixteenth annual session to be held in New York City, October 24, 25, and 26:

FIRST DAY, OCTOBER 24.

President's Address, by Joseph D. Bryant, of New York City; Alcohol as a General Stimulant and Heart Tonic; Its Use to the Animal Economy in Health and Disease, by Thomas J. Hillis, New York County; The Necessity for Exact Evidence in Treating Scientific Subjects, by Wickes Washburn, New York County; The Correction of Irregularities of the Nasal Septum and the Exhibition of New Instruments, by Henry W. Wandless, New York County; Animal Products Used as Medicines, Ancient and Modern, by Thomas J. Acker, Westchester County; The Physician as a Factor in Education, by Frank Overton, Suffolk County; Operative Treatment of High Myopia by Removal of the Crystalline Lens, by Charles Stedman Bull, New York County; Report of the Work of the International Gynecological Congress, Antwerp, August, 1899, by A. Palmer Dudley, New York County; Progress of the Science and Art of Obstetrics, by Florince O. Donohue, Onondaga County; Some Practical Experience in Asepsis and Antisepsis in Obstetrics, by Douglas Ayers, Montgomery County; A Report of a Case of Puerperal Sepsis and What It Teaches, by Charles H. Glidden, Herkimer County; Hydrorrhea and Hydrosalpinx, by Frederick S. Cowles, Westbrook, Conn.; A Brief Summary of the Indications for Operation upon the Stomach, by Max Einhorn, New York County; The Value of Operative Treatment of Spina Bifida, by W. B. Reid, Oneida County; Some Cutaneous Manifestations of Syphilis and Other Affections of the Skin (illustrated by lantern slides), by John A. Fordyce, New York County.

DISCUSSION ON MEDICAL EXPERT TESTIMONY.

The main point to be examined is whether the present method of securing Expert Testimony subserves the ends of justice. If not, what other course may be deemed advisable?

The debate will be opened by the Hon. Willard Bartlett, Justice of the Supreme Court, Appellate Division, with a paper entitled Medical Expert Evidence; the Obstacles to Radical Change in the Present System, and will be continued by the following named gentlemen: by Hon. Joseph F. Daly, formerly Justice of the Supreme Court; by Charleton T. Lewis, Esq.; The Nature of Expert Testimony and the Defects in the Methods by which it is now Adduced in Evidence, by William A. Purrington, Esq.; The Medical Expert of the Past, the Present, and the Future, by Theron A. Wales.

SECOND DAY, OCTOBER 25.

The Necessity for State Aid in the Treatment of Pulmonary Tuberculosis, by George W. Goler, Monroe County; Sanatorium Treatment at Home for Patients Suffering from Pulmonary Tuberculosis, by S. A. Knopf, New York County; Reopening the Abdomen for Postoperative Septic Peritonitis, with Report of Cases, by C. G. Frederick, Erie County; Morphinism Among Physicians, by T. D. Crothers, Hartford, Conn.; Albuminuria: Its Prognostic Value in Chronic Nephritis, by Charles Allen Tuttle, New Haven, Conn.; Curability of Epilepsy and How It May be Accomplished, by William P. Spratling, Superintendent of the Craig Colony, Sonyea, N.Y.; Nervous Influence in the Production of Liver Disease, by Julius Pohlman, Erie County; Two Cases of Large Retained Hernia, by Henry Orlando Marcy, Boston, Mass.

DISCUSSION ON TYPHOID FEVER.

The Advance in Our Knowledge of Typhoid Fever, by Herman M. Biggs, New York County; Bacteriology of Typhoid Fever, by W. H. Park, New York City; Clinical Diagnosis of Typhoid Fever, by William Osler. Baltimore; Statistics of Typhoid Fever at the Roosevelt Hospital for Ten Years, by W. H. Thompson, New York City; Typhoid Fever in the Massachusetts General Hospital During the Past Fifty Years, by Reginald Fitz, Boston, Mass.; Some Phases of Typhoid Fever as Seen in Bellevue Hospital, by A. A. Smith, New

York County; Typhoid Fever in Children, by Abraham Jacobi, New York County; The Local—Non-Surgical—Treatment of the Intestinal Tract in Typhoid Fever, by De Lancey Rochester, Erie County; Treatment of Perforation of the Bowel in Typhoid Fever, by W. W. Keen, Philadelphia; Eye Complications in Typhoid Fever, by A. T. Hubbell, Erie County; . . . . . , by E. G. Janeway, New York County.

Wednesday, October 25.

Evening, 9.30 to 11.30 o'clock, reception at the New York Academy of Medicine to William W. Keen, M.D., LL.D., President of the American Medical Association, and to Prof. Reginald H. Fitz, of Boston, and Prof. William Osler, of Baltimore.

Third Day, October 26.

Surgical Diagnosis and the Time to Operate in Appendicitis, by Thomas H. Manley, New York County; The Sphere of Drainage in Surgery of the Appendix, by William Stevenson MacLaren, Litchfield, Conn.; Appendicitis: Its Treatment from a Medical and Surgical Standpoint, by Thomas B. Seully, Oneida County; Cholangiostomy, with Report of Two Successful Cases, by Merrill Ricketts, Cincinnati, Ohio; The Selection of the Anesthetic in Surgery, by John A. Wyeth, New York County; The Administration of Nitrous Oxid with Air or with Oxygen, by Thomas L. Rennett, New York County; Variola, by Gray B. Holliday, Portsmouth, Va.; The Differential Diagnosis Between Chronic Joint Disease and Traumatic Neurosis, by Reginald H. Sayre, New York County; Subnormal Temperature, Part Second, by Leroy J. Brooks, Chenango County; To be discussed by C. L. Dana, New York City, and E. D. Fisher, New York City; Etiological Relation of Autoinfection and Autointoxication to Diseases of the Eye, by A. A. Hubbell, Erie County; The Effects of Certain Occupations on the Pharynx, by Seymour Oppenheimer, New York County; The Topical Application of Iodoform in the Treatment of Tubercular Peritonitis, with Cases, by Z. J. Lusk, Wyoming County; Notes on Catheterism, Catheters and Bougies, by John W. S. Gouley, New York County; Esophageal Stenosis with Surgical Treatment, by James G. Hunt, Oneida County; An Epidemic of Intercostal Neuralgia, by Thomas F. Reilly, New York County; Nonmalignant Strictures of the Esophagus, Their Treatment by Retrograde Dilatation, by Henry Mann Silver, New York County; Suppurative Ethmoiditis and Its Treatment, by Frank S. Milbury, Kings County; Brief Comments of the Materia Medica, Pharmacy and Therapeutics of the Year ending October 1, 1899, by Edward H. Squibb, Kings County.

The following are the officers of the Association: Joseph D. Bryant, president, New York City; James G. Hunt, vice-president, Utica; Douglas C. Moriarta, vice-president, Saratoga Springs; Frank D. Reese, vice-president, Cortland; William M. Bemus, vice-president, Jamestown; E. D. Ferguson, treasurer, Troy; M. C. O'Brien, secretary, New York; John W. S. Gouley, director of the library, New York.

NEW ENGLAND.

The New England Peabody Home for Crippled Children has moved from Weston, Mass., to Glen Road, Wellesley Farms, in the same State.

Typhoid Fever from Infected Milk.—A single farm in Westboro, Mass., has furnished milk to which 22 cases of typhoid fever in Boston were traced. The hired man and the son of the farmer both were down with the disease. A quarantine was placed against the milk, and an investigation as to the cause ordered.

Bowdoin College Medical School will adopt a four-years course in 1900, and then the first two years of the course will be spent at the parent college in Brunswick and the last two in Portland, where suitable buildings are now being erected. This will greatly improve the clinical advantages of the school.

Thurber Medical Association, Milford, Mass.—The forty-sixth annual meeting was held in Milford, October 12. The following officers were elected for the ensuing year: President, Herbert McIntosh, of Medway; vice-president, Wm. L. Johnson, of Uxbridge; secretary, J. M. French, of Milford; treasurer, Le Grand Blake, of Milford; librarian, George F. Curley, of Milford; orator for 1900, N. W. Browne, of Blackstone.

The annual address was delivered by Dr. Herbert McIntosh, on The Ideal Physician. Dr. F. T. Rogers, of Providence, spoke in a very practical manner upon the conduct of the local Medical Society, urging more original work, more careful preparation, and fuller discussion.

The Boston Dispensary held its annual meeting last week, and the report of the superintendent, Dr. W. H. Hastings, showed that during the year ending September 30, 29,089 new patients had been treated at the Central office. The number of visits made to patients, old and new, from the central office was 77,306. The number of patients treated in the districts was 14,823, and the total number of visits by the district physicians was 23,131. The leading appointments for the year are as follows: Surgeons, Drs. Frederic M. Briggs, Edward E. Pease, Warren F. Gay, Alfred A. Wheeler; physicians, Drs. Robert Disbrow, Thomas M. Rotch, Harold Williams, Edward M. Buckingham, Henry Jackson, Robert W. Greenleaf, George A. Sargeant, William E. Fay, Samuel Breck, William Prescott, Augustus S. Knight, Frederic R. Tower, Edmund C. Stowell, John N. Coolidge, Fred Drew, Richard F. Chase, Elliott P. Joslin, Franklin W. White; diseases of the skin, Drs. Abner Post, James S. Howe; diseases of the nervous system, Drs. Frederic Coggeshall, William R. Woodbury; diseases of the throat and nose, Drs. John W. Farlow, Frederic C. Cobb, William S. Boardman, William E. Chenery; diseases of women, Drs. George Haven, Malcolm Storer, Charles H. Hare, Edward L. Twombley; diseases of the eye, Drs. Frank E. Draper, Edward R. Williams; diseases of the ear, Drs. Wallace Preble, Edgar M. Holmes; genitourinary system, Drs. Gardner W. Allen, Charles M. Whitney, C. Meston Smith, Arthur L. Chute; diseases of the rectum, Dr. Walter J. Otis; obstetric department, Dr. C. M. Green; orthopedic department, Drs. Calvin G. Page, Robert H. Vose; mental diseases, Dr. Walter Channing; department for tuberculosis of the lungs, Dr. Edward O. Otis; pathologist, Dr. Robert G. Loring.

CHICAGO AND WESTERN STATES.

Chicago Medical Society.—At a meeting held October 11, Dr. E. J. Mellish read a paper entitled: **General surgical anesthesia and anesthetics,** in which he said: The choice of anesthetics usually lies between chloroform or ether or their mixtures. Nitrous oxid is not practicable as a general surgical anesthetic. Chloroform, with few exceptions, kills by its effect primarily upon the circulatory system, and ether by its effect primarily upon the respiratory system. Ether causes dilatation of arterioles and increased capillary circulation, thereby insuring a good blood-supply to the circulatory and respiratory centers and to the heart-muscles, reducing the dangers to these systems. Anesthetics tend to produce degenerative changes in the tissues of the vital organs especially, and chloroform is probably more dangerous in this respect than ether. Deductions based solely upon laboratory experiments should be accepted with great caution, if at all. Ether, when properly administered, is no more liable to produce nephritis than chloroform. The danger from hemorrhage is no greater with ether than with chloroform. Anesthetics tend to reduce temperature, hence in administering them rational measures should be adopted to prevent great loss of body heat. The safety margin between sufficient chloroform for anesthesia and the lethal dose is much narrower than it is with ether. Anesthetics should be selected with reference to the conditions existent in individual cases. Patients should be well fed to within a few hours preceding anesthesia, to increase physiologic resistance, and they should not be kept awake with cathartics during the night preceding the operation. Water should be given, per os or rectum, as freely as practicable after anesthesia as an aid to the emunctories. Except in the tropics and in open-air surgery (military), the "open method" of administering both ether and chloroform

is preferable to the "closed method." No anesthetic is "perfectly safe," and no person without a wholesome fear of anesthetics can be trusted to administer them. Patients who greatly fear anesthesia are the ones likely to be most troublesome to the anesthetist. Other things being equal, the intelligent and educated take anesthetics better than those of low intellect. The pupillary reflexes constitute the best guide to the presence or absence of surgical anesthesia. The anesthetizer should depend upon no single danger signal. Noisy breathing during anesthesia is usually indicative of faulty administration. The minimum amount of anesthetic should be given consistent with the production and maintenance of the desired degree of anesthesia. The use of drugs preceding and during anesthesia should be avoided save where positively indicated. Cocainizing the nares to antidote the anesthetic is dangerous practice. In sudden paralytic dilatation of the heart the head-down position is dangerous. Compression of the phrenic nerve is a valuable means of controling retching during anesthesia. Anesthetic mixtures are in general less safe than the single anesthetics. Partial or "talking anesthesia" is advisable in some cases, but should not be employed indiscriminately.

SOUTHERN STATES.

Maryland Medical College.—Dr. Urban Smith has been elected professor of the practice of medicine.

Tri-State Medical Society of Alabama, Georgia, and Tennessee.—The following is the preliminary program of the meeting to be held in Chattanooga, October 24–26:

President's Address—Hernia, by G. A. Baxter, Chattanooga; The Value of Treatment in Pneumonia, by S. W. Purifoi, Lowndesboro, Ala.; Typhoid Fever, by W. N. Vaughan, Fairmont, Ala.; Typhoid Fever, by James Donnelly, Trenton, Ga.; Cold Water in the Treatment of Typhoid Fever, by J. H. Killough, Huffman, Ala.; Localities of Continued Fever, by Frank Cordle, Trion Factory, Ga.; Common Sense in the Treatment of Typhoid Fever, by R. R. Kime, Atlanta, Ga.; Summer Complaint, by C. S. Durand, Chattanooga; Fracture of the Spine with Report of Cases, by B. G. Copeland, Birmingham, Ala.; Report of Surgical Cases, by R. E. Fort, Nashville, Tenn.; Report of Cases, by Willis F. Westmoreland, Atlanta, Ga.; Chronic Cystisis; Suprapubic Cystotomy; Remarks on Cases, by Thos. F. Moore, Linwood, Ala.; Abscess of the Liver with Report of Case, by M. Goltman, Memphis, Tenn.; Ringworm of the Scalp, by W. R. Blue, Louisville, Ky.; Serum Therapy, by Y. L. Abernathy, Hill City, Tenn.; Early Menstruation and Pregnancy, by J. T. Kirkpatrick, Tunnel Hill, Ga.; Management of Normal Labor, by J. S. B. Woodford, Chattanooga; Pus Involving Pelvic Viscera and Adjacent Structures, by W. G. Bogart, Chattanooga; Puerperal Eclampsia, by G. F. Moon, Breman, Ala.; Ulcers of the Cornea; Treatment with Ichthyol, by B. F. Travis, Chattanooga; The Management of Inflammation of the Conjunctiva, by W. Cheatham, Louisville, Ky.; Ophthalmia Neonatorum, by Dudley S. Reynolds, Louisville, Ky.; A Short Address on the Treatment of Suppurative Otitis Media, by L. B. Graddy, Nashville, Tenn.; The Necessity for all Medical Practitioners of an Understanding of Glaucoma, by Alex. W. Stirling, Atlanta, Ga.; Sarcoma of the Antrum of Highmore, by A. A. Greene, Anniston, Ala.; Headache from Eye Strain, by J. L. Minor, Memphis, Tenn.; Operative Treatment of Goiter with Report of a Case, by W. D. Gaines, LaFayette, Ala.; Exhibition of Pathological Specimen, by S. W. Fain, Chattanooga; Subject to be announced, by J. R. Rathwell, Chattanooga; Abdominal Surgery with especial Reference to Work in Private Homes, by C. Hamilton, Rome, Ga.; Renal Calculus, by W. D. Haggard, Jr., Nashville, Tenn.; Gallstones in the Ducts and Their Removal, by M. C. McGannon, Nashville, Tenn.; Law and Medicine—Similarities and Contrasts, by John H. Cantrell, Lecturer on Medical Jurisprudence, Chattanooga Medical College; Stricture of the Small Intestine with Obstruction, Organic; Operation for Relief, Subsequent Treatment with Recovery, by G. W. Self, Selfville, Ala.; Subject to be announced, by Richard Douglas, Nashville, Tenn.; Report of Surgical Cases, by James T. Harwell, Iskooda, Ala.; Report of a Case of Hemorrhagic Rubeola, by W. D. Travis, Covington, Ga.; Pelvic Operations Through the Vagina, by Harry Gross, Baltimore, Md.

Influence of School-life to be Investigated in the District of Columbia.—Superintendent Powell of the public schools of the District of Columbia and the Board of School Trustees have united with the Medical Society of the District in an effort to obtain statistics relative to the influence of school-life upon children. The plan determined upon by the committee in charge of this work is to get the necessary data from 10 pupils in each school, 5 boys and 5 girls. This will give 25% of the regular attendance and supply valuable statistics. The questions to be answered have been agreed upon and printed, and sent to the superintendent, who, after explaining the matter in full to each principal, supplied them with blanks and directed strict compliance. The selection of the children to be examined is by lot, and if there be objection on the part of either pupil or parent another name is drawn. The examination is strictly private, and no one but the teacher knows the names of the pupils examined. This examination is conducted by the lady teachers for the female pupils, and by the male teachers for the boys. Here is a list of the queries. If there is objection to answering any of them they are passed over.

Withdrawals since October 11, 1899, on account of ill health; name of disease from which each of these pupils suffered; withdrawals since October 11, 1899, on account of inability to do school-work; all other withdrawals since October 11, 1899; transferred to other schools since October 11, 1899; died since October 11, 1899; name of the disease causing each death; total number of school days each pupil out of school since October 11, 1899, on account of sickness; name of disease from which each pupil suffered; all other school days each pupil out of school since October 11, 1899; increase in weight since October 11, 1899; decrease in weight since October 11, 1899; increase in height since October 11, 1899; decrease in measurement of chest since October 11, 1899; increase in measurement of chest since October 11, 1899; increase in measurement of chest during the deep inspiration since October 11, 1899; decrease in measurement of chest during deep inspiration since October 11, 1899; increase in measurement around the hips since October 11, 1899; decrease in measurement around the hips since October 11, 1899; pulse, number of beats, increased per minute since October 11, 1899; pulse, number of beats decreased per minute since October 11, 1899; respiration, number of increased respirations per minute since October 11, 1899; respiration, number of decreased respirations since October 11, 1899; defective eyesight; defective hearing; defective speech; other perceptible mental or bodily defect; nature of this bodily or mental defect; appetite poor; sleep insufficient or disturbed; headache, occasional; headache, frequent; nosebleed, occasional; nosebleed, frequent; cough, occasional; cough, frequent; backache, occasional; backache, frequent; age, when menstruation first began; irregular menstruation; painful menstruation; healthy or robust in appearance; frail, sickly, or nervous in appearance; number of times each pupil detained during recess or after school for missed lessons since October 11, 1899; number of times each pupil detained during recess or after school for misconduct since October 11, 1899; number of days each pupil received health exercise during school hours since October 11, 1899; average time per day devoted to these exercises by each pupil; number of hours usually devoted to school-lessons by each pupil at home; number of hours usually devoted to other lessons by each pupils at home; time that can be devoted to mental work before symptoms of fatigue appear; becomes very tired, usually before school is dismissed in the afternoon; has tuberculosis; has scrofula.

For the last two questions a physician's certificate is required.

MISCELLANY.

Medical Service at Guam.—The Navy Medical Department has secured an allotment of $10,000 for a hospital and dispensary at Guam. It appears from the report of the naval commandant that with 8,000 people on the island there is not a single physician, and there are no medical stores outside of the ship's surgeons and supplies.

The Medical Corps in the Philippines.—It is stated by Surgeon-General Sternberg that ample provision had been made by the War Department for supplying troops in the Philippines with medical attendants in response to a message from Colonel Woodhull asking that 30 additional medical officers and 30 additional nurses be sent immedi-

ately to the Philippines. General Sternberg cabled Lieutenant Colonel A. A. Woodhull, Deputy Surgeon-General, Chief Surgeon of the Department of the Pacific, that since August 1 six commanding medical officers of the regular establishment and 32 contract surgeons had left San Francisco for Manilla. Every transport that now reaches Manilla has on board medical officers who will be assigned to duty by General Otis.

In addition to the medical officers on their way to Manilla, 10 commissioned medical officers and 25 contract surgeons are under orders to report to General Otis. There are today in the Philippines 70 female nurses, and orders were given today to 30 more directing them to sail from New York for Manilla. In addition to this force there are 1,289 privates of the hospital corps now in the Philippines and 200 are under orders. The medical officers on the way and under orders to Manilla are in addition to the commissioned officers of the volunteer regiments. Each regiment, in accordance with the provisions of the army reorganization law, has 3 commissioned medical officers and a force of hospital corps men.

Obituary.—Dr. Paul Ellwanger, Greensboro, Md., October, 10.—Dr. John Henry Fuess, acting assistant surgeon, U. S. A., committed suicide on the transport "Burnside" last week, having delusions of persecution, aged 35 years.—Dr. Paul W. Jacob, New York City, October 3.—Dr. W. H. H. Wallace, Old Lyme, Conn., October 2, aged 43 years.—Dr. Joseph H. Smith, Plattsburg, N. Y., October 5, aged 78 years.—Dr. John T. Grimes, Williamsport, Md., October 7, aged 70 years.

American Electro-Therapeutic Association.—The eleventh annual meeting was held in Washington, September 19, 20, and 21, and the following officers elected: President, Dr. Walter H. White, Boston, Mass.; first vice-president, D. Percy Hickling, Washington, D. C.; second vice-president, Dr. Charles O. Files, Portland, Me.; treasurer, Dr. Richard J. Nunn, Savannah, Ga.; secretary, Dr. George E. Bill, Harrisburg, Pa. The next annual meeting will be held in New York City, on September 25, 26, and 27, 1900.

The Toad as an Intermediary Host of the Typhoid Bacillus.—The *New York Medical Journal*, quoting the *Medical Standard*, states that Dr. G. Law makes an ingenious suggestion and one that is worthy of scientific investigation. He points out that toads and frogs spend the summer months ingesting flies and other insects. Flies, of course, swarm and breed around fecal matter. During the winter the toad hibernates, to reappear in the late spring. In view of these facts Dr. Law suggests that "a study of the intestinal contents of the common toad when he first comes out of hibernation in the early summer might reveal important facts in the life-history of Eberth's bacillus." The author quotes a curious case in which, in June, 1899, there was an outbreak of typhoid in an outstanding farmhouse, there having been no cases of typhoid fever in the neighborhood, either city or country, since the preceding November. Three members, ranging from 5 to 20 years old, were first attacked simultaneously, and subsequently 2 others were attacked. There seemed to be no explainable source for the first cases. In August, however, a few days after the last case began, "portions of the skin and muscle of a toad were drawn from the tap at the kitchen sink." On these premises the author builds the following ingenious theory: In the preceding October many casuals were employed on the arm. One of these may have had ambulant typhoid and used the outdoor privy. From fecal matter to fly, and fly to toad, passed the bacillus, remaining dormant until hibernation was over, when one or more toads found their way into the well and thus started the outbreak.

Health Reports.—The following cases of smallpox, yellow fever, cholera, and plague have been reported to the Surgeon-General of the U. S. Marine-Hospital Service, during the week ended October 14, 1899:

Smallpox.—United States.

			Cases.	Deaths.
Arkansas:	Jefferson County	Oct. 4	20	
"	Pulaski County	Oct. 4	6	
Kansas:	Butler County	Oct. 2	5	
Massachusetts:	Chelsea	Sept. 30-Oct. 7	1	
Ohio:	Cincinnati	Sept. 30-Oct. 7	2	
"	Cleveland	" "	1	
"	Dayton	" "	2	
Pennsylvania:	Allegheny	Sept. 30-Oct. 7	3	
Tennessee:	Memphis	" "	2	
Virginia:	Portsmouth	Sept. 30-Oct. 7	2	
Washington:	Seattle	Sept. 22-30	1	

Smallpox—Foreign.

Canary Islands:	Teneriffe	Sept. 16-23		2
Greece:	Athens	Sept. 16-23	7	2
India:	Bombay	Sept. 5-12	10	
"	Madras	Sept. 2-8		1
Italy:	Naples	Sept. 14-21		1
			Imported from British East Africa.	
Mexico:	Chihuahua	Sept. 22-30		7
"	City of Mexico	Sept. 10-30	21	11
"	Cuchio	Sept. 29	25	
"	Mulatto	"	12	
"	Nuevo Laredo	July 1-Aug. 24		3
"	Ojenega	Sept. 29	50	
"	Pilares	"	15	
"	Progreso	Oct. 7	30	
"	San Antonio	Sept. 29	20	
"	San Felipe	Oct. 7	100	
"	San Francisco	Sept. 29	5	
"	San Juan	Sept. 29	100	
"	Suarez	Oct. 7	40	
"	Vado de Piedras	Sept. 29	20	
Russia:	Moscow	Sept. 8-16	2	
"	Odessa	Sept. 16-23	4	
"	St. Petersburg	Sept. 8-16	1	
Straits Settlements:	Singapore	Aug. 19-26		3

Yellow Fever.—United States.

Florida:	Key West	Oct. 6-10	137	4
Louisiana:	New Orleans	Oct. 5-12	8	2

Yellow Fever.—Foreign.

Cuba:	Matanzas	Oct. 3	1 (Soldier.)	
"	Nuevitas	Sept. 10-16	1	
"	Santiago	Sept. 16-23	4	
Mexico:	Vera Cruz	Sept. 22-28	9	4
"	Victoria	Oct. 6	Reported.	
Salvador:	Vicinity of City of Salvador	Sept. 1	11	1

Cholera.

India:	Calcutta	Aug. 25-Sept. 2		4
"	Karachi	Sept. 2-9	1	1

Plague.

Egypt:	Alexandria	Sept. 17-24		1
"	Lorenzo Marques, Magudo	Sept. 22	Reported.	
India:	Bombay	Sept. 5-12		87
"	Calcutta	Aug. 25-Sept. 2		54
"	Karachi	Sept. 2-9	3	3

Changes in the Medical Corps of the U. S. Army, for the week ended October 14, 1899:

Wells, Captain G. M., assistant surgeon, is granted leave for 20 days with permission to visit the United States.

Stark, Captain A. N., assistant surgeon, will report at Columbia Barracks, Cuba, for duty.

A board of officers is directed to meet at the General Hospital, San Juan, P. R., October 10, for the purpose of examining candidates for detail as acting hospital steward. Detail: Captain P. R. Egan, assistant surgeon; Captain F. P. Reynolds, assistant surgeon; First Lieutenant F. M. Hartsock, assistant surgeon, and S. R. Williams, acting assistant surgeon, recorder.

SARGENT, ERLE H., acting assistant surgeon, will proceed to Fort Casey for duty.

SMITH, CHARLES L., hospital steward, is relieved from duty in the department of the Province of Havana and Pinar del Rio, and will proceed to Matanzas, Cuba, for assignment to duty.

O'REILLY, PATRICK, hospital steward, is relieved from duty in the department of Matanzas and Santa Clara and will proceed to Quemados, Cuba, for assignment to duty.

HACK, C. W., acting assistant surgeon, is relieved from duty at Fort Yellowstone and will proceed to Fort Meade for duty.

BROWN, Major IRA C., surgeon, will proceed to the Philippine Islands on the transport "Valencia," to sail about October 5, reporting upon arrival in Manila to the commanding general, department of the Pacific, for assignment to duty.

MOSES, H. C., acting assistant surgeon, is granted leave for one month with the understanding that if the Forty-fifth Infantry, U. S. Volunteers, shall be ordered away from Fort Snelling he will report for duty before the regiment leaves its present camp.

HARTSUFF, Lieutenant-Colonel ALBERT, district surgeon-general, will proceed to Fort Thomas for the purpose of inspecting the camp of the Forty-eighth Infantry, U. S. Volunteers, and making the necessary sanitary recommendations.

VITOU, BENJAMIN, hospital steward, will proceed to Fort Wood for duty.

WARREN, STANLEY S., acting assistant surgeon, will proceed from Hot Springs, Colo., to Fort Clark for duty.

WOODSON, Captain ROBERT S., assistant surgeon, is relieved from duty at Fort Clark, will proceed to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

The following-named officers are detailed to represent the medical department of the Army at the annual meeting of the American Public Health Association at Minneapolis, Minn., October 31 to November 3: Major WALTER REED, surgeon; Major ALFRED E. BRADLEY, surgeon. The officers named will proceed to Minneapolis, Minn., in due time, and upon the adjournment of the meeting will return to their proper station.

KRAMER, Major SIMON P., surgeon, is honorably discharged from the volunteer army upon tender of his resignation, to take effect October 31.

STEMEN, WILLIAM E, acting assistant surgeon, will proceed from Kansas City, Kans., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

CLEARY, Lieutenant-Colonel PETER J. A., district surgeon-general, will report to the commanding officer, Fort McPherson, for duty.

WOOD, Major MARSHALL W., surgeon, upon arrival at San Francisco, Cal., will proceed to Jefferson Barracks for duty.

GIRARD, Major JOSEPH B., surgeon, is relieved from duty at Jefferson Barracks, Cal., and will proceed to St. Louis, Mo., and assume charge of the medical supply depot in that city.

WRIGHT, Colonel JOSEPH P., acting assistant surgeon, is relieved from duty at the medical supply depot St. Louis, Mo., and will proceed to St. Paul, Minn., and report to the commanding general, dapartment of Dakota, for assignment to duty as chief surgeon of that department.

BRADLEY, Major ALFRED E., surgeon, is relieved from duty as acting chief surgeon department of Dakota, Minn., and will proceed to Fort Snelling for duty.

INGRAM, THOMAS D., acting assistant surgeon, granted leave on surgeon's certificate is further extended one month on account of sickness.

MILLHOFF, First Lieutenant CLARENCE B., assistant surgeon, is relieved from further duty at the U. S. General Hospital, Presidio, and will report to the commanding general, department of California, for assignment to duty with troops going to Manila, P. I.

SLAYTER, JOHN T. H., acting assistant surgeon, now at Cambridge, Mass., will proceed to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

ENGLEHARDT, FRANCIS G., now at Syracuse, N. Y., will proceed to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

ATHEY, WILEY L., acting assistant surgeon, will proceed from New York City to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

STEWART, LYELL R., hospital steward, is relieved from duty at Holguin and will proceed to Bayamo, Cuba, for duty.

MCHENRY, G. A., acting assistant surgeon, is granted leave for one month on account of sickness with permission to leave the limits of the division of Cuba.

CALHOUN, W. W., acting assistant surgeon, is relieved from duty at Nuevitas and will proceed to Banes, Cuba, for duty.

WARMSLEY, WILLIAM C., assistant surgeon, is relieved from duty at Banes, Cuba, and will proceed to New York City, reporting from there to the Adjutant-General of the Army for orders.

MCGUIRE, WILLIAM A., hospital steward, is relieved from duty at El Cobre and will proceed to Socorro, Cuba, for duty.

Changes in the Medical Corps of the U. S. Navy, for the week ending October 13, 1899:

HAWKE, J. A., medical inspector, promoted to medical director.

LEVERING, P. A., surgeon, ordered to the Mare Island Navy Yard.

LEWIS, D. O., surgeon, detached from the Mare Island Navy Yard and ordered to the "Iowa."

SIMONS, M. H., surgeon, detached from the "Iowa" and ordered to Washington, D. C., October 23, for examination for promotion, and then home to wait orders.

ATLEE, L. W., surgeon, detached from the "Solace" and resignation accepted.

BAGG, C. P., passed assistant surgeon, detached from the "Pensacola" and ordered to the "Solace."

PAGE, J. E., passed assistant surgeon, ordered to the "Pensacola."

WHEELER, W. M., assistant surgeon, detached from the "Solace" and ordered home to wait orders.

SIEGFRIED, C. A., medical inspector, detached from the torpedo station, Newport, R. I., October 17, and ordered to continue in charge of the naval hospital, Coasters Harbor Island, R. I.

STEELE, J. T., surgeon, ordered to duty at the torpedo station, Newport, R. I., October 17.

Changes in the U. S. Marine-Hospital Service, for the week ended October 12, 1899:

MURRAY, R. D., surgeon, to proceed to Key West, Fla., for special temporary duty. October 7. To assume command of the service at Key West, Fla., in accordance with orders of May 15, 1899. October 12.

CARRINGTON, P. M., surgeon, to proceed to New York, N. Y., as inspector of unserviceable property. October 11.

PERRY, T. B., passed assistant surgeon, to report to chairman of board of examiners, New York, N. Y., for examination to determine fitness for promotion. October 7.

WOODWARD, R. M., passed assistant surgeon, to report to chairman of board of examiners, New York, N. Y., for examination to determine fitness for promotion. October 7.

VAUGHN, G. T., passed assistant surgeon, to report to chairman of board of examiners, New York, N. Y., for examination to determine fitness for promotion. October 7.

WERTENBAKER, C. P., passed assistant surgeon, to proceed to Bristol, Tenn., for special temporary duty. October 11.

DECKER, C. E., assistant surgeon, to proceed to San Diego, Cal., and assume command of the service, relieving assistant surgeon L. E. Cofer. October 7.

GREENE, J. B., assistant surgeon, to report to chairman of board of examiners, New York, N. Y., for examination to determine fitness for promotion. October 7.

CASUALTY.

MCADAM, W. R., assistant surgeon, died of yellow fever, at Key West, Fla., October 12.

Laboratory Committee Americau Public Health Association.—The following is the provisional announcement of the program of the meeting to be held at Minneapolis, October 30:

Introductory address by the Honorary Chairman, Prof. W. H. Welch, of Johns Hopkins University; Experiments on the Infectiousness of Clothing, by W. G. Bissell, Buffalo; Recent Laboratory Work on Tuberculosis, by E. R. Baldwin, Saranac Lake; Action of Massachusetts Water Supplies upon Lead, by H. W. Clarke, Lawrence, Mass.; Bacillus Coli and Drinking Water, W. A. Copeland, Pittsburg; Relation of Water Investigation to Legal Controversies, by Floyd Davis, Des Moines; Laboratory Studies on Bacteria and Milk Supply, by R. G. Freeman, New York; (1) Classification of Water Bacteria; (2) Standard Laboratory Methods, by G. W. Fuller; *Etiology of Disease and its Geographical Distribution, by Frank Ferguson, New York; (Title to be given later), by Adolph Gehrmann, Chicago; Branching Forms of Diphtheria Bacilli, by Hibbert Hill, Boston; The Observation of Odors as an Essential Part of Water Analysis, by G. W. Whipple, Brooklyn; Personal Experience in Disinfection, by Wyatt Johnson, Montreal; Notes on Bacterial Water Analysis, by E. O. Jordan, Chicago; *Laboratory Studies on the Disposal of Sewage, by L. P. Kinnicut, Worcester; (Title given later), by J. J. Mackenzie, Toronto; (1) Oxalate Blood and Plasma; (2) (Title given later), by F. G. Novy, Ann Arbor; Preparation of Antistreptococcic Serum, by W. H. Park, New York; *Educational Institutions in Relation to Expert and Commercial Work, by Mrs. Ellen H. Richards, Boston; Gas Producing Water Bacilli of Non-Colon Types, by H. L. Russell, Madison, Wis.; B. Coli and Drinking Water, by W. R. Stokes, Baltimore; Varieties of Diphtheria-Bacilli, by F. F. Wesbrook, Minneapolis.

Papers marked * will be read before the General Meeting.

The following subjects have been selected for discussion with special reference to cooperative work by the Laboratory Committee: (1) Disinfection. (2) Shortening the Period of Infectiousness in Contagious Diseases. (3) Disposal of Sewage and Waste. (4) Milk and Infection by Milk. (5) Transmission of Specimens to Laboratory.

Members wishing to read papers will kindly notify the Local Secretary, Dr. F. F. Wesbrook, State Board of Health Laboratory, Minneapolis, Minn., or the Chairman, 76 St. Gabriel Street, Montreal.

Foreign News and Notes.

GREAT BRITAIN.

Dr. R. P. Lyle has been appointed lecturer in midwifery and diseases of women in the University of Durham Medical School.

The outbreak of **typhoid fever in Dublin,** to which reference was recently made in these columns, has been traced to infected milk.

The Vaccination Question.—The English Local Government Board has decided to take action against the municipal officers at Leicester who refuse to appoint a vaccination officer. The proceeding will of course make popular martyrs of the prosecuted guardians, but, as Dickens's Mr. Bagnet said, "Discipline must be maintained."

The Health of Sir Thomas Grainger Stewart.—The state of Sir Thomas Grainger Stewart's health is giving his friends serious anxiety. He has decided not to undertake his professional duties this winter. Sir Thomas is not an old man, being only just over 60 years of age, but having been professor of the practice of medicine in Edinburgh University for three-and-twenty years, he has been a public character so long that he is generally believed to be older than he is.

The Hospital Reform Association meets in London on Tuesday, October 10, and Wednesday, October 11. This is a body of medical men and laymen having for their object the reform of hospital procedure, so as to prevent these charities being regularly exploited by those for whom their benefits were not intended. It has already done useful work, and would be a powerful aid against abuses under which British medical men suffer much, if it were more generously financed by those whom it strives to help.

The Medical Service in St. Paul's Cathedral.—In accordance with annual custom, the medical profession in London will meet on the day following St. Luke's Day (*i. e.*, on October 19), at 7 P.M., for prayer and to hear a sermon. The sermon this year will be preached by the suffragan-bishop of Stepney. The service is an annual one organized by the Guild of St. Luke, evangelist and physician, and as such is intended to associate the two professions of religion and medicine as coworkers for the good of humanity. At this year's service the Lord Mayor of London is attending in state to mark the civic approbation of the special work of the guild, viz., the sending out as missionaries to uncivilized, or partly civilized, peoples, medical men who shall be able to take charge of the heathen body while awaking the heathen soul.

The Qualities of Quackery.—At the end of an editorial article dealing with the introductory addresses delivered at the opening session of the various medical schools, the *Lancet* remarks: But, in conclusion, we give ourselves the pleasure of quoting Mrs. Garrett Anderson's witty remark upon the qualities of quackery. "All honest quackery," she says, in her address to the students of the London School of Medicine for Women, "is based upon complete ignorance of pathology; dishonest quackery on the conviction or the hope that the patient is completely ignorant of it also." A most happy as well as a most concise description of the gulf that separates the well-intentioned from the venal intruder in the fields of medicine. Alas, that there should be so many intruders, and that the ill they do should be equally grave, whatever the inspiring motive.

Civil Practitioners for the British Medical Service.—The British War Office is advertising for civilian medical practitioners to fill the vacancies in the home districts caused by the departure of so many officers of the Royal Army Medical Corps to South Africa. It is clear from this that the recent concessions made by the War Office to the Army Medical Service have not succeeded in quite rehabilitating the service in the opinion of young medical men. Although the absolute dearth of candidates for commissions has been remedied, there has been no influx of men into the corps and the old vacancies—the vacancies to stop which the concessions were made—have never been filled, though they have not increased in number. As a matter of fact the Army Medical Service had fallen a short while back into such utter disrepute with the British medical profession that time alone can remove the distaste for holding a commission which the mass of young medical men feel. The temporary military appointments are to be made to qualified men under forty years of age. As presumably their whole time will be required by the government, and as the suggested pay is only £270 per annum, there will be no great crowd of applicants.

A Side-Light on the Transvaal Dispute.—"It is the blessed fortune of special journals," writes a frequent English correspondent under date of October 7, "that they need not take cognizance of political convulsions generally, but need only write on them when their own special province is involved in the convulsion. The state of war between the Transvaal and Great Britain has been brought about by several factors, concerning which there is nothing to be said from a medical point of view, and not much to be said from any point of view that cannot be logically and flatly contradicted by persons taking a different standpoint. But the exasperation of English traders can be understood if the episode that follows has been of frequent occurrence, as I am informed it has. Messrs. Reed, Holliday & Sons, the well-known chemists of Huddersfield, purchased the Transvaal patents for the manufacture of calcium carbid, and were about to establish works there, but now find that President Kruger has conferred a monopoly of the manufacture and sale of this product on a rival firm, who coolly offer to sell their 'rights' to the holders of the Transvaal patents for a sum of £15,000. The complaints of the latter are met by a suggestion that they should apply to the Transvaal law courts. This is the kind of thing, which far more than any of the reasons put forward by statesmen, has convinced many English that war is necessary, even while they thoroughly dislike the idea of attacking the Boers under circumstances that may appear aggressive and revengeful. If English tradesmen cannot get fair play they will always follow the movement which looks like redressing their grievances."

The opening of the English medical schools took place in London, and such of the large provincial cities as possess a medical school, on Monday, October 2; and in accordance with ancient custom an introductory address for the benefit of the new students was delivered at most of the principal institutions. In the metropolis the most original and striking address was that given at St. Thomas' Hospital by Professor Clifford Allbutt, of Cambridge University, who, as became a University professor, valiantly defended the uses of theory. Without belittling in any way the value of practical work, he demonstrated with clearness as well as real eloquence the fact that research carried out

along the lines of theory has been the means by which all learning has progressed and must progress. In a narrow sense, Professor Allbutt's address was a plea for professors, but in a wider sense it was an excellent piece of teaching for teachers—especially for medical teachers—who in their desire to inculcate into their pupils the impossibility of succeeding without much practical work are apt to lose sight of the due relation that small pieces of technical knowledge bear towards the truths of integrated learning. At St. George's Hospital the students heard from their well-known consulting physician, Dr. W. Howship Dickinson, a pithy and caustic speech on the medicine of the past half century, in which the orator took pains to show that one of the most conspicuous improvements in medicinal practice has been that the importance of letting nature play her own part quietly has become recognized. Dr. Dickinson is obviously a close reader of good books, for his address was crowded with happy allusions. At Owen's College, Manchester, Sir James Crichton-Browne, the well-known psychologist, warned the young adherents to medicine in weighty terms against the dangers of materialism, especially begging them to beware of the perilous brilliancy of Mr. Herbert Spencer. We cannot think that many medical students, in England or elsewhere, have faltered in their faith through studying Spencer, for this popular philosopher of the nineteenth century is not easy reading. A fourth address should be mentioned and that is the one delivered by Sir William Gairdner, professor of medicine in Glasgow University, to the students of Mason College, Birmingham. Sir William Gairdner is an eloquent advocate for the teaching of the ancillary sciences at school, so that the medical student when he begins his curriculum proper shall begin with medical studies, not with, for example, botany and chemistry. These, according to Sir William Gairdner, he should have learned at school, either with or in place of Latin and Greek.

CONTINENTAL EUROPE.

University Appointments.— VIENNA: Dr. Conrad Clar, Dr. Josef v. Metnitz, Dr. Ernst Wertheim, Dr. Norbert Ortner, and Dr. Arthur Biedl have been appointed extraordinary professors.

Die medicinische Weltlitteratur is the title of a new publication issued in Vienna, that is expected to replace the recently suspended *Index Medicus*. It is asserted that it will contain an index to the medical literature of the entire world, and that it will appear twice monthly. The subscription price is 16 marks ($4.00).

Dr. Lacour has just been honored with the title of doctor of pharmacy, which was conferred on him by l'Ecole de Pharmacie de Paris. This is the first time in its history that the school has conferred this title, and it was granted to Dr. Lacour for his discovery of the typhoid-bacillus in the drinking water at Versailles.

Beri-beri in Burmah.—According to the *Lancet*, beriberi seems to be on the increase tn Burmah; certainly the number of cases treated in the hospital at Rangoon has increased rapidly. In 1898 nearly 50% of the cases in hospital were fatal. The cases seem to occur among the immigrant coolies from Southern India. It is said that the "wet" form is the more common. Death is mainly due to heart-failure and respiratory trouble. Convalescence is always prolonged. The etiology of this disease still remains obscure.

Presentation of a Bust of Morgagni to St. Thomas' Hospital, London.—At the commencement of the present scholastic term a marble bust of Morgagni was presented by the Italian ambassador to the Medical School, and formally accepted by the treasurer of the hospital. An address was also delivered by Dr. J. F. Payne. The bust has been reproduced after the statue by Salvino Salvini, which was presented to Forli, the birthplace of Morgagni, by Professor C. Versari, of the University of Bologna.

Berlin Notes.—Dr. Theodore Puschmann, professor of the history of medicine in the University of Vienna, died September 28, 1899. He had been in ill health for some time, having resigned his position as Dean in the spring.

In Berlin the "Ferien" courses only commence Monday, October 2, and last just 4 weeks. Many Americans are in Berlin, more Japanese, and a quantity of Swedes, Russians, etc. The Semester will not begin till the 6th or 10th of November.

The Berlin Medical Faculty intend having two courses given in cooking, for doctors only, following the example of the universities of the United States.

There has been a good deal of talk this week about the trachoma epidemic, found to have been started and spread in a public bathhouse here, which was small, and had its water, in a tank 8x10 meters, changed only twice a week. As many as 30 to 50 young laborers were in the tank at one time.

Dr. Carl Russ, the renowned ornithologist, died here September 30, aged 60 years.

Vincenz Priessnitz.—On October 4 was celebrated the one hundredth anniversary of the birthday of the founder of hydrotherapy, Vincenz Priessnitz, a farmer, of Gräfenberg, Austrian Silesia. His father became blind, in his early youth, so that, instead of attending school, he managed the farm. In summer he drove the cows high up the mountains, always resting about a spring which now bears his name, "Priessnitz Brünnlein." There he observed a deer, hurt in the hunt, which cured itself by a few days' bathing and jumping about in the water. Later, when his finger was severely cut, he applied water bandages and kept the finger wet constantly. But at the age of 17, in 1816, he was run over, breaking a number of ribs. These he treated also with wet compreses alone. People flocked to him from a distance, expecting all sorts of diseases to be cured by his "water method." His reputation spread so wonderfully that, though by some considered a wizard, he was nevertheless called to the Empress of Austria in 1826. In 1832 the Austrian Government sent Dr. von Türckheim to investigate the methods he used. The Doctor found nothing wrong—simply a cold-water therapy. So, his reputation once established, Gräfenberg became a big "water cure." Houses were erected and the place became a thriving town. At his death, in 1851, Priessnitz left 10,000,000 gulden. Kneipp's cure was a later discovery, though much the better known now.

The Medical Staff of the Bureaux de Bienfaisance.—According to the *Lancet* the Society of Medical Men attached to the Bureaux de Bienfaisance have adopted, on the motion of M. Dorison, the following scheme of demands as to the working of the Assistance Publique: (1) Outpatient consultations at the hospitals shall be done away with. (2) The question of admitting patients to the hospitals or not shall be decided by the medical men attached to the Bureaux de Bienfaisance. (3) A sufficiently large outpatient staff shall be provided to enable the senior medical staff to do their work thoroughly. (4) Every drug in the Codex as well as milk shall be included in the Pharmacopeia (*Nomenclature*) of the Bureaux de Bienfaisance and the medical staff shall be authorized to prescribe such in quantities large

enough to prevent loss of time on behalf of the patients by repeated visits. Baths shall also be able to be ordered in consultation in cases of those suffering from skin diseases. (5) Dispensaries in connection with the Bureaux de Bienfaisance shall be established for the treatment of diseases of the skin, the eye, the ear, the nose, and the teeth, and shall be under the care of specialists in their respective departments. The medical men in charge of ordinary dispensaries shall be allowed to send to these specialists such patients as may be suffering from any of the above-mentioned maladies, whether for treatment or to obtain such certificates as the ordinary medical man is not able to give. (6) The annual allowance to medical men for dispensary consultations shall be increased.

A Medical "Roman à Scandale."—The Paris correspondent of the *Lancet* writes: "Your readers will not have forgotten the exciting events which occurred some three years ago at the Faculty of Medicine in the matter of Dr. Heim. This young professor was accused of having stolen a number of instruments from the Natural History Laboratory, of which he was the head. The loss was first discovered by Professor Blanchard when he took over the charge of the Natural History Department. After a long inquiry Dr. Heim was convicted by the Academic Council. On appeal to the Superior Council of Public Instruction the charge of theft was quashed, but Dr. Heim was sentenced to two years' suspension for lax administration of his laboratory. The whole case was the cause of bitter anger against Professor Blanchard among the friends of Dr. Heim, who accused Professor Blanchard of using undue influence against Dr. Heim out of spite and envy. The students, too, made such a noise at Professor Blanchard's lectures that the lectures had to be stopped. All these facts were in a fair way to be forgotten when the publication of a novel revived all the old animosities. This book, called "Monsieur le Professeur," is by a little-known writer, M. Georges Maldague. It sets out under slightly disguised names the whole story of Dr. Heim, who is held up as the persecuted victim. Professor Blanchard is held up as the villain, all the details of his private life being attacked, even to the circumstances of his marriage. The book of course has made a great scandal in the medical world. Although it has appeared just as Dr. Heim has finished his time of suspension and on the eve of his recommencing his course of lectures, so far from producing any feeling in his favor it has been the cause of a reverse opinion.

Rheumatic Diseases of the Ear.—At a recent International Otological Congress, Professor v. Uchermann, of Christiania, read a paper on rheumatic diseases of the ear, which seem to be rare and but little known. The symptoms are apparently not sufficiently distinct nor the etiology so clear as to establish a safe conclusion with regard to cause and effect. The rheumatic ear affections hitherto described have been complications of rheumatic fever. Ménière mentions a case in which severe intermittent pain preceded by four days the attack of ordinary acute polyarthritis. A similar case is given by Wolff, who adds that the joints of the ossicles may be affected. The clinical or pathological proof, however, is not given. In both cases the appearance of the disease does not seem to have been altered. Moos has observed a case of apoplectiform (Ménière's) deafness during the period of convalescence after acute rheumatic fever complicated with endocarditis (perhaps embolic). In a second case various cerebral hypersthetic symptoms appeared with attacks of pain and hyperacusis; in the eighth and ninth weeks impaired hearing ensued, and ended in total deafness. Among the deaf-mutes in Norway is one in whom the condition of the ear points to the existence of a combined middle-ear labyrinth affection caused by this disease. Uchermann, however, believes that in more chronic cases of rheumatism the ear may become affected in a less acute and violent manner, but sometimes with a more serious result for the organ itself. He ventured the hypothesis that many of the cases of serous middle-ear affections, especially those marked by yellowish or amber-colored exudate, were rheumatic in origin, and that salicylic treatment should be tried before any surgical intervention was resorted to, but admitted that the salicylic treatment seemed to influence the acute forms, but not the chronic. These latter, from the experience of a case still under treatment, he thought might perhaps be more benefited by a general rheumatic treatment.—[*British Medical Journal.*]

Return of the Pasteur Institute Plague Commission.—The commission, the members of which were Dr. Calmette and Dr. Salembeni, sent out by the Pasteur Institute to study and fight againt the plague in Oporto, returned to Paris on October 2. The members of the Pasteur Institute *fêted* Dr. Calmette, who has returned delighted with the result of the commission—such being, in fact, a complete triumph for the anti-plague serum. The International Commission appointed to examine the question had come to the unanimous conclusion that Yersin's serum was worthy to be extolled as a preparation of value. No doubt exists of its efficacy as a preventive and after the first few days' excitement and rioting, during which Dr. Salembeni was injured by being hit on the knee with a stone, the inhabitants of Oporto finally recognized the benefit of the inoculation and during the last 3 days Dr. Calmette inoculated 423 workmen, firemen who carried dead bodies, and small shopkeepers. The members of the commission in the first place inoculated themselves. The efficacy was, however, less in cases with decided symptoms. Dr. Calmette was successful even in serious cases by injecting the serum directly into the veins. Dr. Calmette thinks that the Portuguese might easily free themselves from plague if they would rigorously carry out the measures which have been recommended to them and in particular if they would carry out inoculation of all the inhabitants of the suspected quarters. The immunity conferred by the inoculation lasts 25 days at least, the advantage of such immunity being capable of indefinite renewal by reinoculation. Unfortunately the inhabitants of Oporto carefully conceal all cases of contagion. Dr. Calmette quotes a case in which the body of a person dead from plague was concealed in his house for 3 weeks. The only patients brought to the hospital were those who had no family to keep them in hiding; the greater part were admitted in a hopeless state. Dr. Calmette frankly expressed the opinion that it is impossible for the plague to establish itself in France and to develop there even in the improbable event of its importation by cases in the stage of incubation.—[*Lancet.*]

MISCELLANY.

Obituary.—Dr. Theodore Puschman, professor of the history of medicine in the University of Vienna, and recently dean of the medical faculty, September 28.—Dr. Carl Russ, a distinguished ornithologist, Berlin, September 30, aged 66 years.

The Guillotine in the Study of the Mosquito Theory of Malaria.—We are informed in a lay contemporary that Surgeon Major Ross has been aided considerably in his studies concerning the mosquito theory of malaria by "a most striking machine." This is "a guillotine which cuts the mosquito into 60 distinct and separate sections so small that every minute detail can be studied under the microscope."

The Medical Laws of Various Countries.—Dr. Julius Schwalbe, the editor of the *Deutsche medicinische Wochenschrift*, has compiled a most useful work, entitled *Bestimmungen über die Zulassung zur ärztlichen Praxis im Auslande*, giving the substance of the laws and regulations governing the practice of medicine in 98 different communities representing practically the whole of America, Europe, Asia, Africa, and Australia. These communities he classifies as follows: (1) No special laws. China and Japan. (2) The requirement of a diploma or certificate authorizing the holder to practise in his own community. Many States in the United States and some States in Africa. (3) The passing of a State examination. Some States in the United States, Austria, and Turkey. (4) The passing of a State examination, with some concessions as to preliminary examinations. Argentina, Denmark, France, the Netherlands, Spain, and Sweden. (5) Regular courses in the community's own schools. Belgium, Greece, Italy, and Portugal. (6) The same, with evidence of preliminary education. Germany, Russia, and Switzerland. (7) Denial to all foreigners of the right to practise. Luxembourg and Servia.—[*New York Medical Journal*]

Society Reports.

[From our Special Correspondent.]

SEVENTY-FIRST ANNUAL MEETING OF THE GERMAN ASSOCIATION OF SCIENTISTS AND PHYSICIANS

Held at Munich, September 18–23, 1899.

(Concluded from page 700.)

FOURTH ANNUAL MEETING OF SOCIETY OF ABSTINENT PHYSICIANS OF THE GERMAN-LANGUAGE DIVISION.

ON Sunday, September 17, the above meeting occurred in the meeting-place of the division for psychiatry of the seventy-first science convention. The president, PROF. DR. KRAEPELIN, of Heidelberg, delivered an address on the **Influence of alcohol on man.** He declared that the only way to fight the evils of alcoholism was the experimental, and proceeded to report the results of such experiments in his laboratory where he had several talented assistants at work on the subject. He found that speech-association was favorably influenced, but the quick appreciation of disconnected syllables unfavorably influenced by alcohol. Similar experiments were tried with caffein, bromin, etc.; but similar results were obtained only from paraldehyd. Alcohol had proved itself to belong to the narcotics (soporifics(?)= schlafmittel.) Dr. Vogel's experiments showed that alcohol increased the ability to add figures, when at the same time observing the metronome, but decreased the ability for simple addition. Dr. Frey has observed that 20 gm. of alcohol injures untired muscle, but increases the power of an already tired muscle. Orszekowski, in Moscow, made similar experiments in 1894, which showed that alcohol at first increased the power of muscle, but soon reached its limit. But it was also shown that here it was the force of the will-power that was increased, while the muscle became fatigued more quickly than under normal circumstances. Similar experiments with caffein showed that the latter really increased the endurance. Alcohol makes easy the *auslösung* of movements, the transformation of thought into deed, but does not produce real power. The injurious after-effects of alcohol last so long as 10 hours. The subjective feeling of help comes from this easiness of producing muscular action. Continued use of alcohol from day to day (60 gm.) decreases mental ability, so that it steadily sinks. Thus the use of 80 gm. of alcohol a day (= 2 liters of beer) causes the ability to work to sink from the fifth day on. If the use of alcohol be later stopped, then the intellectual power rises; but on the second resumption of the use of alcohol the intellectual power goes down much more rapidly than before. The results of all these experiments have convinced Professor Kraepelin that alcohol, instead of being a friend, is a most untrustworthy comrade (*Geselle*).

DR. CALLA, of Finkenwalde, delivered a long address on the lost position of alcohol in the pharmacopeia and its relation to several diseases as their cause. At the end Dr. Calla said that drinkers should not be treated as criminals but as diseased.

PROFESSOR BUNGE, of Basel, began his address by showing that the composition of mammalian milk keeps steady pace with the development of the animal. The more rapidly they grow the greater the percentage of proteids and salts in the milk. Further, the percental composition of the bodies of young animals agrees closely with that of the milk destined for them. From this it comes that we cannot substitute one milk for another without injuring the infant creature. This is supported by practical experience in the case of giving cow-milk to babes. By **artificial feeding** babes are regularly overfed—something that does not occur in breast-nursing. Therefore, the mortality of artificially-nursed children is 6 or 7 times as great as that of children nursed by their mothers. Now it is becoming apparent that the ability of women to nurse their children is decreasing,—in the Stuttgart Lying-in Hospital only one-fourth were thus able to nurse their children. Dr. Binders has shown that artificial nursing was unknown in the fifteenth century. Therefore, the cause is to be sought near at hand. Prof. Bunge had sent out inquiries on the subject to several hundred physicians. From his answers he found that 72 women were able to nurse the 9 months, while 215 were unable. He then inquired as to the mothers and found that the mothers of the 72 could all nurse their children, but of the 215 only 29 had nursing mothers. He therefore concluded that the ability or inability is inherited. He also presented statistics to show that the ability to nurse was closely connected with soundness of teeth. Further, he found that of the women that could nurse their children 68% were abstainers and 32% moderate drinkers of alcoholics, but no regular drunkards; while of the other class 35% were abstainers, 58% moderate drinkers, 6% hard drinkers. Further, statistics as to the fathers and mothers of these women were given by the speaker to show why he believed that the use of alcohol injures the ability to nurse, and is the cause of the present degeneration.

UNION MEETING OF SECTIONS FOR PEDIATRICS, INTERNAL MEDICINE, HYGIENE AND GYNECOLOGY.

THURSDAY.

PROF. BIEDERT, of Hagenau, delivered a noteworthy address on the necessity of an institution for **experimental nutrition.** The first question to be studied is the nutrition of the child. At present there are two tendencies in artificial nursing: the one using cowmilk and believing that its indigestible casein will cause no trouble and that it will take the place of fats and carbohydrates of mother's milk; the other sees in even supposedly very digestible casein in cowmilk harm to the blood (acid poisoning, etc.). The same lack of unanimity prevails as to the amounts of food. The fate of the absorbed proteid is still in doubt and its amount in the food is, therefore, a somewhat uncertain measure of the value of the foods. For infant diseases, contact infection, air infection of the food, coupled with the harmful effects of the food, can be responsible. Such an institute can also be of immense service in discussing nutrition for adults.

THE CAUSE OF MALARIA.

In the zoological lecture-room, also on Thursday, PROF. GRASSI, of Rome, spoke on **malaria.** The **infection-theory** is very old, but recently renewed when Ross noticed in India that **mosquitos** spread bacteria among birds. But his researches were incomplete and inexact. The speaker then gave the results of the labors of himself and coworkers, Bastianelli, Bignami, and Dionisi. Prof. Koch's part in the solution of the problem was confined to confirming the views of Ross and of the lecturer without affording any proof of the same. Koch was wrong in believing that the malaria parasite of man goes through the same stages of development as Ross' bird parasite and also that the common mosquito could spread the disease. In man there are 3 parasites corresponding to the 3 forms of fever: quartan, tertian, and pernicious. They live in the red corpuscles and increase by division in a small number of sporozoites. Asexual reproduction occurs in man, but sexual in the body of the Anopheles mosquito, of which 4 forms live in Italy. The parasite is demorphous and two forms appear in the human body. The parasites increase rapidly in the organs of the mosquito—finally reach the salivary glands, whence they reach man. The sexual reproduction in mosquitos never occurs at a temperature below 15° C., and in Rome the spores become ripe in 12 days. Malaria parasites are found only in man and during only a few months of the year.

PEDIATRICS.

THURSDAY.

DR. ROMMEL, of Munich, gave **a contribution to the treatment of prematurely born children.** From an examination of the death-certificates in Munich for two years Dr. Rommel found that a third of the infants that die in the first year suffer from vital weakness or premature birth. Most of these die within 14 days and 50% without medical treatment. Therefore some rational method of treatment seemed necessary. The speaker has had charge of the "incubator" (?) in Munich for two years. As the source of heat he uses gas, but thinks that (kerosene?) petroleum would do as well. No artificial supply of oxygen was given, but great attention was given to ventilation. The babes were wound so as not to compress the thorax. The nutrition was given by nurses—and also by artificial means, since the chil-

dren were from poor families that could not afford to keep a nurse. Unfortunately, the nurses had to be frequently changed. The children were fed every two hours, mostly with spoons, many times by pouring in through the nose. The children under 1,800 grams weight often only took 10 grams at a meal—larger amounts led to disease. That good results were obtained is due to the fact that little or no heat was lost and the nourishment fully utilized. Sixteen children were thus treated, 11 weighed less than 2,000 (one being 1,300) grams, 5 over 2,000 grams. All showed subnormal temperature at the reception. The treatment lasted on an average 41 days, and the children then showed a desire to be taken out of the incubator. Four died; 3 of eclampsia, 1 of miliary tuberculosis. The daily increase in weight averaged 17 grams.

General Meeting for Internal Medicine and Hygiene

FRIDAY.

Professor Hans Buchner, of Munich, spoke on the **natural means of protection of the body.** The blood, since 1894, has been regarded as a bactericidal fluid. The latest researches show that this is due to alexins or digestion-enzymes. These dissolve bacteria and foreign red corpuscles. The white corpuscles produce these enzymes and can themselves dissolve tissue, as is shown in purulent wounds and in the solution of the catgut of aseptic wounds. The blood possesses many properties besides that of sending assimilative material to the tissues, such as that above mentioned. Therefore, blood-increase can cure bone and joint tuberculosis, etc. The increase in the presence of arterial blood by means of warm air has effected cures, and this is especially true when the increase is due to alcohol-bandages. These bandages are made in the manner of moist bandages, with 96% alcohol. Severe cases of lymphatic inflammation, furuncles, and abscesses have been cured by these means. The power is in the increased supply of blood, not in the antiseptic qualities of the alcohol. Caries of the teeth has been cured by rubbing twice a day with alcohol. In the Munich clinic much has been accomplished by these bandages; *e.g.*, a 15-years-old girl with a deep tuberculous fistula of the right wrist, who had been already prepared for operation, was cured by these bandages within 4 weeks.

Notes.

Several banquets, a special opera (Lohengrin), special railroad excursions to the neighboring places of interest were given by the Munich and the Bavarian Governments in honor of the convention. Each division had a special restaurant as a rallying place.

School reform had its inning on Friday and presented some strong resolutions to prevent the overworking of schoolchildren.

In the section on **history of medicine** Professor Stadler, of Freising, described the Latin **manuscript** of Dioscorides in the Munich Court Library. Printed copies (more or less revised) are not rare; but this Latin translation from the original Greek dates from the ninth century.

The decimal division of time received the attention of the scientists, but brought out diametrically opposite views. The only conclusion was that the Government should send representatives to represent German scientists at Paris next year.

Aix-la-Chapelle was selected as the place for the next meeting. Bremen probably in 1901. The new directors of the medical group were: Prof. Curschmann, of Leipzig; Prof. Edinger, of Frankfort a.M.; Prof. Stieda, of Königsberg; Prof. v. Voit, of Munich; Prof. Hueppe, of Prague; Prof. Seydel, of Königsberg; Prof. Schmidt, of Marburg. Prof. Edinger introduced a resolution to have fewer sections in the medical group. This was received favorably and referred to a commission. The treasurer's report showed a balance of 96,000 marks on hand.

In the hygienic section Prof. Hermann Cohn, of Leipzig, demonstrated his spectacles for testing eyes. These, he claimed, should be in the hands of all school and police inspectors.

In the medical police section Dr. Becker, of Munich, explained the Bavarian system of district physicians. These are of two classes. Among their duties is to examine apothecary-apprentices; they are also the official school physicians, and must examine for sanity.

[From our Special Correspondent.]

MISSISSIPPI VALLEY MEDICAL ASSOCIATION.

The Twenty-fifth Annual Meeting, Held at Chicago, October 3, 4, 5, and 6.

[Concluded from page 701.]

Dr. James Bullitt, of Louisville, read a paper on **Mammoth ovarian tumors,** in which he reported a cyst weighing 245 pounds. Only growths weighing 100 pounds or more, have been considered as mammoth tumors. A search through literature has developed reports of 23 such tumors. Brief summaries of these cases are given. The largest of these tumors weighed 202 pounds. The essayist adds a twenty-fourth case by reporting in detail the case operated on by Dr. A. M. Cartledge, of Louisville, in May, 1897. The tumor-sac and contents together weighed 245 pounds. There were a great many adhesions encountered and the operation was prolonged. The woman rallied from the shock and was in good condition at the end of 5 days, when obstruction of the bowel became manifest, the patient dying on the seventh day. In considering the 24 cases it is observed that 21 were operated upon. Of the 15 in which recovery took place the average tumor-weight was 129 pounds; while of the 6 in which operation was followed by death the average weight was 181 pounds. There are manifestly but 3 methods of dealing with these tumors: (1) Immediate extirpation; (2) preliminary tapping followed in a short time by extirpation; (3) tapping repeated as often as necessary to relieve uncomfortable distention. To illustrate that life may be long sustained by constant tapping and withdrawal of fluid the case of Dr. Ap M. Vance is cited, in which the woman was tapped 179 times between the ages of 34 and 80 years, it being computed that in this time 21,480 pounds of fluid were withdrawn. In so far as any conclusions can be drawn from the study of these 24 cases the following are submitted: (1) The fatality from such tumors is directly proportioned to the size of the tumor; (2) extensive adhesions to the parieties and viscera militate against successful operations, but are second in importance to the size of the tumor; (3) preliminary aspiration followed by extirpation in a few days is apparently no safer than immediate operation; (4) marsupialization is contraindicated in tumors of mammoth proportions; (5) successive tappings are sometimes tolerated over a long period of years, but lead ordinarily to exhaustion and death in a comparatively short time, a few years; (6) when death occurs after operation it is most apt to be immediate, within a few hours, as the result of shock. If this first danger is passed safely, the fatal issue is likely to be the result of obstruction of the bowel, especially in cases in which extensive adhesions are present.

Dr. J. E. Allaben, of Rockford, read a paper on **Obstructive growths of the pylorus,** in which he reported a successful case of pylorectomy. He drew the following conclusions: (1) cancer is one of the most potent factors in the causation of death, with a tendency to constantly increase in frequency of occurrence; (2) gastric cancer occurs in about one-fifth of all primary cases; (3) in gastric cancer the pyloric region is affected in 60% of the cases; (4) the treatment of gastric cancer directed toward a permanent cure is, in the present state of our knowledge, limited wholly to surgical methods; (5) as early total extirpation of malignant growths, with the hope of permanent cure, is the goal toward which we are constantly striving; and as these growths in gastric cancer occur at the pyloric region in 60% of the cases, it would seem to follow, as a natural conclusion, that pylorectomy would be the treatment most frequently prescribed for the cure of this malady; (6) inasmuch as early diagnosis is the greatest requisite for directing proper radical treatment, the internalist and the surgeon should turn their best efforts in this direction; (7) if the operation of pylorectomy were performed before obstructive symptoms manifest themselves, and before the occurrence of metastasis, the immediate results would be as favorable as in any other abdominal work, and the remote results as good as in extirpation of carcinoma of the breast.

Dr. William H. Poole, of Detroit, read a paper on **Beta-eucain as an anesthetic in operations on the eye, nose, and throat.** After reporting a series of cases, the author summarizes as follows: (1) Eucain is decidedly

less toxic than cocain, therefore, superior to it. (2) Its aqueous solutions keep well and can be sterilized by boiling without destroying the activity of the drug. (3) It produces anesthesia equally well and sometimes better than cocain. (4) It is superior to cocain, in that it causes no heart-depression or other unpleasant systemic effect. (5) It causes no mydriasis, and no disturbance of accommodation, which is an advantage in some cases. (6) It is less dangerous to the cornea than cocain, inasmuch as it does not cause a desquamation of the superficial epithelium.

DR. J. WESLEY BOVEE, of Washington, D. C., read a paper on **Intestinal obstruction in biliary calculi,** saying that the condition is very uncommon. Brinton found in 500 cases of intestinal obstruction but 24 cases due to gallstones, and Leichtenstern found but 41 in 1,544 cases of bowel occlusion. In the Manchester Royal Infirmary but one case in 50,000 patients treated for all troubles was found. As it is a condition practically limited to late life, its rarity is to be expected. The author dwelt upon the varieties of obstruction, its location, causes, symptoms, and prognosis. Various remedies have been employed in the treatment. Hippocrates and later others recommended injection of air into the bowel. Tobacco smoke and infusion of different gases have been thus employed. Purgatives are positively harmful. Morphia and belladonna are the two best drugs in this condition. Of course, electricity has not been omitted. With medical treatment nearly half recover, but the author asks, is that a sufficiently large proportion? In 1672 Barbette recommended laparotomy for acute intestinal obstruction, and as abdominal surgery is now practised its use in acute obstruction of the bowel from biliary calculi should give brilliant results. Medical treatment may be used for a short time, and, failing, should be superseded by laparotomy, with a careful exploration of the abdominal and pelvic contents. The seat of the obstruction being found, the condition of the patient and the degree of mobility of the stone in the bowel will guide the operator in the subsequent steps. The plan of Tait, passing a strong needle obliquely through the bowel-wall into the stone to break it up, may first be tried, the puncture wound being closed by a Lembert stitch. This failing, the stone should, if possible, be pushed higher in the bowel and a longitudinal enterotomy done with extraction of the stone. Gangrenous bowel, perforation, or localized peritonitis, with or without pus, should be treated *secundum artem*. It is always well to look for a second obstruction, as this has caused death in some cases. The deaths following laparotomy for this condition are nearly always from shock or sepsis. It would not seem improbable that early laparotomy in these cases should have a mortality of less than 10%.

The following officers were elected for the ensuing year: President, Dr. Harold N. Moyer, Chicago; vice-presidents, Drs. A. H. Cordier, Kansas City, Mo., and S. P. Collins, Hot Springs, Ark.; secretary, Dr. Henry E. Tuley, Louisville, Ky.; treasurer, Dr. Dudley S. Reynolds, Louisville, Ky. Place of meeting, Asheville, N. C.; time, October 4, 1900. Between 500 and 600 physicians attended this meeting. Many excellent papers were read and discussed. Some of the discussions were very animated. Over 400 physicians registered.

So-called Typhoid Pneumonia.—F. R. Smith (*Maryland Medical Journal*, September 2, 1899), in concluding an article with this title, states his belief that in view of the fact that the majority of pneumonias occurring in the course of typhoid fever are not caused by Eberth's bacillus, but by the pneumococcus, and that asthenic pneumonias with so-called typhoidal symptoms have nothing in common, so far as etiology is concerned, with typhoid fever, it would seem advisable to discard the term typhoid pneumonia as savoring too much of inaccuracy. For those rare cases in which it can be proved beyond doubt that the pneumonic process as well as the general typhoid infection are both due to the bacillus of Eberth we have the term pneumotyphoid. Accuracy in terminology is the first step toward a reasonable therapy, and calling conditions by wrong names must inevitably lead to a less clear-sighted management of them. [M.B T]

The Latest Literature.

British Medical Journal.

September 30, 1899. [No. 2022.]

1. Remarks on Finsen's Phototherapy. VALDEMAR BIE.
2. The Interaction Between the Ovaries and the Mammary Glands. STANLEY BOYD.
3. On the Interaction Between the Ovaries and the Mammary Glands. AMAND ROUTH.
4. On the Lobes of the Liver. JAMES CANTLIE.
5. The Causes of the Entrance of Oxygen into the Blood in the Lungs. J. J. CHARLES.
6. The Evidence For and Against the Transmission of Acquired Characters. G. ARCHDALL REID.
7. Some Observations Upon Cheyne Stokes Respiration. M. S. PEMBREY.
8. The Value of the Large Intestine in General Metabolism. VAUGHAN HARLEY.
9. On the Anatomic Structure of the Ninth, Tenth, Eleventh, and Twelfth Cranial Nerves. J. O. WAKELIN BARRATT.
10. On Some Points Regarding Asymmetry. R. J. ANDERSON.
11. The Function of the Rectum as a Reservoir. J. J. CHARLES.
12. The Progress of the Teaching of Human Anatomy in Northern India. R. HAVELOCK CHARLES.
13. Demonstrations. A. FRANCIS DIXON.
14. Enophthalmos. E. TREACHER COLLINS.
15. Unusual Dyspnea in the Uremic State. CHARLES R. ELGOOD.
16. A Case of Fistula in Ano Treated by Subcutaneous Excision. FRED EDGE.
17. Obstinate Hiccough After Operation. ARTHUR POWELL.
18. Case of Perforated Gastric Ulcer. ARNOLD ROCHFORT MCCULLAGH.
19. The Use of Antistreptococcus Serum. RODERIC LOGAN.
20. A Case Treated with Antityphoid Serum. B. BASKETT.
21. The So-called Abortive Treatment of Typhoid by Calomel. JAMES BOYD.
22. A Case of Locomotor Ataxy and Right Hemiplegia. F. H. EDGEWORTH.
23. Irreducible Hernia of Fallopian Tube and Ovary in a Child; Operation; Recovery. J. PINKERTON.

1.—See PHILADELPHIA MEDICAL JOURNAL, October 7.

2.—Boyd, in discussing the subject of the **interaction between the ovaries and the mammary gland,** says that he has no knowledge of the breast influencing the action of the ovary in any way, but that he has observed cases in which the ovaries influence malignant growths starting from mammary epithelium. He has collected 17 cases in which oophorectomy has been done for recurrent cancer of the breast, among which he includes 3 cases of his own. In 7 of these cases there was complete disappearance of the cancer. In all of the cases, save his own, thyroid extract was given after the oophorectomy. He does not believe that the thyroid extract has any beneficial action. In summing up these cases he discovers: (1) That the ovaries removed have usually seemed healthy. (2) Nonsuccess seems to be connected with (*a*) presence of much cancer; (*b*) affection of the bones and viscera; (*c*) long cessation of menstruation —or rather with the ovarian changes indicated by these; and, (*d*) cachexia. These do not seem to account for all the failures. (3) The most successful cases were those of from 4 to 7 years' standing prior to the oophorectomy. (4) The extremes of age of the patients were 33 and 49 years. (5) There is but one case recorded in which improvement followed operation performed after the menopause. (6) Growths starting from mammary epithelium are not uniformly affected by oophorectomy; those in the skin and subcutaneous tissue are most benefited. Next in order are infected glands and growths in the breast itself. (7) The duration of the action cannot be determined, as none of the cases have been of long enough standing. (8) In the mode of disappearance, it has been shown that diminished vascularity of the cancer nodules, coupled with loss of pain, are the earliest manifestations of oophorectomy. In examining the shrink-

ing nodules it has been shown that they undergo rapid fatty degeneration. (9) The effect of oophorectomy upon uterine cancer is very slight. The theory upon which Boyd accounts for the action of the ovary is as follows: That its internal secretion probably exercises an important influence upon all the cells of the body; that this internal secretion may vary in quality pathologically if not physiologically; that when varied in some unknown way the ovarian secretion favors the growth, possibly even the action of the cause of cancer, influencing either the invading epithelium or the resisting mesoblastic tissue. [S.M.H.]

3.—Routh fails to find any evidence in favor of an essential interaction between the mammary glands and the ovaries. [S.M.H.]

4.—Cantlie endeavors to demonstrate that the gallbladder occupies a central position in the liver, that on either side of it lie the true right and left lobes of the liver, and that a line from the fundus of the gallbladder to the exit of the hepatic veins **divides the liver** into two equal portions. He considers that the present anatomic division into right and left lobes by a line drawn along the longitudinal fissure (the fissure for obliterated umbilical vein and ductus venosus) is unscientific and consequently untrue and untenable. [S.M.H.]

5.—Charles, in discussing the question of the **entrance of oxygen into the blood in the lungs,** expressed the view that it depended, (1) on diffusion supplemented and modified largely by the indirect agency of the chemical affinity of the hemoglobin in the corpuscles, and, (2) in all probability on the secretory activity of the endothelial wall of the alveoli and of the capillary walls. [S.M.H.]

6.—Reid denies that changes in the soma can affect the germs in such a particular manner as to cause them after proliferation to reproduce as inborn, characters which the parent has acquired. [S.M.H]

7.—Pembrey calls attention to the well known fact that **Cheyne-Stokes respiration** can be observed under certain physiologic conditions in healthy animals and men. The theory to account for the occurrence of Cheyne-Stokes respiration is that of Rosenbach, who says that the explanation of the phenomenon is to be sought, not in the vascular system, but in the nerve-cells of the central nervous system, especially in the respiratory center of the oblongata. The healthy nervous system shows a periodicity of activity and rest. When Cheyne-Stokes respiration is present, the whole central nervous system may be affected in its irritability. This is shown by the changes in the pupils and in the general twitchings of the body. Periodic changes in the supply of blood to the brain are not essential for the causation of the phenomenon. This, view, is supported by the observation that this type of respiration occurs when the excitability of the nervous system is diminished normally by sleep in infants and adults, and by the torpidity of hibernating animals; abnormally by drugs and by diseases which affect the nutrition of the nerve-cells. Cheyne-Stokes respiration, therefore, is not diagnostic of any disease, although it throws marked light upon the excitability of the nerve-cells. [S.M.H.]

8.—Harley, in order to study **the value of the large intestine in general metabolism,** removed this organ entirely from some dogs, the lower end of the small intestine being connected with the anus, some 4 to 6 cm. only of the rectum being left. The dogs were fed after recovery from the operation on meat and biscuit, in which varying quantities of fat were added. In all the experiments the nitrogen and fat in the diet was analyzed, and in two of the dogs quantitative analyses were made also of the carbohydrates in the feces. He first investigated the effect of an increasing quantity of fat on a staple diet in normal animals which he compared with the results obtained in similar diets after the removal of the large intestine. His conclusions are as follows: The increase in quantity of fat on a standard diet in dogs after the removal of the large intestine causes a decrease in the urine and nitrogen in the urine, with a tendency to an increase in the specific gravity. As to the cause of the protcid absorption, he concludes that 10%, at least, of the nitrogen in the diet is absorbed by the large intestine, and in all probability a very much larger quantity than this is unabsorbed, since it has been shown experimentally that a considerable quantity of nitrogen-containing substance is excreted by the bowel. As to the influence on fat absorption, when the entire large intestine is removed, from 92 to 98% of the fat given is absorbed, which result practically corresponds with the normal, suggesting, therefore, that the removal of the large intestine has little or no influence on the absorption of fat by the intestine. From the two analyses made of the carbohydrates in the feces, he concludes that the removal of the large intestine has no action whatsoever on the carbohydrate absorption. As to the influence of the removal of the large intestine on the quantity of the feces and the quantity of water in the feces, he concludes that there is an increase in the quantity of feces which is accompanied by an increase in the total quantity of water and the percentage of water. [S.M.H.]

11.—According to Charles, **the rectum** is sometimes found full of feces, even to the anus, in the cadaver, and it is not infrequently found in the same condition during life. In addition to this, the existence and arrangement of Houston's valves in the rectum, and the strength of the internal sphincter indicate that the rectum, at least its suprasphincteric portion, serves as a reservoir and not merely as a passage for the feces. Accepting this view, the accumulation of feces has a reflex action, which, as a rule, is aided by voluntary action. The fact that defecation can take place when the lower part of the spinal cord has been removed would lead us to believe that the nervous mechanism may be local to a certain extent. [S.M.H.]

14.—Enophthalmus or displacing of the eye backward in the orbit, should be divided into traumatic and non-traumatic cases. In a number of cases of the latter variety reported, the defect was evidently congenital, and was due to shortness of the muscle and insertion of it too far back in the sclerotic and an absence of check ligaments, or an insertion of the same too far back in the wall of the orbit. In 5 cases of the traumatic variety the enophthalmus seemed to be due to a contraction of the inflammatory products, the result of orbital cellulitis. [G.B W.]

15.—Elgood had under his care a patient, aged 31 years, suffering from severe **Bright's disease.** After treating him for 5 weeks he noticed that his respiration began to follow the Cheyne-Stokes type during sleep. On the following day the patient began to complain greatly of distress of breathing, though there appeared little to account for it. His respirations were regular and their frequency not markedly increased, but he panted and drew his breath in gasps. Air seemed to enter the lungs freely, and there was no cyanosis. This condition gradually grew worse. It was not proportionately aggravated by exertion, and it was always worse at night. After a few weeks the Cheyne-Stokes rhythm manifested itself in the daytime, and this type of breathing persisted night and day until the patient died. The difficulty of breathing was controled to some extent by the administration of chloroform and chloral hydrate. The patient eventually died of uremic convulsions. [S.M.H.]

17.—Powell reports having done a lateral lithotomy on a man aged 35 years. While still on the table in a semiconscious condition the patient began to **hiccough** violently, the hiccoughs continuing at intervals of from 5 to 7 seconds for a period of 15 days. No treatment had the slightest effect, except the administration of morphia in doses large enough to produce profound narcosis, during which the hiccoughs continued, but less violently. No cause for the hiccough could be detected. The wound was healing satisfactorily; the patient was emaciating rapidly and life was beginning to be despaired of, when the hiccough ceased as suddenly and unaccountably as it had begun. [S.M.H.]

18.—McCullagh reports a case of perforating gastric ulcer in which the only symptoms up to the time of perforation were those of an ordinary case of dyspepsia, there never having been any hematemesis. [G B.W.]

19.—Logan reports 2 cases in which **antistreptococcus serum** was used, according to his belief, with some benefit. The first case was one of obstinate purulent otitis media. The second case was one of persisting sinus after celiotomy for suppurative salpingitis. A bacteriologic examination of the pus in the first case showed only staphylococci. No examination was made in the second case. [S M H]

20.—Baskett records a case which without sufficient evidence he diagnoses as one of typhoid fever, in which **antityphoid serum** was used. The injection resulted in aborting the attack in the early stage. Three weeks after the last

injection the Widal test was tried with negative results. The failure of the blood to react was attributed to the early abortion of the attack. He calls attention to the fact that in this case, as well as in other cases in which he has used the serum, it was without any injury to the patient, and that it acted as a distinct antipyretic. [S.M.H.]

22.—Edgeworth reports **a case of locomotor ataxia and right hemiplegia** in the same patient. He thinks it probable that the tabes had already begun before the attack of hemiplegia occurred, as both kneejerks were absent before the hemiplegia developed. The hemiplegia caused the right kneejerk to reappear for a time, but the progress of the tabetic process in the lower part of the spinal cord later abolished it. The right biceps and triceps jerks, however, continued present and active. Cases similar to this have been previously reported. Hughlings Jackson, and Taylor report a case having the same phenomena observed here, namely a return of the kneejerk which had previously been lost and its subsequent disappearance as the posterior sclerosis inereased. [S.M.H.]

Lancet.

September 30, 1899. [No. 3970.]

1. Pharmacology of Some South African Plants. JOHN MABERLY.
2. On Peripheral Neuritis and Retinal Changes in Diabetes Mellitus. C. O. HAWTHORNE.
3. The Early Diagnosis of Myxedema. CHARLES W. CHAPMAN.
4. The Management of the Deformity of Hip disease. A. B. JUDSON.
5. Somatose and Meat Extracts. THOMAS STEVENSON and ARTHUR P. LUFF.
6. Leprosy in Madeira. J. ASHBURTON THOMPSON.
7. Notes on a Successful Case of Cesarean Section. J. P. WALKER.
8. The Workmen's Compensation Act, 1897. ALBERT BENTHALL.
9. A Case of Distoma Heterophyes in a Living Patient. F. M. SANDWITH.
10. Right-sided Paralysis of Gradual Onset Occurring During Pregnancy. ROBERT CRAIK.
11. A Modification of the Aronson and Phillips Staining Method and Its Application in the Case of Malarial Blood. EDWARD G. HORDER.
12. A Case of Strangulated Inguinal Hernia in an Infant Aged Ten and a Half Months; Operation; Recovery; D'ARCY POWER.
13. A Case of Volvulus of the Small Intestine; Laparotomy; Recovery. REID.
14. A Case of Exalgine Poisoning; Recovery after a Very Large Dose. J. BELL.

2.—Hawthorne records a case of **diabetes mellitus,** occurring in a woman, aged 67 years, in which there was an absolute paralysis of the external rectus muscle, this being the only paralysis present. The presence of the paralysis and its absolute character pointed decidedly to a peripheral neuritis as the cause. There were several points of interest in the ophthalmoscopic examination in this case. There was a group of the whitish spots in the retina with a stellate arrangement in lines radiating from the macula, which is commonly present in chronic nephritis. An even more interesting point was the existence of a comparatively advanced retinal disturbance in one eye, with a normal fundus in the other. This condition is very rare. That the eye condition was not dependent upon a chronic nephritis was shown by the absence of albumin and casts in the urine. [S.M.H.]

3.—Chapman records 3 cases of **myxedema** observed in the earliest stages; none of them were rightly diagnosed in the beginning. The chief manifestation in the first case was the presence of obstinate anemia, illustrating that this condition may be a forerunner of myxedema, and the importance of being on a constant lookout for early symptoms. It was not until this case began to become mentally dull that the right interpretation was placed upon it. The second case was at first considered one of chronic anemia, and the third case, whose early symptoms were precordial pain, palpitation and dyspnea, was considered one of cardiac disease. The examination of the heart revealed no special lesion, and it was not until 2 years later that some of the more characteristic evidences of myxedema were observed. An early diagnostic sign of this condition to which Chapman calls attention is a certain sloppiness of the conjunctiva, which is caused by the presence of mucin. [S.M.H.]

4.—See this JOURNAL, Volume IV, p. 646, abstract No. 1, from *Medical Record.*

5.—Stevenson and Luff reached the following conclusions as the result of some observations and experiments made with **somatose :** (1) Somatose is a true meat nutrient, possessing restorative and stimulating powers. (2) It is well borne by delicate patients. (3) It improves digestion and causes no gastrointestinal disturbances. (4) It has a favorable effect on general metabolism, and (5) it has no irritant effect on the kidneys and never gives rise to albuminuria, albumosuria, or peptonuria. In those cases where albuminuria existed prior to the administration of somatose, the albumin gradually disappeared from the urine during its administration. [S.M.H.]

7.—Walker reports a case of successful **cesarean section** performed on a married woman of 23 years, primipara at full term. The patient was a woman of low stature and since the age of 13 years had used an ordinary high-soled boot for the left foot. The anteroposterior diameter of the pelvic brim was extremely small and would not admit the tips of two fingers, *i. e.*, less than one and one-fourth inches. Recovery was uninterrupted. [W.K.]

9.—Sandwith reports that while counting under the microscope bilharzia eggs in the feces of a case of bilharziosis of the bladder and rectum, he discovered the **distoma heterophyes.** The feces were examined daily after this time, and there were discovered on one day 5 more worms and many eggs. Following this there were no more flukes found, but for a time there were 2 or 3 distoma heterophyes eggs discovered each day, for a period of 3 weeks, when they gradually began to disappear. The disappearance of the fluke was attributed to a dose of 30 grains of thymol which was given with the idea of clearing the lower intestine of the bilharzia eggs. The latter were not destroyed by the thymol and persisted in both the feces and urine when the patient left the hospital. The patient was said to be about 15 years old, though her face looked older. [S.M.H.]

10.—Craik reports a case of **right-sided paralysis** of gradual onset occurring during pregnancy. There was complete recovery within 3 months after confinement. This case seems to belong to the class of palsy directly relating to the state of pregnancy. [W.K.]

11.—Horder recommends the following **modification of the Aronson and Phillips staining method in its application to malarial blood:** (1) In the preparation of the cover glass as the blood exudes from the pin-prick the drop is touched by the edge of a small piece of gutta percha, about ½ inch square, held in a pair of Ehrlich's forceps; the cover slip, also grasped by a pair of Ehrlich's forceps, held in the other hand, is smeared by drawing the gutta percha across it, commencing from the edge held by and parallel to the Ehrlich's forceps. From to 10 to 20 spreads can be prepared by this method in a few moments. (2) For the purpose of heating, a spirit lamp is used, and the specimen is passed quickly through the flame about 18 times. (3) For the purpose of staining a solution of Ehrlich-Biondi powder, made by Grubler, is used. The length of time used in staining is 2 minutes. [S.M.H.]

12.—A male child 10½ months old was brought to the hospital with the history of having strained himself while coughing. The usual signs of **strangulated hernia** were present, but the child did not appear to be in much pain, he did not vomit and had taken his food. Taxis was tried without result and operation was undertaken 8½ hours after the commencement of the strangulation. A fairly tight stricture at the neck of the sac was relieved, the operation for radical cure was performed and rapid recovery followed. [M.B.T.]

13.—A woman, aged 26, was brought to the hospital suffering from abdominal pain, there was considerable distention and tenderness, the bowels were constipated and she had vomited several times. There was difference of opinion as to whether the case was appendicitis or intestinal obstruction. At the exploratory laparotomy the appendix was found healthy, but there was distention above the ileocecal

valve where a loop of the **bowel** had become **twisted upon itself.** The constriction of the bowel was relieved and recovery followed. [M.B.T.]

14.—Bell records a **case of exalgine poisoning** occurring in an adult male Chinaman. It was estimated that the dose taken was 150 grains of Merck's preparation. The patient, when seen, was quite unconscious, intensely livid, with pin-point pupils and a full bounding pulse. His temperature was 100 8° F. He had vomited once. He was given 30 grains of salicylic acid by a nasal tube and $\frac{1}{50}$ of a grain of atropia hypodermically, and was put to bed. Two hours later he was given $\frac{1}{100}$ of a grain of atropia, and a few hours later a third dose consisting of $\frac{1}{100}$ of a grain. The urine contained albumin when first seen, but by the following morning the albumin had disappeared and the patient generally was much improved. Eventually recovery was complete. [S.M.H.]

New York Medical Journal.

October 14, 1899. [Vol. lxx, No. 16.]

1. A Plea for the More Frequent Digital Exploration of the Uterine Cavity, and the Histological Study of Uterine Scrapings as an Aid to the Diagnosis of Diseases of the Uterus. William E. Swan.
2. Septic Thrombophlebitis as a Complication of Peritonsillar Abscess. Report of Two Cases. M. R. Ward.
3. Report of Cases of Peritonsillar Abscess Associated with Diphtheria. Thomas Hubbard.
4. Nasal Stenosis. Burton S. Booth.
5. The Course and Prognosis of Chronic Spinal Neuritis. Arthur Conklin Brush.
6. Gangrene of the Lung; With a Report of Two Cases. A. H. Levings.
7. The Relation of the Stomach to the Nonpregnant Uterus. Frank H. Murdoch.

1.—Swan treats at considerable length of the **necessity of more frequent digital examination of the uterine cavity.** He prefers the slow method of dilatation of the cervical canal by means of aseptic tents as practised by Leopold, Sanger, and Zweifel. These tents are of selected sizes, each armed with a silk loop, and are boiled for 5 minutes in a 5% carbolic acid solution, after which they are allowed to remain in a cold 2% solution of carbolic acid for 5 minutes, being finally dried between layers of sterile gauze, when they shrink and are ready for use. The vulva and vagina being rendered aseptic by the usual methods, the largest sized tent possible is passed as far beyond the internal os as may be done without producing undue pain, the patient kept in bed for 24 hours, and small doses of opium or morphin sometimes given to allay pain. By this time the canal will usually admit the finger, when a systematic search may be made for any abnormal condition. The indications of the procedure are, (1) hemorrhage associated with retained products of conception; (2) persistent bleeding not related to pregnancy; (3) suspected cases of submucous and intramural myomas; (4) The offensive or purulent, as well as sanguinary, discharge which so frequently accompanies carcinoma or sarcoma of the body of the uterus. He believes this method should always be used in every obscure or doubtful case of intrauterine disease, especially where the tissues obtained with the curet fail to render the diagnosis clear, and the symptoms persist after the first cureting. [W.K.]

2.—The number of published cases of infective **thrombosis as a complication of peritonsillar abscess** is very small. Ward has been able to find mention of but 3 cases in literature; 2 other cases are reported. A woman of 30 had suffered for 3 weeks with pain and soreness of the left tonsil. When she entered the hospital there was marked swelling and pain on the right side of the neck. An incision was made and about 3 pints of greenish-brown pus evacuated. In spite of this the patient grew worse, had chills at frequent intervals, there was progressive prostration and she died on the ninth day after admission. At the necropsy thrombophlebitis of the internal jugular vein and the veins leading upward to the tonsillar plexus was found: there was metastatic abscess of the right lung and infection in the apex and base of the lung. In a second case a man aged 42 died 4 hours after admission to the hospital. Six days previously his family physician incised the tonsil and evacuated a large quantity of pus. There was temporary improvement, but chills and high temperature returned. At the necropsy thrombophlebitis of the internal jugular vein was found, also small multiple abscesses of the kidney. [M.B.T.]

3.—A man, 30 years of age, had been suffering from tonsillitis 5 days. An incision was made and pus evacuated, but he did not improve, and the next day both tonsils and the pharynx were covered with diphtheric membrane. In spite of the use of antitoxin the membrane rapidly invaded the nasopharynx, nares, and larynx. Tracheotomy was performed with temporary relief, but the patient died. A second, somewhat similar, case of mixed infection is reported [M.B.T.]

5.—Brush, in 100 consecutive cases of all types of spinal neuritis, observed 18 cases of **chronic spinal neuritis.** Three of these followed the acute form; 8 were due to chronic alcoholism; 2 to injury, and 1 each to tuberculosis, rheumatism, parturition, arsenic, and lead. The pathologic changes found in these cases differ from those of the acute form only in that there is less tendency to the destruction of the axis-cylinder and an increased tendency to the formation of a permanent hypertrophy of the perineural and interstitial connective tissues, with a thinning of the myelin sheath, thus producing permanent compression and irritation of the affected nerves. Clinically these cases are divided into those in which the inflammation is confined to one or more nerves in the arm or leg, and those in which it involves a large number of nerves in different parts, either simultaneously or consecutively. In 7 of Brush's cases the neuritis was confined to the arm, and was of the chronic type from the beginning, and due to alcohol in 3, to injury in 2, and to lead in 2. All began with pain referred to certain nerves, followed by loss of power and atrophy in the muscles supplied by them, and this condition gradually spread to other nerves, often showing the peculiar involvement which indicates disease of the roots of the brachial plexus. In the 7 cases of this type the motor symptoms were much more marked than the sensory, and in all but 1 the patients were left with decided weakness or complete paralysis, associated with marked atrophy of the affected muscles. In 6 of the cases the neuritis was confined to the lower extremity; 2 followed the acute form, 4 were chronic from the beginning; 4 were due to alcohol; 1 to injury, and 1 to tuberculosis. The lesion was not as closely confined to one limb in these cases as in the arm type, and pain was a much more marked symptom. At first it was paroxysmal, but later became continuous, with severe exacerbations. The prognosis as to the motor symptoms was much better in these cases than in the arm type, but the patients were usually left with frequent and severe attacks of pain in the affected nerves. In the 6 cases of chronic multiple neuritis the condition was chronic from the beginning. It was due to alcohol in 3, and in the others to parturition, arsenic, and rheumatism, respectively. Unlike the acute cases of this type, which are markedly symmetrical, the chronic cases were very irregular. After the disease has appeared in the nerves of the limb it may remain confined to certain nerves, or slowly involve all the nerves of the membrane. The symptoms are the same as in the local types, but pain is not as a rule prominent. The prognosis in Brush's experience is very bad. Three of his cases were fatal: 1 patient was left with complete paralysis and atrophy of the arms and legs, and 2 cases terminated in locomotor ataxia. The two cases succeeded by locomotor ataxia are reported. There was no evidence of syphilis or of any of the usual causes of locomotor ataxia. If this condition, therefore, is considered as a sequel of the neuritis, its appearance is explained by the inflammatory process passing upward by the posterior nerve-roots to the posterior columns of the cord. [S.M.H.]

6.—Levings advocates operation in all cases of **gangrene of the lung** which are progressive and not absolutely diffuse. The gangrenous area is localized by physical examination and the use of the aspirating needle, and, if necessary, by resection of the ribs. In the absence of pleuritic adhesions the pleural cavity is shut off by gauze-packing or by suturing. After thorough opening and drainage the cavity should be daily cleansed by irrigation and the cavity should then be tightly packed with iodoform-gauze. The simple insertion of a narrow strip is not sufficient to control hemorrhage, which is very often profuse in these cases. Two

operations are reported. A woman of 55 had had pneumonia; fever returned with dulness over the lower lobe of the right lung; there was fetid breath and expectoration. Portions of the ninth and tenth ribs were resected; on opening the pleural cavity no adhesions were found, a softened area surrounded by hepaticized lung was discovered, gauze was packed around, an artery forceps was thrust into the cavity, the tract dilated, and a drainage-tube inserted. Slow recovery followed and the wound healed after 4 months. In a second case a man of 50 had a return of fever after pneumonia, there was dulness in the postaxillary line between the eighth and ninth ribs, fetor of the breath and expectoration of dark, very offensive material. The case was progressive and the patient grew weaker. After two weeks the cavity was located by the aspirating needle, part of the ninth rib resected, and the cavity was freely opened and drained. Violent hemorrhage occurred on several occasions which was controled by gauze-packing. Perfect recovery eventually followed, however, and the wound was healed in 2½ months. [M B T]

7.—Murdoch records 4 cases showing that menstruation, whether painful or not, may act as a disturbing element in gastric disorders, and also that in some cases the dysmenorrhea may be caused by chronic ulcer of the stomach. The direct cause of the painful menstruation in these cases he believes to have been the irritation produced by the presence of solid food in the stomach, since both the attendant anemia and the circumscribed spot of tenderness were present in each case after the dysmenorrhea had disappeared. [S.M.H.]

Medical Record.

October 14, 1899. [Vol. 56, No. 16.]

1. A Contribution to the Study of the Gastric Crises of Tabes. SEYMOUR BASCH.
2. Ventral Fixation of the Round Ligaments for Retroversion and Prolapsus Uteri. A. MONAE LESSER.
3. An Interesting Case of Hydrocephalus with Pseudo-Spastic Spinal Paralysis. FREDERICK STRANGE KOLLE.

1.—Basch's paper is based upon the study of **25 cases of gastric crises** which he observed in the clinics of Boas and Oppenheim; 17 of these were in men; most of them were in the third decade. There was no evidence of heredity; but 5 cases gave a history of lues, and trauma was noted in only one case as a possible cause. In most cases no definite cause was known. The duration of the individual attacks varied from 10 hours to 4 months; in one case there was alternation for two years of days free from attacks and those in which severe attacks appeared. Sometimes the attacks appeared with the utmost regularity. Their frequency varied. The intensity of the attack had not increased in any case; in nearly half it had decreased, while in the remainder it remained the same. They continued on with the same frequency in one-third. The duration of the attacks had increased in 1 case and decreased in 6, while it remained the same in 17. Contrary to Charcot's experience the vomiting never failed in any of these cases, and in only 3 was there absence of pain in the attacks. They usually vomited enormous quantities, but the stomach was never discovered to be extremely distended. The gastric contents varied as to acidity. Consciousness was disturbed in but one case; this man had repeated attacks of syncope. In 2 cases there was a change in the character of the attacks. They began with epigastric pain, which disappeared, giving place to attacks of vomiting; later the vomiting introduced the attacks, but became a symptom of little prominence; 2 cases had laryngeal crises, and 2 cases had enteric crises. The differential diagnosis is very difficult at times, and in such cases Basch makes the diagnosis on the following: the lack of all symptoms of an organic disease of the gastrointestinal tract, sudden onset of the attack without chill or fever or marked rapidity of the pulse, marked intensity of the symptoms; the lack of any local signs in the region of the stomach or elsewhere to explain the severity of the symptoms; the vomitus has no characteristic appearance or contents, the attacks are not influenced by any external circumstances; they disappear spontaneously, and the patient convalesces rapidly. The prognosis is in most cases bad. Basch draws especial attention, however, to the fact that Benedikt stated years ago that cases of tabes which begin with gastric crises are likely to have a favorable prognosis. This Basch considers of distinct importance. In 15 cases in which the gastric crises had had duration of from 2 to 10 years the preatactic stage of tabes could be still determined; 5 showed neither the Westphal nor the Romberg phenomena, and in 4 others in which the patellar reflex was absent Romberg's sign was but slightly in evidence. In 10 cases, however, the typical picture of tabes was seen. In the treatment of the condition morphia was the standby. Cerium oxalate was used in a number of cases, and the results were satisfactory in one or two, but it had no influence in the others. Antipyrin had a strikingly good effect in a number of cases, though not in all. Strychnia in some cases caused improvement and quiet sleep after all other drugs failed. Hypnotism was tried in one case without effect. Hot drinks are oftentimes very useful; sometimes cold drinks have a good effect. At times the general condition becomes so extremely depressed from the severity of the attack and the impossibility of taking nourishment that rectal alimentation must be instituted [D.L.E]

2.—Lesser recommends the **ventral fixation** of the round ligaments for retroversion and prolapsus uteri. It leaves the uterus in its free position, and neither interferes with its physiologic requirement nor changes, to any material extent, its relations with other organs. He describes the technic of the operation. [W.K]

3.—The patient, who was 21 years old when seen, had an attack at the third month of her life consisting of fever, convulsions, and restlessness and excitability. Subsequently she developed symptoms of **hydrocephalus,** and when seen had also very spastic gait and excited reflexes in the legs. The spastic condition was attributed to pressure of the hydrocephalic fluid, or to a hydromyelus, or to a syringomyelus, or, perchance, to a combination of these. A dorsal puncture was done in 1893. No improvement followed at the time, but since then the girl has shown decided betterment of the spasticity and has become able to earn a livelihood. [D.L.E]

Medical News.

October 14, 1899. [Vol. lxxv, No. 16.]

1. The Absorption of Uncomplicated Immature Cataract by Conjoined Manipulation and Instillation. (*Illustrated.*) RICHARD KALISH.
2. The Present Status of our Knowledge of Chlorosis. THOMAS S. SOUTHWORTH.
3. The Histology of Dupuytren's Contraction of the Palmar Fascia; Report of Microscopic Examination in Two Additional Cases. J. B. NICHOLS.
4. Treatment of Suppuration of the Middle Ear with Acetanilid. GEORGE F. LIBBY.

1.—Kalish concludes his article on the **absorption of immature cataract** briefly as follows: Immature cataract is largely a preventable disease, and by proper treatment may be prevented, arrested, retarded, or cured. The circulation of the blood must be regulated and the faulty digestion rectified. Constant supervision of the eye must be maintained and all changes in refraction promptly remedied. Treatment by conjoined manipulation and instillation should be instituted at the earliest possible moment. If, however, operation is finally necessary the improved condition of the ocular structures will insure a larger degree of success. [G.B W.]

2.—Southworth, discussing **chlorosis,** first speaks of the various **theories regarding its nature.** Rokitansky, in 1846, called attention to hypoplasia of the genital system. Ten years later, Virchow found a congenital hypoplasia of the circulatory system, associated particularly with narrowing of the lumen of the aorta. Neither of these conditions, however, can be the actual etiologic factor, because they are persistent, and the great majority of cases of chlorosis recover completely. Clark suggested autointoxication due to constipation, but van Noorden showed that urobilin instead of being increased was diminished, and that, therefore, intoxication from the gastrointestinal tract could not be present. Forchheimer assumed that there was a deficient formation of assimilable iron compounds in the intestinal tract. Of the lesions found, the most important are the enlargement of the spleen, small hemorrhages, fatty degeneration of the var-

ious viscera, and perhaps dilatation of the heart. Fever is occasionally present and in some cases microorganisms have been found in the blood, but the evidence that it is due to an infection is at present insufficient. Among the predisposing causes are excessive work, deficient exercise in the open air, change of residence, as in immigrants, and various nervous and emotional conditions. In regard to the symptomatology, Southworth mentions little that is new. He calls attention to the occasional occurrence of chlorosis rubra or florida, in which the skin is rosy instead of pallid. There is often plenty of subcutaneous fat, and occasionally slight edema. There is some doubt regarding the changes in the gastric juice. The venous bruit appears to be heard in different proportions of cases by different observers; some finding it in almost all; others in not more than 50%. In a few there is considerable reduction in the red cells. The most important indications are iron, rest, careful diet, and moderate laxatives. [J.S.]

3.—Nichols continues his study of the **histology of Dupuytren's contraction.** The first patient, a sailor, noticed contraction in the little finger at the age of 56; this was steadily progressive, and other fingers were also involved. He died at the age of 72, and examination of the hand showed the existence of a dense fibrous band, belonging to the palmar fascia, situated in the subcutaneous areolar tissue. This consisted of white fibrous tissue, containing in certain areas numerous connective-tissue cells. The bloodvessels were few. In some situations the band lay very close to the corium, but ordinarily the skin was not involved. The second patient first noticed contraction at the age of 72. He died at the age of 80, and microscopically the tissues presented the same characteristics as those of the other case. Taken in connection with the previous case reported by the same writer, these observations indicate that in the early period there is proliferation of the cellular and vascular elements, and these atrophy later, leaving a dense fibrous tissue. [J.S.]

4.—Libby says that **syringing the ear,** except for the removal of inspissated cerumen or foreign body, is a pernicious habit, and that hydrogen peroxid, introduced on an applicator, answers every purpose. Acetanilid, finely powdered and blown into the ear after the peroxid, gives most satisfactory results. The acetanilid acts as a drying agent, and as a more or less permanent antiseptic. [G.B.W.]

Boston Medical and Surgical Journal.

October 12, 1899. [Vol. cxli, No. 15.]

1. The Erosions of the Cervix Uteri. F. H. DAVENPORT.
2. The Treatment of Cerebral Tumors. PHILIP COOMBS KNAPP.
3. Resection of the Cecum and a Portion of the Ileum for Carcinoma. FREDERICK WILLIAM JOHNSON.
4. A Tumor of the Labium. EDWARD L. TWOMBLY.

1.—Davenport discusses **erosions of the cervix uteri.** Clinically he deals with two forms, one associated with and following endocervicitis, the other not. The pathology, symptoms, and treatment are given. He considers that operation, removal of the diseased tissue and, if necessary, of the hypertrophied cervix, is the most satisfactory treatment. [W.K.]

2.—(Continued.) As to the location from which cerebral tumors may be removed, the prefrontal and parietal regions offer almost as good a chance for recovery as does the Rolandic region. Also recent statistics show that it is justifiable to attack growths even when situated on the cerebellum. The occipital and temporal lobes may likewise in suitable cases be operated on. The nature of a cerebral growth in most cases cannot even be guessed at. [G B.W.]

3.—Johnson reports the successful **resection of the cecum** and a portion of the ileum for carcinoma. Several inches of the intestines was resected, removing all the cecum and a few inches of the ileum. The cut end of the colon was closed in the usual way, thus making a new cecum. Into this, at about one inch from the end, a buttonhole was cut, and into this the ileum was drawn by traction thread and fastened with silk. The omentum was carefully spread around the anastomosis and a gauze drain introduced. The patient left the hospital a few weeks later in good condition. [W.K.]

4.—Twombly, of Boston, adds one more to the 23 or 24 reported cases of fatty tumors of the labia. His patient was a woman of 40 years, otherwise in good health. The tumor was of 2 years' growth; when first noticed it was the size of a bean. In one year it became as large as a walnut and began to be pedunculated. When seen it was as large as an orange, painless, very soft, with fat predominating. It was removed with aseptic precautions, and the patient discharged well in 6 days. [W.K.]

Journal American Medical Association.

October 14, 1899. [Vol. xxxiii, No. 16.]

1. Superiority of Vaginal Route over Abdominal Incision in Surgical Treatment of Pelvic Disease in Women. J. RIDDLE GOFFE.
2. Technic of Surgery of the Uterus and Adnexae per Vaginam. WILLIAM H. WATHEN.
3. What Becomes of Patients after Vaginal Puncture and Incision? FERNÁND HENROTIN.
4. Constipation in Infants. H. M. MCCLANAHAN.
5. Hysteria in Children. EDWARD E. MAYER.
6. Conveyance of Infection Through the Medium of the Ear-syringe: A Remedy. FRANK C. TODD.
7. Automatic Drainage of Normal Cavities. WILLIAM JEPSON.
8. Anatomic Variations of the Nasal Chamber and Associated Parts. M. H. CRYER.
9. Report of Cases of Pulmonary Tuberculosis, Treated with Intrapleural Injections of Nitrogen, with a Consideration of the Pathology of Compression of a Tuberculous Lung. A. F. LEMKE.
10. Primary Testicular Mumps. LANDON B. EDWARDS.
11. Shock, Hemorrhage, and Septicemia. THOMAS H. WAGNER.

1.—See this JOURNAL, Vol. III, p. 1276.
2.— " " " " " p. 1277.
3.— " " " " " p. 1277.
4.— " " " " " p. 1399.
5.— " " " " IV, p. 12.
6.— " " " " " p. 17.
8.— " " " " IV, p. 17.
9.— " " " " III, p. 1329.

10.—Edwards reports 4 cases of primary **orchitis** which he believes to have been due to **mumps,** as there was no history of illicit intercourse, recent venereal disease, traumatism or any other known cause of the swelling except the prevailing influence of epidemic mumps.

11.—Wagner reports the successful use of **intravenous infusion of normal salt-solution** in the treatment of a young woman suffering from general **septicemia.** She had had chills for 4 days, and her temperature was 104.2° F. After the infusion of salt solution there was an immediate fall of temperature, no more chills and improvement of the general condition. The intravenous injection was also used in the treatment of a patient suffering from typhoid fever. In spite of cold baths the temperature had risen to 105° F., and the general condition was very poor. Immediate improvement followed the use of the salt-solution, and the remainder of the illness was uneventful. Wagner believes that this method of treatment is applicable in all severe illnesses due to the charging of the blood with toxic material.

American Gynecological and Obstetrical Journal.

June, 1899. [Vol. xiv, No. 6.]

1. Perineal Laceration and Its Immediate Repair. FRANK C. HAMMOND.
2. Tuberculosis of the Mesenteric Glands. REUBEN PETERSON.
3. Three Interesting Cases: (1) Ureteral Fistula Following Curetment of Cancerous Uterus; Celiotomy and Cure of Fistula. (2) Primary and Secondary Celiotomy for Angulation at the Sigmoid Flexure of the Colon; Fecal Vomiting Following the Second Operation, with Recovery and Cure. (3) Varicocele of Right Lateral Wall of Vagina. ANDREW J. DOWNES.

4. The Clinical Significance of Peptonuria in Pelvic Abscess, with Report of Illustrative Cases. W. FRANK HAEHNLEN.
5. Further Report on the Implantation of the Ureters in the Rectum, with Exhibition of Specimens. FRANKLIN H. MARTIN.
6. Gonorrhea of the External Genitals in the Female. A. B. TUCKER.
7. Manual Dilatation of the Cervix Uteri. DANIEL LONGAKER.
8. Remote Postoperative Pelvic Conditions and their Symptoms, with Report of Cases. G. A. KLETZSCH.

1.—See this JOURNAL, Vol. III, p. 913.

2.—Peterson reports a case of **tuberculosis of the mesenteric glands** occurring in a young colored girl aged 9 years. Six of the enlarged glands were removed for microscopic examination, and the incision in the mesentery closed with fine catgut. The writer calls attention to the supposed curative effects of operation per se, and notes how many cases are relieved by processes which cannot be satisfactorily explained. We are far from being able to explain the action of the peritoneum upon growths involving the membrane itself, as tuberculosis involving the peritoneum; or when the neoplasms are deeper seated and merely covered by the peritoneum. It cannot be denied that the mere cutting into the peritoneal cavity produces physiologic changes different from those met elsewhere in the economy. [W.K]

3.—See this JOURNAL, Vol, III, p. 913.

4. " " " " III, p. 913.

5.—Martin, of Chicago, makes a further report upon the **implantation of the ureters into the rectum.** He has operated upon 9 dogs by his method, 2 of which recovered from the operation. The first dog was permitted to live about 3 months, then killed and a careful postmortem was made by Dr. Zeit. The principles of Martin's operation are as follows: (1) The ureters empty into the bowel in the long diameter, and from above downward, so that the urine is discharged in the direction taken by the fecal current. (2) The ureters are buried in the walls of the rectum for the distance of an inch or more longitudinally, so that in the act of defecation the fecal mass will squeeze the caliber of the ureters closed by its pressure on the mucous membrane, and that pressure is exerted from above downward in the direction of the onward flow of the urine, thereby emptying the ureter by a milking process. (3) The ureters are further protected by the muscular coat of the intestine. This is accomplished by surrounding them in their longitudinal course through the intestine to the extent of 2 cm. by the circular coat of the bowel. This muscular coat of the bowel, in acting from above downward, milks the urine downward and holds the ureters closed when the rectum is aiding in defecation. When the contraction and closure is over, the urine will spurt forth with considerable force, acting as its own cleanser. (4) The ureters are implanted in the lower bowel, which is normally empty, except at defecation. [W.K.]

6.—Tucker discusses **gonorrhea of the external genitals** in the female. The treatment of these cases is by local application only. In his experience the ideal drug has been thiol. Its application is not painful, and with a little care there need be no staining of the clothing. The method of application, when Skene's ducts are involved, is to take a filiform bougie of the smallest size, put enough cotton to cover it, dip it in thiol, full strength, and pass it into the mouth of the duct. In treating other points, he saturates a piece of absorbent cotton with thiol and lays it over the whole vulva, protected by cotton and a napkin. [W.K]

7.—See this JOURNAL, Vol. III, p. 913.

8.—Kletzsch calls attention to the number of cases that have been subjected to **serious operations for pelvic disease,** and in which the indications for operation were well founded, which suffer from remote postoperative symptoms. Next in importance to the diagnosis of the pelvic disease is the method of toilet used during operation. His conclusions in regard to the peritoneum are the following: (1) To expose it as little as possible during the operation; if unavoidable, to protect it against the air as well as infection. (2) To handle it as cautiously as is consistent with our work. Any unnecessary injury to it should be avoided. (3) To prevent its being soiled with septic material; for this is the agent which brings about the most serious affections. (4) Liquid blood may be reabsorbed, but blood-clots should be scrupulously removed from the peritoneal cavity, especially if extensive raw surfaces have been left on the visceral or parietal peritoneum. (5) Our present methods of operating have brought acute affections of the peritoneum down to a minimum; our attention must now be turned to the chronic adhesions and minimize these. (6) Will the study of the peritoneum solve the question of the day, by which route we are to enter its cavity, or will we have to be guided by the existing pathologic condition of the generative organs? He adds a series of cases illustrating various sequels of pelvic surgery. [W.K.]

American Journal of the Medical Sciences.

July, 1899. [Vol. cxviii, No. 1.]

1. Anomalous Eruptions in Typhoid Fever. J. M. DA COSTA.
2. Some Remarks on Typhoid Fever Among Our Soldiers During the Late War with Spain. VICTOR C. VAUGHAN.
3. The Coexistence of Carcinoma and Tuberculosis of the Mammary Gland. ALFRED SCOTT WARTHIN.
4. Concerning Kernig's Sign in Meningitis. JAMES B. HERRICK.
5. On Astasia-abasia, with a Case. J. C. WILSON.
6. Eversion, or Turning Inside Out, of a Sac of a Cystonephrosis as an Aid in Operating upon the Renal End of the Ureter and upon the Partition Wall Between Dilated Calices. CHRISTIAN FENGER.
7. Pulmonary Tuberculosis with Intercurrent Typhoid Fever Complicated with Pneumonia; Triple Infection. A. A. ESHNER.
8. A Case of Mitral Stenosis with Fever (Nonmalarial) of Relapsing Type. F. P. HENRY.
9. Comparative Action of the Green and Brown Strophanthus Seeds. H. H. RUSBY.
10. Critical Summary of Literature on Tuberculosis of the Walls of the Bloodvessels and the Production of Miliary Tuberculosis. HARVEY R. GAYLORD.

1.—In an essay that is an examplar of what a clinical article should be, Da Costa calls attention to **anomalous eruptions in typhoid fever.** He mentions first a scarlatiniform rash. This is a uniform red that may be seen all over the body; it may be more distinct in some places than in others, and is easily influenced by pressure. Its intensity varies, its duration is about a week or a little longer; it passes away without desquamation, does not perceptibly influence the course of the temperature, and is, for the most part, unconnected with sore throat or with albuminuria. Save under the exceptional circumstances of attending sore throat and desquamation, there is no difficulty in excluding scarlet fever. Da Costa also describes a **morbilliform eruption** which is rarer than the first and is more misleading. In some instances it suggests the existence of true measles, and in others it produces the impression that the case is one of typhus. A case is cited in which the eruption so pronouncedly resembled that of typhus fever that the patient was isolated; yet the Widal reaction was positive, and the patient's recovery was slow. True measles may appear in the course of typhoid fever; but when the cases of coexistent measles and typhoid fever are contrasted with those of typhoid fever in which a measly rash is present, striking differences appear. The eruption of true measles, in the first place, is coarser, more markedly papular, and crescentic in arrangement, which is not seen in typhoid fever. Itching and desquamation occur in measles and are not observed in the typhoid-fever rash. Furthermore, the presence of coryza and catarrhal symptoms is significant of measles. But of the greatest value and meaning is the temperature-record. In the measly eruption of typhoid, the eruption has no marked influence on the temperature; while in the case of an intercurrent measles, the temperature rises decidedly in the days immediately preceding the eruption, exactly as in the ordinary measles, and goes on rising and remains high with the spreading eruption. When convalescence is approaching and the temperature has been hovering around the normal line, these temperature-changes are of the greatest value in diagnosis; in the earlier stages they are of course not so noticeable. There are cases of typhoid fever with **mottling of the skin,** such as is seen in typhus. This mottling is

due to a subcuticular rash, and may remain as the only eruption or may precede or attend other kinds, namely, the scarlatiniform and measly eruptions. Da Costa believes that these three forms are merely different expressions of one and the same pathologic condition. An instance in which they were apparently interchangeable in the same patient is cited. Pathologically, the process is a hyperemia of the skin with here and there, in the measly form, an exudation into its layers. The rashes are not drug-eruptions, nor is the bath-treatment responsible for them. Da Costa inclines to the belief that they are the expression of disorder of the cutaneous nerves and that they are due to vasomotor disturbance. This, in turn, is dependent on the blood-infection. Whether the latter is from bacillary toxins or from the absorption of broken-down material from the intestines, cannot be definitely decided. There is a strong analogy between the production of ordinary urticaria and these rashes. The nervous element plays a strong part in some of these eruptions. This is illustrated by the case of a patient who developed an erythema whenever he was accosted in a decided manner. There is nothing in the rashes described which seems to add gravity to the prognosis, nor do they call for any special line of treatment. As albuminuria may coexist, close attention should be paid to the renal secretion. [D.R.]

2.—In August, 1898, Surgeon-General Sternberg appointed a board consisting of Major Walter Reed, U.S.A., Major E. O. Shakespeare, U.S.V., and Dr. V. C. Vaughan to study **the causes and the spread of typhoid fever among the troops** in the various camps within the United States. The preliminary results of this investigation are now presented by Vaughan in an interesting and lucid article. The first point to rivet the Board's attention was the **unreliability of the diagnosis** of fever-cases made by the army-surgeons. The majority of febrile affections were diagnosticated as malarial, but careful studies showed that **malaria was a very rare disease** among the troops, and there was no doubt that nearly all the continued fevers considered as malaria were in reality typhoid fever. Typhoid fever also appeared disguised under other names, such as indigestion. dengue, and continued fever. Some surgeons in their reports regarded enteric fever as distinct from typhoid fever. **The origin of typhoid fever** in the larger encampments was not in camp, but the infection was brought by the soldiers from their homes—this could readily be determined by noting the first appearance of typhoid fever after a regiment's arrival in the general camp. Many surgeons apparently suppressed the diagnosis of typhoid fever in order to prevent alarm—this practice the Board rightfully denounces, holding that the disease should be immediately reported, as only the earliest recognition will give the opportunity to check the spread. Regarding the **spread of typhoid fever,** the observations of the Board are very interesting. The evidence of spread by drinking water, so generally assumed, was practically negative. In places, such as Jacksonville, Knoxville, and others, where the army and the residents used the same water, typhoid fever raged among the soldiers and was rare among the citizens. The most important influence on the spread of the disease was exercised by the method of disposing of the infected fecal matter. When this was done properly the disease was infrequent, and vice versa. In most of the camps fecal matter was deposited in pits—flies swarmed over the matter and then walked over the food in the mess-tents. In many regimental camps fecal matter was deposited about the camp on the ground, and was carried from tent to tent on the shoes. There was no evidence that the milk-supply acted as a general or frequent vehicle for the distribution of the infection. The Board is convinced that, when water-carriage cannot be secured, the complete **sterilization of all fecal matter** is necessary to prevent the spread of typhoid fever in camps occupied for three weeks or longer. They recommended that each company be furnished with a **specially constructed galvanized iron trough,** which is to be partially filled with a saturated solution of milk of lime, and is to be emptied daily by means of an odorless excavator. Prevention is the most important duty of the medical officer—the latter should possess special training in military hygiene, and should have greater authority. The **mortality** from typhoid fever could not be accurately ascertained, but was probably from 4 to 7%. It was a striking fact that the majority of the men who had typhoid fever had no preceding disease. The diarrheas that existed, the Board considers, in many cases, to have been due to or at least accompanied by a typhoidal infection. In a considerable number of those preceded by some disorder, whether malaria, diarrhea, or indigestion, the disorder occurred in such close connection with the typhoid fever as to suggest that it was due to or accompanied by typhoid infection. In these cases the infection was probably a mixed one, in which saprophytic germs greatly predominated in numbers and caused the preceding illnesses. There was evidence that typhoid fever, in military experience, is often apparently intermittent. The intermissions may not be afebrile, but permit the patient to return to duty. The **influence of change of location of camps** upon the continuance of typhoid fever is exceedingly interesting. The Board's conclusions on this point are: (*a*) That a regiment thoroughly infected with typhoid fever does not lose the disease when it changes its locality, even when it goes to a perfectly unobjectionable site and leaves all its sick behind. It is necessary in order to rid the regiment of the disease to disinfect clothing, blankets, tentage, etc. (*b*) If a regiment be moved before infection has become marked, typhoid fever may disappear or at least decrease. (*c*) Apparently a sea-voyage of some days or weeks may rid a command, not widely infected with typhoid fever, of the disease. (*d*) A regiment thoroughly infected with typhoid fever does not lose the disease or lessen the number of its cases after a short voyage at sea. [D.R.]

3.—Warthin reports two cases of **associated carcinoma and tuberculosis of the mammary gland**—in the one the tuberculosis seemed to be the primary process, in the other the carcinoma. Lubarsch gives fine possibilities of the combination of the two conditions: (1) Purely accidental. Half of all the cases fall under this category. (2) Metastatic carcinoma in or near old or fresh tuberculous processes. Through the cachexia of cancer new tuberculous eruptions may follow old lesions. Such cases are not rare. (3) A fresh infection of tubercle-bacilli may occur in well-developed carcinoma. These cases are rare. (4) A carcinoma may arise in a progressive chronic tuberculosis. The tuberculous process acts as the predisposing cause in a manner similar to that of acute or chronic trauma in favoring the development of carcinoma. (5) The hypothetic entrance of both conditions at once. Of this no evidence has as yet been found. In his first case, Warthin considers that the tuberculous process acted as the primary factor in changing the normal environment of the gland-cells and so excited in them specific tendencies toward carcinoma, in the manner maintained by Ribbert. The second case belongs to the third category of Lubarsch. The coexistence, Warthin concludes, of carcinoma and tuberculosis of the mamma is certainly rare—it may be purely accidental, or the tuberculous process may appear to be the exciting cause of the carcinomatous proliferation. [D.R.]

4.—If a patient with meningitis is made to sit up, as on the edge of the bed, the thigh being at a right angle with the body, it is found extremely difficult to extend the leg because of the presence of a marked flexure-contraction. This phenomenon is known as **Kernig's sign,** after the Russian physician who first described it, in 1884. He had seen it in 15 cases of meningitis observed by him, 13 of these were epidemic cerebrospinal meningitis, one tuberculous, one suppurative. Herrick has examined for the sign in 19 cases of meningitis, 9 of which were epidemic cerebrospinal meningitis, 7 tuberculous, 2 pneumococcal, one syphilitic with an acute process superadded. The sign was present in 17, or in 89.4%. In the two negative cases, both in children, the examination was made shortly before death, at a time when the musculature had relaxed. In most of the cases studied the examination for Kernig's sign was wholly unnecessary except as a confirmatory finding. In some of the cases, however, its presence was of distinct value. Many patients with diseases other than meningitis were examined as to the existence of the phenomenon—of 100 examined, it was present in 2, absent in 98. One of the two was a case of subdural hemorrhage; the other was one of gonorrheal rheumatism of one knee, and in this case the local condition may have played a part. The patient had lain for four weeks with both knees flexed, this may have rendered extension difficult. It seems justifiable to regard Kernig's phenomenon as present in 80 or 90% of cases of meningitis and as only exceptionally present in other affections. Other and more definite conclusions concerning it seem unwarranted at this

time. The phenomenon is readily elicited when the patient is sitting up, in the way already described; when he is lying down, the thigh is brought at right angles to the body as the patient lies in bed on the side, or preferably on the back, and the leg then extended. In testing for Kernig's sign local conditions that could interfere with proper extension of the leg must be excluded. No thoroughly satisfactory explanation of the cause of the phenomenon has been offered. [D.R.]

5.—Wilson reports a case of **astasia-abasia.** The patient was a young woman, 24 years old, of neuropathic stock, whose nervous system first became impaired after an unsatisfactory love-affair. Soon after this she was roused from sleep at midnight by a ring at the bell, which she answered, to receive an indifferent telegram. On the next day, attempting to rise, she found it impossible to stand or walk. She described her condition in the following terms: "My left leg feels as though it were made of cotton," and, "I feel like a combination of a child learning to walk and a drunken woman." There was no loss of power, no impairment of the muscular sense or sensation, although paresthetic disturbances exist. The kneejerks were exaggerated, ankle-clonus was not present; the electric reactions were normal. There was no rigidity. Upon attempting to stand the legs collapsed under her, and unless supported she sank to the ground. Isolation, rest in bed, valerianate of zinc, massage, and the electric brush brought about an improvement. In 2 weeks she was able to leave the bed and to receive lessons in standing and walking. Hysteric phenomena, vomiting, tremor, vertigo, etc., then began to manifest themselves, but eventually disappeared under isolation and a systematic regimen. Astasia-abasia is not a nosologic entity, but probably an hysteric syndrome. [Dr. J. H. Lloyd, in Dercum's Textbook of Nervous Diseases, has briefly reported a case of astasia-abasia. D.R.]

6.—Fenger describes a new method of systematic search for the ureteral opening on the inside of a cystonephrotic sac by eversion of the sac through an opening large enough to permit of turning the wall inside out. The eversion of the sac, combined with methodic division of the partition-walls, one after another, enables the surgeon gradually to lay bare and turn out for inspection the whole inner wall of the sac. This is also a sure way of finding the renal orifice of the ureter. The division of the partition-walls converts the multilocular into a unilocular cavity, and facilitates drainage of urine down the ureter into the bladder. The author tested the operation in the case of a young woman, 23 years of age, whose history is briefly as follows: In 1893 she had a sudden, sharp pain in the right mammary line, 1½ inches below the costal arch. Flexion of the right thigh caused the pain to increase in severity. There were no urinary symptoms at that time. For the two years following the attacks recurred with varying frequency. Any movement that produced extension of the muscles on the right side brought on the pain. A tendency to pass urine at the time the pain subsided manifested itself, and a tumor was noticed, which gradually enlarged until it reached from the costal arch to the brim of the pelvis, and from the median line in front to the scapular line posteriorly. The tumor varied in consistency and was soft and fluctuating. In February, 1898, Fenger operated, after having found by cystoscopy and catheterization of the right ureter that no urine escaped from this tube. The technic of the interesting operation on the cyst and the ureter is carefully described and illustrated by sketches. It is hardly suitable for abstract and should be read in the original. At the entrance of the ureter into the sac a transverse fold 5 to 7 mm. in diameter had been found, and below this a row of larger folds located 1 cm. apart. This valve-formation was removed by dividing the ureter and uniting the latter with the divided wall of the pelvis. The fluid in the sac—1,200 cc.—was limpid, distinctly acid, and had a specific gravity of 1013. It contained 36 grams of solids, 4.8 grams of urea, 7.8 grams of chlorid. Phosphates, sugar, bile, and indican were absent, and sulfates present. [D.R.]

7.—Triple infection is rare. Eshner's patient, a colored woman of 28 years, had **pulmonary tuberculosis** and **typhoid fever,** the latter being complicated with **croupous pneumonia.** The association of the diseases was, in the author's opinion, accidental. The pneumonia was lobar, of pneumococcic origin, and occurred late in the course of the typhoid fever. [D.R.]

8.—Henry's patient, a pregnant, unmarried woman, 19 years of age, had had rheumatism, typhoid fever, and pneumonia. Heart-lesion was a typical mitral stenosis. The peculiar fever, which the author designates as relapsing, was intermittent in type, the paroxysms occurring at intervals of about 6 days. There was no evidence of malaria, and the fever could have depended only on the heart-lesion. The causes of intermittency in fever are shrouded in obscurity, but in view of the fact that the diurnal elevation of temperature, as well as the rise in malarial fevers, are associated with a destruction of red corpuscles (for the former this was demonstrated by Henry in 1881) suggests the possibility of solving the problem of nonmalarial intermittency by a study of the blood. [D.R.]

9.—A study of the **physiologic action** of the green and the brown seeds of **strophanthus** has demonstrated the existence of two distinct principles, one of which is the toxic principle, the other the cardiant principle. Of the two seeds, the green seed, or those of Strophanthus Kombé Oliver, should alone be specified and described in the Pharmacopeia. [D.R.]

10.—An interesting account of the discussion that has been waged in the German journals and books on the **pathogenesis of miliary tuberculosis.** Gaylord adopts the postulates of Weigert, the most important one of which is, that the primary tuberculous focus must, except when located in the heart-substance, occupy a portion of the wall of a vein or larger lymph-channel which is patulous; that is, not obliterated. [D.R.]

Wiener klinische Wochenschrift.

June 1, 1899. [12. Jahrg., No. 22.]

1. A Minor Contribution Upon the Theory of Paralysis of the Ocular Muscles, and Strabismus. SCHNABEL.
2. Concerning Sympathetic Pupillary Reaction, and Upon the Paradoxic Light-reaction of the Pupils in Progressive Paralysis. J. A. HIRSCHL.
3. The Enduring Results following Nephropexy. G. v. TÖRÖK.
4. Peritoneal Adhesions and their Relation to the Female Genitals. R. GERSUNY.
5. Indications of Collapse following Operation for Nasal Polyps. M. BREITUNG.
6. The Dangers of the Murphy Button. R. PORGES.

4.—Gersuny has collected a series of 24 cases of abdominal adhesion with greater or less implication of the genitalia. In some cases the primary process was connected with the appendix, in others with the genitals, and in still others no cause could be found for the adhesion. In the latter he thinks that the condition might be due to hemorrhage into the peritoneal cavity either from ovulation or menstruation. [W.K.]

June 8, 1899. [12. Jahrg., No. 23]

1. (1) The Physiology of Arbitrary Movements. (2) Concerning the Lateral Movement of the Eye. ZUCKERKANDL and ERBEN.
2. Curability of Tuberculosis. v. SCHRÖTTER.
3. A Case of Tracheal Stenosis Through Aortic Aneurysm; Tracheotomy. (Death one year later.) A. DÖRNER.
4. Thyroid-gland Metastasis in the Nasal Cavity. L. HARMER.
5. Histologic Condition in Herpes Tonsurans Maculosus et Squamosus and Pityriasis Rosea. G. LÖWENBACH.

2.—Tuberculosis is curable in all of its stages, but a case can be considered cured only when the following conditions are found: First, improvement in the general health, especially in the body-weight. Second, perfect capacity for work. Third, physical changes that correspond to the nature of the curative processes, namely, scars in the lung, scars in the larynx and the absence of all disease phenomena. Fourth, the constant absence of tubercle-bacilli. In view of the difficulty of a definite cure, observation extended over years can alone offer satisfactory gurantee. [D.R.]

3.—In reporting two cases of successful operation for **floating bodies in the knee-joint,** the author states that they are usually of traumatic origin, and that the traumatism is the etiologic factor, even when the bodies are found in joints that are otherwise diseased. He also reports a case of tracheal stenosis, due to the pressure of an aortic

aneurysm where the patient lived for over a year after tracheotomy had been performed. Immediately after the tracheotomy there was difficulty in breathing which was relieved by the passage of a soft catheter down to the bifurcation of the trachea. It was, however, found impossible for the patient to breathe if it was removed, so a canula was constructed having a soft rubber extension that reached to the bifurcation of the trachea. By removing this once a day the patient breathed comfortably. She died a little over a year after the tracheotomy from inspiration of blood into the lungs after a slight rupture of the aneurysm. [C.L.L.]

4.—The case reported was one of **carcinoma of the cervical glands,** in which metastasis took place to the base of the brain with involvement of the optic muscles and nerves, and penetration into the posterior nares, which is of rare occurrence. It was the tumor in this region that was first noted and led to the investigation which resulted in the detection of the general involvement which explained the symptoms that had been present. The metastasis from glands to bone is of rare occurrence. The diagnosis can only be made microscopically, as the development of these tumors is very slow. The prognosis is, of course, bad. Thorough removal of the growths at the earliest possible moment is the best treatment. [C.L.L.]

5.—There has been a great deal of discussion as to whether **pityriasis rosea and herpes tonsurans maculosus et squamosus** are the same. Resort has been to bacteriologic examination to decide this question. Tandler found the trichophyton fungus in the lesions of the latter, but not in those of the former. Hence, he concluded that they were separate diseases. But Löwenbach claims that the finding of the fungus in herpes tonsurans is difficult and does not always succeed. Therefore, as bacteriologic examination cannot decide definitely, he has resorted to histologic study, with the following results: In typical cases of recent efflorescence of pityriasis rosea two lesions are found; firstly, mild changes in the epidermis, consisting of a moderate parakeratosis and acanthosis, and, secondly, severer changes in the upper portions of the cutis, consisting in intense round-cell infiltration of the papillary and subpapillary layers. In herpes tonsurans, on the other hand, the most marked changes are in the epidermis and the milder in the cutis. The former consists of parakeratosis and acanthosis, and especially of a marked inflammatory edema. The cutis-changes are also chiefly of an edematous nature. The author, therefore, concludes that there are certain microscopic differences between herpes tonsurans maculosis and pityriasis rosea. He does not feel, however, that this difference permits any conclusion regarding the etiology of pityriasis rosea, nor does it establish this disease as a separate entity. [D.R.]

June 15, 1899. [12. Jahrg., No. 24.]

1. Concerning the Excretion of Methylene-blue Through Normal and Pathologic Kidneys. E. v. Czyhlarz and J. Donath.
2. Experiences with Echinococcus. V. Subbotic
3. Concerning Diaphragmatic Hernia. O. Grosser.
4. Gynecologic Trifles. J. Eisenberg.

1.—The authors have made some experiments on the **elimination of methylene-blue through the kidney** in health and disease. Their conclusions are as follows: In nephritis there is a retardation of the elimination of methylene-blue through the urine. This manifests itself either in the late appearance of the dye in the urine or in the abnormally prolonged persistence of its urinary elimination, or in a combination of the two. A delayed appearance was demonstrated in only two cases of contracted kidney, while in four other cases the appearance of the reaction was normal. Regarding the prolonged period of elimination, the authors were unable to discover any difference between the various forms of nephritis. All that they were able to determine was that prolongation of the elimination does occur in nephritis, but not exclusively in that affection. [D.R.]

2.—Subbotic reports a case of **solitary echinococcus** which had developed either **in the pancreas** or the mesocolon. It was impossible to make the differentiation, as there had been such extensive inflammatory adhesions. Clinically the tumor presented the aspect of a true pancreatic cyst. He also reports a case of multiple echinococcus in which he found an echinococcus in the appendix where it had developed apparently after penetrating from the peritoneal surface. [C.L.L.]

3.—Grosser reports a very interesting case in which an infant was stillborn, was resuscitated, lived for some hours, and then died. In the anatomic room it was found that the child had an **enormous congenital diaphragmatic hernia.** He draws from his study of the case and of a voluminous compilation of literature, of which he gives an extensive bibliography, the following conclusion: In congenital hernia the anomalous condition of the diaphragm is primary, the disposition of the hernial contents secondary. True and false hernia are referable to retardations during fetal development. The false hernias divide themselves into two groups: in one the result is due to defects in the closure of the pleural from the peritoneal cavity; these are the cases in which the hernial openings are in the posterior portion of the diaphragm; for those in which the opening is in the center there is no explanation. Congenital defects in cases of true hernia take place at the time of the formation of the mesodermal diaphragm and are in the muscle which starts from the periphery and pass inwardly but do not reach the center. The cause of the frequent occurrence of hernia on the left side is that at the time of the formation of the dorsal diaphragm the septum transversum and the liver (in which case the relation of the venous circulation has reached a definite position) is markedly asymmetrical. The cause of the retarded development can only be found by further study and research. [C.L.L.]

4.—Eisenberg describes several **improvements in gynecologic instruments** and the technic of their application. He prefers a modified Hodge pessary, such as Fritsch recommends, to the ordinary Hodge or Thomas, and discusses at some length the general treatment of uterine displacements by means of different pessaries. Of the different specula, Breisky's glass instrument is much to be preferred to Braun's, on account of its simplicity, cheapness, and the facility with which it can be cleansed. To facilitate emergency operations without assistance, the author recommends a short, rubber, tubular speculum with a short handle above, and a gutter below to direct the flow of an irrigating fluid or cureted material, etc., and a spool from which gauze may be unrolled as needed, the spool being held or hung conveniently near. [W.K.]

June 22, 1899. [12. Jahrg., No. 25.]

1. Concerning the Edema of the Glottis Folds of the Larynx in Death by Drowning. M. Richter.
2. Can Strabismus Cause Weak Sight? M. Sachs.
3. Cesarean Section in Relation to Retrovaginal Cervix-myoma with Total Extirpation of the Uterus. E. Wertheim.
4. History Placing the Credit for the So-called Koplik's Early Symptoms in Measles. S. Weiss.

3.—Wertheim reports a case of cesarean section and total extirpation in a case of pregnancy complicated by a **retrovaginal myoma of the cervix.** The patient, 32 years old, a primipara, was brought to his hospital, having been in labor 3 days. Examination disclosed a large, overdistended, pregnant uterus, situated asymmetrically on account of a large, solid, and immovable tumor which occupied the whole of the pelvic entrance. The portio vaginalis was pushed high up above the symphysis. The Bandl contraction-ring had formed and had reached the level of the umbilicus. The child was evidently dead. The attempt to remove the large myoma by the vagina by morcellement proving too dangerous from hemorrhage, this method was at once abandoned. A cesarean section was performed, and after a large dead fetus, with placenta and membranes, had been removed, the decidua was found to be discolored, looking like a pyogenic membrane, and giving off a very offensive odor. A total extirpation now seemed the only method promising safety, and the operation was successfully performed, the patient making a satisfactory recovery. [W.K.]

Berliner klinische Wochenschrift.

June 19, 1899. [36. Jahrg, No. 25.]

1. Concerning the Specific Poisonous Properties of Tuberculin. E. Behring.

2. Iodipin as a Subcutaneous Application in Tertiary Syphilis. V. KLINGMÜLLER.
3. A Contribution upon the Theory of Tubal Carcinoma. Concerning a Primary True Alveolar Carcinoma of the Tubal Wall. R. FRIEDENHEIM.
4. Tuberculosis of the Vulva and Vagina. C. DAVIDSOHN.
5. A Zenker's Pulsion-Diverticulum Combined with Intrathoracic Tumor. (*Conclusion.*) H. STARCK.

1.—Ruppel has isolated from the bodies of tubercle-bacilli an acid compound having all the characters of nucleinic acid. It is free from sulphur, but contains 9% of phosphorus. Investigations made by Behring have shown **tuberculinic acid** to be a specific substance, a specific nucleinic acid. To estimate its toxic properties, Behring uses guineapigs that have been inoculated with tubercle-bacilli. The tests are made between the twenty-fifth and thirtieth day after inoculation. The **toxic properties** of tuberculinic acid have been found 100 times greater for tuberculous than for healthy guineapigs. In intracerebral injection in healthy animals the acid is 150 more toxic than in subcutaneous injection. The mere pyrogenic action can hardly be estimated quantitatively in tuberculous guineapigs; tuberculous human beings would be better for this purpose, but, of course, the testing of unknown poisons on them is out of the question. Behring gives, however, a scheme for such investigations. Tuberculous cattle serve the purpose quite well. Tuberculinic acid proved itself 3⅓ to 4 times as powerful as the old Koch's tuberculin. Goats answer fairly well, but the febrile reactions following injection of the poison are more apt to run an atypical course in them than in cattle or in human beings. It would be most desirable to use healthy animals for determining the strength of a toxin, as is the practice in the case of diphtheria and tetanus. Guineapigs will answer provided the toxin contains in 1 gm. a sufficient quantity of the active agent to kill 500 gm. guineapig. The test, however, does not teach whether or not the toxic effect of the substance examined is really dependent on the specific tuberculous poison. This, because the tuberculous toxin does not produce in healthy individuals distinguishing symptoms or organic changes. In this respect the investigations in tetanus and diphtheria-poison are easier. To produce an effect on healthy animals, very large doses of tubercle-poison are required, hence the experiments are very costly. The killing of a medium-sized healthy guineapig with Koch's TR fluid involves an expense of $50. When the method of intracerebral injection is employed, smaller quantities suffice. Behring, using all known methods of toxin-testing, has demonstrated the specific character of tubercle nucleinic acid. The pure acid preserves, better than other tubercle-poisons, its specific properties, even without the addition of glycerin, and answers just as well for the **treatment** of tuberculous individuals. Its property of combining with albumins will make the establishment of immunity more feasible than was heretofore possible. As Behring has shown, the size of the molecule plays a role in the immunizing property of an infectious poison. By means of the tuberculinic acid it will be possible to vary the size of the toxin-molecule *ad libitum.* [D.R.]

2.—Iodipin is an organic combination of **iodin** and **sesame oil.** The author has experimented with it in **tertiary syphilis,** using it hypodermically, and concludes as follows: (1) Iodipin has a specific action in tertiary syphilis. (1) The influence lasts longer than in the case of the ordinary iodin compounds. (3) There is no loss of iodin. (4) Iodism does not occur. (5) Absolute dosage is possible. (6) The subcutaneous method permits of the use of iodin in persons who cannot or will not take iodin in the ordinary forms (insane or unconscious persons; surgical cases). (7) The body may be placed under a prolonged iodin influence (weeks or months) by an injection-cure lasting only a few days. The author now employs a 25% solution of iodipin (Merck). At first a 10% solution was used, as much as 20 cc. being injected daily. [D.R]

3.—After citing 22 previous cases of carcinoma of the tubes Friedenheim makes a detailed report of a case which came under his observation which proved to be a **primary,** true, alveolar **carcinoma** of the **tubal wall.**

4.—Davidsohn cites a case in which the autopsy of a woman who died about three weeks after delivery, showed an **acute miliary tuberculosis** of all the **large glandular organs,** involving also the internal genitalia, the tubes and ovaries showing much cheesy degeneration. The external genitalia, however, were free from this and showed only a relatively recent attack of the disease. He says that the tuberculosis, apparently held in check during pregnancy, in the puerperium, rapidly developed in a virulent form, soon causing death. This was one of the rare cases in which associated with signs of longstanding disease of the inner genital organs is found fresh tuberculosis of the vulva and vagina. One of the first of such cases was reported by Virchow in 1853. [W.K.]

5.—The gastrodiaphane and the Röntgen-ray aided the author in making the diagnosis of **diverticulum.** Preparatory to using the x-ray, the patient filled the pouch with 150 grams of mashed potatoes mixed with 40 grams of bismuth subnitrate. The patient eventually died of voluntary starvation. At the autopsy a huge tumor, the size of two fists, was found covered by the upper and middle lobes of the right lung. The diverticulum, as big as a fist, projected from the posterior wall of the pharynx. The esophagus was reduced to a tube scarcely the thickness of a lead-pencil. The tumor was a colloid struma, with bony trabecula. Starck calls special attention to a symptom of which his patient complained, and he considers a certain sign of diverticulum, namely, the **gradual descent of the obstruction.** The obstruction is never located by the patients at the point where the diverticulum springs from the esophagus, but at the fundus of the pouch. During the progress of the affection, the fundus gradually descends lower and lower. Regarding **the etiology of the diverticulum,** Starck is of the opinion that the tumor was the cause—that the diverticulum was an acquired pulsion-diverticulum. Its wall was absolutely devoid of striped muscle-tissue, which, according to König and others, would argue in favor of the pouch being acquired, the presence of voluntary muscle being considered proof of a congenital origin. The presence or absence of striped muscle-tissue is, however, according to Starck's view, not a conclusive guide as to the origin of a diverticulum. [D.R.]

Münchener medicinische Wochenschrift.

June 20, 1899. [46. Jahrg., No. 25.]

1. The Importance of Bremer's Test (Anilin Color-reaction) in Diabetes. SCHNEIDER.
2. Upon the Methylene-blue Coloring of the Diabetic Blood. (Williamson's Test). MÜLLER.
3. What Causes the Pain in Gallstone Colic? BERTELSMANN.
4. A Case of Spindle-form Enlargement of the Esophagus. SCHWÖRER.
5. Upon the Therapy of Lung-tuberculosis. (*Conclusion.*) FRAENKEL.
6. Supplement to My Paper, "Concerning Goitrous Peripheral Neuritis." GRUBE.
7. The Neisser Case. DURING-PASCHA.

1.—Bremer, of St. Louis, in 1894, made the discovery that the erythrocytes of **diabetic blood** when stained with a mixture of methylene-blue and eosin assume a yellowish-green color, while those of normal blood become reddish-brown. In the course of time it was found that 1% solutions of methylene-blue, eosin, Congo-red, biebrich-scarlet, and of Ehrlich-Biondi's stain answered just as well as the original mixture. The blood is spread on a slide, fixed for 6 minutes at 135° C., and stained for 3 minutes. With methylene-blue or Congo-red diabetic blood stains less, with biebrich-scarlet more intensely than normal blood—this behavior is also considered a positive reaction. The cause for the phenomenon has not been determined. Bremer had also found that normal blood treated with diabetic urine was so altered that it gave the color-reaction. This fact led Schneider to study the urine in the hope of finding the **cause for Bremer's reaction.** Fresh blood was spread on slides and fixed at 135° C. in the oven for 6 minutes. The slides were then floated for from 10 to 15 minutes on the urine to be studied, and afterwards stained with a 1% solution of methylene-blue. A degeneration of the corpuscles not being the cause of the reaction, it was necessary to test the influence of alkalinity and of the sugar. Neutral solutions of sugar, neutral solutions of normal urine

to which glucose had been added, and neutralized urine from cases of alimentary glycosuria, did not give the reaction. Acid diabetic urine did give it even after the sugar had been removed by fermentation. Diabetic urine on standing lost the power of giving the reaction; and in two cases in which fresh diabetic urine did not give the reaction, the patients were taking alkalies. Distilled water did not give the reaction, but when an acid solution, it did not matter of what acid, was added, the reaction was obtained. Several other experiments showed that the reaction was under the influence of the presence of acids. The author therefore concludes that **Bremer's reaction with diabetic urine is dependent on the high acidity** of the urine, and that the positive reaction obtained with diabetic blood and at times with blood from persons having other diseases, and rarely with normal blood, is also connected with an abnormal richness of the blood in acids. Hence, Bremer's reaction is not sufficient to establish the diagnosis of diabetes. [D.R]

2.—Williamson's **diabetic blood-test** is performed as follows: 20 cmm. of blood is mixed in a small test-tube with 40 cmm. of a 6% potassium hydrate solution and 1 cc. of a watery methylene-blue solution of the strength of 1 to 6,000. A control-preparation of normal blood is prepared in a similar manner. Both are then heated in a water-bath. After from 1½ to 5 minutes the diabetic blood solution will be decolorized, *i. e.*, will be changed to a pale yellow, while the control is not altered, or only shows a slight decolorization after prolonged heating—from 10 to 20 minutes. The test-tubes must not be agitated during the heating. Müller's studies show that the reaction is dependent upon the presence of the sugar, although it is possible that there may be some other reducing substance in diabetic blood that has a similar decolorizing power. Williamson's method is of diagnostic value, inasmuch as it may assist in making a diagnosis of diabetes in rare cases of diabetic coma in which it is, for certain reasons, impossible to obtain urine. [D.R.]

4.—A railroad conductor, 50 years old, for 13 years had had at times difficulty in swallowing. Examination showed a constriction of the esophagus at 44 cm. from the teeth and a spindle-form dilatation just above this stricture which would contain some 350 cc. of water. The difficulty in swallowing was more marked after excitement, etc., showing the stenosis to be in part spasmodic. The spindle-form of the dilatation of the esophagus was verified by the use of a bismuth injection and the Röntgen-rays. [G B W.]

5.—The author ridicules the use of **ergot in hemoptysis,** and denies that it has any value. His treatment consists in calming the patient, rest in bed, remedies to lessen the cough, digitalis in cases with rapid, feeble heart, and, at critical moments, ligation of the extremities and infusion of saline solution. The ice-bag he would rather place on the heart than on the lung. Morphin may be used to quiet the cough when necessary. In the treatment of cough in general, when a sedative has to be used, he prefers codein to morphin. The occasional use of antipyrin, phenacetin, etc., he finds of value, as these drugs produce quiet and euphoria. The hygienic and dietetic treatment is most important in **pulmonary tuberculosis.** It comprises four factors: Alimentation, rest, fresh air, and psychic treatment. Many phthisical patients studiously avoid fats, which is a serious mistake. The patient should be weighed at least once a week. The afebrile patient should partake of two principal meals a day, the diet being a mixed one. In addition, there should be a second breakfast in the forenoon and a luncheon in the afternoon. Milk is of special value in children, in consumptives with poor digestion, in cases of dysphagia, and where there is high fever. Alcohol is indicated when there is pyrexia, especially with chills, and in the attacks of collapse that are apt to occur in phthisical patients. Regarding the artificial foods, the chief objection to them is their cost. The **climatic treatment** of phthisis is gradually being placed upon a scientific basis, since it has been shown that altitude exerts a decidedly stimulating influence upon the hemapoietic system. But while the author is not an enthusiast as to climate, he is convinced that, proper alimentation existing, the patient has a better chance for definitive and prompt cure in a climatic resort than elsewhere. The altitude to be selected varies. In winter it should be about 1,500 meters; in spring, summer and autumn a few hundred meters, in order to guard the consumptive from fog, dust, and extremes in temperaturs. The Black Forest is suitable for spring, summer and autumn; the high altitudes of Switzerland, from November until spring. A tendency to hemorrhage is not a contraindication; while erethism, poor resistance, advanced stages, especially in those with high fever or those with marked emphysema and secondary cardiac changes, contraindicate high altitudes. Nephritis and laryngeal phthisis are made worse in a cold, dry climate. In the phthisis of the aged, high altitude, as well as superalimentation, is contraindicated. Such cases do better in the Riviera. He has not seen much benefit from ocean-voyages. Attention is called to the prevalent error that a few weeks' sojourn in a climatic resort suffices for a cure. Patients should remain there long enough, but not too long. Hydrotherapeutic measures are useful to lessen the susceptibility of patients to temperature-changes, but the use of water must not be carried to excess. Patients should sit, lie, and walk in the open air, and in a good climate sleep by the open window. Febrile cases should be in bed. Patients should be instructed in the use of the thermometer and should take their temperature regularly whenever there is any sign of fever. The value of sanatoria consists, in Fraenkel's opinion, chiefly in their power to educate patients and in the comfort that they furnish to those that need care. He recommends sanatoria in intractable persons with incipient phthisis and in patients with advanced phthisis who are alone in the world. Too much should not be expected from people's sanatoria. Tuberculosis, as the scourge of the race, is best combated by an improvement in the condition of the working classes and of the hygiene of the school and home. [D.R.]

June 27, 1899. [46. Jahrg., No. 26.]

1. Concerning a New Albuminous Preparation (Siebold's Milk-Albumin). Prausnitz.
2. Bacteria of Aseptic Operative Wounds: Surgical Trauma. Döderlein.
3. Hemorrhagic Cyst in Corpus Ciliare with Results of Spontaneous Restoration. (*To be concluded.*) Mayer.
4. A Further Contribution Upon Cutaneous Neurotrophic Disturbances. 1. Neurotic Flat Hand and Neurotic Flat-foot. (*To be concluded.*) Löwenfeld.
5. Rupture of Ovarian Cystoma. Köppen.
6. What Causes the Pain in Gallstone Colic? (*Conclusion.*) Bertelsmann.
7. Gustave Wolffhügel. Erismann.

1.—Siebold has prepared out of milk-casein and sodium bicarbonate an albuminous product, which has been placed upon the market under the name of **plasmon.** The dried substance contains 13% of nitrogen and 8% of ash. Prausnitz and his pupils have investigated the value of plasmon, and find that, considering the price, there is no substance on the market that compares with it in nutritive properties, resorbability, and general utility as a food. [C.R.]

2.—The dangers of **infection after operation** have been reduced, by sterilization of the instruments and other material, to two—infection through the air and through the operator, *i. e.*, the hands. There is no method of sterilizing the air. Hence, operations should only be performed in well-drained, dust-free rooms. Döderlein's efforts to limit aerial infection by steam or rain, or by stretching a moist cloth over the operating table, have not yielded satisfactory results; the source of infection—sponges, instruments, etc., being found perfectly sterile—must be the operator himself. Döderlein has used for his hands the solution of potassium permanganate and hydrochloric acid recommended by Paul and Krönig. Cultures made from the blackened hands were negative, but when made from those areas from which the color had been rubbed off with the superficial epiderm during the operation, positive results were obtained. This desquamation of the epithelium is likewise the source of the majority of bacteria found by culture in the gloves worn by operators. To prove this, Döderlein performed a number of aseptic laparotomies by wearing under the tricol-gloves condom-like rubber-gloves—under these conditions the bloody tricol-gloves contained far less bacteria, and cultures made from the operative field showed the same thing. In spite of this good result, the author does not advise the use of impermeable gloves. A perfectly aseptic field of operation is an impossibility, hence our efforts must be directed in the firs

place toward keeping pathogenic bacteria away. Contamination of the hands with such microorganisms must be avoided. No operator should touch septic material with the naked hands; if compelled to perform aseptic operations with septic hands, he should wear rubber gloves. Secondly, every effort should be made to aid those factors of the body that are concerned in the fight against the bacteria that have gained entrance. Care should be taken in all peritoneal operations not to allow wound secretions to accumulate; when this is unavoidable proper drainage must be established. [D.R.]

3.—Mayer reports a case of **hemorrhagic cyst of the ciliary body** which posseses both a differential diagnostic and a pathogenetotherapeutic interest. The diagnosis was made by various findings of remains of a tumor-wall, but of especial indication was, that at the place where tumor was and from whence it had developed, the ciliary process was wanting, while above and below it was strongly developed. So that it seems certain that the growth originated in the ciliary body. (To be concluded.) [G B.W.]

4.—Löwenfeld reports a case of **neurotic flathand** and a case of **neurotic flatfoot.** The first case occurred in a woman, 47 years old, and was preceded by neuritis of the ulnar nerve. The vola of the hand was filled out with a hyperplasia of the subcutaneous tissues which was very tender and painful. The thickening also extended on to the first phalanx of the little and ring fingers. This condition lasted for 14 days when it disappeared. The second case was a woman, 50 years of age, who had suffered one or two years previously with sciatica followed by pain in the sole of the foot, which, however, disappeared after a short time. The present attack began by a slight phlebitis of the lower extremity, but on examination a neuritis of the sciatic nerve was found. The hollow of the foot was tender and filled out level by the hyperplasia of the subcutaneous tissues. The skin on the dorsum of the foot was shiny and tense. The patient improved, but died soon afterwards from carcinoma of the uterus. (To be concluded.) [G B.W.]

5.—Köppen reports a case of a ruptured colloid ovarian cystoma upon which he successfully operated. [W.K]

6.—As mechanical conditions are capable of producing colic which resembles that seen in cholelithiasis and which is to be ascribed to contraction of the smooth musculature, the conclusion may be drawn that even in **gallstone colic** the contraction of the musculature of the gallbladder plays a prominent part. True gallbladder colic can occur without inflammation or the impaction of a stone. An inflammation may be the first cause of a colic, by inducing contractions of the gallbladder, but it may, on the other hand, only be an accompaniment of the latter. Inflammation intensifies the pain, but pain can be produced by the contraction acting alone. [D.R.]

Neurologisches Centralblatt.

September 1, 1899. [18. Jahrg., No. 17.]

1. The Development of the Cellular Elements in the Cerebral Cortex of Human Beings; Preliminary Communication. v. BECHTEREW.
2. Contribution to the Knowledge of the Changes in the Nervous System after Concussion. KAZOWSKY.
3. Automatisme Ambulatoire (Fugues dromamania). L. E. BREGMAN.
4. The Question of the Decussation of the Roots of the Facial Nerve. A. BARY.

1.—v. Bechterew gives in brief form the results of his **investigations upon the brain of a human fetus** stained by the Golgi method. (1) The earliest appearance of structures concerning the nerve-cells consists of fibers that grow inward from the periphery. These are at first short, then become longer, and penetrate more deeply. (2) These primitive fibrillae surround the embryonal cellular body. The portion of the fiber directed towards the periphery becomes the apical protoplasmic process. (3) In the earliest stages, the cell-body does not stain by the Golgi method. The cells, themselves, form the nuclei; the fibrillae surrounding them form the protoplasm of the nerve-cell. (4) Later the lateral processes, the protoplasmic processes arise from the sides of the cells. (5) The plexus of the primitive fibrillae apparently serves to form the lateral branches upon the apical process. The axis-cylinder arises later than the other structures. There is reason to believe that it develops from the nucleus. Its collaterals form somewhat later. (6) The branching of the protoplasmic processes occurs late in the formation of the cells. The apical process branches first. The pyriform appendices appear in the last stages of cellular development; first on the apical process and then on the lateral processes. **The different regions of the brain do not develop simultaneously**; the earliest cellular formation being apparently in the motor region, and appearing at a time when the ammon's horn is still undeveloped. (7) The nerve-cells of the cerebral cortex begin to develop at a time when the structures in the spinal cord have already been fully formed. [J S.]

2.—Kazowsky performed two series of experiments. In the first, five rabbits received rapidly repeated vigorous blows upon the head with a small hammer, until they fell to the ground. They were immediately seized by a series of clonic cramps and in the course of half an hour died. In a second series, the animals were struck more slowly and less vigorously upon the head until they sank to the ground. These animals usually recovered in the course of a brief time, and the experiment was then repeated for five or six successive days. At the end of this time, the animals were killed by opening the carotids. In the first series, the changes consisted of slight alterations in the medulla oblongata and the upper portion of the spinal column. There were small capillary extravasations and degeneration of the myelin sheaths of some of the nerve-fibers, shown by the Marchi method. There appeared to be no relation between the two sets of lesions. In the second series, the hemorrhages were not present, but the degenerative changes were much more pronounced. They were not systematic, but irregularly distributed throughout the cervical cord and medulla. Kazowsky believes that the **results of injury** are not necessarily localized to the point where the force was applied. He believes that there are many elements concerned in the fact that the medulla forms a point of least resistance. [J S.]

3.—Bregman reports the following remarkable case: A Jewish boy, 14 years of age, in his first year had epileptic attacks. These disappeared; but from the age of 4 years he began to show a tendency to conceal himself from time to time. At the age of 7 he developed a marked disposition to run away from home; at first remaining out one or two nights, and later for longer intervals. At the age of 9 years he left his home, and was absent a year. During his absence from home he always behaved himself well, never stole, and usually made friends of those to whom he turned for support and assistance. At the age of 7 his young brother, to whom he was tenderly attached, died, and thereafter he appeared anxious to seek him, and it was noted that he usually saw fancied resemblances to his brother in some boy in the places where he stayed during his absences. He also developed a tendency to visit the churchyards, on one occasion attempting to disinter his brother's corpse. Occasionally, during his wanderings, he had **hallucinations of sight,** seeing at times his father, his brother, or a favorite dog. The ancestry of the patient was neurotic. His father died insane. His grandfather suffered from some nervous disease. Of the 13 children of his mother, several died of cramps, and only 6 lived. There were no stigmata of hysteria in himself; his expression was not particularly intelligent, but he spoke fluently and was able to write two languages. When questioned concerning his reason for running away from home, he could give no explanation, except that he was subject to an irresistible impulse, in the occurrence of which the recollection of his brother appeared to have considerable influence. His memory for the periods of absence was apparently good, but occasionally there were periods during which it was lost. The case belongs to the **fugues of the degenerates or psychiasthenics** described by Raymond. It also belongs to the group of **dromomanias** described by Régis, characterized by the persistence of memory during and after the attacks, and the irresistible tendency to leave home for long periods without adequate cause. The present case is unique on account of the existence of hallucinations. [J.S.]

4.—Bary had the opportunity of examining the **central nervous system of a patient dying of tuberculosis,**

who some months before death had developed complete right facial palsy, as a result of an injury to the nerve in the middle ear. The central portion of the nervous system was stained by the Marchi method, and cut in serial sections. The following tracts were degenerated: first, the nerve-fibers arising from the right facial nucleus; second, the knee of the facial root; third, the right descending facial root; fourth, a bundle to the raphe; fifth, the knee of the left facial nucleus, and sixth, the fibers arising from the left facial nucleus. He concludes that the greater part of the facial root arises from the nucleus of the same side. The smaller portion arises from the cells of the nucleus of the opposite side, decussates at the raphe, and unites in the knee with the upper portion of the facial fibers. In addition, there was degeneration in the ascending root of the right trigeminus. [J S.]

Deutsche Zeitschrift für Nervenheilkunde.

April 20, 1899. [Band 14, Heft 5 u. 6.]

15. Psychopathology and Neurology. Goodheart.
16. A Further Contribution to the Knowledge of the So-called Pseudosclerosis. Strümpell.
17. The Neuron of the Ciliary Ganglion, and the Centers of the Movements of the Pupils; an Experimental Study. Marina.
18. Anatomic Changes in the Central Nervous System in a Case of Paralysis Agitans. Philipp.
19. The Changes in the Skin in Paralysis Agitans. Fränkel.
20. Clinic and Anatomic Contribution to the Intermeningeal Hemorrhages and to Jacksonian Epilepsy. Luce.
21. Pseudohypertrophy of the Muscles and Atrophy of the Bones, with Spondylose Rhizomelique, in Two Sisters, with the Results of the Autopsy in One of the Cases. Fr. Schultze.
22. Reviews.

15.—Goodheart has become convinced that the theory of Boris Sidis regarding the **interaction of the neurons** is capable of explaining many hitherto obscure physical processes. This theory is essentially, that during momentary consciousness there is a synthesis of cell-groups of nonpsychic action (unconsciousness?), and the association-neurons in the cortical fields are retracted or contracted. This retraction is the result of a process of exhaustion of cellular energy. These systematic disaggregations of cell-aggregates form one stage in a continuous process of cell-exhaustion and neuron-degeneration. The discoveries of Apathy are brushed aside as not applying to the vertebrates. Goodheart then reports the case of a clergyman named Hanna, who, in April, 1897, was thrown from his wagon and struck his head. After 2 hours he recovered consciousness, when it was found that he had absolutely lost memory, not even recollecting how to innervate his muscles. He had no recollection of speech, persons, or places. He did not know how to eat, nor how to walk. Curiously enough, his intelligence and his ability to remember things that he learned appeared to be better than before the accident. Experiments carried out according to some unexplained psychopathologic methods showed that the patient had a subconscious recollection of his previous knowledge. A treatment was instituted depending upon psychic and physiologic irritation, during which the patient developed a state of double consciousness, and finally recovered the recollection of his previous life. Goodheart also mentions several cases in which, by means of this psychopathologic method, remarkable diagnoses and cures were obtained. He believes that **double consciousness is simply a form of amnesia**—that is, a sort of alternating amnesia. He believes that the study of psychopathologic phenomena will contribute to the knowledge of the normal psychic processes. [J.S.]

16.—Strümpell reports the case of a man, 30 years of age, without neuropathic heredity. Six years before death, he awoke one morning and found himself unable to walk properly. At this time he was examined, but no symptoms pointing to organic disease were discovered, excepting a very faint tremor, and unsteadiness of the gait. The following year he reentered the hospital, his pupillary reactions were normal, but his expression resembled that of a case of paralysis agitans. At rest, the arms were quiet, but if any movement was attempted, there appeared a violent oscillatory tremor, not only in the wrists and elbow, but also in the shoulder-joints. At this time the gait was nearly normal. The patellar reflexes were exaggerated, otherwise no changes could be detected. Later, it was observed that even at rest there was a very slight oscillation in the fingers of the left hand. When the tremor became very severe, the whole body appeared to be involved. The patient then grasped the left hand with the right, and gradually brought himself to rest. Ataxia was not present. Later he developed an ulcer of the nasal septum, leading to the formation of a typic saddle nose that yielded to iodids. Otherwise there were no luetic symptoms. His character changed, and he became shameless, impertinent, restless, and occasionally violent. The symptoms remained unchanged, except that tremor appeared in the right arm, and the expression was still rigid. His mental condition grew worse, he developed hallucinations, and it was necessary to place him in an insane asylum. Speech became more and more indistinct; the tremor seemed more violent, involving the whole body, and finally he died in an attack that resembled apoplexy, associated with a rapid rise of temperature to 41° C. Careful examination of the central nervous system by various methods failed to demonstrate any lesion whatever. Strümpell regards the case as one of **Westphal's pseudosclerosis,** calling particular attention to the fact that in this disease the coordinate movements remained undisturbed for a much longer time than in genuine multiple sclerosis. Etiologically, he regards syphilis as the most likely agent, and in the present case suggests the possibility of a delayed hereditary form. [J S]

17.—Marina, after discussing the results of the investigations upon the anatomy of the ciliary ganglion of the orbit, which seem, indeed, to have led to very divergent results, some observers claiming that it is analogous to the ganglia of the spinal nerves, and others to the ganglion of the sympathetic system, reports the results of his own experiments, which had for their object the elucidation, if possible, of this point. The experiments consisted essentially of injuries to various portions of the contents of the orbit in order to produce secondary changes in the ganglion. After a certain time, the animal, usually a dog or an ape, was killed, the ganglion rapidly dissected out, and hardened in a mixture of 95% alcohol 100 parts, chromic acid 1 part, and formalin 5 parts. Staining was accomplished either with thionin or methylene-blue. In the first animal, the ciliary nerves were cut. Eleven days later, no cells in the ganglion of that side were normal. There was slight degeneration in the cells of the other ganglion. In the second animal the cornea was cauterized. Twelve days later many of the cells of the operated side showed partial chromatolysis. In the third animal, 12 days after exenteration of the bulb it was found that the nerves and ganglion were in an advanced stage of degeneration. In a fourth animal, operation and results were the same as upon the first. A series of experiments were performed upon apes, and it was found that **neurectomy caused degeneration in the ganglion;** cauterization a more moderate degeneration; the removal of the ciliary processes a pronounced degeneration, that could be traced to the ganglion Gasseri and the sympathetic ganglia of the neck. Exenteration of the bulb produced also profound changes with similar changes in the ganglion Gasseri. Finally, section of the optico-ciliary nerve produced profound degeneration in all the cells of the ciliary ganglion, and a degeneration of certain groups of cells in the ganglion Gasseri and the cervical region. Marina also performed a number of experiments with nicotin, and was able to confirm the results of Langley, that this produced paralysis of the pupil without anesthesia of the cornea. He concludes that, as after cauterization of the cornea about five-sixths of the cells degenerate, that a proportion of them are of a sensory nature; but, as after neurectomy all of the cells are profoundly degenerated, the majority of them possess a motor function which may be destroyed by the use of nicotin. From this he draws the conclusion that in apes, at any rate, the majority of the cells in this ganglion are of sympathetic and not of spinal nature. [J S.]

18.—Philipp reports a **case of paralysis agitans** occurring in a woman 60 years of age, in whom the symptoms had developed 2½ years previously, after an attack of some form of kidney disease. The symptoms were typical, except

a slight patellar clonus. Death occurred 3½ years after the initial symptoms, and an autopsy was performed 4 hours after death. Macroscopically, the cord was negative. Microscopically, sections of the spinal cord stained by various methods failed to show any alterations, either in the fibers or the cells, with the exception of an excessive amount of pigment in some of the multipolar cells of the anterior cornua. There was no accumulation of the neuroglia cells about the ganglion cells. No changes were found in the medulla oblongata. Pronounced alterations, were, however, observed in the large motor cells of the paracentral lobule. These consisted in an excessive tinctibility of the colorless substance so that the protoplasmic processes could be traced to the third branch. Sometimes even the axis-cylinders were more distinct than normal. The neuroglia-cells were frequently collected about the ganglion-cells forming little clumps of 4 or 5. No absolutely normal cells were found. In the cortex of the calcarine fissure, the fourth layer, according to Meynert's classification, was broader than normal. He concludes that in paralysis agitans distinct characteristic changes do not occur. He believes, however, that the old idea that the lesions exist in the spinal cord must be abandoned, and that there is every reason to suppose that the source of the disease is in the brain. [J.S.]

19.—Fränkel believes that the peculiar rigidity in expression of paralysis agitans may be produced by alterations in the skin, and are not, perhaps, referable to lesions in the nervous system. By means of a calliper, he has been able to measure the thickness of folds of the skin, and dividing the results by two, obtain the thickness of the skin itself. In one case, the patient had symptoms more pronounced on the right side, and it was found that the skin of this side was as much as 2 mm. thicker than the skin on the other side. In another case, in whom the conditions were reversed, the difference was sometimes as great as 5 mm. Not only this, but compared with normal persons, it was found that the skin all over the body was increased in thickness. This stiffening and thickening of the skin may be so extreme that it is impossible to obtain a fold, as occurred in a case of a man, 41 years of age, who had suffered from the disease for 21 years. Another method employed was to take the circumference of both limbs, and this showed similar results. He concludes, therefore, that **in paralysis agitans, distinct pathologic alterations occur in the skin,** although no microscopic examinations appear to have been made. He looks upon the peculiar cutaneous phenomena, that is the subjective sensation of heat, etc., as paresthetic symptoms, produced by these changes in the skin, and believes that the vasomotor symptoms are also produced locally. Fränkel is also of the opinion that the lesion of paralysis agitans is not in the nervous system, but in the muscle, and bases his opinion largely upon the presence of rigidity and the absence of distinct lesions in the nervous system. [J.S.]

20.—Luce reports a number of interesting cases, all characterized by **unilateral convulsions.** The first, a man, 50 years of age, who had always been a heavy drinker, and for 22 years had had epileptic attacks, was admitted to the insane asylum in a delirious condition. He was suddenly attacked one afternoon by a convulsion in which the head was bent backwards, to the right, and then upwards so that the occipital region approximated the left shoulder. The eyes showed conjugate deviation to the right and upward. This position was maintained throughout the entire period of the convulsion. Then clonic twitchings commenced on the right side of the face, and next involved the right upper extremity, and finally the right leg. In the course of 12 hours 31 convulsions occurred, when the patient died. At the autopsy, the superior surface of the dura was intact. The calvarium showed no pathologic alteration. The dura itself was distended and fluctuating. When incised on the right side, a mass of fluid mixed with blood was evacuated that had covered the entire upper and lateral surface of the fronto-parietal lobe. A similar collection of fluid covering the entire convexity of the left hemisphere was found. Otherwise, the autopsy was negative. The second patient, a man between 40 and 50 years of age, had been found upon the street. While being examined, he developed a left-sided clonic convulsion with tonic deviation of the head and eyes to the left. Both legs were flexed at the knees and hips. The right arm was in a position of adduction and flexed. Death occurred the following day, and in the interval 60 convulsions had occurred. At the autopsy, the right dural cavity was distended, and when incised, a large quantity of fluid and partially clotted blood, escaped. This exudate had covered the entire convex surface of the right hemisphere. On the left side there was no trace of hemorrhage. On the right side, there were two subarachnoid extravasations at the posterior extremity of the first and second frontal gyri; otherwise, the autopsy was negative. Microscopic investigation of these two cases showed in the first, normal bloodvessels and no metastasis of blood-pigment to other portions of the central nervous system. In the second case, there were evidences of dilatation of the lymphatics and bloodvessels, peri-capillary hemorrhages into the white substance, and some alteration in the neuroglia of the cortex. No changes were found in either case in the pons and medulla. The source of the hemorrhage was apparently, in the first case, a moderate injury to the head, for there were the symptoms of a bruise in the skin and muscles overlying the skull. In the second case, however, no signs of injury could be discovered, and the character of the hemorrhage indicated that it had existed for some time. It was probable, however, as a certain amount of blood was found in the subarachnoid space over the frontal lobes, that the primary hemorrhage had arisen in this locality. The immediate cause of the bleeding into the subdural space was probably some convulsive condition, either epilepsy or uremia. As this space forms practically a single large cavity, the extent of the hemorrhage and the intensity of the symptoms are easily explainable. The curious convulsive movements of Jacksonian type are, of course, due to the cortical irritation. Extensive convulsions may be easily produced by local injury on account of the numerous bundles of association fibers. It is, however, more difficult to explain the curious lateral movement of the head and eyes. Luce believes that the psychomotor reflex of the head and eyes is, on account of the peculiar functional elaboration of the center for these structures, liberated with particular ease. He also believes that a center for some particular movement may be excited to action by another center some distance away. He reports the case of a man, 50 years of age, who had frequent attacks of Jacksonian epilepsy, characterized by turning of the head and eyes to the right with clonic cramp in the right facial, and right arm and leg. At the autopsy, in addition to extreme external hydrocephalus with thickening of the soft membranes, a tyroma, about the size of a bean, was found at the anterior end of the corpus callosum, and a similar tumor in the left gyrus fornicatus extending over to the right side; that is to say, a case of local disease in a nonmotor center, giving rise to convulsions of focal type. He also, as an illustration of the difficulty of nervous diagnosis, reports the case of a man, 26 years of age, who had fallen and injured his head. He had been an alcoholic and had acquired syphilis. As a result, immediately after the injury, he developed clonic twitchings in the left hand. Later he had repeated convulsions characterized by turning of the head and eyes to the left, followed by clonic convulsions of the left arm and leg. An operation was performed, but no lesion found. At the autopsy, the examination of the brain was wholly negative, and Luce concludes that the case was one of idiopathic epilepsy. In conclusion, he states that the prognosis of subdural hemorrhage is exceedingly grave, the only treatment being some operative procedures. Theoretically, he does not believe that this is justifiable, but practically it may be tried as a last resource. [J.S.]

21.—Schultze reports the case of a boy who, at the age of 10 years, was examined and found to be suffering from **pseudohypertrophic muscular atrophy,** the muscles of the calf being particularly hard and well developed. The skeleton was normal. At the age of 19, he died of respiratory paralysis. At this time the spinal column was kyphotic and scoliotic. The brain and spinal cord appeared to be normal. The bones, particularly the long ones of the extremities, showed an extreme degree of atrophy, with contraction of the medullary cavity. The joints appeared to be normal. Microscopically, the muscles showed the characteristic changes. The cells in the spinal cord were normal by Nissl's methods. Cases have been reported by le Gendre and Friedreich, but this is the only one in which the possibility of a congenital lesion of the bones can be excluded. Schultze does not believe that this case represents an acci-

dental combination of two conditions, but rather supposes the existence of a dystrophy of the skeleton that occurred either before or after muscular disease. The case is rendered still more interesting by the fact that an elder sister, now 39 years of age, developed, at the age of 27, some stiffness of the spinal column. This became more severe and involved the knee-joint, hip-joint, and the neck, and ultimately the patient became almost helpless as a result of extreme ankylosis. The spinal column assumed the characteristic position of spondylose rhizomelique. The bones were extremely atrophied. This, of course, suggests the possibility of the hereditary origin of the two cases. [J.S]

Deutsche Zeitschrift für Chirurgie.

April, 1899. [Band 51, Heft 3 u. 4.]

10. The Clinical Diagnosis of Endothelioma. Tanaka.
11. Urethrotomies of the Last Eight Years. Israel.
12. Skin-Flaps with a Pedicle. Miller.
13. The Effect of Tuberculosis of the Knee-joint upon the Development of the Femur. Pels Leusden.
14. The Development and Nature of the Tumors of the Salivary Glands. Hinsberg.
15. Rupture of the Popliteal Artery. Meyer.
16. Cocainization of the Spinal Cord. Bier.
17. The Opening of the Abdominal Cavity from the True Pelvis. Stieda.
18. Actinomycosis Within the Cranium. Quervain.
19. A Case of Acute Gangrene of the Lung Cured by Pneumotomy. v. Meyer.

[The numbers are volume numbers and are the same as those in the *Zeitschrift*.]

10.—Endotheliomas may be malignant or benign. Malignancy is indicated by the continued development of the original tumor. This development is seen macroscopically and microscopically in the form of prolongations through the lymphatics, so that apparent metastases are found in tissues of entirely different character at a distance from the mother-tumor. The connection can at times be discovered only through the microscopical examination. The development is different from other malign tumors in that it takes place by a continuity of structure, though the parts may be widely separated. When they encounter a resistant tissue a large mass develops, which in its turn thrusts out long threads in divers directions. They may spread by the vascular as well as by the lymphatic systems. These tumors are not confined to any particular location; they can develop in any tissue. They have, however, occurred most frequently in these regions: the parotid, the submaxillary, mucous membrane of the mouth and throat, skin of the face, bones of face and skull, pia mater, interstitial tissues, especially frequently in the extremities, seldom in the buttock, in bones and periosteum, in serous membranes and lymph-glands, submucous tissue of the vagina, periarticular tissues, the ovaries and kidneys. The can develop at any age; their consistence varies with the tissue in which they develop; they are generally soft. They ulcerate frequently but push tissue ahead of them rather than involve it. They produce no pain, except by pressure in sensitive areas. The most characteristic point is the swelling of the lymphatics and the daughter-tumors in other tissue than that in which the parent tumor developed. Local recurrence is infrequent in encapsulated endothelioma, but not in the diffuse variety. The development is gradual while encapsulated, but the daughter-tumors develop rapidly in the lymphatics. As their extension is microscopic, complete extirpation is almost impossible. [C.L.L.]

11.—A review of the cases treated by **urethrotomy** in the past 8 years shows that impermeable strictures are generally found in the bulbous urethra. When strictures of this character are found in the anterior portion there are generally more behind. When it is impossible to treat them by dilatation with bougies and operation is indicated, external urethrotomy will be found to be the best. When the stricture is in the pendulous portion internal urethrotomy is to be employed. But in strictures in the bulbous portion the author prefers external urethrotomy when the stricture can be passed by a tunneled sound. [C.L.L.]

12.—Miller reports two interesting cases in which **pedunculated skin-flaps** were transplanted from distant portions of the body to cure defects where the nature of the wear upon the skin demanded strong skin and Thiersch grafts could not be employed. The author advises the gradual constriction of the pedicle in order that the collateral circulation may be established completely before the flap is detached from its normal position. [C.L.L.]

13.—The **Röntgen-rays,** Pels-Leusden believes, are of the utmost value in determining any lesion of the skeleton and especially when it is covered by a large mass of muscle. In tuberculosis of the knee-joint chronic in its character and developing while the epiphyses are present, so long as it is in the efflorescent stage there will be no shortening of the limb and may be lengthening. Whether this lengthening undergoes later a compensatory shortening, is doubtful, at least it is infrequent. This lengthening takes place in the shaft of the femur, and is chiefly caused by the increased development of the epiphyseal cartilage of the femur. This increased growth is probably due to an irritation that is derived from the joint. [C.L.L.]

14.—Encapsulated tumors of the salivary glands and others in their neighborhood are formed of epithelial elements in a stroma, which is osteocartilaginous in type. When these tissues hold the same relation that is found in a normal gland they are benign, when, however, the epithelial elements are mixed up with the others they are malignant. The epithelial elements develop by themselves without the original characteristic stroma. This must be absent if the tumor is malignant. These tissues develop from embryonal tissue in Cohnheim's area. The parotid and submaxillary lie in the periosteum of the lower jaw during their development, and these osteochondromal elements are derived from it at that period. The cylindrical epithelium comes from the gland itself and possibly the pavement epithelium. [C.L.L.]

15.—The **rupture of the popliteal artery** reported was produced by a contusion; the skin was separated from the subcutaneous tissues, and there was a small amount of blood-clot formed. There was, however, no marked tumor as has been said to be a chief diagnostic point in this condition. The most diagnostic symptom and the one which the author believes should lead to suspicion of such a rupture, in cases where an injury has occurred in this region, was the coldness of the extremities and the marked pallor and loss of sensation. Gangrene of the leg resulted and amputation was carried out successfully in the middle third of the thigh. When the rupture is diagnosed the cleaning of the wound of clots and the ligation of the proximal and distal ends of the artery may aid in preventing gangrene by relieving the arteries that form the collateral circulation from pressure and by preventing suppuration in their neighborhood. [C.L.L.]

16.—The production of a **general anesthesia confined to the lower portion of the body by means of cocain** injected through a Quincke's lumbar puncture of the spinal cord was carried out successfully in six patients, while in the case of one of the physicians the anesthesia produced was carefully studied by the physician who submitted himself to this method. The anesthesia in the area below the seat of puncture and up to the nipples was complete in 8 minutes and lasted for 45 minutes. The amount employed was 0.005 grams of cocain (about $\frac{8}{1000}$ grain). No harmful effects were seen, except in the cases of the physicians who did not go to bed and continued about their daily work the following day. One of the physicians was compelled to go to bed and remain upon his back for a number of days. While lying down he was comfortable, but became giddy when he sat up. This he accounts for by the fact that he lost a considerable amount of cerebrospinal fluid during the operation. This should be carefully guarded against and the patient confined to his bed for some days after the operation. [C.L.L.]

17.—Stieda reports two cases in which the perineal incision was employed to open **circumscribed perityphlitic abscesses** that lay in Douglas's pouch. The drainage secured in this way was very effective; both patients recovered. This incision is valuable in those cases of circumscribed abscess that would be opened with difficulty from above on account of the danger that would be run of infecting the general peritoneal cavity. They lack, however, the

power to explore the abdomen and find the cause of the abscess. [C.L.L.]

18.—The patient, who was 38 years of age, and had had **intermittent otorrhea**, was suddenly attacked with fever and intense pain behind the right eye, then rightsided trifacial neuralgia, and shortly a palsy of the abducens. The antrum was trephined and the carious ossicles removed. This was followed by postoperative facial paralysis, with temporary relief of the neuralgia, then trigeminal neuralgia of both sides, left occulomotor paralysis. The examination of the jaws showed no disease there. Then there was some temporary inprovement, followed by recurring trouble in the left ear with a drawing over of the head like a torticollis. Immediately afterward there was an indurated swelling on the left side of the neck in which the actinomycoses were found in pure culture. Potassium iodid was given. The swelling rapidly disappeared, leaving fistulas behind. Then followed cachexia, diarrhea, somnolence and death. The autopsy disclosed an actinomycotic involvement of the base of the brain and in the neck an actinomycotic meningitis. There was no point of entrance to be found in the jaw. [C.L.L.]

19.—The recent progress in surgery of the lung has been very marked. The mortality in operations for septic processes in the lung has been but 35%. The best results were seen in operation for gangrene resulting from pneumonia, of 55 cases 39 were healed. Where the cause was bronchiectasis or embolism the results were not as good, while in some instances fistulæ persisted. The author reports a case of septic embolism, resulting from abortion, in which the patient's condition rapidly became worse after the uterine condition had been cured. The condition became at last so bad that he decided to open the abscess-cavity in the lung and relieve the patient of the septic poisoning ensuing from the absorption of its contents, and ease the coughing and discharge that were rapidly destroying her vitality. The opening of the lung evacuated a large amount of fetid pus, and had a markedly good effect upon the symptoms. A rubber drain was inserted and the cavity packed with gauze, and although air rushed in and out of the wound through a bronchus that entered the cavity, the patient stood the operation fairly well, and the following morning was relieved of the coughing, which large doses of morphia had not checked. Her condition gradually improved and she finally recovered without a fistula. [C.L.L.]

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March, 1899. [Band 23, Heft 2.]

13. Operation for Echinococcus of the Liver. W. KÖRTE.
14. Operation of the Spleen in Leukemia. JANZ.
15. Osteomalacia in Men. T. RINGEL.
16. Multiple Laparotomies in the Same Individual. PAUL STEFFENS.
17. Operations on the Stomach in Czerny's Clinic and the Results of Early Operations. STENDEL.
18. Tumors of the Cranium. LEOP. REINPRECHT
19. Treatment of Ectopia of the Bladder. ED. MAZEL.
20. Hairpins in the Female Bladder. O. WENDEL.
21. Multiple Carcinomatous Structures of the Intestine produced through Peritoneal Metastases. H. KÜTTNER.

13.—Körte believes that in all cases in which the fluid in the cyst is clear it can be opened at one operation without waiting for adhesions to form between the visceral and parietal peritoneum. He, however, believes this necessary when the cyst is suppurating, and does not believe it is safe under any circumstances to close the cyst, and return the liver into the peritoneum. The cyst should always be packed and allowed to heal by granulation. In some cases immediate closure has been successful, but in others daughter-cells have formed and grown, requiring a subsequent operation. He bases these opinions on 16 cases which he reports. [C.L.L.]

14.—Janz finds that his experience teaches that in a patient weakened by disease, with marked anemia and well on in years, the operation of **extirpation of the spleen** can be carried out without injury. That the removal of this the most seriously affected organ does not bring the process to a halt is not to be wondered at when one thinks of the progress the disease has made and general condition developed. It is, however, to be questioned whether a condition, as pseudoleukemia, even when taken at its commencement, can be affected by operative interference such as splenectomy, although the patient recovers, as it is probably a systemic condition. [C.L.L.]

15.—Ringel reports the case of a 25-years-old man who entered the hospital for an **ulcer of the stomach.** He commenced to develop under the eyes of the surgeons muscular weakness and defects in sight-symptoms which Strümpell has pointed out are the commencement in most cases of **osteomalacia.** Not until the end of four years were bendings in the thoracic vertebra observed, which became a marked deformity in 1½ years. The general weakness and inability to get about gradually increased until the patient was unable to work, and finally died of weakness. The autopsy confirmed the diagnosis. [C.L.L.]

16.—Steffens discusses elaborately the results found after **laparotomy** for various conditions in 45 cases in which it became necessary to perform a second laparotomy. He found that in no case in which there was elevation of the temperature during the process of healing were adhesions absent, while in some cases where there was no rise of temperature adhesions had resulted after the primary operation. In 11 cases out of 45, ileus was found to be the condition which demanded the second operation. The frequency of adhesions is of course accountable for this. [C.L.L.]

17.—Stendel, in concluding his observations on the **operations on the stomach,** not including gastrostomies, says that during the years 1881–1897, 192 operations were performed with 55 deaths, or a mortality of 29%. This mortality has decreased from 45% in 1881–1889 to 16% in 1897. The relative number of gastroenterostomies has increased in proportion to other operations, while pylorectomies have decreased. The pyloroplasty has been gradually abandoned, as the final results were not all that could be desired. Exploratory operations have become less frequent since the Murphy button has made the rapid operation of gastroenterostomy more safe. In 173 cases of malignant tumor the mortality was 29.5%. Men were more frequently attacked than women. [C.L.L.]

18.—Reinprecht reports a case of tumor of the cranial bones which occupied the central portion of the frontal bones and was found to be a **plexiform angiosarcoma.** It undoubtedly originated in the perivascular tissue of the diploic vessels. [C.L.L.]

19.—Mazel reviews historically the subject of the treatment of **ectopia of the bladder.** He finds that the ideal operation would form from what is present of the natural bladder an artificial one, but that it is impossible as yet to form one with a sphincter whose function is perfect. He believes that the radical operation which now affords the best results is the implantation of the ureters according to Lieutaud's method, in the sigmoid flexure. During the past 6 years this method has shown 85.7% of cures with lasting results that were beneficial. Only one case died from pyelitis, 15 months after the operation. [C.L.L.]

20.—Wendel reports 9 cases in which he removed hairpins from the female bladder. In some cases they formed the nuclei of calculi. In the majority of cases they could be readily removed by dilating the urethra. [C.L.L.]

21.—Küttner reports a case in which there were 155 multiple metastatic carcinomatous nodules in the intestinal peritoneum as the result of metastases through the peritoneum. In 22 nodules stricture of the gut had been produced by the carcinoma, including the wall of the gut. [C.L.L.]

In the Philippines.—The medical department is outraged because Gen. Otis fails to recognize through its representations the dire need of more medical officers, nurses, and hospital-room. The First Reserve Hospital is in bad shape. Hundreds of sick are lying in dirty tents, though for months the extreme need of more substantial quarters has been constantly impressed on the Governor-general. The failure to erect or provide sufficient hospital room is possibly explained by Gen. Otis's mental attitude, which causes him to say to the newspaper correspondents that 25% of the men in the hospitals are malingering. General Otis recently sent a line-officer with no medical knowledge to investigate and report on the men sick in a certain regiment, though the surgeon's official reports in his hands showed an expert diagnosis in each case.—[*N. Y. Herald*, October 18.]

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.

The Treatment of Puerperal Eclampsia.—Norris (*Progressive Medicine*, September, 1899) states that whether eclampsia is an autointoxication or is of bacterial origin, there are 3 indications in the therapeusis: First, to prevent the formation of toxins; second, to favor their elimination, and third, to combat their action. He is convinced that the safest obstetric treatment of eclampsia is to utilize every available means to eliminate the accumulated toxins by sweating with the hot-pack or bath, and especially by free purgation with epsom salts, administered either by the mouth in concentrated solution, or, when the patient is comatose, by introduction into the stomach through a stomach tube. The activity of the kidneys, as well as of the skin, should be stimulated by the free use of normal salt solution, hypodermoclysis and enteroclysis being used for that purpose. The value of copious rectal injections of normal salt-solution, the patient having been placed in the Trendelenburg posture, we have frequently observed. The circulation having been quieted by means of venesection or by veratrum viride, and free catharsis and diaphoresis having been secured, attention may then be turned to the obstetrical treatment of eclampsia, and, so soon as the os is sufficiently dilated to terminate labor without undue violence, delivery, with greater safety to the patient, should and will be accomplished.

Laryngeal Tuberculosis.—According to the *Medical Review*, of London, Hall (*Westminster Hospital Reports*) recommends when the cough is troublesome the following solution for use as a spray:

℞.—Cocain hydrochlorate.....16 grains.
Resorcin..... 8 grains.
Water..... 1 ounce.

The resorcin prevents the cocain crystallizing out and solution decomposing, and increases the anesthetic while diminishing the toxic action of the cocain. Where there is an extensively ulcerated surface the following insufflation is better than the spray:

℞.—Morphin hydrochlorate, Cocain hydrochlorate } of each..... grain.
Boric acid, Iodoform } of each..... 1 grain.

This may be used 2 or 3 times a day, and if used a half-hour before meals it will diminish the dysphagia—at bedtime, will generally ensure some hours of sleep.

Thiocol and Sirolin.—Renzi and Boeri (*Deutsche medicinische Wochenschrift*, No. 32, 1899—abstract in *The Therapist*) state that they have treated during this year 25 patients with thiocol and sirolin, among whom one was suffering from chronic non-tuberculous bronchoalveolitis, and 24 from pulmonary tuberculosis in various stages. Taking into consideration the extension and severity of the pulmonary process, the height of the fever, as well as the general conditions of the patients, the authors arrange the cases as follows: Six cases of slight tuberculosis, 8 of medium severity, and 10 severe. From their observations they draw the following conclusions: (1) Thiocol and sirolin are not only well borne and absorbed, as they can be easily administered owing to their solubility and non-irritating properties, but are also readily taken by the patients, owing to their being odorless and not unpleasant in taste; sirolin has even an agreeable taste. (2) Thiocol can be given without harm in doses of 7½ gr., and in daily quantities of from 30 to 60 gr. (in wafers). The most suitable dosage is 22½ to 30 gr. *pro die*. Sirolin can be given in daily doses of 1 to 5 teaspoonfuls. (3) These preparations have a beneficial influence upon the course of pulmonary tuberculosis, because they increase the nutrition and strength, reduce the temperature and the quantity of sputum and bacilli, increase the quantity of urine, and improve the capacity for breathing, blood-pressure, etc. (4) They increase organic oxidation, as may be seen from the decrease in the daily quantity of uric acid, before and after treatment. (5) The decrease of cough and bronchial secretion, the increase in the capacity of breathing, and improvement in nutrition and strength, justify its employment; also in other nontuberculous affections of the bronchi and lungs. Proof for this is the reported case of nontuberculous bronchoalveolitis, in which the fever rapidly disappeared, cough and expectoration decreased, and general condition soon improved. (6) As soon as—during treatment with sirolin, and more particularly thiocol—diarrhea appears, it is sufficient to give at the same time either tannigen or any other astringent, in order to rapidly remove this complication. (7) Thiocol and sirolin can therefore be used to advantage in tuberculous and nontuberculous disease of the lung, and offer an effective assistance to other methods of treating tuberculosis. Thiocol is the potash salt of sulfoguaiacol acid, and contains about 52% of guaiacol. It is a white crystalline powder, producing on the tongue a slightly bitter, not unpleasant taste. It is completely odorless and dissolves in 4 parts of cold and 1 part of warm water. Sirolin is a solution of thiocol in sirup of orange.

Emulsion of Codliver-oil.

℞.—Codliver oil..... 8 ounces.
Powdered gum acacia..... 2 ounces.
Sirup..... 1 ounce.
Oil of bitter almonds..... 2 minims.
Water.....a sufficient quantity.

Triturate the codliver oil and acacia together; add 5 ounces of water and stir briskly; when the emulsion is formed, add the oil of bitter almonds, the sirup, and enough water to make 16 ounces.—*Montreal Medical Journal.*

Treatment of Burns by Injection of Artificial Serum.—According to the *British Medical Journal*, Azzarello (*Giorn. Ital. delle Mal. Ven. e della Pelle*, 1899, fasc. ii) divides the theories of the causes of death from burns into 4 classes: (1) Death from shock or extreme pain; (2) embolism, thrombosis, and destruction of the blood elements; (3) pyemic infection through the burnt surface; (4) poisons formed by the action of heat on the tissues, or autointoxication from deficient excretion by the skin. The author, by experimenting upon dogs and rabbits, claims to have shown that the intoxication theory is the correct one. A chloroformed animal died in the same time and with the same symptoms as one not anesthetized. Also, section of the nerves supplying the burnt part causes no alteration in the effect of the burns. Again, bodies of animals burned to death failed to show any embolism, thrombosis, or great destruction of blood-corpuscles. The rapidity of death was too great for the action of bacteria to be the cause. On the other hand, blood from burnt animals and extracts of burnt tissues were toxic to other animals, and caused death with symptoms similar to those of the burnt animal. Injection of large quantities of artificial blood-serum subcutaneously appeared to save life in several cases.

Acute Bronchitis.

℞.—Hydrochlorate of apomorphin..... ½ to 1 grain.
Dilute hydrochloric acid.....10 drops.
Sirup..... ½ ounce.
Peppermint water..... ½ ounce.
Sig.—A half to 1 teaspoonful every 2 hours.

—Whittaker.

Formalin in Tuberculosis.—Hahn, of Mainz, writing in the *Centralblatt f. Chirurgie*, recommends injections of formalin in tuberculosis of the joints, in empyema of the pleura, and in tuberculous abscesses. The treatment consists in withdrawing the pus by aspiration with a syringe and then injecting a solution of boracic acid, which is afterwards removed by a second aspiration. A quantity of 1% formalin-glycerin is then injected and in the case of a joint the limb is put on a splint. After the operation, fever generally sets in, the fluid in the abscess increases considerably, and severe pain is felt. These symptoms subside after a few days and in a fortnight the exudation is as a rule absorbed. A second or even a third injection of formalin may have to be given, although absorption often occurs after the first injection. Recovery takes place in a short time and the joint becomes almost as useful as ever. Hahn says that formalin is much more efficacious than iodoform-glycerin.—*The Lancet*, September 9, 1899.

Cold Baths in Delirium Tremens.—According to Letulle (*Presse Médicale*, June, 1899) cold baths are the most effective and harmless means of reducing the temperature and calming the delirium. Three cases are reported. The patient is placed in a bath at 18° C. for 10 to 15 minutes every 2 or 3 hours, until the fever and delirium have definitely subsided.—*Jour. Amer. Med. Ass'n*, August 19, 1899.

Treatment of Chronic Urethritis.—Janet (*Revue de Thérap.*, December, 1898) says that the treatment of chronic urethritis comprises injection, irrigation, instillation, of ointments, bougies, dilatation and endoscopic treatment. Janet prefers the irrigation treatment and uses solution of sublimate (1 in 20,000 to 1 in 10,000), silver nitrate (1 in 1,000 to 1 in 5,000); protargol (1 in 1,000 to 1,500); zinc sulfate, zinc chlorid, ichthyol, boric acid (4 in 100). Instillations may also be done with silver nitrate, copper sulfate, or protargol. For ointments, he uses creolin, silver nitrate, or

℞.—Copper sulfate..... 1 to 5 grams.
Lanolin..... 95 grams.
Olive oil..... 5 grams.

Finger's formula is also useful:

℞.—Potassium-iodid..... 5 grams.
Iodin..... 1 gram.
Lanolin..... 95 grams.
Olive oil..... 5 grams.

These ointments can be smeared on a sound or bougie and introduced into the urethra. Janet uses a grooved sound slightly curved at the end. If the urethra is very sensitive he uses the following ointment to smear the bougie:

℞.—Lanolin..... 20 grams.
Vaselin..... 10 grams.
Sodium borate..... 0.6 gram.

The author remarks that the object of treatment is not so much to stop the discharge as to bring the urethra into a normal condition and so prevent stricture. For deep infiltration discovered by the endoscope Janet employs dilatation and massage of the urethra and prostate. Endoscopic treatment he reserves for localized lesions, such as urethral polypi, hypertrophy of the verumontanum, etc.—*British Medical Journal*, June 10, 1899.

Aspirin.—Wohlgemuth (*Therapeut. Monats.*, May, 1899) has successfully employed aspirin in the treatment of 10 cases of rheumatism, aspirin is obtained by the action of acetic acid, anhydrid, or salicylic acid, and is preferred to sodium salicylate on account of its nonirritating effect on the stomach. The drug should not be given in solution, but in powder, in doses of 15 grains, 3 times a day.

The Tuberculous Peritonitis Treated by Injections of Iodin.—Stefanili and Fabozzi (*Suppl. al Policlin.*, An. v, No. 11, 1899) record the case of a child aged 13 admitted with ascites. The liver was not materially enlarged, and the spleen could not be felt. The heart was normal and urine healthy. There was a history of typhoid fever a year earlier. One sister had scrofulous cervical glands, otherwise the family history was good. Tuberculous peritonitis was diagnosed. On admission the child weighed 37 kilog. and the abdomen measured 78 cm. A solution of iodin, 1 gram, potassium iodid, 2 grams, and water, 50 grams, was made, and half a syringeful injected into the genital region; as this caused no inconvenience a whole syringeful was next injected daily for the first 10 days and then every other day. The treatment was begun March 19. At the beginning of April some of the fluid was withdrawn and examined bacteriologically, culture-preparations were made, and experiments on guineapigs instituted. No tubercles were found. At the end of May the child weighed 27 kilog., and the abdominal circumference had decreased to 61 cm. No fluid could be detected in the abdomen, and the child was discharged from the hospital cured.—*British Medical Journal.*

Collective Reports on Glycerinized Vaccine-Lymph.—Barnes (The *American Gynecological and Obstetrical Journal*, September, 1899), states that for the past 10 months he has been collecting reports from various infected districts in an effort to ascertain not only the actual value of glycerinized vaccine as a protective against smallpox, but its relative value compared with vaccine-points, quills, crusts, and the older methods of producing vaccination. A study of these reports shows that glycerinized lymph yielded from 90% to 100% of successful "takes" in primary cases, and from 60% to 75% jn secondary cases. The author is of the opinion that the investigation proves conclusively that the recommendation of the United States Marine-Hospital Service that "glycerinized vaccine only should be employed," is well substantiated because: (1) Properly prepared glycerinized vaccine is pure and free from staphylococci, streptococci, and other pathogenic organisms which are invariably found (Copeman, Crookshank, Pfeiffer, Reed [U.S.A.]) on vaccine points. (2) Glycerinized vaccine affords absolute protection against smallpox; vaccine points are uncertain in this regard. (3) Vaccination with the glycerinized products does not cause excessive inflammation of the vaccinated area. Cellulitis and inflammation of the lymph-vessels and glands amounting at times to abscess formation is a not infrequent sequence of the use of vaccine points. (4) Vaccine points are apt to lead to a false sense of security, inasmuch as they induce a local staphylococcic or streptococcic infection which is entirely distinct from true vaccination. Such a result is not protective against smallpox. (5) A high estimate of successful takes from vaccine points is by these and numerous other reports shown to be not over 60% in primary cases, and a much lower percentage in secondary cases. (6) Glycerinized vaccine has been officially adopted by the governments and health authorities of the United States, Great Britain, Germany, France, Russia, and Belgium. It should be universally adopted in private practice.

Application of Guaiacol in Phthisis.—Shoyer (*The Scottish Medical and Surgical Journal*, September, 1899) has used guaiacol externally in 25 cases of phthisis. The drug was painted on the chest, and the area subsequently covered with guttapercha tissue, the edges of which were sealed down with chloroform. As a rule he began with 6 minims three times daily, and often went up to 30 minims three times daily. Of 25 cases, 10 improved, 12 were unaffected, 3 adversely affected. Of the 10 cases which improved 5 were febrile and more or less free from secondary infection, 3 were subfebrile and probably infected by the organisms of suppuration, the remaining two were indefinite cases. Of the 12 cases which were indifferent to the treatment, 4 were afebrile, 4 were febrile and had secondary infection, and 4 were indefinite. The three cases which did not tolerate the treatment were febrile, and subjects of secondary infection. Shoyer comes to the same conclusion as Bard, that the best cases are those with febrile temperatures, and free from secondary infection. The subfebrile cases also do fairly well. The afebrile cases are unaffected, while the febrile cases with marked affection support the treatment badly.

Menthol in Insect Bites.

℞.—Menthol ..... 1 to 2 parts.
Sulfuric ether..... 10 parts.

Sig.—Apply lightly with a camels'-hair brush. Do not use near the eye.

—*Gazette Hebd. de Méd. et de Chir.*

The Oxygen Treatment of Wounds.—Stoker (*The Medical Press*, February 8, 1899) has found by experimentation that the most beneficial results are produced by the continuous exposure of the parts affected to the oxygen gas. Contrary to the ordinary opinion, that the oxygen treatment is only useful in cases of chronic ulcers and sores, this author finds that the most brilliant results are seen where the treatment is used in cases of recent wounds, burns, etc., both in reference to the rapidity of the healing as well as to the nature of the new skin formed; for it is not any ordinary cicatrix that is produced, but a skin almost physiologically perfect. The author reports the following cases in which the results produced were perfect: Chronic senile gangrenous ulcer, in a patient 83 years old. Contused wound 3 weeks old and infected, in a patient 47 years old. Extensive lupus of the face and ear, that had been rapidly spreading for two years, despite treatment by various methods. In these cases the author suggests: (1) To remove the diseased surface by scraping; (2) the skin grown under the oxygen is almost physiologically perfect and is more capable of resisting; (3) the formation of oxidized toxins on the wound influences areas outside and tends to prevent extension.—*International Medical Magaz ne.*

Original Articles.

MEDICAL EDUCATION.[1]

By CHARLES W. BURR, M.D.,
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One of the most striking examples of the great intellectual progress our country is making is the reform which has been taking place in medical education during the last thirty years. Previous to the War—I mean the Great War, for the preservation of the Union—we were provincial in all things. One small group of men had given us a fair name in literature, but the country had done nothing in art and nothing in science worthy to make it rank with the nations. Colleges were but preparatory schools and the only training obtainable was in the humanities. The cause is not obscure and not humiliating. Other and more important questions than mere intellectual ones demanded immediate settlement. We had not proved our right to be, for we had not proved our might. We, ill prepared and weak, were fighting with crude machinery and without the guidance of historical experience all the forces of adverse nature marshalled against the settlement of a great continent. The brains of the country turned toward adventure and statecraft as the outlet for its power, not toward book-writing. High scholarship and pure science play but little part in the founding of nations. Men carving out an empire use science only as a tool, it having no personal interest for them. It is well for us to remember this, for men of the scholarly class are apt to somewhat magnify their calling and scold a little because the whole world does not wait with bated breath to hear their dicta from the professorial chair. With the ending of the War the great political question which had occupied men's minds from the beginning of the country, and had directly or indirectly influenced the acts and thoughts of every one, was settled once for all—we were to be a nation, an empire, not a mere loose confederation of petty States. American imperialism, of which we hear so much today, is no new thing. Its seed was planted, all unknowingly, in every colony from Jamestown to New England. It is in the blood and will not out. Imperialism does not mean the mere occupation of land. It means being the first in things material and things spiritual. It means being the world-power controling and directing and advancing all things. Nations resemble men, when they cease to grow they begin to die. There have always been scholarly men and men interested in education in America, but nations must satisfy the primitive necessities of life before they can take up the higher intellectual problems. It was only so with us, and the wonder is not that we have done so little, but that we show promise of so much to come.

Medical education in this country thirty years ago was in a deplorable condition. The course at the best schools, if one dare call anything so bad best, was two years, with at the most a five-months' term in each. Students of both classes attended the same lectures. There were no laboratories, and a student might occasionally see a patient. Men who were to assist at the birth of the world's geniuses and tramps never even heard the parturient cry. Dissection was a pretence for the most part, and the anatomy of the brain was just beginning to be. Your predecessors of those days, either here or abroad, were not much troubled by the fissure of Rolando, or motor centers, or hemianopsia, or any of those things which make my lectures as entertaining to you as a summer novel. Ward classes were undreamed of. Instruction was purely by lectures, and oratory played a large part in giving a teacher reputation among his pupils. Much time was occupied in teaching the theory of disease, which was still regarded by many as a sort of abstract entity, and physic and metaphysics were mixed up in inextricable confusion. How such a miserable system could, as it undeniably did, produce many good and not a few great physicians, I cannot explain. I am sure it was in spite of the schools.

Since those days there has been a great and rapid advance. The point of view from which medicine is studied has changed entirely. Formerly man was studied apart from the universe; regarded as a being having no relations with it; placed in it, one might almost say by accident—a mere transient lodger at a wayside inn on the long journey of which this world is only the first stage. Today he is regarded as part and parcel of the universe. The same laws of life control him and the lowest forms of life. Physiology is the same in man and the ameba. The laws of chemistry apply equally to the rock and to the brain. Metaphysics is dead seemingly, after a battle of the ages. Physics is triumphant, seemingly, but for how long no man knows. This change of the point of view, though a speculative and theoretic thing, has had, as speculation and theory are apt to have, a very potent practical effect. It has created biology and comparative pathology. I tis creating a new organic chemistry. It has caused a new birth in psychology. To start reform of medical education was no easy thing. Large vested interests were opposed to it, for almost all, if not all, the colleges were proprietary institutions run in the financial interests of the faculties who shared the profits and kept down the expenses to a minimum. There was also to be overcome the powerful inertia of conservatism. Many a nice old gentleman and estimable citizen, with the good oldfashioned education which, if it did nothing more, did make gentlemen, who could even quote a little Latin, though he was not always quite

[1] An introductory address delivered at the Medico-Chirurgical College October 2, 1899.

sure of his quantities, who had perhaps edited a foreign book and thought himself thereby become an author, who many years before had had a paper printed in the American Journal and, therefore, thought himself a man of science, who had year after year recited to successive classes lectures written while the enthusiasm of young manhood was still upon him, and who found new beauties in them every year,—was greatly surprised when he was told a new time had come; that medicine could no longer be taught in ten months; that a divinity no longer hedged round the professorial chair; that in these degenerate days even professors must work and grow, or they would be crowded out. I do not wish to speak impertinently of the elders. There were some giants among them, but the average was not high. They are all dead now, and gone to their proper places, and a few of them have left their imprint in the history of medicine, but most of them have been long since forgotten, just as most of us will be. When it was proposed by a few farsighted men to lengthen the course to three years there was the same kind of professional opposition as the populace showed when it was proposed to use gas for lighting. You have heard your fathers tell how in this latter case respectable conservatism said we would be blown up daily by unexpected explosions. We would awake each morning to find ourselves dead, killed by this noxious agent. Our morals would be destroyed, for it was never intended that the night should be light like the day, else the moon would have been made to shine more brightly. The professorial obstructionists said they had graduated in two years and had been teaching all things known in that time. They maintained that all these newfangled sciences were sheer fudge. It was nonsense studying the surface of the brain, because everyone knew that it was just thrown together like a bunch of worms and the fissures did not mean anything, and as to trying to discover how men thought, that was materialistic, irreligious, dangerous. The thing called an ophthalmoscope, invented by some German who ought to have been at some better business, was a pretty toy that would never be of any practical value. They used the argument of a pretended high morality, which was really a curious demagoguery, and said every free American had the right to be a doctor, and that it was not right to make poor men study very long because they might starve before a confiding public had a chance to trust them with their lives. Time passed, and the third year became compulsory, and then the fourth. Over the last there was no battle royal. It came naturally.

I have not time, nor is it necessary, to pass in review all the steps taken in educational reform. The important ones are the preliminary examination, the four-years course, the State examination for the right to practise, and practical teaching in laboratories and by ward classes. These matters having been settled, other questions have arisen during the last few years—questions concerning methods of instruction. My own views are somewhat radical, but I believe they are right. Thirty years ago all instruction was by the so-called didactic lecture and the clinic before large classes. The former has come down to us as an inheritance from the early ages. It dates from the time when printing was unknown and manuscripts were rare and almost priceless and the only means possible of communicating knowledge was by word of mouth. Today it is in large part an anachronism, because the time devoted to it could be put to better uses. We are told by its defenders that it has great advantages over recitations; that the student gets the personal element of the teacher; that the spoken word is more eloquent than the printed page; that the oratory of the teacher impresses facts upon the student; that they must be a good thing because a discerning and money-loving public even pays its money to hear them on general subjects. As to oratory it has no place in science. They make poor running-mates. It most often deals with beautiful generalities frequently miscalled broad general principles. It appeals not to the intellect but to the emotions. It moves men, not convinces them. Its proper function is to make men act, not think. Its proper place is in the pulpit, on the political platform, and before the bar, not from the student's chair. Anatomy and physiology and chemistry and all the sciences which make up the art of medicine are not based on broad generalities, but are built up out of a vast multitude of minute facts, each in its proper place, and laid not with oratory but with hard work. You will learn the diseases of the brain only in a general way by hearing me talk about them. I can only help you, guide you, show you what is important, what not, what is true, what false as far as I know it. You will learn by seeing and examining the patients and the specimens, by thought, by the downright drudgery of study and quiz. We, your teachers, can only give you the opportunity, can only aid you, you must do the learning. The dead-house, the sick-bed, the dissecting-room, the laboratory, the quiz-room, are the places to study medicine. We have come to it at last and the informal talk illustrated with models and pictures and blackboard drawings and specimens is rapidly replacing the more formal lecture. The time has gone by when nice old gentlemen could year after year read the same lectures, or, as sometimes happened, read the English translation of a German textbook, or chapters from his own book, the students paying both for the book which they studied at home and for the reading by the professor, to which they did not always listen. In the time of which I speak no professor knew till examination, and not always then, whether his students understood him or not. There was no way for him to know. The men of my generation were taught, not by the faculty, but by quiz masters having no official relation as such with the school and bothering mainly

to cram us for the examinations. There were great men in that faculty. It probably was the strongest America ever has had, but the professors were not teachers in the sense we moderns use the word. They gave their lectures or held their clinics and there was the end. This is all wrong. The teacher should know constantly how the pupil is progressing, what things are dark to him, what clear. I know no way to find this out except by holding recitations. It is not so brilliant and easy a method of instruction as mellifluous oratory, but it is more practical, more useful. It does not teach broad generalities and does not give a wide, vague view of things, but it leads to exactness of thought and certainty of knowledge.

I must strongly plead for one element in antebellum teaching which has, to a certain degree, gone out of fashion—I mean the preceptor. It was he who, in the early days, rescued American medicine from absolute mediocrity. Almost every man who has made a career, and the many who, through lack of opportunity alone, have never caught fame, owe a debt unpayable to some one of their elders whose disciples they were, who guided them, and to whom they looked up with respect and friendship. Sometimes these men were great, in the vulgar sense; sometimes obscure. Some dwelt in cities, others beyond the outposts. Some were great scholars, book-loving men; others were far from libraries, and dependent on themselves alone. But each had "bruised his shoulder at the world's great wheel," and all were thoughtful, self-reliant, self-sufficing, and of the highest type, or their pupils would not have been attracted to them. He is a rare man, and much to be envied, who, by his own personal force and worth, and independently of worldly position, can draw around him the best of the country's young men, and hold their admiration and respect.

These men did that. I advise all of you who have not done so to attach yourselves to wise physicians in your home towns. The unconscious influence of men upon each other is very great, and whatever type of man you make your intimate, to that type you will yourself, slowly or rapidly, unknowingly but surely, conform. The hand assimilates to what it works in. Choose a preceptor, and study him well. He is a part of your education, not only in medicine but in life. Watch how he examines patients, how he manages them, for they are an exasperating pack, and need much diplomacy in the handling. See how he behaves, for manners are only less important than morals—are, indeed, a part of morals. Study how he thinks, and spy out his processes of reasoning. Above all, make him your friend, your confidant. Do these things, and you will learn wisdom and gain understanding.

One of the great problems in medical education today is the question, How much should we try to teach of the so-called specialties? With the increase in knowledge, which the last fifty years has given us, it is impossible, in four years, or in ten years, to gain an even theoretic grasp of all departments of practical medicine. And then, so much of our knowledge turns out not to be knowledge, but a mere intellectual puffball, which, on slightest pressure, cracks, crumbles to dust, and blows away. This must not discourage, but rather encourage you, for it lends a zest and charm to life; and when all is known, and every problem settled, and there remains nothing on which to sharpen and make bright the mind, the race will die from mental boredom, or become even as the beasts. He who said, "If I held truth in one hand, and search after truth in the other, I would let the former go, and hold fast to the latter," was a wise man and no chatterer, no mere maker of epigrams. Science is in such a state of flux and uncertainty, so little crystallized and fixed, that we must learn, and unlearn, and relearn all the time. The genius escapes this difficulty in part, for he can judge of the reality of things, and knows by intuition what is true knowledge, what mere appearance. But geniuses are rare, and we ordinary people must go on wasting much time in learning things which later turn out not true but false.

Forty years from now, when you will have become gray-haired veterans and I shall have long since gone away, you will say, if you remember me at all, "How little Dr. Burr knew after all. How much of what he taught us we have had to forget. How much we have learned since." Believe me, gentlemen, it is not my fault, or at least not altogether. Science does not progress in straight lines, but in curves and curious figures of which no mathematician has discovered the equation, now going off straight enough, now turning on itself, now wandering in a labyrinth, and we must each follow it all, every step of the way. There is no short cut. Knowledge does not occur native like gold, but oxidized by error, and the ore must be smelted and refined, and again refined to get the pure-metal truth. But notwithstanding all this something can be done practically in the way of teaching undergraduates something useful about the specialties. You can be taught the use of tools. Every graduate should know how to use the ophthalmoscope, the laryngoscope, and the ear-mirror. He should know the normal sppearance of the eye-ground, larynx, and ear-drum. He should know how to diagnose the simple, frequent and acute diseases, what to do for them and when to call a consultant. More than this is impossible. While speaking of specialties let me say one word of warning. Do not pretend to be specialists before you are doctors—an event which happens about five years after you graduate. Begin special study, if you wish, so soon as you know yourselves well enough to know what your proper bent is, how the grain of the wood runs, but see all kinds of disease, and do all kinds of medical work and study all medicine for years. We most need today educated physicians, universalists, not specialists. The

human body is one, and no man can treat one part of it unless he knows all of it pretty thoroughly.

I have said nothing of neurology in speaking of the specialties, because it is not one. It is properly only a part of internal medicine, and has been separated from the chair of practice in the schools for convenience in teaching.

Finally, gentlemen, permit me a word of personal advice. I know that sermons are dull, that preaching does little good, that young men do not like to be talked at, and I do not propose to speak to you of goodness, and sweetness, and light. The moral problem you must fight out for yourselves. You are men, responsible, knowing good and evil, having your fate in your own hands. I want to speak to you on the intellectual side. When students fail it is usually because they lack the power of mental concentration, are unable to give undivided attention to one thing at one time, cannot compel the brain to work along one line of thought to the exclusion of all else. Learn how to do this, and you can only learn by persistently trying, and study will not be hard. Again, most students have such an idolatrous feeling for the printed page that they think all knowledge can be got from books. This is not true. Books are mere storehouses of knowledge, not knowledge itself. You need to use your eyes, your ears, your fingers, all your senses. Knowledge so obtained is in a sense original, is your very own. Be ambitious. Follow the advice of that old Athenian, born in New England, Emerson, and hitch your wagon to a star. You cannot all be great, and get the praises of all men and big consultation fees, and high positions, and write learned books; but you can, if you try, every one of you, get a fair measure of worldly success and the esteem and love of those who know you, and that, after all, is the important thing; and finally, when the end shall have come, or perhaps really it is the beginning, and you shall have crossed that line which separates time from eternity, space from infinity, if consciousness still persists you will have the greatest content that can come to man, the sense of a good fight well fought, it mattering nothing whether seemingly you may have lost or won.

HOW FAR HAS SPECIALISM BENEFITED THE ORDINARY PRACTICE OF MEDICINE?

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MEDICINE and surgery, or the science and art of relieving human sickness, have made gigantic strides during the latter half of this nineteenth century; this no one can deny. In one way or another many affected by disease or accident are benefited in a manner quite impossible 50 years ago.

It can also not be denied that a very considerable portion of this progress has been accomplished by the efforts of individual practitioners, who have devoted special attention to particular lines of medical study and practice. In other words, specialism has unquestionably advanced the science and art of medicine and surgery, and each succeeding year is adding to the sum total of our knowledge of disease and its treatment.

But, as in many other lines of human activity, all subdivision of labor, while undoubtedly advancing the best interests and development of the people at large, has its disadvantages for those engaged in the work. This is seen constantly in many of the industrial pursuits, where mechanics or workmen become almost like machines, devoting their constant toil and energy to one small section or subdivision of work, and are relatively useless even in regard to other portions of the same industry.

This has unfortunately been the tendency of specialism in medicine. Indeed this department of human thought and activity has developed so greatly that it has become almost impossible for any one to acquire in a satisfactory manner, or rather, in the best manner possible, more than one of its many subdivisions. Moreover, the close application of time and energy necessary to acquire and properly practise one branch are so great, that the specialist has a continual struggle if he would rise above the grind of his daily task, in his relatively small field, and keep at all abreast of general medicine, and have any knowledge of matters relating to other departments. There is great danger, then, that the modern development of specialism will tend to produce a narrower type of medical men, who, like the mechanics, will know only their own department and work, and be unable to properly understand the relations of special portions of the field of medicine to others, or to the system at large. He must work hard indeed, even to keep up in his own line, and harder yet not to fall behind in his general relation to the science and practice of medicine.

But there is also great danger for the general practitioner in this rapid development and expansion of the science and art of medicine. The vastness of each special branch acts rather as a depressant, and discourages him from attempting to master them; and, as it is easy to secure special aid when needed, there is a tendency to neglect the cultivation of the special branches, engendered by the apparent hopelessness of the undertaking. Thus the general practitioner tends to become less and less of the all-around man, less self-reliant and equal to all emergencies, and withal a less valuable member of the profession. This danger is greatest in cities, where special consultations are so easy. All honor to the old-time country doctor of the best type, who under the greatest difficulties was able with equal skill to meet every possible event and emergency, and was

never daunted at any difficulty or danger. Such men in the past have often shed much light on medicine, and occasionally some of them, as Ephraim McDowell and Marion Sims, have made notable advances in the profession.

Like the specialist, the general practitioner of today, who could succeed in the best manner, must work, and work very hard to keep abreast of the times. He must study much in all branches. The specialist often devotes years to acquiring his branch, and spends much money in visiting foreign lands. He also expends very much on books, journals and instruments. He devotes much time and strength upon medical societies and clinics, and is constantly on the alert for anything which can aid him in the practice of his branch.

The general practitioner who would be truly successful must do the same. It is not enough for him simply to acquire his diploma and then cease effort for advancement. In this active age he also must struggle for his position. He must spend money for books and instruments, and, as far as possible, time and money in visiting clinics; he must, from societies, books, and journals learn the advances in medicine, and use every endeavor to become as well fitted as possible for the serious work at hand. It is the old problem of the survival of the fittest, and if the general practitioner wishes to succeed he must use the means, otherwise he may go to the wall.

This brings us to the consideration of the topic which the Council has assigned to me:

"How Far Has Specialism Benefited the Ordinary Practice of Medicine?"

1. It has been seen that the work of individuals in special lines has advanced the science and art of medicine. It is claimed that the practice of medicine has thereby been advanced as a calling, and during the past 50 years has become greatly elevated among the learned professions. Every practitioner shares this honor, and if he be worthy he is more highly esteemed for the higher position which medicine and surgery have taken, through the efforts of individual workers, or specialists.

2. Special study has classified diseases more clearly and simplified nomenclature. No one who has at all studied the older medical literature can doubt for a moment the value of the work of separate investigators in classifying disease; what was once a chaos is now a relatively clear field. In the single department of dermatology the advances begun by Hebra have been carried on by successive specialists, so that today the subject is far more readily understood by the general practitioner than it was 50 years ago.

3. Obscure conditions of disease have been discovered and elucidated. The refinements of diagnosis sometimes seem exaggerated, but who will question the great value which special study has accomplished in clearing up many obscure points in medicine. In every department symptoms have been grouped and classified, and the nature of the disease elucidated in a manner quite impossible without such special work; and much of this can be appropriated by the general practitioner, *if he will.*

4. Not only have specialists discovered and developed new lines of thought and practice, but they have aided the ordinary practice of medicine by the clear descriptions of disease which they have given in every branch of medicine; and not only verbal descriptions, but pictorial illustrations have been furnished, with a prodigality which is astonishing. All of these are accessible to the general practitioner, who can appropriate *as much as he will.*

5. The successful treatment of diseased conditions must be the final test, to the practical man, of the real value of the advances in science, and here the work of specialism stands foremost. Who can deny the advances which have been made in therapeutics, medical and surgical, by workers in special lines? The constant aim has seemed to be to find some improvement in the means or measures used to combat disease. Thus, treatment has in many cases been greatly simplified and crystallized, and multitudes of new measures and methods have been introduced, which may also be employed by the general practitioner, *if he will.*

6. The crowning glory of specialism in medicine has been the free manner in which all discoveries and advances have been given to the general medical profession. The layman can hardly understand how it is that those working in special fields should always be so ready to communicate their choicest secrets of success in therapeutics to their confrères in the profession; and yet so it is. With each advance they eagerly seek to spread the knowledge, in the societies, in current periodical literature, in textbooks and monographs, and they all seem to vie with each other in spreading broadcast the results of their work. Also by means of lectures and clinics the specialists have made every effort to enlighten the general practitioner in regard to each branch.

Whose fault is it if the ordinary practice of medicine is not benefited and improved by all this earnest and faithful work? Who is to blame if the rank and file of the profession do not absorb and assimilate the information and knowledge so freely proffered to all?

Much of the difficulty undoubtedly lies in the wideness of the field and the intricacy of some of the branches. But, on the other hand, there is much in every branch which is quite understandable, and it is believed that with more diligence the general profession could grasp and utilize far more than is now done.

7. The specialist has also advanced the ordinary practice of medicine by the aid which he has constantly given in relieving conditions which the general practitioner could never have accomplished alone, and has

thus relieved him of great embarrassment. Illustrations of this will arise to every one; consider the relief to the family physician by the successful assistance of intubation, or of obstetrical aid in a critical case, or by surgical interference in a threatening fatal malady, or of neurological and surgical aid in a brain-tumor, and so on. The specialist should be and is the physician's ally, his friend and counsellor, his timely help over hard places, and, by virtue of his study and experience, his instructor in his particular branch.

8. Incidentally, specialism has benefited the ordinary practice of medicine by a certain education it has given the public in regard to the pecuniary value of professional services. Physicians of old have been proverbially lax in regard to money matters, and patients of old have been proverbially lax in discharging their indebtedness to physicians. Of late years the specialist has insisted on his fee, which has also been larger than that demanded for medical service years ago, and it is believed that the public understand their pecuniary responsibilities and respond in the main far better than they did 50 years ago. Many general practitioners have taken advantage of this and collect their charges more punctually and fully than was the case some years ago. If all the members of the general medical profession do not take advantage of this example of the specialists and this general change in public opinion and practice, it is their own fault.

In attempting to answer the question which your Council assigned to me, I have endeavored to show that specialism has very greatly advanced the ordinary practice of medicine. That it has not advanced every practitioner of medicine is certain, and it was shown that there was even a danger that the growth of specialism might tend to narrowness of mind and powers both among specialists and general practitioners. But with the proper use of advantages, and with earnest and high purpose of doing the best possible, the general practitioner can and should use the results of special work in such a way as to enlarge his powers and advance his usefulness. Work, work, work, is the only secret of success.

THE CONTAGIOUSNESS OF INHERITED SYPHILIS.

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A FEW years ago the question, Is Inherited Syphilis Contagious? would have been regarded as unnecessary. The answer had been given, and accepted in the affirmative. By referring to the textbooks which treat of inherited syphilis, it will be found that all the writers have formed their opinion from the views given by the English author Colles and the French author Diday. That an infant, suffering with inherited syphilis, was liable to transmit the disease to a nonsyphilitic, was not questioned. The opinion of all the authorities, upon this subject, has been, and, indeed, is now so positive in maintaining the truth of the positiveness of the power of the infected infant to transmit the disease to a healthy person, that there seems to be no room for any doubt, and, in fact, none do question the truth of the statement. Why this opinion has been so firmly held, and so positively advanced, I think may be explained from the fact that those who have written sustaining the extreme contagiousness of inherited syphilis, have always been accepted as the very highest authority upon this disease; their opinions made the laws, and to question was heresy. Again, there is no doubt that the early writers, upon this phase of syphilis, made the mistake of confounding cases of acquired syphilis with those of inherited disease.

That there is a difference in the course and symptoms of inherited and acquired syphilis is very evident, if a comparison of the two affections is made. It has been said that there are two diseases, analogous but not identical. The following tabulated differences have been made by Kassowitz, and are given by Coutts:

"1. In the inherited form there is early involvement of the abdominal viscera, which involvement is often intrauterine, and may precede the skin eruption by months. In the acquired form any affection of the viscera is always a late symptom and seldom occurs.

"2. In inherited syphilis there is a peculiar and characteristic affection of the calcifying cartilage and growing bone; this 'epiphysitis' occurs early, and may be intrauterine. The early appearance and extensive distribution of this 'epiphysitis' in inherited syphilis have no analogy in the acquired complaint.

"3. In inherited syphilis there is frequently diffuse infiltration of the skin, especially of the face, soles and palms. In acquired syphilis there is no such infiltration observed either in infancy or later age.

"4. In inherited syphilis there is a peculiar characteristic appearance and distribution of eruption different from those obtaining in acquired syphilis in infancy.

"5. In inherited syphilis vesicular eruptions are frequent, but are never observed in the acquired form.

"6. In inherited syphilis prodromal coryza is almost universal, but is absent in the acquired complaint."

Most writers, I think, will be found to accord with this table of Kassowitz. Coutts, however, very justly remarks that he has not found vesicular eruption as a common occurrence in the inherited forms; nor does he lay the same stress as Kassowitz upon the manifestations of "epiphysitis" in the two varieties of the complaint.

If it is accepted that there is a difference in the course and symptoms of inherited and acquired syphilis, may it not also be inferred that there is possibly a difference in the contagious nature of the two complaints? That acquired syphilis, whether in infant or adult, is contagious, none, at this time, will deny; and in reading the early writers, upon the contagious nature of infantile syphilis, it would lead one to conclude that they did not, in their investigations of this affection, distinctly draw the line between acquired and inherited syphilis. Therefore, it follows that many of

the reported cases of these early writers become of no value in determining the contagious nature of inherited syphilis.

That inherited syphilis is doubtful in its power of being transmitted by contagion, is not a recent view, has been pointed out by Coutts. Hunter did not believe an infant, suffering with inherited syphilis, could infect a healthy person, and, in fact, most writers until 1837, when Colles published his work, were of the same opinion as Hunter. At this time the other extreme was taken by writers, and inherited syphilis was now considered to be of a most violent contagious nature. Colles says, infantile syphilis may be distinguished from adult syphilis by its virulence; indeed, according to this author, the mere presence of a child suffering with inherited syphilis was sufficient to infect those who came in contact with it. Diday, the French author, who, with Colles, is most responsible for the present views held as to the contagious nature of inherited syphilis, writes "that the lesions of congenital syphilis differ from those of ordinary syphilis by an infinitely greater power of contagion." That these opinions, in regard to the contagion of inherited syphilis, should have been accepted, and held by almost every writer upon this question, until the present time, is very remarkable, says Coutts, when it is considered that at the time Diday published his views many writers of equal standing were not in accord with him. Bassereau, Maissoneuve, Cullerier, all were opposed to believing in the contagious nature of inherited syphilis, and he further says, Ricord writes, "that I do not absolutely reject this mode of transmission from the foster-child to the nurse, and from the nurse to the foster-child. I only say, without leaving the field of strict observation, and of exact analysis of facts, that this mode of transmission is not yet proved."

If the present authorities, who have written upon this subject, are consulted, it will be found they are still of the opinion that inherited syphilis is a very contagious disease. Fournier is one of the most positive writers, in his belief of the contagious nature of inherited syphilis. A child with hereditary syphilis, according to this author, carries with it the danger of contagion, and it would almost infallibly infect its nurse. Zeissl writes: "If the mother and child are manifestly affected with syphilis, it will be absolutely necessary to procure a healthy wetnurse for the child. Such a child, however, should only be given to another woman after she has been fully informed of the risk she runs of being infected." Cooper, in his book on syphilis, writes, "that a child suffering with inherited syphilis, should not be given to a healthy woman to nurse, since there is danger of infection." Hutchinson says of a healthy wetnurse, who suckles a child suffering with inherited syphilis, "the risk is great that a nipple chancre will result." Keyes writes that "a child born syphilitic may poison a healthy wetnurse." Van Harlingen, in Ashhurst's *Surgery*, writes: "It is well known that a diseased child almost invariably infects a healthy wetnurse who suckles it." Bulkley is evidently a firm believer in the contagious nature of inherited syphilis; he writes as follows: "When the nurse is not the mother, there is no question in regard to infection readily taking place, and the instances of reported chancres of the breast given to healthy nurses, by children with inherited syphilis, are so innumerable that it is hardly necessary even to illustrate the subject." Jacobi, in the *American Textbook of Genitourinary Diseases and Syphilis*, writes: "An infant affected with hereditary syphilis will not infect its own mother and ought to be nursed. A healthy wetnurse may be infected by the nursling." In the *American Textbook of Diseases of Children*, Chapin writes: "The employment of a healthy wetnurse, although of advantage to the infant, is not justifiable, as the former will almost surely be infected by the latter." Agnew says: "It is scarcely necessary to state that it would be highly improper to consign the infant to a nonsyphilitic wetnurse under the circumstances, even if the child exhibited no evidence of syphilitic disease. Carelessness or indifference on this point has in many instances been instrumental in perpetrating a great wrong, by infecting an otherwise healthy person."

As above mentioned, all these writers have taken their views from the opinions first published by Colles, and later more widely diffused by Diday. Referring to Colles' book, it is seen that the author gives the result of his investigations as follows:—"The following fact appears to me very deserving of notice: I have never seen or heard of a single instance in which a syphilitic infant (although its mouth be ulcerated) suckled by its own mother, had produced ulceration of her breasts, whereas very few instances have occurred in which a syphilitic infant had not infected a strange, hired wetnurse, who had been previously in good health."

A division has been made of this so-called law of Colles, and shows it to consist of two distinct parts. First, that part which refers to the mother, in which it is stated that a mother cannot contract the disease from her affected child. If this view be accepted, then either the mother is incapable of being inoculated with the virus of syphilis, on the theory that every syphilitic child is born of a syphilitic mother; therefore she, having the disease, will not contract it again. Or, the disease, inherited syphilis, does not contain a virus which is capable of infecting a nonsyphilitic. The first proposition calls forth the question, Can a healthy mother give birth to a syphilitic child? Without discussing this subject, I may state, authors are not entirely agreed upon this point, however, the tendency is to believe the mother has syphilis in some modified form which protects her from contracting the disease.

The inoculating of the mother by her own syphilitic child, has been done without transmitting the disease.

This, however, does not prove that the mother would not contract syphilis, if she were inoculated with the virus from a syphilitic; but it shows that a child, suffering with inherited syphilis, is not capable of communicating the disease to its mother.

The second division of Colles' law is that which relates to the nursing of a child having inherited syphilis, and it is quite positive in asserting that a child born syphilitic will communicate its affection to a healthy wetnurse. The possibility of a mother being infected by her own child, has an element of doubt connected with it, as above stated; but there is no such question arising in regard to a healthy wetnurse or nonsyphilitic.

In reading over the literature upon this subject, one is, indeed, overwhelmed by the vast amount of writing, and the standing of the authors who support the view, that inherited syphilis is most decidedly of a very contagious nature, and it would seem almost useless to attempt to oppose this opinion. However, having thought over the subject, and recently having my attention more particularly directed to the matter by reading the small book written by J. A. Coutts, entitled, "Some Aspects of Infantile Syphilis," doubts upon the contagious nature of inherited syphilis arose; in fact, the more I thought of it the more convinced I became that, if I were to take my own experience with syphilis, which both public and private has been considerable, my views were not in accord with the facts. During this experience I cannot reeall a single case of syphilis which I can trace to having been contracted from a child suffering with inherited syphilis. This is, indeed, remarkable when I recall the many cases of syphilis which have come under my observation in the course of 25 years' practice. That cases may have been overlooked is not very likely, since the origin of the disease is one of the most important elements in the history of each case, and the history in a case of syphilis is of such importance, that to neglect a minute inquiry is inexcusable. That my experience in this respect has not been unique, is seen from the following quotation from Coutts: "If this case be rejected, however, and the supposition that the infant was really suffering from acquired and not inherited syphilis be maintained, then I have personally never known an instance in which syphilis was contracted from an infant with the inherited complaint, and this in spite of many thousands of healthy children and adults having been exposed to infection from cases under my care." In order to ascertain if his experience was in any way exceptional, Coutts made inquiries of many prominent physicians, in London, who, from their connection with the hospitals, have had a large acquaintance with cases of inherited syphilis, and the result of his inquiries only more firmly confirmed his own experience. Dr. Eustace Smith informs him that he "has only known one instance when syphilis was contracted from an inherited case, and this was one when an infant infected its own mother. The case was seen by the late Mr. Berkeley Hill, who demonstrated to his own satisfaction, but not to that of Dr. Smith, that the infant was suffering from acquired and not inherited syphilis . . . and apart from it has never known syphilis contracted from the inherited disease."

The experience of all the other gentlemen to whom Coutts addressed his inquiry, was similar to that quoted of Dr. Smith, and is summed up by Coutts as follows: "That the sole result, as far as could be ascertained, of many thousands of exposures to infection should be only 5 examples of the incurring of syphilis, and that of these four should assume the form of exceptions to Colles' law, seems to me noteworthy and surprising in the extreme. If, as usually happens, these four examples of exception to Colles' law be curtly rejected as unreliable, then I can learn only one instance when syphilis has been contracted from a case of the inherited complaint at a large children's hospital where inherited syphilis is rife amongst the infantile patients, and where the adult women are frequently treated for the acquired disease." The conclusion reached by Coutts, from his investigations, is "That inherited syphilis is occasionally contagious is certain, but it is equally certain, I would contend, that the virulence of such contagion has been grossly and vastly overestimated."

Having read the personal experience and investigations of Coutts, which he obtained in the large city of London, I thought similar information of the city of Philadelphia would prove instructive and interesting. With this object in view, the following question was addressed to 37 physicians, who from their connection with public and private institutions, also having a large private practice, would be representative of the city, in so far as the number of cases of syphilis were likely to be met with.

"DEAR DOCTOR:—Have you ever *personally* treated or known of a case of syphilis which was contracted from a child suffering with *inherited* syphilis?"

Thirty-five replies were received, of these 31 were negative; 2 were in doubt and 2 affirmative. The 2 doubtful may be ignored; the 2 affirmative I will refer to later; the 31 negative are noteworthy, when it is considered that they represent hundreds of cases of inherited syphilis, which have been seen by these gentlemen, and in not one single instance was there a case in which the child had communicated the disease to a healthy person. This certainly does not indicate that inherited syphilis is of a very contagious nature. Again when it is remembered that there must have been, in the practice of so many prominent physicians of the city, many hundred cases of acquired syphilis; yet in not a single one was there a case in which the disease could be traced to inherited syphilis as the source of the contagion. Undoubtedly this also shows

that inherited syphilis is a disease but seldom communicated.

How to reconcile the above observations, with the views given in the textbooks upon this subject, is certainly perplexing. That our present writers have taken their opinions from the early authors is unquestionable, and it is possible, that at the time these writers made their investigations, there may have been some grounds for their belief. If inherited syphilis was so extremely contagious, may it not at the present time be equally as dangerous; but from our knowledge of its virulence from our better methods of treatment, and our precautions taken to prevent contagion, may not all these have a tendency to lessen the number of cases which are liable to occur? Most positively, this can be only answered in the affirmative; but admitting even this to be true, I do not believe that it will account for the infrequency with which syphilis, due to infection from the inherited disease, is met with. Again, the distinction between acquired and inherited cases has not always been made, and the confounding of the two affections, I have no doubt, in a great measure, led to the belief of the extreme contagious nature of the inherited form. With all our knowledge of syphilis, and with all our precautions to prevent its spread, when a case of the acquired variety is met with in a child, the rule, and not the exception, is almost constantly to have the disease communicated from the child to those who come in contact with it; so true is this, that Coutts remarks, "a diagnosis between the two varieties might also be made from the presence or absence of infection in most instances."

In many of the cases reported of contagion, from inherited syphilis, there are few in which there is not something missing in the history, that leaves it in doubt as to the true nature of the disease. Indeed, if the same critical analysis is applied to all reported cases of contagion from inherited syphilis, as has been done by those who deny the possibility of the exceptions to Colles' law, that is, the infection of the mother by her own child, then I think it will be found that inherited syphilis has very little to support it as a contagious affection. In fact, as mentioned by Coutts, many of the cases recorded by Colles and Diday, to maintain the contagious nature of inherited syphilis, are evidently cases of acquired, and not inherited, syphilis.

The two replies which are affirmative, are worthy of note, in that, of all the many hundreds, indeed may I not say thousands, of cases of acquired and inherited syphilis, which must have been seen by the gentleman who answered in the negative, and also those who answered in the affirmative; these two cases stand alone as evidence of the contagious nature of inherited syphilis. The element of doubt as to their being trustworthy must necessarily be remembered; but, so far as it has been possible to ascertain, they have all that is requisite to class them as true cases of syphilis, contracted from a child suffering with the inherited variety.

The first case has been kindly furnished to me by Dr. W. Joseph Hearn, who, in his very large experience at the Jefferson College Hospital, can recall no other case in which there is not an element of doubt in the history, as to the nature of the affection.

"A woman presented herself for treatment, at the clinic complaining of a sore on the breast. Examination revealed a large, suspicious, indurated ulcer of the nipple; the corresponding lymphatic glands of the axilla were indurated and enlarged. Upon further inquiry it was ascertained that the woman had always enjoyed good health; a few weeks previous a sister died, leaving a baby four or five weeks old, which she had taken to nurse. An examination of the child, which was later brought to the clinic, showed it to be suffering with all the symptoms of inherited syphilis; presenting lesions of the skin and mucous membranes. The father of the child was next examined, and it was found that he was passing through the active stage of secondary syphilis; he acknowledged having contracted the primary sore of syphilis. The husband of the woman nursing the child, upon a most thorough search, was found to be free from any syphilitic history or symptom. The case continued under observation until well-marked lesions were developed, which promptly responded to antisyphilitic treatment. The child was also placed under specific medication, with satisfactory results."

From an analysis of the above case, it would seem that we have a very distinct and undoubted case of infection by a child suffering with inherited syphilis to a healthy woman. First, the child had inherited syphilis, which was transmitted by the father. It could not have acquired the disease, being removed from the home of its father, and careful investigation showed that there was no source of contagion at its surroundings. Second, the woman had acquired syphilis, and after the most minute search, the only possible source of contagion was the child suffering with inherited syphilis.

The second case I am able to give through the courtesy of Dr. Orville Horwitz, who, notwithstanding his extensive practice, both private and public, says it is the only instance in which he could connect a positive communication of syphilis contracted by a healthy person from a child suffering with inherited syphilis.

"A married man contracted the primary lesion of syphilis, which was in due time followed by secondary constitutional symptoms. He communicated the disease to his wife, who also in time presented the lesions of syphilis. Owing to the irregularity in the treatment of the wife, there followed two miscarriages; later, however, the wife gave birth to an apparently healthy child. The child was given to a healthy wetnurse. In the course of two weeks there developed in the child all the symptoms of inherited syphilis—snuffles, skin eruption, mucous patches in the mouth, wasting, and a gumma upon the leg. The nurse in a short time presented herself with a sore upon the nipple, having all the characteristics of a primary lesion; later she developed all the symptoms of secondary syphilis. The husband of the nurse showed no evidence of having had syphilis, nor were there any lesions existing to indicate that he was not a perfectly healthy man."

The chain of evidence in the above case seems to be unbroken. A syphilitic father and mother; two miscarriages followed by a living, apparently healthy, child, which later becomes undoubtedly syphilitic; a healthy wetnurse contracts a sore upon the nipple, which later is followed by constitutional syphilis.

Without attempting to determine why cases of contagion, from inherited syphilis, are so infrequent, the following causes, may perhaps, in a measure, explain this rarity. The absence, late appearance, and infrequency of specific sores, in and about the mouth of a child suffering with inherited syphilis, as pointed out by Henoch and Coutts. The effect of proper treatment. The precautions taken by the physician to prevent communication of the disease. The stage of the disease presented by the child; this is especially to be considered as an important factor; since if it is admitted that there is a stage in the acquired form of the affection, which has ceased to furnish a transmissible virus,—and most of our best authorities have accepted this view; viz: that lesions of the tertiary period of acquired syphilis are not capable of inoculating the affection. Therefore, it is granted, that there is a stage of the acquired variety of the disease in which the power of communicating the complaint is lost, may there not also be a period in the inherited form in which the same condition exists, and is this not quite probable when it is remembered that the lesions prevailing, in cases of inherited syphilis, are more of the nature of those comparable to the tertiary or late stage of the acquired form. Coutts makes the following suggestion: "That some product absorbed by the mother during her first pregnancy may influence the succeeding conceptions, and thus largely modify the disease in the infants resulting from them and its power of contagion. In this way I should expect a first infant more likely to convey the disease to others than succeeding ones, and I have a general impression that the histories of recorded authentic cases of such infection confirm this opinion. That the power of infection is possibly in some measure confined to the first infants in a family may help to partially explain the rarity of infection." These causes may in some degree explain the infrequency of cases of syphilis contracted from a child suffering with inherited syphilis; but, to my mind, they are by no means sufficient.

It may be remarked, that throughout the surmise has been to regard inherited syphilis as a contagious disease; but that the degree of contagion is anything like so great as the textbooks would have one believe, my investigations certainly do not verify. On the contrary, they decidedly tend to contradict the prevailing opinion that this complaint is to be classed among the violent contagious affections. My purpose, at first, in writing this article, was to determine the degree of contagiousness of inherited syphilis, since it seemed the virulence of the disease had been very much overestimated by the textbooks, and also that there was a tendency, with a few recent writers, to believe the affection much less contagious than supposed. However, as my researches progressed, the degree of infectiousness became less and less distinct, until now there remains such a faint glimmer of its contagious nature, that one is almost inclined to believe it has disappeared.

Realizing fully the great responsibility involved in the answer to the question, Is inherited syphilis contagious? causes one to hesitate in replying, especially so if the answer may, in a measure, be in opposition, so far as I have been able to ascertain, to all the authorities. My experience and investigations, however, force me to conclude, with some of the more recent writers, that while there is a certain degree of contagiousness connected with inherited syphilis, it has been greatly overestimated, and the fear of every case of inherited syphilis being a source of danger is a very great exaggeration. To draw the line where contagion begins and where it ceases would be very desirable, and would tend to lessen our difficulties. Perhaps those cases in which there are present the so-called secondary lesions may be placed on the side of danger, while the absence of this class of lesions may exclude the fear of contagion. Such a distinction may partly be accepted; but it surely cannot be true for all, since there must have been many cases which came under the observation of the gentlemen who answered in the negative, in which the secondary lesions were present; yet there were seen no cases of contagion.

More evidence and further research by others upon this subject, I trust, will soon be forthcoming, so that the existing uncertainty may be definitely decided.

CLINICAL CASES AND INTERESTING IDEAS.[1]

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[Continued from page 726.]

A GREAT cause of the increase of illegitimate medical practice is the result of inefficient college education. If less time were devoted to nonpractical branches of medicine, and more to everyday treatment there would be no need of postgraduate courses, and charlatan practice would not be so abundant. The instance of tape-worm is a case in point. It would be much better for a therapeutist to teach one detailed method of administration of aspidium felix mas than the indefinite use of the whole list of anthelmintics. Even our books have the same fault. A surgeon, for instance, will not give the exact and definite mode of procedure which he has practised for years, but will mix up the opinions and theories of everybody he ever thought or heard of. Instead of devoting the larger part of a book on practical subjects, the great majority of authors only devote an insignificant portion of their work on them.

It is not sufficient, in giving a dosage table, to say that in patients above 60 years of age the dose should be graded inversely to those of children. This seems

[1] Read at the New York Society for Medical Progress, May 10, 1899.

altogether too indefinite. I have developed the following formula, assuming that at the age of 90, a patient should receive just half the adult dose:

$$\frac{\text{AGE.}}{60 + 4 \text{ for each year older.}}$$

This formula, however, is not perfect; the best method is to fix the proportion of the adult dose for each decade. Thus, at 70 the dose should be fixed at $\frac{3}{4}$ of the adult dose; at 80, $\frac{2}{3}$ should be the dose; at 90, $\frac{1}{2}$; and at 100 and over, the dose should be $\frac{1}{3}$.

The reason that there exists so much difference of opinion in regard to the treatment of urethral disease with injections of silver nitrate lies in the fact that this solution is so unstable that no two investigators work with the same strength solution. Such a slight cause, in a very weak solution, as exposure to light, will materially alter its composition by oxidation. A prescription should always contain the sentence, "place in a light-proof bottle" (either amber or blue glass, or paper-covered). Further, when solutions like 1 to 10,000 or 1 to 20,000 are employed, distilled water should invariably be specified; the chlorids in ordinary water are sometimes sufficient to make quite a marked difference in such a solution. The patient himself is responsible for the greatest losses, and it is hard to prevent this—the use of a syringe repeatedly without the precaution of cleaning it each time outside and in. All patients must be warned that as soon as the injection appears smoky instead of watery-clear, they are to throw it away. Saline water produces a white cloudiness; darkening is oxidation.

In a previous paper I spoke among other subjects of the use of a more extended list of flavors than were at present in general use. I wish to follow this up by saying that the hypnotic effect of colors in medicines is so marked that a full list should be provided in our next pharmacopeia. In this limited article I will not classify them into those for external and those for internal remedies, but will simply call them by name. The list comprises raspberry juice (black and red), burnt sugar (black or brown), cochineal (red), ponceau (red), logwood (black or blue), nutgall (black), tannin (black), alizarine, indigotin, potassium bichromate, anilin green, resorcin (blue), nigrosine (black), eosin (scarlet), methyl green, anilin orange, anilin purple, carmine, fuchsin (anilin red), erythrosine, pernambuco wood, chestnut bark, brazil wood, silver nitrate, vanadium tannate, phenol blue, methyl violet, prussian blue, brilliant green anilin, Hoffman's violet, rosanilin (red), lampblack, venetian red, burnt umber, raw umber, burnt sienna, raw sienna, anilin blue, vesuvin (bismarck brown), phenol black, prussian blue, ultramarine blue, verdigris, cinnabar, vermilion, gas carbon, red precipitate, yellow precipitate, anilin lemon-yellow, true blue, water blue, imperial blue, victoria green, cerise (cherry red), naphthol (yellow), ferrous sulfate, iron acetate, indigo, fustic (black), turmeric (curcuma), litmus, gamboge, marine blue, dragon's blood (amber), copper sulfate or ammonio-sulfate or acetate, iron chlorid, iodin, nickel chlorid or nitrate, fluorescin, annatto, cobalt oxid or carbonate, potassium permanganate, potassium or ammonium sulfocyanid, alum and potassium iodid (red), cudbear, picric acid, potassiam chromate, chrome yellow, and red sandalwood.

Until recently I considered flexible collodion to be the best protective known for skin-diseases, but since then I have discovered the value of solutions of common rubber for this purpose. One objection to this, as well as to guttapercha and other solutions of this character, is that the solvents are very irritating to inflamed surfaces. A solution in a volatile oil, however, would overcome this. At present I am trying the following formula: Dissolve 1 dram of india rubber in 5 drams of "crude oil" with the aid of a water-bath, and add to the cooled product 5 drams of benzine. Ether, carbon bisulfid, naphtha, petroleum, oil of lavender, oil of sassafras, or caoutchoucine may also be used as solvents. Linseed oil makes a thick paste or ointment. Its use in medicinal plasters is familiar to all of us, but a rubber cement might be useful either in or around the wound for coaptating the edges of a lacerated perineum or similar condition.

Many practitioners give a remedy a superficial trial and then discard it, or forget it in the heyday of new remedies. The great secret in giving medicines is the careful directions which should accompany them. If a physician gives an opiate prescription, and thinks he does his duty when he says, "Take a teaspoonful every 2 hours," he is making a great mistake. If the first dose relieves him, why should the patient take the balance? If it does not relieve him, why should he not take more? And so we might go through the whole list of medicines. A book on therapeutics will tell you the limits of dosage for each remedy. You will be lucky if it tells you how often you may give the remedy. How much water to give with it, how to flavor it, and such matters, you must not expect of it. The volume on the practice of medicine, again, will expect you to get the book on therapeutics for detailed information. And lecturers, as a rule, advise you to study the books for detailed information. Dosage for children, especially of opium, calomel, quinin, etc., will only be given in a general way, if given at all. If three or four drugs, such as morphin, calomel and Blaud's pill, were thoroughly gone over in detail, myriads of remedies, and even some operations, would rarely find a place in medicine. With the proper administration of mercury, I believe that I have averted many an antitoxin injection, intubation, and tracheotomy, and with the aid of iron properly administered, I have avoided the necessity of prescribing thyroid extract and a host of patented medicines.

Since music has been tried as a therapeutic agent,

why not study the beneficial and injurious effects of dancing. The amount of activity engendered ought certainly to have a beneficial effect on phlegmatic, hysteric, and neurasthenic temperaments. To those who cannot take advantage of this, amusements and sports should be beneficial, both indoor and out. Aerial travel in a well-constructed balloon ought to be a useful mode of treatment for tuberculous and other disease. This field of therapeutics seems to be unduly neglected by medical men. It would be interesting to note what effect, if any, x-rays exert on vision. For instance the rays could be created in a chamber large enough, so that observations could be made by looking through. These would be interesting, in view of the fact that our atmosphere is supposed to be surrounded by a vacuum, and since x-rays undoubtedly exist in the atmosphere, it might alter our conclusions as to the distance and significance of the heavenly bodies.

The ease with which koumyss, as well as other alcoholics, produces a recurrence of a gonorrhea is something remarkable. I have seen several such instances, in all stages of the disease. It is also interesting to note that no liquor license seems to be attached to the general sale of this article.

There are about 4,000 remedies known, according to the *Pharmaceutical Era*, not including patented medicines. This would permit a physician to prescribe 10 different elementary remedies every day for a year—Sundays and holidays included,—without duplicating one of them; of course, from these 4,000, millions of medicines could be made by chemical combination, and by simple mixture.

It has been supposed, since the patent has expired, that antipyrin is a cheap drug. But this is by no means the case, as it costs today 35 cents an ounce, while antifebrin costs little more by the pound. Besides, the adult dose of antipyrin is three times that of antifebrin. Its great solubility in water makes it a very useful antipyretic of the coal-tar series, but none of these should be prescribed without caffein or other heart-tonic. Their value in vomiting should not be overlooked.

There is only one value which we can attach to the horde of pamphlets which we receive annually, and that is, that some of the formulas are found useful; in others, again, even the ingredients printed on the package are useless, whether given truthfully or not.

Heavy magnesia is a preparation which does not receive the support which it deserves. It can be prescribed in powders where light magnesia would be two bulky. A "fruit laxative," or laxative confection, would be another desirable addition to our pharmacopeia, for pregnant women and children. We have a confection of senna, it is true, but we need first a palatable laxative sirup, more effective than sirup of rhubarb, and a laxative tablet. A prepared chocolate sirup of quinin would also be desirable. An efficient cocain plaster, spread, would also be a useful addition.

In dispensary practice I have found oil of peppermint, ½ dram to the ounce, to be an economical substitute for menthol, as a local application.

The administration of an enema is often neglected by the nurse before operations, because the patient has told her that she had a passage of her own accord. People rarely empty their bowels thoroughly, as they get accustomed to hurry up the process of defecation, through various influences attendant upon our refined civilization.

General Remarks.

To make a few remarks of a general character, I would like to call attention to a foolish notion which some publishers and editors have of presuming that because their greatest revenue comes from advertisers that subscribers may be ignored with impunity. This notion is even shared in, remarkable as it may seem, by journals which are virtually owned by the subscribers themselves. Of course, each subscriber to a journal may not amount to much individually, but, as Dr. Manley has aptly remarked on a certain occasion, "a common fly is a small thing, but it becomes a matter of some importance when it reaches a tender spot like the eye." Some medical journals have a habit of keeping manuscript for an exasperating length of time—as long as a year in instances which have come within our knowledge—before being published. Others consider it just to charge extra prices for copies which subscribers have never received, or for reprints which the author deserves.

I do not believe that physicians often impose upon journals, and therefore it should be impressed upon the interested persons that the advertiser needs the good-will of the subscriber toward its journal. A physician receiving 10 or 11 journals cannot be expected to keep a strict account of every copy which he receives. When he collects his papers for binding, he first discovers the missing numbers. A manuscript should not be rejected or unnecessarily delayed "for want of space." If the journal is worth the subscriber's support, it should be enlarged sufficiently to make space. In fact, any communication from a physician-subscriber deserves reproduction in a medical journal, even if the editor has to correct most of it himself. If he cannot, he might at least inform the subscriber what its faults are.

Have charitable medical institutions the right to prohibit visits from medical men unchallenged? A rule was passed to this effect in a large dispensary several years ago that I believe is still in force. And the superintendent of the hospital opposite was so arrogant that no self-respecting physician would visit it.

Another subject of importance is the enormous sale of patent, cheap laxatives, etc., in recent times. Can these be considered wholesome to the multitude, from

a sanitary point of view? Is it not a proper subject for Board of Health investigation?

Some patients are so exasperating at times that we seem at a loss to know just how to act. This is especially the case in the use of instruments. We might excuse a patient in whom an instrument causes pain; but when a man with a sore throat gags at every attempt to open his mouth, even with his eyes shut and the physician at a distance, it is pretty bad, and still worse when a woman deliberately refuses to allow the use of a vaginal speculum or even of a throat spatula. I refused a fee in such an instance, as I could not prescribe.

A practitioner, even a surgeon, makes a mistake when he fails to recognize the value of drugs in medicine. A pharmacist recently called on a medical man and explained to him that the rare drug which he had prescribed could not have been properly compounded at the price paid for it by the patient. "Well," replied the doctor, "you know that I am a specialist in such and such departments, and do not believe in drugs, anyway."

Other specialists, again, have such great ability that they can find bronchial breathing and dulness on the chest of every child that is feverish, and cure the pneumonia in 24 hours. Ordinary physicians may only consider the cases as gastrointestinal derangement or intermittent fever. If physicians only appreciated what an immense amount of discredit they create by criticising one another in the presence of patients, they would stop it forever. It makes no difference whether your teacher taught it to you this way and that one the other way, it is nonsense to say that some ridiculous change in the treatment is far superior than that of your predecessor. If you honestly believe you know more than your neighbor, discuss it freely in a medical society or in a medical journal, but don't get angry and think that everybody but yourself is a fool because he does not agree with you. He may have private reasons that you are not aware of. Even if you consider yourself a higher authority, you are not justified in making any comments whatever, even if you change the treatment.

In years gone by, when a physician traveled in the summer, he declined to do any general practising whatever during his absence. But nowadays, it is quite common for physicians to establish a regular office while away. It seems to us that this does not permit such practitioners to have full control over these families, for such would appear too much like the action of a vulture awaiting the opportunity to pounce upon another's food as his prey. He is only supposed to be the saving medium for an emergency, as long as the regular physician of the family is not readily reached. If any special indication should arise, however, he is not justified in recommending the patient as if he were his personal property, any more than he would have a right to force himself upon the family on his return to the city.

It is pretty well recognized in our day that our system of voting has great faults, the greatest perhaps being, as pointed out by the late Col. Waring, the inequalities in individual capacity. By our present system, a lazy imbecile has as large a voice in the administration of public matters, as the most intelligent and hard-working among us. The only ideal system that can be at all called just, would be one in which each individual's capacity was weighed and measured, and his voting power limited accordingly. A rough method of reaching such an estimate would be by classifying individuals according to their avocations. Of course, even this would have some faults, but with all these, it would represent an enormous advance over the present system.

It is comparatively rare to hear a physician make a diagnosis of two diseases occurring simultaneously in a patient, as if such were impossible, unless as a complication. It frequently happens that a patient with nasopharyngeal disease or with chronic gastritis or dyspepsia will complain of regular movable myalgic or other pains or sensations passing from the shoulders to the back, then down to the loins, and even extending to the anterior abdominal regions. In such a case of muscular rheumatism, it is not sufficient to say that the patient is only neurasthenic, even if the usual remedies fail to relieve it. Wherever there is muscular tissue, voluntary or involuntary, lithemic symptoms may occur. Even if a lumbago is associated with uterine disease, the loin-pains might only be local manifestations of a lithemic constitution, the pressure from a displaced uterus, or the sympathy of diseased pelvic organs, being merely the exciting cause. Myalgia of the transversalis, oblique, and other abdominal muscles deserve careful study.

In a case of chronic obstruction due to obstipation, the patient lost her life because she insisted, in a hysteric way, that she needed no passage because she ate nothing solid. As the attending relatives were induced to believe her, all efforts to relieve the obstruction were ignored until it was too late.

Like in other walks of life, we have among us men who have been aptly characterized as "cut-throat" practitioners. A physician, supposed to be your friend, is called by a hysteric family in your absence for a supposed emergency. He exaggerates the most trivial symptoms, calls repeatedly without being asked, although his friend has not been paid yet; then, because he has been taken to task for his actions, he sends agents to the family to besmirch his friend's character.

Although I am a little rusty on systematic bookkeeping as I was taught, I have nearly perfected a method for physicians' use which should recommend itself, on account of its simplicity. The whole system is based on what is called in stenography "position." In this art position means the relation of a person's writing, to the line. In long-hand (ordinary writing) we always

write on the line, but in short-hand a syllable may be written either above the line, on the line, through the line, touching the bottom of the line, or under the line. This is the whole key to our bookkeeping. Debits are placed below the line; credits, above the line; cash, on the line; and balances, through the line. In this way, if we wish to know how much a patient owes us, we look across the page below the line; if we desire to find out how much was paid we look across the page, above the line.

Now, how shall we find the patient's name in our book? In this way: Your page has 26 lines—one line for each letter of the alphabet. If your patient's name is Johnson, it begins with a J. You have then only to look over the "J lines" on each page till you find it.

Now, supposing a call comes in. You take the book out of your pocket. You ask, "what is the name?" "Brown." You write the name on the "B line," follow it with the address, and the date after this.

But now about the date. You want to save space, so instead of writing your date straight on the line, you will write the month above the line, but in its numeral instead of its name; thus, May is the fifth month in the year, so you write 5; then right under this you write the day of the month, and under this a number 9 for the year (1899). In order to remember your calls, though, you must repeat them on the upper margin of the page.

So now, you see, you need no separate index-book. Physicians rarely have use for a day-book, so you will not miss it. It answers all your purposes as a bill-book; at least for "bills receivable." It also answers your needs as a ledger. So you have a call-book, an index, a bill-book, and a ledger combined. If you desire a book which will tell you your bills receivable for each month, you will need a separate book or a separate part of this book. Now I will give an example:

	5	5	5^4	5^2	5	5	5
Frank, 62 Monroe St., 3d floor back . .	12	14	16	18	20^2	22	24^2
	9^2	9^2	9^2	9	9	9^2	9

For memoranda of confinement cases, etc., you must use a separate part of the book.

Especially in taking high temperatures (above 104° F.), the possibility of a defective thermometer should always be borne in mind. Recently I was astounded to read a temperature of 109° in the case of a child. I did not like to, but on taking it a second time with care (in the rectum, as before), I found the actual temperature to be only $105\frac{1}{2}$. It should not be assumed, however, from this statement, that the case which I recorded of the highest temperature ever known to be followed by recovery—from an actual organic disease—113° F., was the result of an error, because the objective symptoms corresponded with the temperature in that case; terrific, prolonged, and uncontrollable chills, terminating in complete coma. Furthermore, that same thermometer had been used over and over again both before and since that case occurred, at all degrees of temperature.

It would be interesting to know what proportion, if any, of the money appropriated to the support of medical charities is received by go-betweens, political or otherwise. Are opposing parties in politics beneficial or detrimental? It seems to me that personal justice would never be secured if it were not for the contending elements which must necessarily accompany the struggle of one opponent against another.

It seems almost incredible that a sound eye should be removed, instead of a diseased one, in the presence of three physicians; but this is only one of the results of the mind being distracted by the worries of physical existence. And yet we were surprised, when we asked several physicians if they would not rather practise in ease, on a salary paid by the Government, like school-teachers, to hear them say, No. They would rather struggle for an existence, so that they would have the opportunity of piling up riches for their successors to enjoy—persons able to care for themselves, and who possibly never raised a hand to assist them in any way. I refer particularly to the wife's second husband. This demonstrates how the hypnotic insanity of riches, display, and social ambition is just as rife among us as among any other class of people; of course, it is with us the result of breeding and habit, just as it is with others.

I often hear a physician being criticised for having a lower rate of mortality than usual in his cases. This seems to me wrong, as I know that physicians are divided by lay people into distinct classes, one recommending another to a certain class for the cure of certain conditions. In this way, one class of practitioners will receive a different class of cases than another, and he may be telling the whole truth in giving better statistics; but this is merely because he gets better cases.

Is a board of health or hospital-physician justified in treating or removing a patient, in an emergency or diphtheria case, when a private physician present objects? If it is wrong our medical societies should take up the subject and act upon it vigorously. These bodies act with unwarranted authority, in my estimation.

Medical men should be among the first to advocate the briefest possible form of intelligible language, both written and spoken. Such a universal language would be much more to be desired than the proposed classical Greek. Just imagine the Frenchman, who omits the sound of t, spells the word infant enfants, and then pronounces the t as if it were a g, on-fong; the s he leaves out of the sound altogether, although not out of the spelling. Imagine, again, a rocking-chair spelled fauteuil, and pronounced fo-toi. But we are nearly as bad with our English. A few examples of phonetic spelling: friend, frend; quilts, kwilts; else, els; many,

meni; phthisic, tizik; limb, lim; condemn, kondem; schism, sizm; and honor, onor.

Many terms, aside from this, are used very loosely. Naphtha is an article frequently mentioned in this brief way, although there are wood naphthas, coal naphthas, petroleum naphthas, etc., each being totally different from the others.

Physicians should take more interest in the general welfare of the community; they would then be benefiting themselves. Rapid transit has been juggled by politicians in this great metropolis until we are the laughing stock of the world. If undertaken honestly by our government, travel under its control ought not to cost more than the fraction of a postage-stamp.

So many accidents are continually occurring that teachers should instruct children how to avoid the dangers of matches and other poisons and combustibles, as benzine, gunpowder, firearms (pistols), etc.

A NEW INTESTINAL ANASTOMOSIS FORCEPS.

By ANGUS McLEAN, M.D.,
of Detroit, Mich.

Clinical Professor of Surgery, and Lecturer on Anatomy, Detroit College of Medicine; Attending Surgeon to Harper Hospital; Member of the American Medical Association; etc.

It has been the object of surgeons for the past few years in performing intestinal anastomosis to do away with all mechanical contrivances so far as possible. When mechanical appliances are used in maintaining intestinal anastomosis, there is always a feeling of apprehension until the foreign structures pass out of the canal or become absorbed, if absorbable material has been used. Many of the devices formerly recommended for this purpose have been laid aside by their adherents. The bone plates of Senn; the catgut rings of Abbe; the catgut rings and rubber tubing of Brokaw; Allingham and Robson's bone bobbins; Miller and Chapin's button and like contrivances are seldom used at present. The metal button (Murphy's) has been accused of predisposing to stricture-formation, as well as causing an occlusion and allowing leakage.

The ideal anastomosis is the one performed without any of these contrivances. With this in view, I have devised the forceps which are here presented. They are constructed on the principle of the obstetrical forceps, with a series of incomplete rings for the clamping portion. There are six different sizes of rings, varying from 7 to 16 cm. in circumference, and numbered from 1 to 6. They have a flattened shaft with a spring catch near the end, and these fit into a groove and niche in each blade of the forceps, necessitating but one pair of handles for the full set. In using the forceps for circular enterorrhaphy, the intestine to be operated on is prepared in the usual manner. The set of rings that will best fill the lumen is placed in the handles. Each half is then taken separately and the ring is introduced into the opening in the gut, being passed parallel with the canal for a short distance. The shank is then brought to a point of the margin opposite to the mesenteric border, bringing the ring toward the opening and allowing about a quarter of an inch of the margin to fold over the flattened inner surface, at the same time grasping the portion encircling the shoulder of the ring with the fingers to prevent it from slipping away.

This blade can now be kept in position by an assistant; or, if necessary, a fine catgut ligature may be passed through the margins of this portion, just beneath the shoulder. The opposite blade is introduced

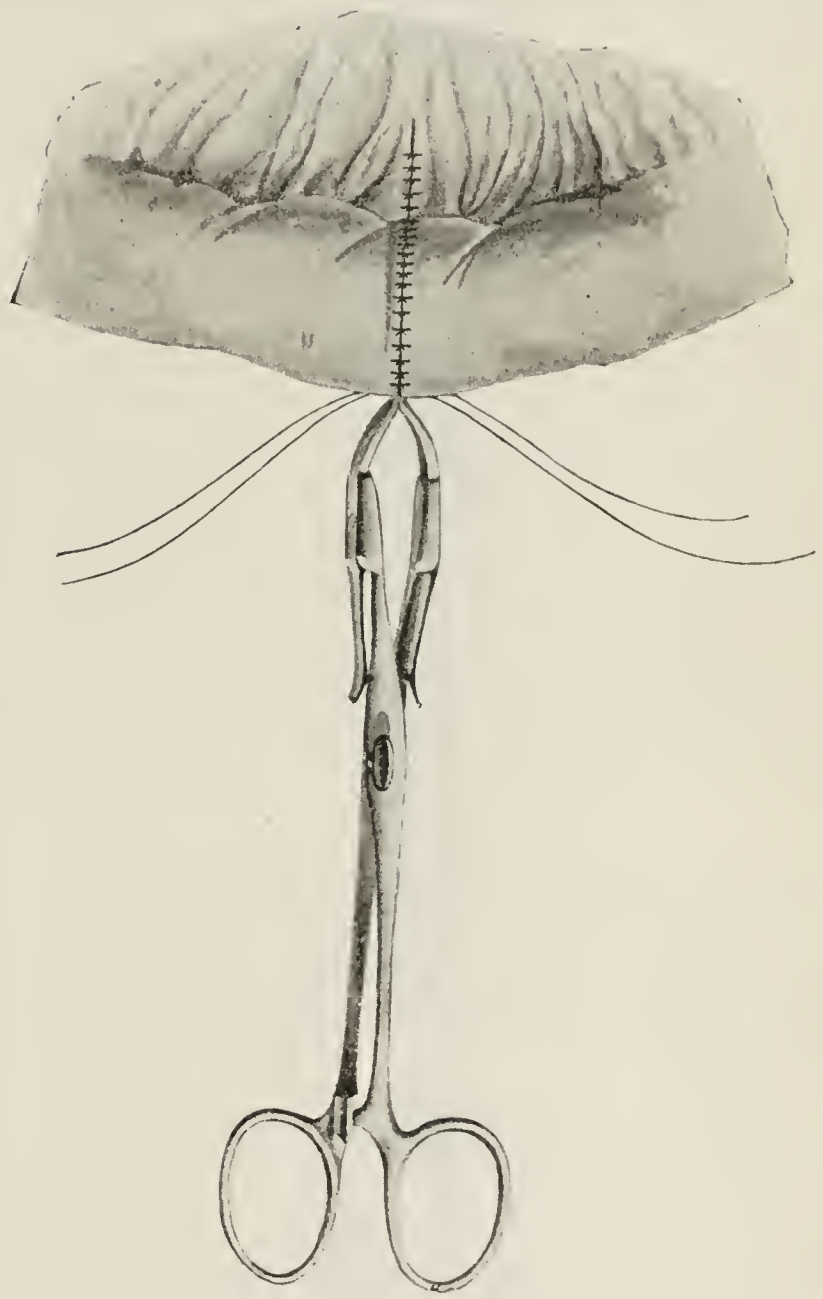


Fig. 1.—Forceps in position in the intestine with sutures in place.

in a similar manner. They are then handled just like an obstetrical forceps with the addition of a small thumb screw, the shafts crossing each other and locking on pressure. Before locking, however, the apposing parts should be carefully adjusted to prevent too much folding in of the tissues, and when the mesentery is heavy, it should be stripped back for a short distance. This brings the two serous surfaces of the gut together, with the exception of the small portion of the gut opposite to the shoulder of each clamp. The two clamps coming together form a complete ring. The forceps hold the margins together, and

the intestine can be moved or rolled into any position without hesitation.

A row of Lembert sutures is now introduced. This affords a method for rapid, accurate and secure insertion of sutures which may be placed entirely around the ring, except at the small portion opposite the shoulder of the rings. A couple of sutures may be introduced into this portion, leaving about a quarter of an inch of the margin free, so that it may be turned in when the forceps are removed. These stitches are left untied until the instrument is taken out.

The forceps are now unlocked and the handles separated. The margin of the gut around the shoulder of the

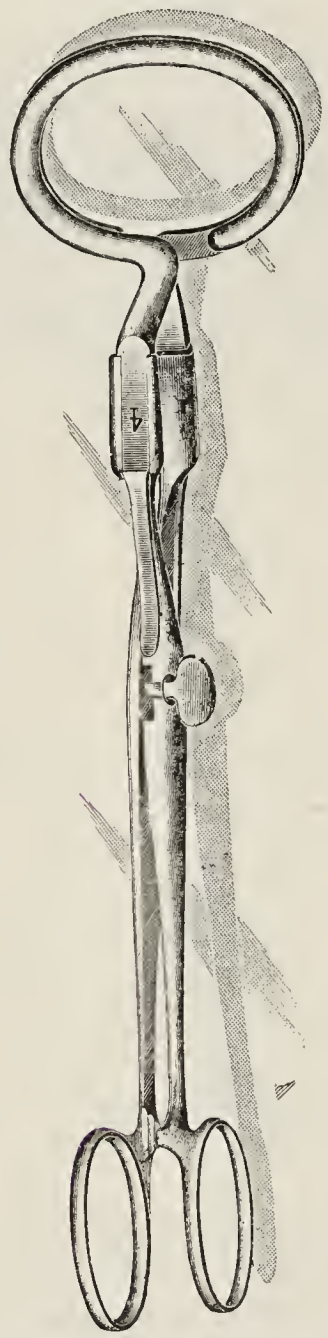
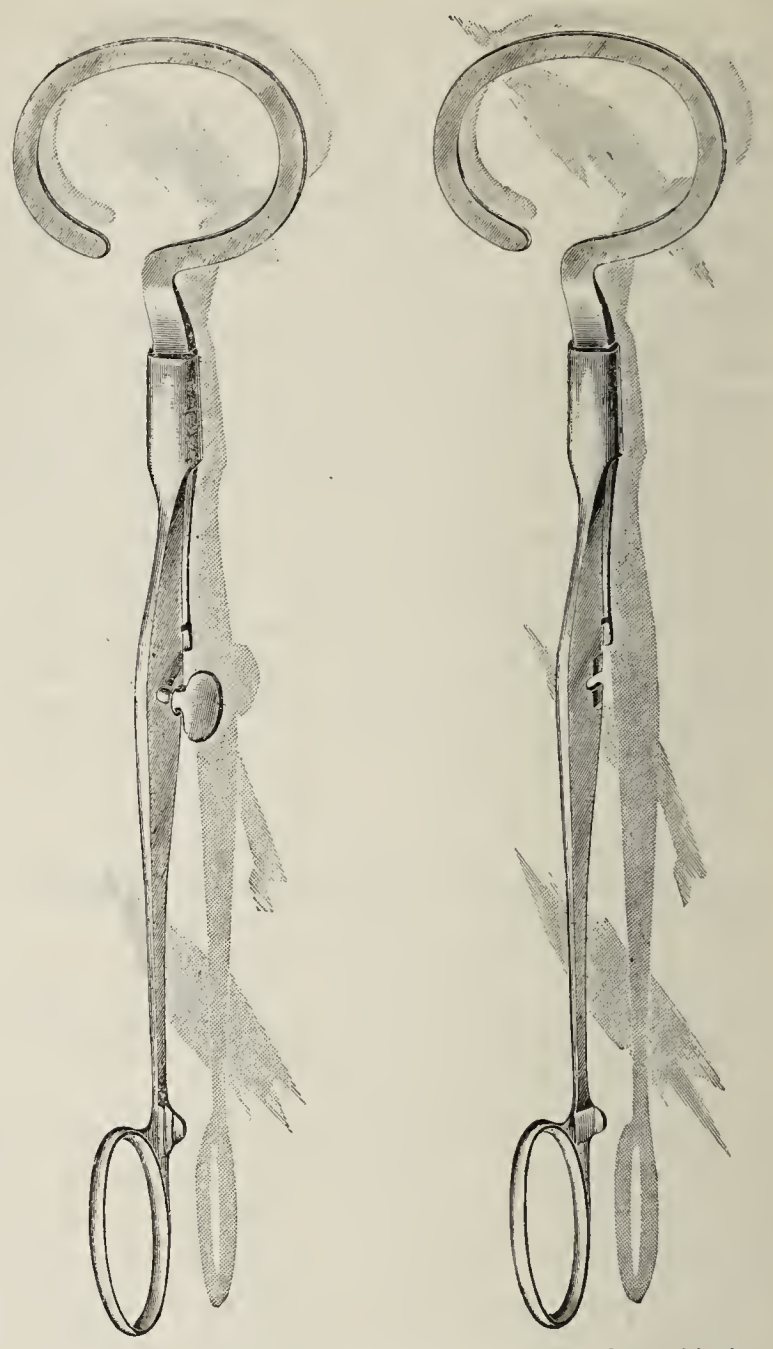


FIG. 2.—Forceps closed and clamped.

instrument is depressed into the opening of the ring, and by turning this half of the forceps in a circular manner, it winds itself out of the canal. After it is one-half removed, the remainder can be taken out in any position. The other ring is removed in the same manner, and the provisional sutures tied, making a complete union. An anastomosis can be made in a very short time with the aid of the forceps. A lateral anastomosis can be made in the same manner, but oval rings are more appropriate for this purpose.

(These instruments are made for me by the J. F. Hartz Co., Detroit.)



FIGS. 3 AND 4.—Separate blades showing the inner surfaces with rings in position.

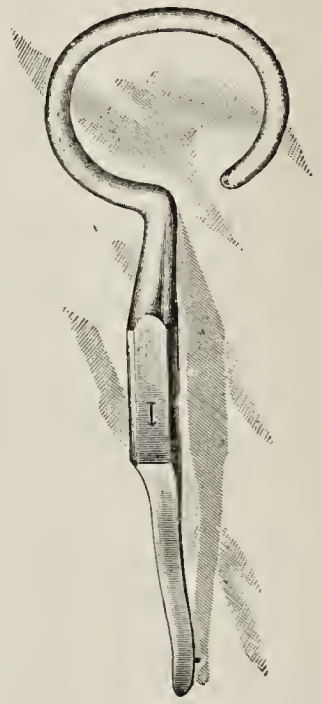


FIG. 5.—One ring.

Mlle. Bousignoria has been accorded the privilege by the University of Paris, to establish a free course in ophthalmology, and by an order of the Minister of Public Instruction has been appointed oculist to the Normal Schools at Severs and Fontenau-aux-Roses.

The Philadelphia Medical Journal

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Uncharitable Charity.—The New York newspapers last week described the loss and recovery of her pocket-book by a charity patient at a hospital. She had just drawn out of bank $650. The same newspapers also recite the pathetic story of the poverty of a physician, the son of one of the most successful and famous of American physicians. In Philadelphia, "charity" and the public purse unite to support a free dispensary for diseases of the eye, in which physicians treat for nothing many thousands of "poor" patients. By ironclad rules, one optician has the monopoly of furnishing these poor patients with the spectacles ordered by the unpaid surgeons of the hospital. Do these many thousands of patients—so poor that not one can pay the surgeon a dollar—do they buy steel-framed spectacles? They are all able to pay for "the best gold frames." Endowments and scholarships by millions flow to colleges for helping young men to study theology, languages, literature, etc., but how is it with the medical colleges and medical students? Last week a Philadelphia newspaper described the health-breaking heroism of a medical student who, for three years, had acted as a street-car conductor while pursuing his studies. What will make the community duly appreciate the worth of the medical profession? Only a united profession.

Smallpox and Vaccination in Massachusetts.—The antivaccinationists can learn a lesson from the statistics of Massachusetts if they are willing so to do; and what has taken place in Massachusetts has been duplicated the world over. Wherever vaccination is practised it has with unerring certainty and mathematic precision displaced smallpox. According to a summary prepared by Dr. Samuel W. Abbott, secretary of the Massachusetts State Board of Health, epidemics of smallpox were of frequent occurrence in that State during the seventeenth and eighteenth centuries, nearly 8% of the whole population of Boston dying from that disease in 1721. From the introduction of vaccination to 1840, "the mortality from smallpox was extremely small . . . From all that can be learned it is probable that the total mortality from this cause did not exceed 20 deaths in the State during these 40 years. Unfortunately, the vaccination-law was modified in 1836, and made less stringent, and the deaths from smallpox soon increased, the number in Boston alone in the three years, 1839–41, amounting to 232. After that date the enactment of the registration-laws furnished accurate returns for the *whole State* [italics ours], and from these it appears that the deaths from this cause from 1842 to 1855 inclusive were 1,304. *No deaths* [italics ours] were registered from this cause in 1895, and there were none in 1886." This is almost a stereotyped story, the accuracy of which is easily and amply substantiated, and it is difficult to understand how intelligent men and women, open to conviction and the evidence of their senses and having the welfare of their fellows at heart, can antagonize a movement that has checked the ravages of a frightful disease and has resulted in the saving of so many lives, and the avoidance of so much suffering, to say nothing of the hideous deformities that formerly followed in its train. So rare is smallpox nowadays in communities protected by vaccination and revaccination that many physicians pass through long careers without so much as even coming in contact with a case.

Marriage and Criminality.—F. Prinzing (*Zeitschrift für Socialwissenschaft*) has contributed a statistical study of this subject. According to this study, property rights are more generally respected by the married than the single. The married man does not commit the graver offences against property, such as robbery and fraud, so much as the less dangerous crimes, such as receiving stolen goods, breaking the laws of trade and public health, and bankruptcy. Men who are married at an early age (from 18 to 25) offend against property more often than the unmarried of the same age, and than married men who are older. This is probably explained by the pressure of family expenses. Offences against morality, except, of course, bigamy, and, for some reason, incest, are far more common among unmarried men—a fact that was to be expected. Offences against human life are more frequent among the unmarried, though the disproportion is not so great as in the matter of the rights of property.

It is interesting to note that the criminality of widowers decreases with advancing years, although this is probably true of all men. Widowers, however, contribute a greater share of crime between the ages of 30 and 50 than either of the other classes. This may be an argument either for or against marriage, according to the point of view. Widowers are especially prone to murder,

incest, false accusation, and false witness. They stand first in all classes of crime, and their offences against property are noteworthy. In extenuation of widowers it may be claimed that the loss of the wife leads to demoralization both in mind and in domestic affairs, and removes an influence that is evidently salutary in the majority of men. According to these statistics the longer a man is married the more law-abiding he becomes. This may be accounted for not only by the benign influence of matrimony, but also by the fact that the burden of married life, incident to the larger birth-rate at that time and the financial straits of the parents, is greater in the early years than it is later. This is indicated by the fact that the rate of offences against property falls off rapidly with advancing years among the married.

Regulation and Prevention of Prostitution.—These two subjects were discussed at the recent conference of Social Hygiene at Brussels. The subjects, it is to be noted, are distinct, and were in a measure kept distinct in the discussion. The question of regulation, or licensing, was discussed pro and con, and opinions were almost as numerous as the speakers. This very diversity of opinion among such competent observers leaves the question, even from the practical standpoint, undecided. Results seem to differ in different cities and countries, probably due to local causes, but the reports made at the conference leave a wide margin for doubt as to the efficacy of licensing as a means of controling the spread of venereal diseases. Gonorrhea especially seems not to be controled by this system. The moral aspect of the subject was not neglected, several speakers declaiming passionately against legalizing vice. We confess, after reading the brief extracts of the discussion, that the efficacy of the licensing system as a means of prophylaxis does not seem to us to be proved.

The prevention of prostitution and the spread of venereal diseases was given a degree of attention that will be satisfactory to those who believe that the State should not, under any circumstances, compound with vice, but should use all its endeavor to stamp it out. All will doubtless agree on the ethics of this latter proposition, even though some demur as to its practicability. Still, there can be no question that it is a wholesome sign when men like Hutchinson and Fournier lead in an effort to devise means to increase sexual morality among the masses, and to instruct the people in the necessity for controling the spread of infectious diseases. Perhaps more can be done in this way than many pessimists believe. At any rate it is the business and duty of both the State and the profession to lend every effort in this direction, rather than, by advocating a system of licensing, directly to encourage conditions that by any chance many favor continuous inoculation. Certainly in the case of no other inoculable disease could any physician consistently endorse a plan by which such disease might spread (as syphilis and gonorrhea spread with prostitution, even when the latter is licensed). The true prophylaxis as well as the true morality is to endeavor to suppress prostitution, and in the meantime to enlighten the ignorance of its patrons. We see no other solution but to fight syphilis as we fight yellow fever and smallpox.

Notification of Communicable Diseases.—One of the most important truths that the science of bacteriology has established is the transmissibility of diseases dependent upon the vital activity of low forms of animal and vegetable life. With this knowledge of the means by which these diseases are reproduced, the question of prophylaxis is much simplified. If the dissemination of the germ-causes be prevented, the diseases themselves cannot be spread. It is essential, therefore, that those upon whom devolves the responsibility for the execution of the necessary preventive measures should be informed of all foci of disease. In most large communities this information is secured through the agency of the attending physician, with whom the duty is sometimes obligatory, sometimes voluntary. The results of compulsory notification not having proved satisfactory in Chicago the Department of Health of that city inaugurated in 1895 the plan of allowing physicians to assume the responsibility of enforcing precautionary measures against the spread of infection in cases of diphtheria and scarlet fever attended by them, thus encouraging voluntary notification and gaining the cooperation and the active support of the medical profession. As the outcome of this plan of procedure there has been since 1897 an increase of 147% in the number of cases of contagious disease reported, of 73% in the number of contagious-disease premises placarded, of 400% in the number, and 600% in the area, of such premises disinfected; and of 70% in the number of contagious-disease funerals supervised by the Department. These results, while not quite all that could be desired, are certainly most gratifying, and they demonstrate what can be accomplished by conciliatory methods when coercive methods would have failed; but this is rather a matter of administration than of method, we should think. It is our opinion that in all large and well-regulated communities notification of all communicable diseases should be made obligatory on the part of physicians, but such information should be viewed and treated as privileged and confidential, and not be made the intermediary of hardship and harassment for those already distressed by the misfortune of disease. What we need most, and what we are slowly getting, in the administration of our health-affairs, is the light of practical common sense instead of the darkness of tradition or superstition, and, above all, the elimination of the blighting influence of modern politics.

Crank-Medicine.—There is a type of character or characterlessness that springs up in people from whom the restraints of tyranny, law, or custom have suddenly been taken. The doings of the countryman in the city, of the traveler abroad, the excesses of the brand-new atheist, or of the fortune-getter, are the worn-out subjects of the satirist and of the dreary comic paper. Now, identically the same law holds in regard to nations, and whenever a new nation is suddenly relieved of restraint and tutelage, then at once arises economic topsyturvydom, a legislative and administrative opera bouffe which is the delight of laughers, at least until the time of bill-paying arrives. These tendencies are accentuated even to farcicalness when unlimited material prosperity puts power into the hands of irresponsible ignorance. Beyond all question, a nation may become hysteric or monomaniac as exactly and as literally as does an individual. The economic and social experiments and intoxications which we, as a nation, have gone through with and are still bent upon trying would amuse the Olympians tired of Aristophanes. The distinguishing characteristics of this craziness is the most profound ignorance of a fact or science coupled with the most cocksure dogmatism about it.

The fact illustrates our national psychologic danger, and is accurately analogized by the spawn of medical crankeries we are so actively engaged in bringing forth. We have here the same gross ignorance masquerading as truth. Men without the faintest knowledge of a single anatomic, physiologic, or medical fact, are all over the land asserting with imperturbable dogmatism and egotism their possession of all knowledge. In every city there are hundreds, and the country is filling with them. We have long been gathering a library of crank-literature. One who has not investigated the subject has not a faint conception of the extent and degree of medical crankery. We judge that hundreds of volumes, hundreds of journals, and thousands of pamphlets are annually issued in the United States, only describable by this term. Institutions, offices, journals, etc., multiply, wax big, and then slowly or suddenly die out, only to be supplanted by fresh growths, slightly variant, though essentially the same. It is a strange phenomenon and we greatly fear the facts are being missed by the historian. Morbid national psychology is not generally studied until the sorry facts have been long buried in oblivion. We await the historian of American medical crankery.

Forestry in the West.—Out on the Pacific Coast several sorts of lively interest in what is called the Forestry Question have been shown this summer. At the Los Angeles meeting of the American Forestry Association, held in July, the burden of the papers read and the speeches made was the imperative need of some action looking to the maintenance of the supply of water for irrigation on which the very life, animal and vegetable, of southern California depends.

The part that trees play in supporting water-flow is no longer questioned, the fact is settled that they do keep the streams from drying up and the rain-water from running away as soon as it falls. In that section, where saturated clouds from the Pacific often move over the earth, it is even probable that the relative coolness surrounding a forest may induce precipitations that fail in the open country.

The fires that ravage the mountain sides and the cutting of timber, without thought of the consequences, are apparently rousing the people to demand some control and care of the remaining forests and the hillsides and gulches that should maintain a perpetual cover of trees.

In the Northwest the situation is different and the interest of another kind. There agriculture is not so important, scarcity of water is not yet felt; but the wonderful forests, perhaps the greatest and finest on earth, have called forth important lumber interests. Washington, Oregon, and California each have immense tracts of valuable timber that are being rapidly cut; recognizing the value of the industry to the people of these States, the Forestry Division of the U. S. Department of Agriculture has had parties of men all summer in the woods of Washington and California studying the growth and reproduction of the valuable timber trees, and the great question of the relation and effects of fire on tree-growth.

Perhaps the most significant fact in connection with these studies is the interest that the lumbermen have shown. Instead of opposing the work or even passively expressing disbelief in any practical result to come from such investigations, a general desire to further the efforts of the Government was shown, and material assistance rendered.

Nothing can be more promising of the great good to come of the adoption of systematic treatment of woodlands than the association of lumbermen and foresters. It is a forerunner of a time to come when the great forests that are ours, actually or potentially, will be used and not abused. The intimate connection of rainfall, climate, and forestry with the public health, and, indeed, with almost every disease with which we have to deal, makes all progress in forestry of vital concern to physicians and to medical science.

The Hygiene of the Barber-shop.—It has been abundantly established that disease is not rarely transmitted through the mediation of the barber-shop, and the issuance by the Pennsylvania State Board of Health of a leaflet of "Hygienic Hints for Barbers and Hairdressers" (Circular No. 52) is therefore a step in the right direction. The Board recommends that no person suffering from any disease of the skin, scalp or hair should act as a barber, nor should any one suffering from pul-

monary tuberculosis or any disease commonly known as contagious serve in this capacity. When diphtheria, scarlet fever, smallpox, measles or other contagious disease occurs in the family of a barber, he should not nurse the patients, nor in any way come in contact with them, but he should leave their care to members of the family who do not enter his shop or place of business, and he should temporarily change his residence.

The place of business should be kept scrupulously clean, as should also the chairs, razors, clippers, brushes, towels, and all other articles or instruments used. Towels should be carefully washed and then rinsed.

Persons suffering from any disease of the skin, scalp or hair, or from pulmonary tuberculosis, or convalescent from smallpox, scarlet fever, diphtheria or other contagious disease, should not visit any barber-shop or parlor, but should be attended by the barber or hair-dresser at their own homes. All instruments used on sick patients should be carefully disinfected.

Customers should be encouraged to own their own instruments (razors, soaps, brushes, etc.), and in the case of those suffering from diseases of the skin, scalp, or hair, this should be compulsory. For operations on a dead body, the barber should have instruments used only for this purpose.

Razors and clippers may be disinfected by boiling for five or ten minutes in soapy water or in water containing a little potassium carbonate.

Hair-brushes, combs, and strops may be disinfected by placing them in a small closet or case that closes hermetically and in which is kept a saucer constantly filled with a solution of formalin. Brushes and combs will need cleaning with bran or clay in hot water at intervals.

Shaving brushes may be disinfected by being placed in boiling water for five minutes before using, or, better still, the brush may be entirely dispensed with and a puff of cotton used, which can be destroyed after one using.

Before passing from one customer to another, the barber or hair-dresser should wash his hands thoroughly. He should use warm water and carbolic soap, or one containing mercuric chlorid.

The powder-puff so constantly used should be replaced by a ball of wadding, or better by a powder-blower. The ball of cotton should be thrown away after one using.

The lump of alum used to stop the flow of blood should be broken into small pieces, and after using one of these on a customer, it should be thrown away and not used a second time. Some prefer the burnt or calcined alum, applied on cotton, which can be thrown away after one using.

Only strictly clean linen, towels, wrappers, etc., should be used for each customer. If a freshly laundered wrapper cannot be supplied to each customer, a clean towel should be used in place of the wrapper.

Vaselin and wax should be used carefully, so as not to convey disease from person to person. The hair-dresser should remove vaselin from the vessel containing it with a spatula or spoon, and not by inserting his possibly contaminated fingers into the vessel. Each person should have his own wax.

The barber should not employ sponges in his work, nor should they ever be seen in shaving or hair-dressing establishments, as they cannot be cleansed as a towel or wash-rag may be. In their place a towel should be employed.

In order to cleanse the floor of the establishment, it should be sprinkled with dampened saw-dust or wet tea-leaves, and then carefully swept, in order that as little dust as possible may be raised. The sweepings should be burned every evening.

The shop should be thoroughly ventilated before the day's work is begun, and some arrangement for continuous ventilation throughout the day should exist.

These rules are so simple and so practicable that they are capable of and should at once receive universal application. As with other progressive acts, the wonder is that these recommendations have not been made concretely before, and the Pennsylvania Board of Health deserves credit for having taken the initiative in this matter.

Suggestions to Writers, No. 43. The Spelling and Pronunciation of Chemic Terms.—We have received so many requests for a succinct statement of the recommendations of the American Association for the Advancement of Science, as to the spelling of certain chemic terms, that we copy from the *Stylebook of the Chicago Society of Proofreaders* its account of the matter. We trust that in the forthcoming revision of the U. S. Pharmacopeia these recommendations may be adopted, and thus end the sorry conservatism which still clings to an antiquated nomenclature.

In 1887 a committee was appointed by the American Association for the Advancement of Science, to consider the question of attaining uniformity in the spelling and pronunciation of chemical terms. The work of this committee extended through the following four years. As a result of widespread correspondence and detailed discussion at the annual meetings of the Chemical Section of the American Association, the accompanying rules were formulated and adopted by the association:

General Principles of Pronunciation.—1. The pronunciation is as much in accord with the analogy of the English language as possible.

2. Derivatives retain as far as possible the accent and pronunciation of the root-word.

3. Distinctly chemical compound words retain the accent and pronunciation of each portion.

4. Similarly sounding endings for dissimilar compounds are avoided (hence *-id*, *-ite*).

Accent.—In polysyllabic chemical words the accent is generally on the antepenult; in words in which the vowel of the penult is followed by two consonants, and in all words ending in *-ic*, the accent on the penult.

Prefixes.—All prefixes in strictly chemical words are regarded as parts of compound words, and retain their own pronunciation unchanged (as ăc′eto-, ăm′ĭdo-, ăz′o-, hȳ′dro-, ī′so-, nī′tro , nītrō′so).

Elements.—In words ending in *-ium*, the vowel of the antepenult is short *i* (as īrĭd′ium), or *y* (as dĭdў̆m′ium), or if before two consonants (as căl′cium), but long otherwise (as tĭtā′nium, sĕlē′nium, chrō′mium).

In the spelling of sulfur *f* is used in the place of *ph*; also, in all its derivatives (as sulfuric, sulfite, sulfo-, etc.)

Terminations in -ic.—The vowel of the penult in polysyllables is short (as cў̄ăn′ic, fūmăr′ic, arsĕn′ic, silĭc′ic, ĭŏd′ic, būtў̆r′ic), except (1) *u* when not used before two consonants (as mercū′ric, prŭs′sic), and (2) when the penult ends in a vowel (as benzō′ic, olē′ic); in dissyllables it is long except before two consonants (as bō′ric, cĭt′ric). Exceptions: acē′tic or acĕt′ic.

The termination *-ic* is used for metals only when necessary to contrast with *-ous* (thus avoid aluminic, ammonic, etc.).

Terminations in -ous.—The accent follows the general rule (as plăt′inous, sŭl′furous, phŏs′phorous, cobal′tous). Exception: acē′tous.

Terminations in -ate and -ite.—The accent follows the general rule (as ăc′etāte, văn′adāte); in the following words the accent is thrown back: ăb′ietāte, ăl′coholāte, ăc′etonāte, ăn′timonīte.

Terminations in -id (formerly -ide).—The final *e* is dropped in every case and the syllable pronounced ĭd (as chlō′rĭd, i′odĭd, anhў̄′drĭd, ŏx′ĭd, hў̄drŏx′ĭd, sŭl′fĭd, ăm′ĭd, ăn′ilĭd, mūrĕx′ĭd).

Terminations in -ane, -ene, -ine, and -one.—The vowel of these syllables is invariably long (as mĕth′āne, ĕth′ēne, naph′thalēne, an′thracēne, prō′pīne, quĭn′ōne, ăc′etōne, kē′tōne).

A few dissyllables have no distinct accent (as benzēne, xў̄lēne, cētēne).

The termination *-ine* is used only in the case of doubly unsaturated hydrocarbons, according to Hofmann's grouping (as propīne).

Terminations in -in.—In names of chemical elements and compounds of this class, which includes all those formerly ending in *-ine* (except doubly unsaturated hydrocarbons) the final *e* is dropped and the syllables pronounced ĭn (as chlō′rĭn, brō′mĭn, etc., ăm′ĭn, ăn′ilĭn, mor′phĭn, quĭn′ĭn (kwĭn′ĭn), vanĭl′lin, alloxăn′tin, absĭn′thĭn, emŭl′sĭn, căf′feĭn, cō′caĭn).

Terminations in -ol.—This termination, in the case of specific chemical compounds, is used *exclusively* for alcohols, and when so used is never followed by a final *e*. The last syllable is pronounced -ōl (as glў̄′cōl, phē′nōl, crē′sōl, thў̄′mōl (ti), glў̆′cerōl, quĭ′nōl). Exceptions: ăl′cohŏl, ar′gŏl.

Terminations in -ole.—This termination is always pronounced *-ole*, and its use is limited to compounds which are not alcohols (as ĭn′dōle).

Terminations in -yl.—No final *e* is used; the syllable is pronounced *ўl* (as ăc′etўl, ăm′ўl, cē′rotўl, cē′tўl, ĕth′ўl).

Terminations in -yde.—The *y* is long (as ăl′dehўde).

Terminations in -meter.—The accent follows the general rule (as hydrŏm′eter, barŏm′eter, lactŏm′eter). Exception: words of this class used in the metric system are regarded as compound words, and each portion retains its own accent (as cĕn′time″ter, mĭl′lime″ter, kĭl′ome″ter).

Editor and Reader, No. 26. Literary Intolerance.—Every editor, and this includes even medical editors, occasionally receives angry letters from subscribers concerning some article admitted to his columns. It not seldom happens that the same mail brings other letters expressing pleasure from the same articles. The complainants may be right in their criticisms and the praisers wrong in their pleasure, because even the best of editors may occasionally err in selective judgment, and the most of us may make altogether too many mistakes. But whether right or wrong, the critics usually proceed upon one or more of several erroneous assumptions. The first pertains to the right of an editor to expunge a sentence or paragraph with which he disagrees in an otherwise acceptable article. That he has no such right is shown by the fact that the critics would be the first to deny it in the case of their own contributed letters or articles. The second faulty assumption is that an article contributed—and the same usually applies to reports, news-items, and quotations—receives a half endorsement, if not a whole one, by the editor from the mere fact of insertion in his journal. It seems stupid to republish in every number the old stereotyped notice, "This Journal does not hold itself responsible for the views or statements made in its columns except those in the editorial department," and yet the letters of occasional correspondents make one sometimes feel as if this were advisable. One may even have recalled to mind the stanza of a great poet:

> "There was an old man of Thermopylæ,
> Who never did anything properly;
> But they said, If you choose to boil eggs in your shoes,
> You shall never remain in Thermopylæ."

Again, it may be suspected that local feeling and even a personal animus, indirectly at least, may have rarely stimulated a passionate protest. If such is ever the case the fact that editors are not omniscient may perhaps be a sufficient reason for partial pardoning on the part of others, although not by any means authorizing an overkind leniency toward himself on the part of the editor. "Not guilty, but don't do it again," may perhaps be the verdict in both cases.

The fact suggests a thought as to the value and praiseworthiness of toleration. The crudest way to put it would be to say, too ungraciously it is true, that for the subscription price no reader acquires the right to grumble when displeased, nor in accepting it does a journal guarantee to please always and absolutely. An editor, indeed, may be considered fortunate if he pleases thrice while displeasing twice. Alas, that the single negative sticks in the memory more persistently than four positives! In a larger way it might be urged that culture and civilization consist in great part of the ability to listen to and observe things at variance with and even repugnant to one's private belief and to do so without acrimony. Magnanimity is one of the rarest and most noble of human characteristics, and it should not be forgotten that magnanimity is neither indifference, egotism, cynicism, nor pity—but something far higher than any or all of these. It is so fearfully easy to convince oneself of one's own personal superiority that the nobler virtue always insensibly tends to become the lesser. Is it not true that every political partisan needs to read a representative journal of the opposite party? What a deplorable narrowness does it show when readers demand that their journals shall voice their own peculiar views, and when a disagreeing or opposing view rouses anger! All of this is ultra medical, and extremes of party feeling do not of course occur in the medical profession, but glimpses and relics of old-time prejudices occasionally appear at the editorial desk—although we protest none have done so at ours for some three months! These atavistic remains, as we have hinted, consist in most emphatic reprobation of what some luckless contributor has said. Might one definitely reply: Why not blame the author instead of the editor or publisher, and also why demand the uttermost agreement on the part of one's fellows in matters either of science, ethics, or esthetics? Equanimity is a far more lovable virtue than unanimity.

Impolitic at least, and surely amusing, are the practices of some brother journalists in their efforts to ignore the contributions of a rival, when the acknowledgment has been earned, and when it would help their readers so much. In the past year, for instance, we have published, in advance of other American medical journals, a number of articles of exceptional interest to the profession, sometimes in conjunction with other journals and sometimes exclusively. The

feats of psychologic legerdemain on the part of some of our esteemed contemporaries and contemptuaries in the desperate attempt not to notice the fact, would furnish the expert in morbid psychology with most excellent data. To avoid mentioning the PHILADELPHIA MEDICAL JOURNAL some of our competitors refuse to mention the fact itself—at least until some other journal has spoken of it, and then the quoting journal is alluded to in the "abstract," and the PHILADELPHIA MEDICAL JOURNAL is still as if nonexistent. If we publish an article in advance of others in this country and in conjunction with a foreign journal, the abstract of our magnanimous coworker, or his leading editorial, is made up from our columns, but the credit is given the foreign contemporary. Thus the interest of readers is sacrificed to a petty jealousy, for when they wish to get the original they have to send to Europe for it, unless (noteworthy qualification!) they happen to learn that it can be obtained much nearer home. This head-in-the-sand policy is impolitic, because it is schoolboyish, and because it deceives nobody. If our circulation was only one or two thousand it might for a time prove ignobly shrewd, but under the circumstances it is "neither wit nor wisdom." Superficial cunning does not pay in the long run, and it is for the long run that the good journalist enters his periodical.

Why Does the Surgeon Fail to Find the Appendix?—N. S. Scott (*Bulletin Cleveland General Hospital*, April, 1899), by two series of circular letters addressed to surgeons and anatomists, has collected profuse statistics in connection with this subject, and finds only 5 cases in which the appendix was found to be absent in the dissecting-room, and in none of these was the finding confirmed by microscopic examination. The surgeons reported a much larger number of cases in which they failed to find the appendix. The author believes that there are few cases in which the appendix is congenitally absent, if there are any, and bases this opinion on the microscopic findings in a case of his own in which the appendix was apparently absent but in which he was led by an enlarged lymphatic gland, to remove a fibrous band that led over the brim of the pelvis. There were no other intestinal adhesions present. The microscopic examination of this band showed the obliterated appendix imbedded in fibrous tissue and that he had a true case of appendicitis obliterans, where both the appendix and its artery had been converted into fibrous tissue. He believes that appendicitis obliterans is the rational explanation of the inability of surgeons to find the appendix in cases when a mild chronic apppendicitis has existed for some years. [C.L.L.]

Traumatic Aneurysm of the Axilla Treated by Ligation of the Axillary Vein and Incision.—N. Raw (*Liverpool Medico-Chirurgical Journal*, July, 1899) finds the record of but one case in which aneurysm of the axilla has been successfully treated, that of Syme, of Edinburgh. The case of a woman of 45 is reported, who fell and dislocated her left shoulder. The dislocation was reduced the next day, but the physician continued in attendance for 5 weeks and thought it necessary to manipulate the arm, which he did, by placing the patient on her back on the floor and putting his heel in the axilla. She experienced great pain afterward and the arm began to swell. The same night it became red and edematous, there was motor and sensory paralysis of the entire arm and there was slight pulsation in both radial and ulna arteries. When first seen, rupture of the axillary vein was diagnosed. The swelling progressed until it burst through the skin with serious loss of blood. An incision was made, commencing on the clavicle and extending down the front of the chest to the anterior fold of the axilla, dividing the muscles and exposing the axillary artery and vein. Immediately under the clavicle a temporary ligature was placed in the artery, the vein was tied and the tumor was incised, and several pints of blood-clot was evacuated. The axillary vein was torn completely across. The patient soon rallied from the operation and made an excellent recovery. [M.B T.]

Correspondence.

NERVOUS HEMORRHAGES.

BY ARTHUR VAN HARLINGEN, M.D.,
of Philadelphia.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

I HAVE read with much interest the articles on *Morbus Haemorrhagicus Nervosus* by Pepper and Taylor in your issue of May 6, and on *Nervous Hemorrhages* by W. S. Toms in that of September 16. Both of them describe cases which belong to the interesting category of hysterical neuroses of the skin. These may take the form of erythema, dermatitis, urticaria (including dermographism), hyperidrosis, edema, urticaria bullosa, pemphigus, herpes zoster, eczema, gangrene, pigmentation, vitiligo, lichen, chromidrosis, ecchymosis, or hematidrosis.

In a paper[1] read before the College of Physicians of this city two years ago, I called attention to the subject, and described briefly the various forms of skin-eruption met in connection with the hysterical condition. Any of your readers who may be interested in the hemorrhagic forms of hysteric dermatoneuroses will find in my paper a large number of references to reported cases. Some of these, as that of Louise Latour the mystic, have been the subject of volumes of controversy, and various theories of the causation of the affection, from miracle to mere malingering, have been put forward.

THE SCIENTIFIC DIAGNOSIS OF DISEASE DURING THE LATE WAR.

BY CHARLES T. CRAIG,
Acting-Assistant Surgeon, U. S. Army.
(Bacteriological Laboratory, Post-Hospital, Columbia Barracks, Havana, Cuba.)

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

IN conversations held with many otherwise well-informed physicians in civil life and in a few editorials and articles published in the medical press, I have noticed that the opinion is quite general that no provisions were made by the Medical Department, during the Spanish-American War, in our great camps, for the scientific diagnosis of disease by means of laboratory methods. Such an opinion is so untrue and unjust that I have felt it my duty, as well as privilege, to try and correct it. As a matter of fact there was not a large camp in this or any other country where our troops were which did not have a competent microscopist attached to it, and in many of them well-equipped laboratories were established, provided with every accessory needed for bacteriologic and pathologic research, as well as clinical diagnosis. As I have had the honor of the charge of two such laboratories in this country, one at the Sternberg General Hospital, Chickamauga Park, Ga., and the other at the Simpson General Hospital, Fort Monroe, Va., I can speak from experience, and I personally know that the Medical Department of the army supplied freely and promptly all apparatus asked for, and spared no expense in making these laboratories models of their kind. It may truly be said that few laboratories, even in our medical schools, have a better equipment than had several of the laboratories established at the larger military hospitals, and

[1] The Hysterical Neuroses of the Skin, *Amer. Jour. Med. Sci.*, July, 1897.

the names of such investigators as Reed, Dock, Gray, Carroll, and others is sufficient guarantee that the work was of the highest order, and that the scientific diagnosis of disease by laboratory methods was available whenever needed. Unfortunately, many surgeons in the volunteer service, as is the case in civil life, did not consider such helps to diagnosis as essential, refusing to avail themselves of the facilities offered by the laboratory, and as a consequence errors in diagnosis were made, typhoid fever was called malaria, and disease spread because it was not recognized. To lay the blame of such conditions upon the Medical Department is, to say the least, unjust, and it is time that the general profession should know the truth concerning this matter. I emphatically repeat that facilities for the scientific diagnosis of disease by laboratory methods *were* and at present *are* amply provided for whenever needed, and that statements to the contrary are false and unjust and can only be made by those entirely ignorant of the subject.

OBSTETRIC EXPERIENCES.

By JOHN W. CORBETT, M.D.,

of Camden, S. C.

To the Editor of The Philadelphia Medical Journal:—

I herewith send you two interesting incidents that recently occurred in my obstetric practice.

May 13, 1899, I delivered Mrs. B. of her second child, a boy. The confinement was normal. After tying and cutting the cord, I delivered the placenta in due time, and finding that the cord attached to the placenta was long I measured it. I found that I had left 2 inches attached to the umbilicus, and there was left attached to the placenta 3 feet of cord, making a cord 3 feet 2 inches in total length. This is longer than I remember to have seen before.

March 16, 1899, I went to see a colored woman, 8 miles south of town, by the railroad. Arrived at 9.30 A.M., I had to ride a mile and a half behind a slow horse, and return to the station to take the train for home at 11.30 A.M. When I arrived at the house I was told that the girl had been delivered of her first child on the early morning of the 13th, and "the trouble was that the afterbirth would not come away," the baby being alive, and the old "granny" having securely tied the protruding cord to the thigh to "keep him from going back up." On examination, I found a hand and foot protruding from the vulva, and a second child out of the womb, and jammed in the vagina. I could not push it up nor pull it out, I had no instruments, and was obliged in a short time to return to important engagements at home. The patient had a small pulse, had lost a great deal of blood, but had no abnormity of temperature, and was not frightened. Knowing that the dead and putrefying twin should be removed at once, I commenced with a small pair of pocket-case scissors to divide it in two, which I did, cutting through the last ribs and separating the vertebral column opposite. The hips and legs then came away readily, and the thorax and head were next delivered with little trouble. All I could then do was to wash out the vagina and the outer genitals with some bichlorid, by the agency of a rag, as I could not procure a syringe or douche bag, and leave, asking to be informed of the condition of the woman the next day, and expecting nothing less than septic fever. I did not hear until the following Saturday, when the father of the girl told me that she was desirous of solid food. Her temperature had not been taken since I saw her, but the evidence was to the effect that she had had no fever at all. She is now all right and the twin first born is thriving. In this case there were two separate cords and sacs, with two distinct placentas.

Here is a case with every inducement in the world to result in death from septic poisoning, and the patient had no unpleasantness except that she is not allowed at once to eat her bacon and corn-bread. The house was as filthy as a negro house ever becomes, and was full of old and young women who were wet from walking through the 8 inches of snow. One room served as kitchen, parlor, bedroom, dining-room, and aseptic (?) accouchement-room.

RÖNTGEN-RAY INJURIES.

By PHILIP MILLS JONES, M.D.,

of San Francisco.

To the Editor of The Philadelphia Medical Journal:—

In the issue of your Journal for September 30 is a letter from Dr. L. D. Judd on the subject of "Röntgen-ray Injuries." Althongh the matter has been pretty well gone over by a number of writers, I feel that certain errors of your correspondent should not go unnoticed. Passing by the lesser inaccuracies and mistakes, and considering only the gist of the matter in the letter referred to, let me quote a sentence: "The most plausible theory, and in fact what proves to be a solution as to the danger of x-ray burns, is that (sic) the burn is from an electrolytic action of current generated in the tissue by induction from the tube." Now, an electrolyte is electrolyzed only when the difference of potential of the electrolyzing current is greater than the difference of potential of ions in the electrolyte. The amount of electrolytic action in a given time is proportionate to the current-strength passing. The only form of current electricity capable of producing electrolysis, so far as we have yet been able to prove, is the constant direct current. Dr. Judd assumes, for the purposes of his argument, that a current is induced in the exposed part by induction from the tube. Induction could only be produced if the inducing current were of changing value or sign, and in that case the induced current would not be a constant direct current, but would be a current having the same alterations or alternations as the inducing current; in other words, an alternating or oscillatory current. It yet remains to be demonstrated that such alternating or oscillatory currents are capable of producing electrolysis! If the current induced is not a constant direct current (and it cannot be from the very physical nature and laws of induction), the questions of potential difference and current strength are not material to the argument, *for electrolysis cannot result.* To one conversant with the fundamental laws of physics and electricity, it seems absurd to consider even for a moment the theoretic explanation of x-ray dermatitis by electrolysis. Even aside from the purely theoretic reasoning justified by the conditions presented, one experiment, performed at least 2 years ago, would seem to throw out electrolysis. I refer to the experiment of Elihu Thomson, made in the following manner: He had a tube made, the body and major portion of which was of heavy lead glass; in one side was inserted a window of thin German glass. He then exposed his little finger opposite to, and very near, this window of German glass. The tube was excited by a "static machine." After an interval of time a very marked dermatitis developed *upon that portion of the little finger which was exposed opposite to the window of German glass.* Now, the electrical condition was the same for all parts of the tube. If

induction occurred in the hand at any point near to the tube, it would necessarily occur at all other parts of the hand near to the tube. Consequently, if the dermatitis was the result of electrolysis, caused by induction, the dermatitis would have appeared upon the whole of the little finger and also upon such parts of the hand as were of necessity near to the tube.

This experiment, repeated by other observers, also eliminates all theories save those which explain the dermatitis upon the assumption that it is produced by the radiant energy emanating from the tube in the form of what we are pleased to call "x-rays." It does away with "electrolysis" with "ozone," with "germs driven into the tissues," etc.

Careful study of the questions of inertia, moments, periodicity and induction would lead to different conclusions from those of Dr. Judd. The publication of the "opinions" of those who have done only empirical work with x-rays has become altogether too common. Facts and scientific deductions should obtain recognition at the hands of the medical press.

SUCCESS IN THE PRACTICE OF MEDICINE.

BY HERBERT J. HOPKINS, M.D., C.M.,
of Pittsburg, Pa.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

THERE is and has been a great deal of talk about the so-called hospital and dispensary abuse; the general public though are quite satisfied, and rightly so too, for none questions the great good that such institutions are to the people at large, a wonderful dispensation of help and comfort to suffering humanity, poor and rich alike sharing in the benefits. If an ambitious minority of the profession choose, for reasons of their own, to devote a large proportion of their waking hours to gratuitous work, the public are not to be blamed for availing themselves of such advantages. Of course it is becoming more and more difficult for practising physicians of all kinds to compete with this free labor, but let the blame be placed anywhere but on the public who rightfully enjoy the good things that so rarely come their way.

Charitable institutions are a distinguishing feature of Christian civilization—the keystone of Christianity being love or charity, which in a tangible form appear as relief and comfort to the poor, suffering and friendless; and philanthropists, seeking the greatest returns, find no field comparable to the establishment of hospitals; yet the promotors of hospitals find it impossible to keep them up on mere charitable donations, and rely largely for their support on the profits from pay-patients whose patronage is eagerly solicited; so that while availing themselves of the free medical services provided by the institution, these same pay-patients are themselves furthering the good work.

Through mismanagement or corruption, it is possible that public charitable institutions may cease to fulfil the objects for which they were originated, the gifts not reaching those for whom they were intended, in a proper way—an abuse indeed, but one not chargeable, as shown above, to the pay-patient.

It would indeed appear unfair that the medical staff should not only render gratuitously all the medical services needed by those for whom the institution was founded, but should, in addition, contribute so largely, if indirectly, to their proper support while there resident;—as long, however, as appointments on the various staffs are sought with such incredible avidity, there would not appear to be any real cause for alarm from that quarter. It is hard though for the general body of the profession, hard for the average physician, to achieve success, to be busy, and do the greatest possible amount of good, honest work and gain a fair competence for his declining years, in the face of so much work done without a fee. However well drilled in the science of medicine, the modern physician, to achieve success, must needs be a master of that which constitutes the main reliance of the homeopathists, viz., the "art" of medicine. A working mastery of this is attained by nearly all practitioners in the course of years of experience; to the few it comes naturally, a gift as it were, and when seen in a state of perfection cannot but excite wonder and admiration, as illustrated in part by the common observation: "Doctor—— gets more credit out of a death than others do from a most brilliant recovery." To be associated intimately with such a one for a year or two would be invaluable to the recent graduate. The old system of apprenticeship, though forever displaced by the different universities, had advantages which the latter can never supply.

An important point is to make one's work acceptable to the patient, as thorough and effective as possible and at the same time agreeable and pleasing. To do that it is almost indispensable to take a genuine and deep interest in each patient—many complaints and disorders dismissed as trivial and unimportant by the busy physician are not so classified by the sufferers themselves, as the vast amount of money spent on patent cure-alls testifies, and as frequently does the subsequent issue.

Having once practised general medicine, I can compare the work done by the general physician with that of the specialist, particularly that on the eye, ear, nose, and throat. The great difference is in the importance attached to details; a specialist might truthfully be described as one who makes a special study of details,—minutiæ overlooked or neglected by the physician. It is well to remember that while the field is broad and it is impossible for one to know all that is to be known in all parts of it, the patients are comparatively few, and that the adversaries are free public services and patent-medicines, adversaries well qualified to cause uneasiness to the great body of our beloved profession.

In addition to making one's work thorough and effective as well as pleasing and agreeable, an important feature of the art is to give big value for money received, throwing into the scale time, interest, and sympathy.

Sectarians and semiquacks are accused of playing "the gentlemanly snare and sentimental game," to cover their ignorance. Any means so patent as to do that surely merit attention. It behooves us to be the real thing, and look it, gentlemen in every sense of the word, confident, suave, and sympathetic. Though it is not given to all of us to be naturally magnetic, to easily attract and retain friends and supporters, we all can deserve and win them in abundance by being ideal physicians.

Choledochotomy.—R. Worrall (*Australasian Medical Gazette*, July 20, 1899). A woman, 44 years of age, had intense jaundice, clay-colored stools, and gave the history of biliary colic. She was removed to the hospital for operation. After opening the abdomen, the gallbladder was found contracted, fixed by adhesions, and packed with small stones; stones were also found in the cystic and common duct. The one in the common duct could not be moved or crushed, so the duct was incised, the stones extricated and the opening closed with fine silk sutures, and a drainage tube and gauze were inserted. There was immediate relief from the symptoms after the operation and the patient left the hospital 41 days later, perfectly well. [M.B.T.]

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending November 4, 1899:

Wednesday, November 1—College of Physicians.

Thursday, November 2—Obstetrical Society.

Hog-cholera is reported in Chester County (Pa.) and several hundred head of swine have already died. The infection is said to have been brought from Virginia by some hogs recently received from that State.

Smallpox has reappeared in Philadelphia, and from a house in the northern section of the city, 11 inmates were removed to the Municipal Hospital last week. Late advices are that but 5 of them are affected, and none seriously.

The Phoenixville (Pa.) Hospital has been enriched by a gift of $3,000 from Mrs. Mary Keeley, of Spring City. Mrs. Keeley has, in addition, promised to pay for the furnishing of the largest ward in the new building now in course of erection.

Philadelphia as a Medical Center.—In answer to our request the Deans of the following colleges give as the matriculates for 1899–1900:

University of Pennsylvania, Department of Medicine. First year, 143; second year, 174; third year, 161; fourth year, 178; special, 2.	658
The Jefferson Medical College. First year, 195; second year, 170; third year, 149; fourth year, 132; special, 3.	649
Medico-Chirurgical College	340
Women's Medical College	150
Hahnemann Medical College	265
Philadelphia Polyclinic	34
Dental Department, University of Pennsylvania	490
Philadelphia Dental College and Hospital of Oral Surgery	398
Pennsylvania College of Dental Surgery	313
Dental Department, Medico-Chirurgical College	110
Department of Pharmacy, Medico-Chirurgical College	57
Philadelphia College of Pharmacy	440
Total number of students	3904

Vital Statistics of Philadelphia for the week ended October 21, 1899:—

Total mortality 384

Diseases.	Cases.	Deaths.
Pulmonary tuberculosis 42, intestinal tuberculosis 1		43
Heart-disease 36, neuralgia of the heart 3, fatty degeneration of the heart 2		41
Pneumonia 33, congestion of the lungs 1		34
Debility 13, marasmus 11, inanition 10		34
Nephritis 25, uremia 8		33
Apoplexy 19, paralysis 7, softening of the brain 4		30
Carcinoma 16, tumor 3		19
Diphtheria 13, membranous croup 3	89	16
Casualties		12
Convulsions		11
Inflammation of the brain 9, congestion of the brain 1		10
Gastroenteritis 9, cholera infantum 1		10
Typhoid fever	38	5
Scarlet fever	51	4
Cerebrospinal meningitis		3
Typhus fever		1
Peritonitis 8, senility 8, alcoholism 4, intestinal obstruction 4, cirrhosis of the liver 3, diarrhea 3, dropsy 3, cystitis 3, arteriofibrosis 2, asthma 2, cyanosis 2, disease of the liver 2, disease of lungs 2, appendicitis 2, spondylitis 2, pyemia 2, shock 2, suffocation 2, ulceration of the stomach 2, abscess 1, aneurysm 1, asphyxia 1, atheroma 1, diabetes 1, drowned 1, erysipelas 1, malaria 1, hernia 1, homicide 1, bronchitis 1, laryngitis 1, pleuritis 1, locomotor ataxia 1, phosphorus poisoning 1, rheumatism 1, arteriosclerosis 1, sore mouth 1, suicide 1, syphilis 1, tetanus 1.		

Tri-County Medical Association of New Jersey.—The first annual meeting was held in Hackettstown, October 10. Dr. William H. Thomson, of New York, read a paper entitled: **Some points in the etiology and treatment of bronchitis,** Dr. Morrison, a paper on **Our rural physicians and surgeons,** and Dr. Farrow, a paper on **The relation of the medical profession to the alcoholic problem.** The 40 members present participated in a dinner, and elected the following officers to serve during the ensuing year: President, Dr. E. P. Morrison, of Newton; first vice-president, Dr. Levi Farrow, of Middle Valley; second vice-president, Dr. J. H. Griffith, of Phillipsburg. The secretary, Dr. C. B. Smith; the treasurer, Dr. F. W. Flagge, and the reporter, Dr. H. A. Henriques, of Morristown, were unanimously reelected. The new executive board consists of Drs. J. M. Reese, of Warren, Foster, of Morris, and Hood, of Sussex.

Philadelphia Neurological Society.—At a meeting held Octobers 23, Dr. Charles S. Potts exhibited two brothers, aged 10 and 12 years respectively, affected with **pseudo-hypertrophy of the muscles.** The elder is now unable to walk, the younger can walk with assistance. Dr. Potts also exhibited a man, aged 29, who 2 years ago, in a railroad accident, sustained a **dislocation or fracture of his lower dorsal vertebrae.** At present there is weakness of the lower limbs, and various **peculiar sensory phenomena** with reversal of the color fields, that were considered to indicate hysteria. Dr. F. X. Dercum concurred in this opinion.

Dr. D. J. McCarthy reported a case of **ambulatory automatism, probably of epileptic nature.** The patient was a boy, aged 17 years, who had had spasms during early life. Beginning at the age of 15 years, he has since been affected with attacks of unconsciousness lasting from one to five minutes, that come on from 2 to 8 times a month, The patient is usually going about when the attacks come, and can give some reason for his actions during them. After their subsidence he feels well again. The nature of the condition and the differential diagnosis of the various forms of ambulatory automatism were discussed: hysteric, neurasthenic, epileptic, and those due to degeneracy, traumatism, alcoholism, etc. In the discussion, Dr. A. A. Eshner referred to a case he had reported some years ago—a patient, aged 16 years, who during her attacks was in the habit of making long journeys. During her normal state she was not able to give any account of what occurred during her journeys, but being hypnotized gave a full account of her doings. Dr. W. G. Spiller referred to a case of ambulatory automatism with epilepsy. Dr. Dercum thought the condition not rare. Dr. Sinkler referred to the number of cases reported in which there is a psychic equivalent epilepsy and no convulsive seizures.

Dr. F. X. Dercum reported a case of **hemiplegia, hemianesthesia, jargon aphasia, right-sided homonymous hemianopsia, Wernicke's pupillary reaction and neuritic pain in the arm of the paralyzed side.** It was thought that the lesion is most likely an embolism with extensive softening. Dr. Dercum also reported a case of **acute anterior poliomyelitis** in a child, aged 2 years. All four extremities were affected, and the condition has persisted with but slight improvement. A Quincke puncture had been made, and in the fluid obtained there was detected a diplococcus that morphologically resembled the diplococcus of Sternberg.

Dr. Joseph Sailer reported a case of **sensory equivalent for the epileptic attack.** The patient was a boy, 17 years old, who was affected with epileptic convulsions from the age of 6 years to 13 years. At the age of 17 years he had a series of 3 attacks within a few days. He became livid, had dysarthria, headache, paresthesia, and subjective sensation of motor impairment in the left arm, visual disturbance, some fever, and diarrhea. The condition at one time much resembled typhoid fever, but more thorough in-

vestigation revealed the condition one of migraine or the sensory equivalent of epilepsy. It was considered to be the latter, although the differential diagnosis was admittedly difficult.

DR. S. MCC. HAMILL reported a case of **migraine with aphasia and numbness of one arm.** The patient, 20 years of age, had mild attacks of hemicrania which began with blurring of vision, peculiar sensation in the epigastrium, numbnesss with loss of sensation in the fingers of the left hand, later involving the entire hand and forearm, at times numbness of the lips, nose, and tongue, and difficulty with speech. The attacks lasted about 6 hours and were never accompanied by convulsions or loss of power.

DR. WILLIAM G. SPILLER read a paper entitled: **The relation of migraine to epilepsy.** He reported two cases, the first, a man aged 51 years, who at the age of 44 years began to suffer with attacks of numbness of the right side of the tongue, and inability to speak. Later there were numbness of the right hand and arm and inability to hold objects at the time of the attacks. Subsequently the right leg became affected, and from this time on, the attacks might begin in any portion of the right side of the body. The patient would then fall, and in the major attack he might lose consciousness, but there were no jerkings, nor twitchings, no headache, and no visual disturbances. The case was considered one of sensory epilepsy. The second case was a girl, aged 21 years, who when 4 years of age sustained a fall that was followed by mental excitement. Later there developed attacks of transitory paralysis of either side of the body, with loss of muscle-sense during the attacks, migraine of the opposite side of the head, numbness of the affected portions of the body, and of the tongue and aphasia. There were no visual disturbances nor any convulsions, until quite recently when a convulsion had occurred. The case was considered one of migraine, passing into epilepsy. The opinion was expressed that epilepsy and migraine were much related. In the discussion, DR. C. K. MILLS stated that he considered true migraine and true epilepsy distinct diseases. The absence of mental deterioration in the one and its occurrence in the other were considered important factors in determining this nonrelationship. He recalled an instance in which true migraine has existed in 5 generations of the same family, and in which there has occurred no epilepsy. He questioned the advisability of employing the term epilepsy in this connection. DR. SINKLER suggested that migraine was probably a forerunner of epilepsy. DR. F. S. PEARCE referred to the importance of considering the question of autointoxication in these cases. The president, DR. JAMES HENDRIE LLOYD, stated that there are points of resemblance between the two affections, but no identity. He thought that Dr. Hamill's and Dr. Sailer's cases were cases of migraine, and Dr. Spiller's cases of epilepsy. Loss of consciousness and convulsions do not occur in migraine. Ophthalmic migraine is likely a distinct disease, being something more than migraine, but we are not justified in terming it epilepsy. DR. DERCUM agreed with the president, and stated that in many cases it is difficult to make a diagnosis. DR. MCCARTHY referred to the reflex action of pain in inducing convulsions.

American Committee, Thirteenth International Congress of Medicine.—A meeting of this committee was held at the University Club, Philadelphia, October 21, at the call of Dr. William Osler. There were present, Dr. W. W. Keen, President of the American Medical Association (in the chair); Dr. Geo. M. Sternberg, Surgeon-General of the United States Army; Dr. William K. Van Reypen, Surgeon-General of the United States Navy; Dr. Walter Wyman, Surgeon-General of the United States Marine-Hospital Service; Dr. Horace G. Miller, President of the American Otological Society; Dr. E. D. Fisher, President of the American Neurological Association; Dr. Geo. J. Engelmann, President of the American Gynecological Society; Dr. H. W. Stelwagon, President of the American Dermatological Association; Dr. Samuel Johnston, President of the American Laryngological Association; Dr. R. F. Weir, President of the American Surgical Association; Dr. A. Jacobi, President of the American Climatological Association; Dr. E. G. Janeway, President of the Association of American Physicians; Dr. Henry Koplik, President of the American Pediatric Society. Letters of regret at inability to attend the meeting were reported from Dr. H. P. Bowditch, President of the Congress of American Physicians and Surgeons (absent in Europe); Dr. O. F. Wadsworth, President of the American Ophthalmological Society; Dr. James Bell, President of the American Association of Genito-Urinary Surgeons; Dr. H. M. Sherman, President of the American Orthopedic Association; Dr. R. H. Chittenden, President of the American Physiological Society; Dr. B. G. Wilder, President of the Association of American Anatomists, and Dr. B. Holly Smith, President of the American Dental Association.

Dr. Osler stated that in May he had received instructions from the Secretary of the Congress in Paris to organize the American National Committee. After consultation with Dr. W. W. Keen, the President of the American Medical Association, and Dr. H. P. Bowditch, the President of the Congress of American Physicians and Surgeons, he nominated as members of the committee the Presidents of the American Medical Association, of the Congress of American Physicians and Surgeons, and of the constituent societies composing the same, the Surgeons-General of the Army, of the Navy, and of the Marine-Hospital Service, and, at Dr. Keen's suggestion, the President of the American Dental Association.

Dr. Sternberg moved, seconded by Dr. R. F. Weir, that the American Committee of the Thirteenth International Medical Congress consist of the gentlemen just named. Carried.

Dr. Osler then read the following letter of instructions which he had received from Dr. Chauffard, the General Secretary:—

HONORED COLLEAGUE:

I have the honor to state that I have sent you, (1) A package of subscription blanks ("Forms of Adhesion"). (2) Some account books with stubs.

1. SUBSCRIPTION BLANKS ("FORMS OF ADHESION").

Please distribute these blanks as widely as possible, sending them to Universities, Hospitals, Learned Societies, in a word, wherever you deem it possible to obtain subscribers to the Congress.

We have thought it wise to prepare these blanks in such form that they may be of a uniform type for all countries, which will facilitate the task of classification of the members.

Please insist that your fellow-countrymen conform to all the directions which are therein contained.

Pray distribute, together with our subscription blanks, announcements of your own, indicating the name and address of the representative of your Committee to whom the subscribers in your country should address the subscription blanks when filled, as well as the corresponding funds.

These subscription blanks should be collated by you and sent to us in groups of 50, with the visiting cards and corresponding stubs of the record book (vide infra).

It is then understood that these blanks constitute simply a sort of propaganda, and that we shall consider as members of the Congress only those gentlemen who shall have sent to your Committee the amount of their subscription, and shall have received in exchange the receipt from your account book (leaflet C).

2. ACCOUNT BOOKS.

The three account books which we have sent you (series 171 to series 173) represent each 50 subscriptions to the Congress. We would call your attention especially to the detailed directions which appear on the first page of the book.

The stubs of this book (leaflets A and B), which serve us at the same time for registration of the members and for our financial accounts, we beg you to fill out as legibly as possible, and not to forget to place the stamp of your Committee at the point indicated on each of the 3 leaflets. This stamp will eventually indicate to us the origin of each inscription.

This is but the first instalment, and we shall be glad to send you, if it be necessary, new account books as soon as you may request them. We beg you to send us the stubs as soon as each of the account books is filled, together with the amount of the corresponding subscriptions and the filled subscription blanks.

We trust that these account books will facilitate the laborious task in which you have kindly lent us your assistance.

Pray understand that we are entirely at your service to furnish you any further explanations which you may desire concerning our registration of members.

Yours, etc.,

A. CHAUFFARD, Secretary-General.

It will thus be seen that the work of each National Committee of this Congress is very different from that heretofore entrusted to them. Physicians in this country wishing to become members of the Congress must apply to the secretary of the National Committee, who will forward a blank of

application, which is to be filled in and returned to the secretary, with a fee of five dollars.

Dr. Janeway moved, seconded by Dr. Wyman, that Dr. Osler be empowered to appoint a physician as secretary to the committee, and to secure such aid as would be necessary to carry on the work. The question of meeting the expenses of the committee was left to the chairman. If each National Committee is expected to meet its own expenses, it was agreed either to call upon the treasurers of the societies represented in the committee, or upon the individual members.

It was moved by Dr. Engelmann, seconded by Dr. Stelwagon, that the medical journals of the country be requested to aid in making known as widely as possible the conditions under which registration in the Congress may be effected.

While it is to be understood that the Central Committee wishes the subscriptions to be sent to the secretary of the National Committee, Rule 3 of the Congress provides that persons wishing to be members may forward their subscriptions to the Treasurer-General of the Congress.

Dr. Osler announced that he would nominate Dr. Henry Barton Jacobs, 3 W. Franklin Street, Baltimore, Md., as secretary of the committee, to whom all applications for blanks should be sent.

Pittsburg (Pa.) Academy of Medicine.—At a meeting held October 9, Dr. E. W. Day presented a patient from whom the **right superior maxilla had been removed for a large tumor of the antrum,** which had protruded into the nares of the same side. Repeated hemorrhages and the possibility of malignancy were the chief indications for operation. The adjustment of a hard rubber plate renders the deformity very slight and causes phonation to be little interfered with. The only discomforts from which the patient suffers are accumulation of discharges and epiphora due to cutting the tear-duct. Section of the tumor showed it to be fibroid in character. Dr. Day also reported an incomplete operation for **carcinoma involving the nasopharynx and ethmoid,** the patient dying from meningitis; also a case of **thrombosis of the lateral sinus with mastoid disease** due to an old suppurating ear. The patient died 2 weeks after operation from meningitis.

Dr. R. W. Stewart reported a case of **excision of the superior maxilla for sareoma** in which there had been no recurrence two years after operation. He believed that the prognosis in these cases, even when well advanced, was far better than is generally supposed and urged prompt surgical intervention in all suspected cases. Dr. Stewart also reported a case of **tracheotomy for the removal of a button from the trachea of a child of 4 years.** He insisted upon the importance of firmly fixing the trachea after it is exposed and before the incision into it is made. This may be accomplished either by tenacula or by means of two fixation sutures placed on either side of the proposed incision. Traction on these sutures lessens hemorrhage and prevents blood from entering the trachea,—a very important point. The sutures are also of great value in emergency cases when a tracheotomy-tube is not at hand. By tying them back of the neck the trachea is kept open very well until a tube can be inserted. Dr. E. B. Heckel, referring to Dr. Day's case, spoke of the possibility of preserving the tear-duct by slitting up the canaliculus and inserting a probe prior to operation.

Dr. J. D. Heard reported a case of **extreme susceptibility to quinin in a young girl.** One eighth of a grain sufficed to cause an acute universal erythema with desquamation and headache. Dr. F. F. Simpson reported two similar cases, one suffering general desquamation, including nails, the other going into collapse and recovering under stimulation. Dr. P. J. Eaton reported a case in which quinin produced intense prolonged headache and insomnia; also one in which acute iodism developed 24 hours after the exhibition of 3 grains of potassium iodid.

Dr. T. J. Ellerich reported a case of **rachitis** in a child with what he took to be a retropharyngeal abscess. This condition was negatived by the fact that it disappeared without being evacuated. He was at a loss to account for the symptoms.

Dr. M. C. Cameron reported the case of a child which developed **intermittent contractions of the masseter muscles five days after vaccination** and shortly died. Consciousness was retained to the last, there was no muscular rigidity and no other muscular twitching. Another child inoculated with the same virus at the same time had normal vaccinia. He was loth to attribute the phenomena to vaccination and was unable to come to any conclusion regarding the case.

Dr. W. B. Ewing reported a case of **erythema multiforme** of both lower extremities.

College of Physicians of Philadelphia—Section on Ophthalmology.—At a meeting held October 17, Dr. S. D. Risley reported a case of **glaucoma** three years after the simple extraction of senile cataract. The glaucoma was probably induced by iritis accompanying a severe attack of influenza. Vision, which equalled $\frac{6}{9}$ after the cataract operation, became reduced so that the patient had difficulty in finding her way about. The first attack was relieved by internal medication with sodium salicylate, and locally eserin and mild massage. A more severe attack followed 6 months later, necessitating iridectomy which restored the vision again to $\frac{6}{9}$. Discussion: Dr. de Schweinitz had seen 3 cases; in the first, glaucoma appeared in 10 days. Under treatment by eserin and repeated paracentesis of the cornea vision was permanently recovered to $\frac{20}{30}$. In the second it followed 3 years after extraction. The first attack was followed by others. By the same treatment instituted some months later vision was improved to $\frac{20}{100}$. In the third it appeared in 10 days. Recovery followed instillations of eserin and the freeing of the periphery of the iris from the edges of the incision.

Dr. G. E. de Schweinitz described a case of **circinate retinitis** in the left eye of a healthy woman, aged 77. The retinal changes manifested themselves in the form of wreath-shaped, slightly raised, yellowish-white deposits surrounding the macular region and terminating some distance beyond it. It is probable that hemorrhages had been the antecedent condition. Discussion: Dr. Randall described a similar case that had been under his treatment. There was no albuminuria, although some of the macular lesions looked suspicious.

Dr. Wm. M. Sweet exhibited a patient suffering from **optic atrophy due to intestinal hemorrhage.** Six days after profuse hemorrhage the vision of the left eye was entirely lost, and in the right a small area only of the field was preserved. Three days later the ophthalmoscope showed contraction of the retinal arteries, paleness of the disc, the margins slightly hazy, and slight edema of the retina, but no retinal hemorrhages. From the lower border of the right optic disc a ciliary artery passed toward the fovea, the preservation of vision in this eye being probably due to the blood-supply from this source. Of the various theories advanced to explain the blindness following hemorrhage—namely, that of Westhoff and Ziegler, who believed that ischemia produced fatty degeneration of the nerve fibers; that of Theobald, who considers that the degeneration follows thrombosis in each central artery of the retina; and that of Holden, who believes that the changes are: (1) extensive edema of the retina; (2) degeneration of the retina ganglion cells; (3) degeneration in the nerve-fibers extending through the retina and back in the nerve as far as the optic chiasm—the last seems to be the best proven and the one accepted by most ophthalmologists. Discussion: Dr. de Schweinitz referred particularly to the work of Ward Holden and believes that the symptoms in Dr. Sweet's case are well explained by his theory.

Dr. H. F. Hansell reported the results of the examination of 52 individuals comprising emmetropes, hyperopes, and myopes in the determination of the **physiologic variations of the size of Mariotte's blind spot.** He compared the distance from the point of fixation to the center of the blind spot, and found that the longest distance was

13.5 cm. and the shortest 6.5 cm., both in myopia. The center of the blind spot was, with few exceptions, below the horizontal line running through the point of fixation. The distance varied from 25 mm. to 2 mm., both in emmetropia. As a rule the shape of the blind spot was oval, irregular in outline, and was independent of the refraction. Its size was decidedly greater in myopia than in other states of refraction. He concludes that the blind spot has a greater bearing in the measurement of the field of vision than has been accorded to it, and in the absence of knowledge of its size, might be mistaken for the scotoma of disease.

NEW YORK.

Marriage of Naval Surgeon Aboard Ship.—On the eve of the departure of the cruiser New Orleans for Manila, the assistant surgeon of that vessel, Dr. R. W. Plummer, of Chicago, was married to Miss Lillian C. Butts, of Dayton, O. While the wedding dinner was in progress, word was received that the ship would sail the following morning.

The New York Obstetrical Society.—At the annual meeting, held October 10, 1899, the following officers were elected: President, Dr. Clement Cleveland; first vice-president, Dr. H. J. Boldt; second vice-president, Dr. R. Waldo; recording secretary, Dr. R. L. Dickinson; assistant secretary, Dr. E. A. Tucker; corresponding secretary, Dr. E. E. Tull; treasurer, Dr. J. Lee Morrill.

A Coroner Sues the City.—Dr. A. T. Weston, who performed the autopsy on H. C. Barnet, in connection with the Molineux poison-case, has been unable to obtain from the city as yet the $1,000 which he alleges is due him for this and other services. He has accordingly directed his lawyer to bring suit, stating that while there is no dispute as to the amount, he is one of many who cannot get payment from the city.

Too Many Children Under State Care.—The State Charities Aid Association is investigating the cause of the abnormal increase in the number of children and infants recently committed to private institutions, and maintained there at the public expense. The cause is thought to be, in part at least, the result of inexperience of the Department of Charities in this particular work, and ignorance on the part of the institution managers. Among the children's institutions the normal increase for the past year would have been 340, whereas the actual increase was 711. It is recommended that a reinvestigation be made one year after commitment; that inspectors of the Board examine the children at random from time to time, and that better records of visitors be kept.

Loomis Laboratory Litigation.—On October 21, a hearing was given before Judge Truax, of the Supreme Court, in the action brought by the New York University to impress a trust in its favor on the Loomis Laboratory and its equipment. A patient of Dr. Alfred L. Loomis, now known to have been Colonel Oliver H. Paine, authorized Dr. Loomis in 1886 to spend the sum of $100,000 in the erection and equipment of a laboratory for the use of the New York University, and to be known as the Loomis Laboratory. The property was purchased by Dr. Loomis in December, 1886, and a year later deeded to the Loomis Laboratory. By his will, Dr. Loomis bequeathed $25,000 to be used in connection with this laboratory. Litigation has been pending since April 18, 1898, when the Loomis Laboratory excluded the medical faculty of the University from its building. Judge Truax reserved his decision.

Purposed Dispensary Reforms.—Now that the new dispensary law has gone into operation the State Board of Charities has been busy in framing rules and regulations for the government of the dispensaries. Hereafter no dispensary can obtain a license until it has satisfactorily answered a list of searching questions. It is recommended that at least two women be appointed on all boards of managers in institutions treating women and children, and that both visiting and assistant physicians and surgeons be appointed for a term of 3 years, with the object of attracting young and active practitioners into the service. The new rules adopted by the Board provide for a registrar and for a matron, and insist that the sexes must be separated in waiting and treatment rooms. While all emergency and evidently needy cases are to receive immediate attention, it will be the duty of the registrar when in doubt as to the financial ability of the applicant, to institute an inquiry, in large cities preferably through the charity organizations, and keep a record of the result. Applicants will be admitted only after signing the required declaration, and all pass-cards must contain the penal provision of the law, viz.: that disobedience of the rules established is a misdemeanor, punishable by a fine of not less than $10 or more than $250. No patient may be utilized for clinical demonstration without his consent.

New York Academy of Medicine—Section on Surgery.—At the meeting on October 9, DR. W. B. COLEY reported two cases of a very rare condition—**congenital hernia of the umbilical cord.** He stated that congenital hernia of the umbilical cord developed before the falling off of the cord, and was due to defective development during fetal life. Its frequency had been estimated as once in 5,184 cases. The size of the hernia varied from a small bulging at the base of the cord to a complete eventration in which nearly all the abdominal organs were found in the sac. In all cases the prognosis was very grave. Until comparatively recently the treatment had been entirely expectant by means of mechanical pressure. Of 12 cases so treated, 9 had died; out of 19 treated by laparotomy, only 1 had died. A photograph of one of the cases was exhibited. Dr. Coley said that he had seen this patient first 22 hours after birth. The tumor at that time had been the size of a large orange. He had at once operated by cutting off the projecting portion of the cord on a level with the hernial tumor, peeling off the tissues of the sac as far as possible, freshening the edges of skin at the root of the cord and inserting several silkwormgut sutures after reduction of the hernial tumor. The tumor had been infolded without opening the peritonal cavity. After operation the abdomen had been supported by bandages. The other case had been seen when one week old. The tumor had been as large as a fetal head, and had been made up about equally of solid and fluid contents. About 10 ounces of straw-colored fluid had been evacuated. Practically all of the abdominal organs were in the tumor. The incision had simply been closed and compresses applied. The child was known to have been alive at the end of two weeks.

New York Academy of Medicine—Section on Medicine.—At the meeting of October 17, the topic for discussion was **State care of consumptives.** The discussion was opened by DR. ALFRED MEYER with a paper describing the **State care of consumptives at the Massachusetts State Hospital for Tuberculosis.** He stated that the prevailing air of cheerfulness in this institution was insured by the rule that only cases should be treated there whose prognosis was reasonably good. Regarding the financial side of the question of the propriety of New York State establishing sanatoria for its tuberculous citizens, he stated that the cost of taking care of a poor person in such places for a few months, or until he could be restored to use-

fulness, would be no greater than if the same person were cared for in a general hospital, and the results were likely to be a great deal better. The discussion was continued by a large number of gentlemen, some of them from other cities and States, and all closely identified with advanced public sanitary science, or with public charities. Dr. Lawrence F. Flick, president of the Pennsylvania Society for the Prevention of Tuberculosis, gave a historical sketch of the movement, which he spoke of as one of the great privileges and duties of the medical profession of today. The society which he represented had been organized in 1892, with a view of educating the public on this subject, and of furthering the establishment of State institutions for the cure of tuberculous individuals. He contended that protection from preventable dangers, including preventable diseases, was a constitutional right, comparable to the danger from wild animals at large, or from unguarded openings in the streets, and that, therefore, municipal and State sanatoriums were matters of obligation and not of charity. It was especially important to provide adequate hospital accommodations for the advanced cases of tuberculosis, as the safety of the community depended largely upon the removal of these individual centers of infection.

Dr. B. Farquhar Curtis presented **two cases of resection of the stomach for carcinoma.** Both patients had been operated upon under the supposition that the growths were benign, but microscopic examination had proved their malignant nature. The method employed was that of Kocher, which Dr. Curtis considers far superior to lateral gastroenterostomy. The lesson which he would draw from these cases was, that as carcinoma was usually the result of chronic irritation or inflammation it seemed justifiable to do an exploratory laparotomy on many inveterate cases of so-called dyspepsia.

Dr. John F. Erdmann presented a case of **volvulus in an adult.** There had been no action of the bowel for four days preceding the time of first coming under observation. The pulse was 148 and temperature 102.5° F. before the operation. The volvulus had been found in the sigmoid, and after its reduction the intestine had been anchored so as to prevent a recurrence of the twist.

Dr. Percy R. Bolton showed a man as an example of a perfect functional result following **mediate suture for fracture of the patella.**

Dr. Charles N. Dowd reported on his work among cases of **tuberculous inguinal and pelvic lymph-nodes following wounds of the foot.** He stated that such cases had been quite common in his experience, and the results in these cases, as well as in severe cases of tubercular involvement of the cervical lymph-nodes from persistent extirpation had been so satisfactory as to lead him to feel that it was the duty of the surgeon to institute this plan of treatment wherever possible.

Dr. Carl E. Pfister reported a case of **appendix in a hernial sac, and containing three shot.** The presence of these foreign bodies was explained by the habit of the patient of carrying shot in his mouth, and of occasionally swallowing one while playing with a sling-shot.

Dr. Vincent Y. Bowditch, of Boston, as visiting physician to the Massachusetts State Hospital and to the Sharon Sanitarium for Tuberculosis, spoke of the results achieved in these institutions. Of the 218 admitted to his service in the former institution during the past year, 115 had been discharged, 35 of these, or 30%, being classed as "arrested" cases, and 17 as "markedly improved." The results in the other sanitarium had been very striking. Dr. John H. Pryor, of Buffalo, disputed the statement that the death-rate from tuberculosis was on the wane in this State, asserting that if the mortality and morbidity statistics were studied broadly, they would show that, while the general death-rate in this State had declined very notably, the **death-rate from tuberculosis** had not shared proportionately in this decrease. While an earnest advocate of the establishment of State sanatoriums for tuberculosis, he did not think it was worth while doing this unless at the same time the State took effective measures to prevent the development and spread of the disease. As our knowledge of the true nature of this disease had increased the lot of the poor consumptive had grown harder, as the general hospitals were disposed to shut them out; in short, these unfortunate people died simply and solely because they were poor. The next speaker was ex-Senator Dr. Geo. W. Brush, of Brooklyn, who had been chairman of the first legislative committee appointed in this State to consider this matter. He declared that no argument should be needed to establish the need for active repressive measures in the case of a disease whose victims annually in this country amounted to over one hundred thousand. As the task was too great for individual action, State aid was demanded. He would say, without hesitation, that the financial loss each year to the State because of this plague was represented by a sum larger than the total expenses of the State government.

Drs. George A. Evans and William H. Thomson dwelt upon the part played by mixed infection, and the consequent influence of an abundance of pure air. Mr. Edward T. Devine, of the Charity Organization Society, Mr. Lee K. Frankel, of the United Hebrew Charities, Mr. Homer Folks, of the State Charities Aid Association, and Mr. Frank Tucker, of the New York Association for Improving the Condition of the Poor, spoke from the layman's point of view, and gave interesting data, culled from their special fields of labor, demonstrating the need for speedy action. They delared eagerness, nay willingness, to cooperate with the medical profession in grappling with this great humanitarian problem. Dr. Daniel Lewis, president of the State Board of Health, was in favor of State intervention, but thought it was beginning at the wrong end to insist upon sanatoria for the incipient before provision had been made for the multitude of advanced cases, which were a constant menace to the public health. He would respectfully submit that hasty legislation was worse than none at all. Dr. F. H. Dillingham described the plan that had been adopted by the New York City Health Department for providing hospital accommodations for a limited number of tuberculous cases. Dr. S. A. Knopf pointed out that reception hospitals in the cities should be made a part of the proposed system of State sanatoriums. Dr. Wickes Washburn put in a plea for the incorporation of the farm-colony with the system of State sanatoriums, as by this means many who could not be otherwise persuaded to leave their families and salaries could be made participants in the benefits of the system. At the close of the meeting, on motion of Dr. C. E. Nammack, a resolution was adopted requesting the Academy to take some definite action.

NEW ENGLAND.

Perkins Institute for the Blind.—A new cottage has been added to the institution, which now has accommodations for 250 inmates.

Boston City Hospital Relief Stations.—To facilitate the emergency work of the Boston City Hospital it is now proposed to establish relief stations in the crowded North End of the city, and also in the portions of the city known as East Boston, Charlestown, South Boston, Dorchester, Brighton, and West Roxbury. The buildings are to be erected from the proceeds of the so-called Franklin Fund, and an adequate medical and surgical staff will be attached to each station.

CHICAGO AND WESTERN STATES.

The El Paso County (Cal.) Medical Society held its first annual reunion and banquet October 14.

Fatal Results of the Dowie Treatment.—Dr. J. H. Lagrange, formerly chief interne of the Dowie Home in Chicago, but now connected with the Dwight L. Moody Bible Institute of that city, in speaking of John Alexander Dowie, "Chief Overseer of The Christian Catholic Church" so-called, said: "If as a practising physician I had signed as many death-certificates as I did in the 11 months I was chief interne at the Dowie Home, my business would be

ruined and I would be driven from the community as an unmitigated quack, provided I was not captured and hanged for malpractice. There must have been 100 bodies of persons who died undergoing the Dowie Treatment, that were ordered removed to the Rolston Morgue, at No. 22 Adams Street, in course of my connection with the church. Dr. Spiecher, Dowie's right-hand man, and myself had explicit instructions to send every corpse to Rolston." Dr. Lagrange resigned his position with Dowie on September 10, he says, because he became convinced Dowie was a fraud. The "Rev." Dowie recently announced that he would deliver a lecture on "Doctors, Drugs, and the Devil." It is reported that he extended a special invitation to 10,000 medical students to attend the lecture. Some attended with offerings of mellow eggs and ammonia—a method of argument to be greatly reprobated. The "Rev." Dowie has also got in trouble with the branch church in Philadelphia, where the faithful have appointed a committee to demand an accounting of all moneys received and disbursed by him, and they threaten to discontinue their contributions entirely.

Cleveland (Ohio) Medical Society.—At a meeting held here September 22, DR. F. E. BUNTS read a paper upon **The operative treatment of varicose ulcers and a new local application for inoperable cases.** It was his opinion that, in order to treat varicose ulcers successfully, it was necessary to understand first the pathologic condition leading up to their formation. With these pathologic changes constantly in mind the treatment of this class of troubles became one of comparative simplicity and was to be classed with other great advances in the practice of surgery. He referred to the various operative methods now in use, and gave as his own preference the excision of from 6 to 8 inches of the internal saphenous vein, extending about equally above and below the knee-joint. All communicating branches are ligated and severed, and the wound is closed with silk sutures, the knee fixed by posterior splints, and the patient confined to bed. The results were extremely satisfactory, and the rapidity of epidermization was very marked. In addition to this method of treatment he also advised cureting and skin-grafting. Healing of most intractable ulcers should take place in about 3 weeks. In those cases in which operation was refused, Dr. Bunts suggested what he believes to be a new treatment, namely, that of dusting the ulcer with sterile pulverized iron-ore dust. This forms an excellent protection for the ulcer and the surrounding integument, and if combined with a mild antiseptic dressing, such as a moist bichlorid, the result appears to him to be better than that obtained by the use of any other local application. In regard to the use of iron-ore dust, he summarizes its qualities as follows: (1) It is cheap; (2) it is nonirritating; (3) it improves granulation; (4) it favors epidermization; (6) it is at least aseptic; (6) it may be used on any class of wounds except those about the face; (7) it is especially valuable in granulating wounds, ulcers and varicose eczema. DR. W. T. CORLETT in discussing this paper noted that the usual remedies for ulcers in other locations failed in varicose ulcers. He had never observed any benefit following any constitutional treatment. The recumbent posture, in his experience, had been the most important measure of relief. This, of course, is not often possible, and then the method of obliterating the veins is the best. DR. R. D. FRY reported good results from thoroughly scarifying the ulcer, and by strapping the limb from the toes to the knee. For this purpose he used moleskin plaster, keeping up the support for weeks and even months. He had seen benefit from stimulating applications applied with camel's-hair pencil. Skin-grafting he had often found very successful. The great secret of success in any treatment of varicose ulcers is asepsis. DR. BUNTS, in closing, agrees with Dr. Corlett that constitutional treatment is practically of no effect, but differs from the last speaker in never having found benefit from any local applications. Elevation of the part with rest, and treatment with sterilized gauze will result in cure if it can be continued long enough. Classification of ulcers by their varying characters is of no benefit to the physician treating them. Some distinction must be made between the acute and the chronic.

DR. C. J. ALDRICH read a paper upon **Localization of some of the lesions of the lower cord** in which he reported two interesting cases. These were cases of lesions of the last segment of the cord, around which he grouped some practical deductions as to the peculiarity of the lesions of the lower cord and *cauda equina*. The reports were accompanied by photographs illustrating the saddle-shaped areas of anesthesia, the extent of the atrophy and other trophic changes. He called attention to the fact that symmetry usually means central, and asymmetry a peripheral lesion. He recommended lumbar puncture in cases of suspected hemorrhage into the membranes of the lower cord, and if, after withdrawal of blood, the symptoms failed to disappear, thought it perfectly proper to make a laminectomy, incise the membranes and remove the clots before they become organized. DR. I. FRIEDMAN had sent one of Dr. Aldrich's cases, and had observed that while certain areas were anesthetic, yet they were capable of feeling pain, which the author had called **anesthesia dolorosa.** He asked the mechanism of this phenomenon. DR. BUNTS had seen cases of persons who had fallen from a height striking upon the lower portion of the spinal column, in which there were local paralysis about the lower portion of the trunk. This disappeared without treatment in three or four weeks, and he thought they were analogous to the old-fashioned concussion of the brain and that they were probably caused by minute hemorrhages. In closing, DR. ALDRICH said that the anesthetic areas were in this condition because the conductive fibers were cut off, and, as frequently occurs in an amputated stump, some irritation to the remaining portion of the conducting fiber causes pain that is referred to the original location from which the fiber received its impression. He had seen cases like those mentioned by Dr. Bunts and thought that his explanation of their causation was correct.

DR. MARCUS ROSENWASSER discussed the management of **uterine fibroid complicating pregnancy.** The statistics from German lying-in hospitals show that, if allowed to go to term, one-half of the women and two-thirds of the children die, proving it to be a most serious condition. A few cases in which small fibroids are located in the fundus undergo normal labor. Two courses are open to the attendant: either to leave the case alone until after delivery, or to perform hysterectomy. Each case must be judged by itself. Rapidly growing or obstructing tumors should be operated on early. It is possible to remove many of the tumors, especially those that are pediculated, without interfering with the course of the pregnancy. Some cases do well if let alone and others if treated during labor. He also noted with approval a recent paper insisting that in every case of uterine hemorrhage at the time of the menopause a careful examination should be made by the general practician to determine the possible existence of malignant disease.

Chicago Medical Society.—At a meeting held October 18, the subject for discussion was **The diagnosis and serum-treatment of diphtheria.**

DR. GEORGE H. WEAVER read a paper entitled: **Remarks upon the value and necessity of bacteriologic examination in all cases of sore throat.** He said it is taken for granted the diphtheria-bacillus is the essential cause of the disease which we know as diphtheria. That all sore throats are not cases of diphtheria in this sense even if pseudomembranes are present admits of no argument. Many severe sore throats with pseudomembrane formation, which resemble diphtheria so closely as to be mistaken for it, upon bacteriologic examination are found to be caused by other bacteria than the diphtheria-bacillus. It is also true that many cases of diphtheria at the beginning or throughout are so mild and show so little of the classical signs of the disease that they cannot be recognized except by bacteriologic examination. If these statements are true, then in the absence of cultural examinations all sore throats become suspicious and must be managed as if cases of possible diphtheria until proved otherwise by bacteriologic inves-

tigation. The advantages obtained by an early bacteriologic examination of all cases of sore throat may be briefly stated as follows: (1) Prevention of loss of time and needless expense by persons supposed to have diphtheria, but who do not have it in reality. (2) Early recognition of the disease in cases with a slow onset, and the immediate application of the treatment by antitoxin, thus obtaining the best results in its employment. (3) The detection of the mild cases of diphtheria, allowing of their proper isolation and of the administration of prophylactic doses of antitoxin to exposed persons, especially children.

Dr. Adolph Gehrmann read a paper on **the relations of the Health Department to diphtheria.** He spoke first of the gratuitous bacteriologic diagnosis; second, the distribution and use of antitoxin; and third, the sanitary aspect as regards disinfection, control of funerals and the spread of information regarding this disease. The distribution of culture outfits and the free diagnosis were undertaken in September, 1894. The outfits now prepared and distributed number over 1,000 during each of the winter months. The monthly record for four winter seasons, or from October 5, 1895, to February 28, 1899, shows:

	No. Cases Treated.	Deaths.
First day	355— 8.72%	1— 0.28%
Second day	1,018—25.00%	17— 1.67%
Third day	1,509—37.00%	57— 3.77%
Fourth day	720—17.69%	82—11.39%
Later	469—11.52%	119—25.37%
Totals	4,071	276

There has, however, been an increase in mortality since the first series of cases was treated, and this is in direct relation to the proportion of cases treated on the fourth day or later.

During the first period or from

	Mortality.	Proportion of Cases Treated the Fourth Day or Later.
October 5, 1895, to December 31, 1896 . .	6.57%	24.3%
December 31, 1897 . .	6.93%	31.5%
December 31, 1898 . .	7.33%	37.7%

These figures again prove the necessity of prompt administration of a full dose of antitoxin. Early recognition of diphtheria can only be certain when cultures are made in all cases of sore throat. The reorganization of the disinfection staff and the use of formaldehyd as a disinfectant have been important improvements in the department methods. A rigid supervision of contagious-disease funerals is maintained through the inspector of funerals. This supervision is rendered much more effectual than ever before, because of the regulations now governing the undertakers. They are now licensed, and may have the license withdrawn if they fail to comply with the ordinance regulation. The isolation of patients in private houses and flat buildings is a difficult question.

Dr. F. Eldridge Wynekoop read a paper entitled **Some of the results of the bacteriologic diagnosis of diphtheria.** He said bacteriologic methods are of the very greatest importance in the diagnosis of all pathologic conditions of the throat. They are the means of a scientific diagnosis, and thus make possible a rational, effective treatment. During the past few years many thousand cases of suspected diphtheria have been examined microscopically in Chicago's municipal laboratory, and abundant opportunity has been offered for the study of the microorganism present in such conditions. The results obtained from a consideration of 500 examinations made within the last few months, I believe will be of interest to this body. They represent in a fair degree the results obtained during the entire period the city has been making such diagnosis, and are less difficult to arrange for presentation than the data secured from the entire number of examinations. It has been found that of the cases tested about 36% were true diphtheria. The percentage does not seem high when it is remembered that in the majority of instances in which an examination was requested, the physician in charge held a suspicion that the Klebs-Löffler bacillus might be present. Staphylococci and streptococci were found in 52% of the cases. The influenza-bacillus was present in a limited number of instances—it being met with in 5% of the examinations. The pneumococcus occurred in 4% and miscellaneous organisms in 3% of the cases. Those which were demonstrated to be diphtheria represented all grades of severity—many with symptoms so marked that a clinical diagnosis could be made with little difficulty; others with manifestations so mild that they would pass for simple inflammations. Indeed a probable clinical diagnosis of "tonsillitis" was given in 16⅔% of the cases found to be genuine diphtheria. The staphylococcus and streptococcus infections also presented considerable variation in severity. A few exhibited symptoms of a grave character, and a goodly number were of a moderately serious nature, so much so that a probable clinical diagnosis of "diphtheria" was made in 32% of these infections. The influenza-bacillus may produce a condition of the tonsillar and pharyngeal mucous membrane similating diphtheritic inflammations—redness, swelling, pain, and a well-defined membrane. In 25% of the influenza-throats the manifestations were sufficiently characteristic to warrant the clinical diagnosis of diphtheria which was made by the attending physician. The pneumococcus at times produces a diphtheritic condition, a membranous inflammation which is not easy to distinguish from true diphtheria. A clinical diagnosis of "diphtheria" was indeed made in 40% of the pneumococcus infection.

Dr. W. K. Jacques read a paper entitled, **Conditions which obscure the presence of the Klebs-Löffler bacillus.** He said, that as the Klebs-Löffler bacillus is the fatal factor in anginas, certain facts regarding it should be firmly fixed in the mind: (1) the presence or absence of clinical symptoms accompanying its invasion; (2) the conditions which may obscure these symptoms; (3) pain and increase of temperature are Nature's danger-signals; both may be absent in an invasion of the Klebs-Löffler bacilli; (4) diphtheria-toxin often acts as a local anesthetic and constitutional depressant. Nasal diphtheria is always painless, and so is the laryngeal form, until the obstruction causes dyspnea. When there is pain, it is because of other irritating germs; to them also the temperature may be due. The irritation caused by accompanying germs may counteract the stupefying effect of the diphtheria-toxin, and the patient be restless. Inflammation of the tonsils may be caused by any germ that invades them. To what degree the inflammation may extend depends upon the resistance of the patient. Diphtheria may begin as tonsillitis, pharyngitis, or laryngitis. At present a large number of cases of tonsillitis have the class germ of scarlet fever as the causative germ. In most cases the resistance of the patient confines the germ-invasion to the tonsils and fauces. When conditions permit the germs to get into the blood and multiply there, rash and scarlet fever follow. The finding of the scarlet-fever germ in a culture has a different meaning than that of the Klebs-Löffler bacillus. The dipththeria-bacillus, owing to the constant presence of so many germs in the mouth, is seldom alone in invading the tissues, and it is the symptoms caused by the associate infection that most often warn the parents. The pain, delirium, or fever are not caused by the Klebs-Löffler bacilli, and this fact ofter misleads physicians when they are present. I find there is a tendency to overlook diphtheria when associated with scarlet fever. It is unfortunate that our textbooks speak of this condition as seldom occurring. In scarlet fever the clinical symptoms are so prominent. The painful angina, the rash and the high temperature all take up the attention of the physician and the presence of the diphtheria-germ may never be suspected. By keeping in mind the symptoms of both germs, we can understand that the diphtheria-bacilli could be present in scarlet fever, and even be the chief cause of death and its presence not be discovered clinically. The invasion of the diphtheria-bacilli may be in the nose or posterior nares and be overlooked for some time by the physician. Diphtheria infection during puerperium is likely to be overlooked. There is a wider distribution of the Klebs-Löffler bacilli now than formerly. Both physicians and the public have less fear of it and are more careless in disinfection. Many doctors do not even go to the trouble of taking a culture, but think only of the patient's safety, give antitoxin and take no further precautions. Although the death-rate last year of this disease was the lowest in the history of Chicago, there were a greater number of cases than before the days of antitoxin.

Dr. Wm. Hessert read a paper on **The diphtheria-antitoxin, its mode of action, dosage, after-effects,**

and method of administration. *Mode of action*: Relative to this there are two theories, viz.: (1) The antitoxin acts on the cells of the body in such a specific way as to protect or fortify them against the destructive action of the diphtheria-toxin (Roux and Buchner); (2) the antitoxin and the diphtheria-toxin unite, forming a third body, which is nontoxic (Behring and Ehrlich); Ehrlich draws the conclusion that the action of the antitoxin is of the nature of a chemical antidote.

Dose: Failure to obtain the best results from antitoxin is due largely to too small dosage and use too late in the disease. Large initial curative doses should be injected as early as possible. No absolute rule for dosage. Consider severity of disease rather than age of patient. For if antitoxin, properly prepared and administered, is harmless, why consider age? Initial doses of 1,000 to 4,000 units are administered to children with impunity; 2,000 units is good average dose for case of moderate severity. One large initial dose is better than several smaller doses injected at intervals. Repeat the dose in 12 to 18 hours if necessary; 6,000 to 8,000 units may be injected if required.

After-effects: Behring denies that diphtheria-antitoxin, as such, is absolutely harmless when administered to man or animals in health or disease. The untoward after-effects sometimes observed following injection are shown to be due mainly to the presence in the serum of irritating byproducts. The occurrence of pains in joints, erythematous, urticarial, or morbiliform rashes and occasional pyrexia is observed. The effect on the temperature is variable, as the fever is not constant or may even be absent in diphtheria.

There is no conclusive evidence that antitoxin induces or increases the tendency to heart-failure. Antitoxin does not cause renal complications, in fact it is claimed that albuminuria is less frequent in cases treated with antitoxin. There will be no local reaction, provided the serum is fresh and of standard quality, and is injected with ordinary precaution. It has been found in practice that thorough friction of the site of the injection with a pledget of cotton saturated with alcohol, or even a wet towel, is all that is required. Sealing with collodion is not absolutely essential, nor is massage required. A good reliable syringe is absolutely essential, as without it the remedy cannot be injected at the critical moment.

DR. I. A ABT read a paper on **complications of diphtheria.** That complications occur in spite of the administration of antitoxin is to be explained on the ground that antitoxin (1) was given too late; (2) the dose was insufficient; (3) in rare cases, that the toxins were so virulent and so rapidly acting that irreparable tissue changes occurred before the earliest possible moment that antitoxin could be used; (4) it has been suggested that some cases should be considered as unresponsive to the use of antitoxin. Septic diphtheria is not, strictly speaking, a complication, but in the vast majority of cases is due to a profound intoxication with diphtheria poison. For this reason Heubner thinks that it would be more appropriate to designate the disease "diphtheria gravissima, or diphtheria maligna." Bacteriologic examinations in these cases show that nearly pure cultures of diphtheria-bacilli may be found; the pyogenic cocci may be absent. In a certain proportion of cases streptococci or staphylococci are present. Some physicians maintain that the severe symptoms are due to secondary infections, principally with the streptococcus. These cases present the appalling picture of the disease which is so familiar to most physicians. Associated with the local symptoms are severe symptoms of general toxemia and extreme prostration. Cardiac complications may occur in the mild as well as in the severe forms of the malady. In general, we distinguish (1) heart-paralysis occurring early; (2) heart-paralysis occurring late. The first group of cases occur in children who suffer from the grave or septic variety of the disease and are nearly always fatal. The other cases are those in which death takes place after the patient has apparently recovered, *i. e.*, on the third, fourth, or as late as the sixth or seventh week. The most feared of the cardiac complications are those which occur after the local disease has disappeared or the patient is in the midst of the convalescence. While there can be no doubt that there are well authenticated cases in which death occurred from the third to the sixth week, without any warning, or without previous symptoms, nevertheless most observers maintain that before the heart affection endangers the life of the patient, a number of characteristic symptoms develop, which will put a careful observer on his guard. If the pulse becomes unusually rapid or very slow during convalescence, the condition of the heart should be ascertained as nearly as possible. More important than a change in the number of pulse-beats is a disturbance of the normal rhythm. The pulse in children may be irregular in health, for example, during sleep, or during crying, and under a variety of conditions. The irregularity of the pulse in diphtheria is characteristic; it intermits for 1 or 2 beats, or it may become double. Auscultation over the heart frequently reveals an accentuation of the second pulmonic tone; frequently a murmur is heard which is almost always systolic in time. The pathologic condition in the heart causing this murmur has not been satisfactorily ascertained. The heart-beats become slower and slower; the patient passes into a comatose state which terminates fatally. Sometimes the cases are more protracted, attacks of syncope occur, and the case usually terminates suddenly, fatally, when the patient attempts to sit up, to move in bed, or to cough. A small proportion of these cases recover after a prolonged convalescence. Since the mortality from diphtheria has been diminished by the general use of antitoxin, the heart is favorably influenced by this agent, because it is believed that the common cause of death from this disease is due to some heart-lesion. Nephritis is a most frequent complication, and usually begins at the height of the disease. Albuminuria is present in nearly all of the severe cases that have come under observation. There are large quantities of albumin and casts. Anasarca and uremia, though they occur less often in this disease than in scarlatina, are sometimes noted. The albuminuria is not caused by the administration of antitoxin, as was formerly believed. Albuminuria is an expression of the diphtheria-toxemia, though it is observed that since the use of antitoxin the severe cases of nephritis are becoming less frequent. Diphtheric paralyses manifest themselves clinically, as (1) early diphtheric paralyses; (2) postdiphtheric paralyses, and (3) the hemiplegic forms. They are seen when antitoxin is administered late, or in neglected cases in which the physician is not called in until the third, fourth, or fifth day of the disease. As a rule, it may be dogmatically stated, that if antitoxin is administered on the first day of the disease, the paralyses will not occur. Far as it may be from the function of antitoxin to repair damaged nerve fiber or nerve-cell, nevertheless, the severe paralyses, where great groups of muscles are involved, are becoming less and less in proportion as the antitoxin is used early.

MISCELLANY.

Heroin Through Newspaper Eyes.—The latest anesthetic whose efficiency is proven is heroism. Unlike some of the patent or secret preparations, its chemical form is made known, so that every chemist can make and test it. This formula is:

$$C_{17}H_{17}\begin{matrix}OOC.\ CH_3\\ \\ OOC.\ CH_3\end{matrix}NO$$

—far different from the formula for morphine and far less injurious.—*Chicago Inter-Ocean.*

Obituary.—DR. P. A. BOYER, Chief Burgess of Selin's Grove, Pa., October 23, aged 43 years.—DR. JOHN H. COCHRAN, Harford County, Md., October 10, aged 66 years.—DR. JAMES CAMPBELL, President of the Board of Health of Hartford, Conn., October 17, aged 51 years.—DR. A. M. EVANS, Middleway, Jefferson County, W. Va., October 16, aged 57 years.—DR. GEORGE H. JONES, Prince Frederick, Md., Oct. 16.—DR. S. V. MACE, Rossville, Md., October 7.—DR. DAVID C. CARD, Willimantic, Conn., October 16, aged 74 years.—DR. T. H. CARTER, Assistant Superintendent of the Boston City Hospital, October 13, aged 38 years.

Health Reports.—The following cases of smallpox, yellow fever, cholera, and plague have been reported to the

Surgeon-General of the U. S. Marine-Hospital Service, during the week ended October 20, 1899:

SMALLPOX.—UNITED STATES.

			Cases.	Deaths.
Kansas:	Butler County	Oct. 11	9	1
Massachusetts:	Chelsea	Oct. 7-14	4	
"	Everett	Oct. 1-14	3	2
"	Melrose	Oct. 7-14	1	
Michigan:	Saginaw	Oct. 1-7	Present in two localities.	
Mississippi:	Natchez	Oct. 12	4	
Ohio:	Cincinnati	Oct. 7-14	1	
Pennsylvania:	Pittsburg	Oct. 7-14	1	
Virginia:	Portsmouth	Oct. 7-14	1	1
Washington:	Orcas Island	Oct. 6-14	14	1

SMALLPOX—FOREIGN.

Brazil:	Bahia	Sept. 2-6	1	
Greece:	Athens	Sept. 23-30	7	3
India:	Bombay	Sept. 12-19		9
"	Madras	Sept. 9-15		1
Mexico:	Chihuahua	Oct. 1-7		2
"	City of Mexico	Oct. 1-7		2
Russia:	Moscow	Sept. 16-23	2	2
"	Warsaw	Sept. 16-23		4
Turkey:	Erzeroum	Sept. 2-9	4	1

YELLOW FEVER.—UNITED STATES.

Florida:	Key West	Oct. 6-16	182	9
Louisiana:	New Orleans	Oct. 12-17	1	
Maryland:	Baltimore	Oct. 7-14	1	1
		(Taken from steamship "Armstor," from Santiago de Cuba.)		

YELLOW FEVER.—FOREIGN.

Colombia:	Cartegena	Sept. 2-26	1	
Mexico:	Tuxpan	Sept. 25-Oct. 2		3
"	Vera Cruz	Oct. 23-30		1
Nicaragua:	Bluefields	Sept. 23-30		3

CHOLERA.

India:	Bombay	Sept. 5-19		1
"	Calcutta	Sept. 3-9		4
Straits Settlements:	Singapore	Aug. 1-31		1

PLAGUE.

India:	Bombay	Sept. 12-19		94
"	Calcutta	Sept. 2-9		41
"	Karachi	Sept. 9-16	9	9
Turkey:	Bassorah	Oct. 16	Present.	

The Need of Surgeons in the Navy.—The strongest recommendation in the annual report of Surgeon-General Van Reypen, just made public, is that relating to an increase of the medical corps of the Navy. He points out that while there has been a steady increase in the enlisted force of the navy for the past two years, and while the Marine Corps has been swelled by the addition of 3,000 men, there has been no suitable provision made for a corresponding increase in the Medical Corps, which is charged with the care of the health of these men. Every surgeon who is not sick is said to be on duty, and the department has been unable to supply surgeons for needed recruiting and other duties. The Surgeon-General recommends that the corps be increased 5 surgeons and 20 assistant surgeons, and that 5 of the volunteer surgeons who served in the war and are now in service be transferred to the regular rolls, and the age-limitation be removed in their case. It is also earnestly urged that the naval assistant surgeons be placed on an equality with those of the Army in pay and rank.

Changes in the U. S. Marine-Hospital Service, for the week ended October 20, 1899:

Wasdin, Eugene, surgeon, to proceed to Berlin, Germany, for special temporary duty. October 13.

Wertenbaker, C. P., passed assistant surgeon, to proceed to Montezuma, Ga., for special temporary duty. October 13.

Decker, C. E., assistant surgeon, relieved from "waiting orders," and placed on duty to date from October 7. October 11.

APPOINTMENTS.

Boyd, Frank, of Kentucky, to be acting assistant surgeon, U. S. Marine-Hospital Service, for duty at Paducah, Ky. September 27.

Changes in the Medical Corps of the U. S. Navy, for the week ending October 21, 1899:

Norton, O. D., surgeon, detached from the "Badger," when put out of commission, and ordered to temporary duty on the "Ranger," on the arrival at the Asiatic station ordered to the "Monadnock."

Young, L. L., passed assistant surgeon, ordered to be examined at the Mare Island Navy Yard, October 24, Chapter 15, Title 3, thence home and to wait orders.

Stoughton, J., passed assistant surgeon, detached from the "Monadnock," when relieved, and ordered to the "Bennington."

Snyder, J. J., assistant surgeon, ordered to the "New Orleans." October 18.

Beebe, D. G., assistant surgeon, detached from the "Bennington," when relieved, and ordered to the "Ranger."

Rosenbleuth, J. C., passed assistant surgeon, detached from treatment at the Naval Hospital, Chelsea, Mass., and granted sick leave for one month.

Plummer, R. W., assistant surgeon, detached from the hospital, New York Navy Yard, and ordered to temporary duty on the "New Orleans," for passage to the Asiatic station.

Wilson, H. D., passed assistant surgeon, directed to proceed home and to wait orders.

Wilson, H. D., passed assistant surgeon, order of October 17th modified; detached from duty on the "Solace."

Percy, H. T., surgeon, detached from the "Olympia," when put out of commission, and ordered home to wait orders.

Carpenter, D. H., assistant surgeon, detached from the "Olympia," when put out of commission, and ordered home to wait orders.

Hammar, A., pharmacist, detached from the "Olympia," when put out of commission, and ordered to the Mare Island Navy Yard.

Thompson, E., assistant surgeon, detached from the "Manila," and ordered to the "Celtic."

High, W. E., assistant surgeon, detached from the "Celtic," and ordered to the "Manilla."

Haas, H. H., assistant surgeon, detached from treatment at the Naval Hospital, Yokohama, Japan, and ordered to the "Baltimore."

The Value of Nucleins.—J. F. Purviance (*Cleveland Medical Gazette*, September, 1899). The test of experience thus far leaves the question of the value of nuclein treatment undecided, but the observations of Vaughn, Huber, Bleyer, etc., are such as to justify the use of these agents sufficiently to determine what can really be expected of them. It appears to be proved that they have a certain influence in stimulating the development of certain elements of the blood. From the occasional use of nuclein for several years in the treatment of fevers, malignant diseases, disturbed assimilation, tuberculosis, etc., Purviance has obtained but few satisfactory results. These were commonly in inflammatory affections of the throat, in a number of cases of which the disease appeared to resist ordinary treatment until the nucleins were used internally when a decided change occurred within a few hours. [M.B.T.]

Excision of the Superior Ganglion of the Sympathetic for Glaucoma.—J. M. Ball (*Medical Review*, St. Louis, August 26, 1899) has performed this operation, as he believes, for the first time in America, with a very satisfactory result. The patient was a woman, aged 56, who has been suffering with symptoms of glaucoma for 2 months. The operation was performed as follows: An incision 4 inches in length was made on the right side downward from the mastoid process along the posterior border of the sternomastoid muscle. The external jugular vein was cut and tied. The sternomastoid was then separated from the trapezius and the spinal accessory nerve was cut. A deep dissection was then made, exposing the carotid sheath. This was opened in order to locate the pneumogastric nerve. The carotid, internal jugular and pneumogastric nerve were then pulled forward, exposing the rectus capitus anticus major muscle, on which the superior cervical ganglion rests. Tearing through the fascia the ganglion was found and stripped. The ganglion was then cut high up with curved scissors and all its branches severed. About one inch of the trunk of the sympathetic below the ganglion was removed. There was no change in the pulse or respiration. The wound was closed with interrupted sutures and the neck placed in a plaster-cast. The time required for operation was 15 minutes. Patient slept well all night, being free from pain for the first time in over two months; intraocular tension steadily decreased and the patient was discharged 5 days later. [M.B.T.]

Foreign News and Notes.

GREAT BRITAIN.

Wholesale Poisoning.—An example of wholesale ptomain poisoning has occurred near Sheffield. A grocer opened a tin of corned beef and sold its contents to members of 15 different families. As a result, 22 persons were taken so seriously ill that they were carried to hospital, "where, at the time of writing," says our correspondent on October 14, "one has already died."

New Fever-Hospital for Leeds.—At a recent meeting of the Leeds Corporation the plans were passed for the construction of a large fever-hospital, to be under the management of the municipality, and to accommodate 436 patients, and a staff of 205 all told. The estimated cost of the new building, including the erection of a water-tower and arrangements for complete electric installation is £187,380, which at the present rate of wages and price of building-material in England is a very reasonable figure.

The Hospital Saturday Fund.—Hospital Saturday in London fell on October 14, and there is every reason to believe that the collections have resulted in a fine total. The amounts of the subscriptions paid by the employes in the workshops and places of business in London have steadily increased, and the amount actually distributed by this association among the medical charities of London in 1898 was £17,030, and a bigger total is expected this year. It is to the credit of the association that its directorate some little time ago decided to abandon begging in the streets as a means of raising money, it having been pointed out that this method of soliciting alms was open to serious abuses. For a short time after the cessation of street-begging the funds of the association went down—its virtue was the directorate's only reward; but it is hoped that the increased subscription received legitimately from collections made in the workshops and factories will this year more than counterbalance the loss.

A Medical Bishop.—A large section of the English medical world shares with scientists and theologians their regret at the death of the Right Reverend John Wade Hicks, M.D., and D.D., the Bishop of Bloemfontein. Dr. Hicks had a most distinguished career at London University, where he obtained both scholarships and gold medals for his proficiency in medical study, especially in physiology. From London he went to Cambridge as a foundation scholar of Sydney Sussex College. At Cambridge he graduated in the first class of the Natural Science Tripos in 1870, taking also high honors in the mathematical and theological school, and was subsequently elected a fellow of his college. From 1874 for 18 years he was known to all the medical students of the then rapidly growing school of medicine at Cambridge as a chemist and a most clear and successful lecturer on botany and morphology generally. During this time he took holy orders, and his learning and piety alike marked him out for preferment in the church. In 1892 Dr. Hicks was consecrated Bishop of Bloemfontein, the capital and episcopal see of the Orange Free State, where he died on Wednesday, October 11, on the very day when the Orange Free State—as far as it has thrown in its lot with the Transvaal—declared war upon England. The late bishop was the author of a textbook upon inorganic chemistry, and among his theological publications may be mentioned lectures on "The Real Presence," "The Christian Doctrine of the Godhead," and "The Doctrines of the Absolution."

The P. M. O. of the British Army in South Africa.—The P. M. O., as the principal medical officer is always termed in military circles, of the field force despatched on October 14, from England to the Transvaal, is Surgeon-General William Deane Wilson, M.B., of Dublin University, who has had great military experience. He served in the Afghan and Egyptian campaigns, and was afterwards employed at headquarters as assistant to the Director-general of the Army Medical Department. If training and experience count, the P. M. O. should be a success both at the front and in council, for he has proved himself both a good soldier and good administrator. He takes with him some 150 officers of the Royal Army Medical Corps, thereby depleting that service at home so completely that the assistance of laymen has had to be sought. Only very small salaries were offered by the War Office to civilian medical men who might be willing to aid the department in their unfortunate shorthandedness; but at the present moment in England the war spirit is high and the medical profession came to the aid of the Director-general at once. Within a few days of the advertisement by the War Office for civil assistance, all the vacancies for temporary service on the army medical staff during the departure of the regular officers for South Africa were filled, and superabundant application for the posts were being refused. Colonel W. F. Stevenson, R.A.M.C., the well-known professor of military surgery in the Army Medical School at Netley, is going out as officer in charge on the lines of communication.

Hospital Ships for the South-African Campaign.—Two ships belonging to the Union Steamship Company, named the *Spartan* and the *Trojan*, have been taken over on a time charter by the British Admiralty, have been turned into hospital ships and despatched on their errand of mercy to Durban. The directors of the Union Company entered fully into the spirit of the thing, for within ten days they had all the fittings of these two passenger boats ripped out, all the furniture of the saloons, smoking-rooms and state-cabins removed, and four hospital-wards capable of accommodating 65 patients constructed on the main deck, between the bare iron walls. All the wards were painted a cool, pleasant green and the floors stained with varnish picked out with white paint, while the ventilation was regulated by electric fans. A portion of the space amidships was converted into an officers' ward, for whom five cots are provided. The cots of men and officers are of precisely the same model, are all swinging on upright iron frames, so that the roll of the sea will be obviated as far as possible.

There is a spacious operating-room and surgery on the spa deck, and lifts have been constructed fore and aft to bring the patients from their wards to the operating-room and back. The voyage home of wounded soldiers has been in some previous British wars a terrible tale of suffering, attended with an awful mortality; but a voyage home on the *Spartan* or *Trojan* should prove fairly comfortable for even badly wounded men, while once convalescence is touched health should be speedily reestablished in the environment of sea-air.

The Hospital Reform Association held three meetings in London during the second week in October to confer upon the most practical way of meeting the abuses that are universally acknowledged to exist in connection with hospital treatment and management. At the first conference there were debated the best methods of stopping well-to-do persons, able to pay for private medical attendance, from abusing the charities, and it was generally held by all the speakers that it is the duty of the managers of hospitals to

inquire into the circumstances of those who seek hospital aid. At the second conference was debated the advisability of allowing patients to pay some small sum for the attention they receive. While some speakers pointed out that these small sums, particularly at special hospitals, may amount in the aggregate to a large total, without which the work of the "so-called" charities would be curtailed; others took the view that these small fees accepted by hospitals seriously damaged the prospects of general practitioners. At the third conference was debated the scope of provident dispensaries, and, incidentally, all the questions comprised under the heading (so familiar to those of us who read the English medical papers) "the Battle of the Clubs." The papers read at the three conferences were for the most part valuable contributions to a knowledge of one side of the medical man's life, but there was no audience present to profit by the experiences of the speakers. The question of hospital reform is one that is constantly spoken of in England as being a burning one; it does not burn, however, sufficiently brightly to attract any general attention as yet. Before medical men as a body will attend such conferences a general scheme of action is required. The profession wants to know exactly which abuse is to be tackled, and something of the methods to be employed before they will attend.

The Sanitary Work of the Port of London.—Dr. Collingridge, the medical officer of the Port of London, has issued his half-yearly report upon the sanitary work carried out under his direction. During the six months under review the total number of inspections of vessels of all classes was 17,232; of these 9,325 were lying in the river and 7,907 in the various docks at the time of inspection. Of the total number 14,654 (equal to 85.03%) carried the British flag, the Scandinavian coming next in order of frequency with a total of 1,061, or 6.15%. In 1,431 cases, or 8.3%, it was found necessary to order cleansing to be carried out. Fifteen sick seamen were conveyed to the hospital over and above the number of cases of infectious disease dealt with by the officers. Three hundred and forty structural alterations, affecting 315 vessels, were carried out by the Port sanitary authority, and 51 such alterations, affecting 45 vessels, are still in hand. In 51 cases the alterations were ordered for the improvement of ventilation, in 22 for the improved storage of drinking water, and in 272 for more efficient methods of lighting and heating. The medical officers at Gravesend visited 5,061 vessels, and made a medical examination of 596, involving the thorough inspection of 7,626 passengers and 16,141 members of crews. At Sheerness again about one-fifth this number of vessels underwent medical inspection—figures which show that Dr. Collingridge's hands and those of his assistants must have been fairly full this year. Sixty-four cases of infectious disease were dealt with, these including smallpox, scarlet fever, diphtheria, and enteric fever, while 26 cases were admitted to the hospital at Denton. Dr. Collingridge reports a gross case of overcrowding on board a Danish steamer, which arrived with 176 foreign immigrants, all of whom were berthed together in a scandalously small space. It was found that one death and a birth had occurred among these people during the voyage, the dead body remaining until it could be removed in London.

CONTINENTAL EUROPE.

The Sterilization of Drinking-water.—Hygiene is on the eve of discovering an agent by which the sterilization of drinking-water may be effected thoroughly, quickly, and economically, according to the Rome correspondent of the *Lancet*. The tincture of iodin has been recommended, and certainly succeeds when the bulk of water is not great; and good results have been obtained in the well-known establishment at Lille for "the industrial sterilization of drinking-water with ozone." The *Rivista d'Igiene* of Turin, however, has just indicated a "more excellent way" than either of these, to wit, "the sterilization of water by means of chlorin peroxid" which, it says, has already obtained a unanimous vote in its favor from the consultative Committee of Public Hygiene in France. Chlorin peroxid is a powerful and energetic oxidant, while its action as a bactericide is such that less than 3 gm. is sufficient to sterilize completely 1 cubic meter of water—even to destroy the "spora carbonchiosa." "This new Bergé process," according to the *Rivista*, "is very economical, the sterilization of a cubic meter of water costing less than a half centime." Put to the test at Ostend and at Middelkerke it has yielded quite satisfactory results. One objection, it is true, has been made to it; its action is alleged to be efficacious only in the case of "drinking-water not very impure." Further experiment must give the reply to this; meanwhile, Professor Henri Bergé (lecturer on chemical technology at the Brussels Polytechnic School) and M. Albert Bergé have succeeded in eliminating all danger of explosion in the preparation of chlorin peroxid, which they obtain by treating at about 107° C. chlorate of potash with sulfuric acid. Moreover, in the Bergé process, the water, after having been treated with chlorin peroxid, must be passed over coke, which detains whatever trace of the oxid has remained in it. Every possible source of mischief is thus eliminated, and, as the *Rivista* believes (while not accepting the process as free from all objection), we are now in presence of a sterilizing agent which promises what public hygiene has long desired—a perfectly pure, innocuous drinking-water.

The International Congress of Electrobiology and Electrotherapeutics.—According to the Rome correspondent of the *Lancet*, the attendance at this congress, which was held at Como, Italy, during the first week of the present month, was numerous, and in Italian medicine it included such representative names as those of Mosso, Bozzolo, Silva Bizzozzero, Pagliari, and Perroncito. Prof. Golgi, as president of the Medical Organizing Committee, delivered an address in which he stated that Volta himself would have hailed the medical utilization of his epoch-making discovery as at once its culmination and its crown. Morgagni and the great morphologists had led up to such a utilization of the new-born power, and now, while electricity is revolutionizing the conditions of modern social intercourse and well-being, it is proving a master-key in the healing art through the revelations and resources due to electro-diagnosis and electrotherapeutics. Prof. Mondino followed and dwelt in lucid detail on "the possibilities of diagnosing from new points of view the activities of the protoplasm and the 'cellula'"; on "the possibilities of recognizing maladies hitherto latent"; and, in the field of therapeutics, on the "possibilities of obtaining results so surprising as to eclipse even those electrical applications which are now subserving uses unknown to the previous generation." Prof. Colombo explained to the congress his new form of electro-therapeutics applied through the medium of electro-voltaic baths, electro-voltaic friction, and "punctiform localization," to which he gave the name of "corrente voltaica monodica" and illustrated its effects by typical therapeutic applications. Prof. Sgobbo, of Naples, thereafter read an elaborate and, clinically considered, a very valuable paper on the modifications of the cerebral pulse in the human subject during the application of the galvanic and faradaic current to the head and neck. Dr. Casiorati's communication came next, on the "Influence of Electricity on the Muscular Force." This he illustrated by numerous ergographic tracings, proving that not only is that force increased in the human subject to a considerable extent, but that the increase is really not evanescent but lasting. Other papers of interest were those of Dr. Luisada on "Electrotherapy in the Diseases of Children"; of Dr. Cagnola and Dr. Ambrosini on "Electricity in Reference to Otorhinolaryngic Medicine"; of Professor Mirto on a "Successful Case of the Thermoelectric Treatment of Epilepsy"; and of Professor Gradenigo, of Turin, on the "Electric Ex-

amination of the Acoustic Nerve." This was an important memoir, and gave rise to an animated discussion, in which Dr. Negro (*privat-docent* in neuropathology in the same university) took an effective part, mainly adverse to Professor Gradenigo's positions. The Congress thereafter, at the instance of Professor D'Arman, entered on an exchange of views as to the propriety of giving electrotherapeutics a special place in an university curricula. Professor Mosso was opposed to such an initiative on grounds practical, economical, and professional. The time for such an adjunct to the already more than onerous demand on the undergraduate's time and attention was not yet come, but there might be room for the subject in a postgraduate course. Ultimately a committee was appointed to consider the question. A cognate discussion as to the formation of a "society" composed of workers in electrobiology ended likewise in the nomination of a committee.

MISCELLANY.

Obituary.—DR. KIRN, ordinary professor of psychiatry in the University of Freiburg in Baden.

A "World Congress" of "Antivacks."—A "world congress" for the consideration of the vaccination-question was held in Berlin on September 24 and 25. Some 240 "antivacks" assembled in council, the bulk of them being Germans, and the "world" being represented by a sprinkling of Austrians and Swiss. The "consideration" consisted of a repetition of the stock statistics and "facts" which are made to do duty at such gatherings as arguments against vaccination.—[*British Medical Journal.*]

Plague Research Laboratories in India.—According to the *British Medical Journal*, the Government has recently issued orders regulating the sending of plague-cultures to other countries. A new and well-equipped plague research laboratory has been opened at Bombay, and large quantities of Professor Haffkine's prophylactic are being turned out, 25,000 doses having been sent to England to the Local Government Board in view of the outbreak of plague at Oporto, while more will be sent to Africa. The Bombay Government is also doing everything in its power to render inoculation against plague popular amongst the natives, all who hold a certificate of inoculation within six months being free from segregation and other measures. Colonel Wilkie, I.M.S., has just been appointed Special Principal Medical Officer for plague operation in Bombay, so that at last the plague operations will be under the control of a medical officer. A scheme for the establishment of research laboratories in various parts of India is under the consideration of the Government. It is proposed that the present laboratory at Muktesar should be further developed and the staff increased, so as to convert it into a central research laboratory for India. Other laboratories will be placed at Calcutta, Madras, Bombay, Agra, and Lahore, and will ordinarily be placed under the charge of selected officers of the Indian Medical Service. It is hoped that a pathologist of high standing will be obtained for the central institute. The scheme, which has been submitted to the Government by Surgeon-General Harvey, should do much to advance scientific research work in India, and in due time will doubtless bear fruit.

World's Temperance Congress.—According to the *British Medical Journal*, the World's Temperance Congress is to be held in London from June 9 to 18, 1900. Among the organizations which have expressed approval of the Congress is the British Medical Temperance Association. The aim of the conveners of the Congress is that it may present the exact condition of the temperance movement throughout the world at the close of the century. Papers giving historical surveys and dealing with the condition of the movement at the close of the century will be given in the following and other suggested groups:—(1) Great Britain and Ireland; (2) the United States and South America; (3) British North America; (4) Australasia and the South Sea Islands; (5) India, Ceylon, and the Far East; (6) the Continent of Europe; (7) Africa (and the Native Races Question). The subjects for consideration may be included under the following among other suggested topics:—(1) Scientific Theories and Conclusions concerning Alcohol; (2) Temperance Instruction in Colleges and Schools; (3) Ethical and Religious Incentives to Aggressive Effort; (4) Abstinence as a Factor in Promoting Health and Longevity; (5) Industrial and Commercial Aspects of Temperance; (6) the Development of the Public House without the Drink; (7) the Province of Prohibitory and Restrictive Legislation; (8) Woman's Place and Power in the Temperance Reformation; (9) Drink Consumption during the Nineteenth Century; (10) Temperance Reform in Relation to Other Social Questions; (11) the Place of Literature in Modern Temperance Work; (12) the Influence of Juvenile Work upon the New Century; (13) Methods of Propaganda in International, National, Local, and Individual Effort.

Traumatic Bursitis of the Knee.—N. C. Morse (*Western Medical Review*, July, 1898) has made a study of the bursae described in anatomic textbooks as being located in the vicinity of the knees. As the result of a series of dissections he finds that only those located near the tendons of the gastrocnemius muscles and the one beneath the tendon of the popliteus, between it and the condyle of the femur, have joint connection. Of the various normal bursae the prepatellar, the tibial, the quadriceps extensor, the posterior or popliteal, and the subcrureus are of special importance to the surgeon, as they are frequently involved in an acute or subacute form of inflammation depending upon trauma. Acute bursitis of the knee is always accompanied with more or less severe local and general symptoms, pain, heat, redness, and swelling of the part or bursa involved, with general pyrexia. The pain in violent cases is often intense, usually with nocturnal exacerbations, in many cases the symptoms being identical with those of true synovitis or gonarthritis. Morse believes that about 65% of the so-called cases of traumatic synovitis of the knee are in reality cases of bursitis. The inflammation may resolve into a more or less consolidated tumor, terminate in suppuration, or assume a chronic form. The secretion of the fluid into the sac is usually rapid, and the tumor becomes well defined, elastic, painful to the touch, and if suppuration results we also have marked edema locally, with general systemic infection. Bursitis is of special interest from a medico-legal standpoint. By an error of diagnosis bursitis is often pronounced a synovitis solely from the reason that the attending surgeon is not familiar with the anatomic fact of the presence of these bursae. Just as traumatic bursitis is a common occurrence, so traumatic synovitis is rare, and a large percent of the so-called "cases of traumatic synovitis" are in fact due to gonorrheal infection or occur in patients of a rheumatic diathesis, and in this latter class of cases the synovitis or arthritis is often recurrent; hence a slight injury to a subject afflicted with a chronic rheumatic synovitis is frequently taken advantage of by unscrupulous parties desiring to plunder corporations. Acute bursitis during the inflammatory stage is treated by rest, hot fomentations of a saturated solution of boric acid or sulfate of zinc, and a general anti-inflammatory treatment. Later, when effusion has occurred and we have a well-defined tumor, if absorption be retarded and convalescence unnecessarily prolonged, and where a moderate amount of pressure over the distended bursa assures us we have a closed sac, aspiration hastens the cure, and affords comfort to the patient. In the more chronic cases all fluid is withdrawn and 15 to 30 minims of pure carbolic acid is injected, the bursa gently massaged, and pressure made with adhesive straps. The results without exception have been satisfactory. When by long neglect, or other cause, the tumor has become hard or solid, an incision large enough to remove the entire contents should be made, followed by antiseptic irrigation and gauze drainage. In the forms of inflammation, which result in suppuration, prompt aseptic incision or aspiration with irrigation, etc., is the only rational procedure. [M.B.T.]

Society Report.

[From our Special Correspondent.]

NEW YORK STATE MEDICAL ASSOCIATION.

Sixteenth Annual Meeting, Held at New York, October 24, 25, 26, 1899.

The opening session of the sixteenth annual meeting of the New York State Medical Association was held on Tuesday morning, October 24, at the Academy of Medicine. The attendance of members and their guests was unusually large, and the registration promises to be the largest in the history of the organization. Following the opening reports of committees and of presidents of branch associations, the annual presidential address was read by Dr. Joseph D. Bryant, of New York City. It was a comprehensive review of the initial development of medicine arising from the humane motive of savage man to provide relief for his fellow man in suffering and weakness, later developing into specialization of such efforts into the art of a class of priests as possessors of a mystic craft, and then by a natural development into medical schools for the inheritance and transmission of such arts. Dr. Bryant's address was most heartily received.

The first paper on the program was by Dr. Thomas J. Hillis, of New York City, on **Alcohol as a general stimulant and heart-tonic.** The author joined issue with temperance reformers who have denounced alcohol as worse than useless, and have denied it any food-value. He cited experiments scientifically conducted, which prove it to have a food-value. It differs from all other substances, in that it is a food, a stimulant, a tonic, and a poison by turns. It has dangers. So has lightning. Lightning-rods are for the protection of exposed buildings; temperance societies are good for the protection of those who cannot stand alcohol when taken in a rational manner. The fault to be found with those who argue against all use of alcohol lies in the amount of their knowledge concerning it; the clergymen know too little, the temperance lecturer frequently knows too much. The paper was summed up in the statement that 2 ounces of whisky, diluted with an equal amount of water, has a value that no other substance possesses. The discussion of the paper was animated; the views expressed by several speakers were for the most part adverse to the opinions of the author.

Dr. Wickes Washburn, of New York, read a paper on **The necessity for exact evidence in treating scientific subjects.** He established his thesis that while facts are commonly reported with sufficient exactitude, correct reasoning from such facts is far less common.

A very brief but inspiriting paper was read by Dr. Frank Overton, of Suffolk County, on the subject of **The physician as a factor in education.** He took the ground that it was not sufficient to combat diseased conditions in the patient; wherever such a thing is feasible it is right that the medical man should instruct the patient in the manner by which such conditions may be prevented from arising anew. There should be no fear that such bedside confidences could ever educate the sick and suffering to the art which the physician has only attained after years of assiduous toil, but that they might prevent much needless suffering.

The following is an abstract of a paper by Dr. Thomas J. Acker, of Westchester County, on **Animal products used as medicines, ancient and modern.** The ancients employed nearly 300 different remedies obtained from the animal kingdom to treat the various diseases of the human race, believing that the use of healthy parts or organs of animals either as medicine or food would restore similar diseased organs or tissues in the human body to a healthy condition. Among the animals used by these doctors "prior to the time of Hippocrates" were the camel, cat, dog, mouse, rhinoceros, seal, antelope, ass, bull, bear, and beaver. Some of the old doctors highly prized cast-off bird-nests of the Chinese swallow for boiling in water with fowl and ginger. "It was reckoned very good for curing pains in the stomach and for restoring those that were in a languishing condition." The raw silk of the silkworm was taken in powder to make "the heart pleasant and spirits brisk." From the grinding of the different parts of a viper a volatile salt was obtained, of which, one authority declared, "for external and internal use there is scarcely found a more universal medicine." Pepsin was obtained in the early days from the stomachs of pigs, sheep, and calves. The ideas of the ancients as to the use of healthy animal tissue prevails somewhat today, as is evidenced by the animal products found in the modern list of remedies. The practice of those early physicians might be a profitable study for the doctors of today.

The last paper of the morning session was by Dr. Charles Stedman Bull, of New York, on **Operative treatment of high myopia by removal of the crystalline lens.** Myopia he classed as one of the hereditary enemies of modern civilization, and a menace to and of modern education. After pleading for the early investigation of school hygiene, ventilation, lighting, and adjustment of desks and seats to the child, he traced the operation of removal of the lens from the first operation by Baer, in 1817, to the present time, and concluded by briefly indicating the conditions of the patient under which this operation is properly indicated.

The afternoon session was divided into two sections. The former comprised a group of papers on gynecologic topics and a report on the work of the International Gynecological Congress at Antwerp, in August, the reporter being Dr. A. Palmer Dudley, of New York; the supplemental session was an illustrated paper by Dr. John A. Fordyce, of New York, on **Cutaneous manifestations of syphilis and other affections of the skin.**

Evening Session.

Mr. Justice Bartlett said that for more than 10 years the condition of the law of New York State in regard to expert evidence had been the subject of frequent active and very often acrimonious discussion among doctors and lawyers. Many reforms had been proposed, but no substantial reform had yet been carried into effect, and in his judgment the failure to do so was largely due to lack of appreciation of the obstacles which must be overcome. Therefore, he felt that the cause of reform might best be promoted by first clearly pointing the practical objections, and especially those which seemed most important to the bench and the bar, to any changes at all in the present system, and particularly to those which in other quarters had met with most favor. Proceeding to show the importance of starting with correct definitions, he asked: **"What do we mean by medical expert evidence?"** and answered the question by saying that they meant the evidence of those specially skilled in medicine or surgery. Medical experts, however, were only one of many classes of experts; and in considering the possibility of improving the present system as regarded one class, it was necessary to bear in mind the necessity of dealing with all the others in the same way. Now expert witnesses differed from ordinary witnesses in this way that the latter were only allowed to state facts, whilst the former were allowed to give conclusions based on facts. This departure from the ordinary rule of the law of evidence in favor of expert witnesses was justified by the necessities of the case. Courts of law and justice were not fit places for the practice of the inductive sciences. If they attempted to go into all the facts of science with the view of arriving of their own knowledge at absolutely correct conclusions, cases would be interminable. It was hopeless for the courts in such cases to do more than take the evidence of scientific men on the points at issue, subject to cross-examination for the purpose of showing the uncertainty—if such uncertainty existed—of the theories on which the conclusions of these scientific men were based. Under the judicial systems of England and America the functions of jury, judge, and witnesses were all clearly defined. The jury had to decide on questions of fact; the judge had to see that the trial was conducted in accordance with the law of evidence, and finally to instruct the jury on the rules of law that applied to the case; in trials without a jury the judge himself must decide on the facts as well as apply the law; but in either case the medical or other scientific experts came before the court simply and solely as witnesses, with the same obligations and rights as non-professional witnesses, and with no peculiar privileges and functions. In order to prepare themselves for giving expert evidence it was, of course, frequently necessary for expert witnesses to devote considerable time to the examination of

the facts and the consideration of the conclusions which should or might be based on them; and it was natural that they should expect to be compensated for their labors. This it was principally that had led them to suffer in the public estimation. They were accused of being partisans, and the partisanship became unmistakable when besides being expert witnesses they became the scientific advisers to the counsel on one side or the other of a case. He had a strong opinion on this point, which he had expressed on previous occasions, and in the soundness of which all his experience since had confirmed him:—that the wise doctor would take care never to act in both capacities. There was no good reason why the most distinguished of physicians should not place his services as an adviser at the disposal of parties to a case; but it undoubtedly lessened the weight of his evidence, if, after doing so, he went on the witness stand. No matter how truthful he might be, it was natural for the jury to come to the opinion that he was biased in favor of the side on which he had been acting as an adviser, and with the best intentions possible it was not easy for him to avoid having a sympathy with the views of the counsel on that side. This dual attitude which scientific men often assumed, had, he repeated, much to do with the prevalent opinions as to the worthlessness of expert evidence. It was too much to expect that expert witnesses should agree; for medicine was not an exact science, and their very inability to agree might represent, and frequently did represent, the difference of opinion that existed in the profession on the points at issue. Nor was it right to complain that at times they were not sufficiently definite and positive. In considering the possibility of reforming the present system, he thought it would be well for them to dwell on evils which arose from the supposed partisanship of the experts. This, as he had said, was mainly due to the fact of their being compensated by one of the parties to the case. Various remedies had been suggested for these evils, such as the appointment by the court of independent experts; the payment of experts by the State, and the enactment of a statutory prohibition against receiving any expert evidence from witnesses who had been paid or expected to be paid for their services by either party. An ideal method of solving the difficulty was that sometimes adopted, where by consent of both parties certain points were referred to an expert chosen by the judge; but he did not think the plan of creating a body of professional experts, or that of forming a tribunal of experts, had much chance of adoption. As to allowing experts to being paid by the State, there was perhaps no objection, except the enormous additional expense it would throw on the taxpayers. He was inclined to look for reform rather to the increased sensibility of medical and other professional men than to the propriety of their own conduct and that of their associates. Medical men had powerful organizations, and they could, for example, frown upon and stamp out the practice of medical experts acting both as witnesses and advisers. Or, again, they could make a rule that when medical men were asked for opinions on litigious matters their compensation was not to depend on the opinions they might express.

The HON. JOSEPH F. DALY, formerly Justice of the Supreme Court, reminded the association that the system so much criticised, and alleged to be so full of defects, was the product of the evolution of the science of law. It was the very best system that lawyers so far had been able to produce. The expert was a witness, nothing but a witness, but a witness of a very high class, and he ought to be compensated according to the amount of science he was able to bring to bear on a case. Originally there were no expert witnesses, nor were there any rules of evidence. Cases were decided on what a man's neighbors thought, on hearsay, on mere rumors, and other things of that kind, on which they now decided cases in France. That was how in former times cases were decided by their own ancestors, but they had advanced since then, and that was why they criticised other countries that had not advanced. The present system of evidence, by which the truth was sifted out, was as nearly perfect as it could be. The first class of experts to be recognized were medical men; after them came all the students of every other science; and after them persons skilled in all kinds of crafts, until now there was only one thing which juries were allowed to judge without the aid of experts, and that was the subject of intoxication. The jurymen were expected to know as much about that as any one else. The introduction of expert evidence was undoubtedly an improvement in the law, and, as had been said by Judge Bartlett, an ideal plan was for the judge to appoint an expert with the consent of both parties. But the usual way was for each side to call experts, and for their evidence to be sifted by means of cross-examination. Most cases, he belived, involved a fair and honest difference of opinion, and there was no way of getting at the truth except, if they so chose to call it, by getting experts to contend with one another on the witness-stand. Suppose, instead of the present system, they had a jury of experts—would not it want experts examined before it? And it was a question whether by that means they would get sooner to an agreement, or to one more in accordance with justice. Courts of law, it was to be remembered, were not expected to arrive at a scientific solution of all problems presented to them. In most cases that was impossible. In a great many cases there was no scientifically satisfactory solution. Courts were the medium through which disputes were settled. Counsel were paid for presenting the facts and the law in a case in the light most favorable to their own side. They were legal scientists, and he did not see why the most eminent medical scientists should not equally with them receive retainers for presenting medical evidence in its most favorable light. They could come into court on the same honorable plane as the highest counsel, and had certainly nothing to be ashamed of because they did so.

MR. CHARLTON T. LEWIS, while acknowledging the value of the suggestive remarks that had been made by the preceding speakers, and the right they had to speak with authority as to the excellence of the judicial system, still ventured to think that the present method of taking expert evidence was an evil. There was no occasion for reproaches or recriminations. It was natural for a man of science who was called as an expert witness, to have sympathies and convictions growing out of his connection with the party or the counsel on the side on which he was engaged. By the present method, however, medical men were placed in a false position. There was no controversy in science, and men of science should always be working to an ideal which he admitted was unattainable, but to which they were always getting nearer. For them to struggle for triumph for their theories was not science, it was pseudo science—it was the humiliation of science. There was no form of quackery which was not fostered by the present system of pitting experts against experts, which rendered it easy for charlatans to make plausible pleas against the authority of all medical science. The effect of cross-examination of medical experts by laymen was to produce confusion in the minds of the lay jury. Judges were themselves scientists, but if they were cross examined in the same way as medical men were, the jury would be as much confused as to the law as they now frequently were as to medical evidence. The ideal plan, in his opinion, was one in which there would be a complete separation of tribunals, so that expert evidence should only be heard and adjudicated on by an independent scientific court.

MR. WM. A. PURRINGTON next read a paper on **The medical expert of the past, the present and the future.** He remarked that there was very general agreement as to the fact that the present system of giving expert evidence was unsatisfactory, and equally general disagreement as to the best way of putting it right. It was paradoxical surely to say that expert evidence was less reliable than ordinary evidence. Why should expert witnesses more than other witnesses be expected to agree? Was it fair to assume that they lied more common than others? Every witness in the last analysis was but giving his opinion; and judges themselves were experts whose opinions had more influence than those of any other class, because they remained binding until set aside. Amusing instances were found in all the law reports of the opinions of one set of judges replacing the opinions of another set. Yet no one doubted the honesty or ability of the judges because they differed. Generally two opposing theories could be presented in a case, and it was a question whether any better plan could be adopted for obtaining the truth than the present method of beating it out of medical and other expert witnesses. While not maintaining that the system was in all respects perfect, he questioned the wisdom of radical change.

A vote of thanks to the speakers concluded the proceedings of the evening.

The Latest Literature.

British Medical Journal.

October 7, 1899. [No. 2023.]

1. Two Disciplines in Education. William T. Gairdner.
2. Thirty-five Years of Medical Progress. Byrom Bramwell.
3. The Quest of the Ideal. James Crichton-Browne.
4. Medicine Old and New. W. Howship Dickinson.
5. The Method of Studying Medicine. Elizabeth Garrett Anderson.
6. The Outlook in Medicine and its Lessons. J. Mitchell Bruce.
7. The Student and His Work. John Murray.
8. University College Hospital; its Past and its Future. G. F. Blacker.
9. Some Motives and Methods in Medicine. H. G. Plimmer.
10. The Need for Special Training in Tropical Diseases. Patrick Manson.
11. The Training and the Work of the Veterinary Surgeon. G. Sims Woodhead.
12. The Evolution of Pharmacy. D. J. Leech.
13. An Inaugural Address on the Proper Objects and Necessary Limitations of Medical Education. Robert Saundby.

[The 13 articles contained in this issue consist of introductory addresses at the opening of the various medical schools throughout the United Kingdom. They treat almost exclusively of matters of local interest. S.M.H.]

Lancet.

October 7, 1899. [No. 3971.]

1. Theory and Practice. Thomas Clifford Allbutt.
2. The Quest of the Ideal. Sir James Crichton-Browne.
3. The Two Disciplines in Education. Sir William T. Gairdner.
4. Medicine Old and New. W. Howship Dickinson.
5. Thirty-five Years of Medical Progress. Byrom Bramwell.
6. "The First Staff of the North London or University College Hospital." G. F. Blacker.
7. Introductory Address. Mrs. Garrett Anderson.
8. "The Outlook in Medicine." Mitchell Bruce.
9. "The Study of Medicine." H. G. Plimmer.
10. Introductory Address. John Murray.
11. "The Training of Veterinary Surgeons." G. Sims Woodhead.
12. Inaugural Address. Manson.
13. A Case of Persistent Warty Growth of the Vulva (Epithelioma?) Associated with Pruritus Vulvæ. J. Basil Hall.
14. Bromid of Strontium in the Treatment of Epilepsy. N. Cullinan.
15. A Case of Ovariotomy. Ernest H. Tipper and Arthur E. Philipps.
16. Notes on the Use of Homatropin Drops in Some Cases of Muscular Asthenopia. Adolph Bronner.
17. Strangulated Inguinal Richter's Hernia with Hydrocele of the Sac. T. Hillhouse Livingstone.
18. The Postmortem Changes in the Lungs. C. Daniels.
19. A Case of Extensive Gummatous Disease Around the Femur and the Hip-joint with Chronic Periostitis of the Linea Aspera; Amputation; Recovery. W. G. Spencer.

[The first 12 articles in this issue of the *Lancet* are introductory addresses delivered at the opening of various medical institutions, and are mainly of local interest.]

13.—Hall operated upon a woman, 37 years of age, who had suffered for many years with **pruritus vulvae** due to a warty growth which began in the genital cleft immediately above the clitoris; she also suffered from dysmenorrhea due to congenital stenosis of the cervical canal. He considers the case as an example of pruritus occurring as a reflex manifestation of uterine disturbance; the warty condylomata appear to have owed their origin and persistence to the constant local irritation produced by the pruritus, and after acquiring an epitheliomatous type, the growth was successfully removed and shows no tendency to recur after upward of two years. [W.K.]

14.—Cullinan believes that of the various **bromids** the preparation with **strontium** is far more effectual in the treatment of epilepsy than is that with potassium, sodium or ammonium. Its sedative action is well marked; it causes but slight if any disturbance of the gastric functions, and it seems to act as a general nervous tonic. It neither impairs the mind of the patient nor produces anemia, but on the other hand seems to benefit the circulation. The dose which Cullinan usually gives is 1 dram 4 times a day to an adult, and proportionate doses to children. He recommends the administration of 10 grains of borax with each dose. Care should be taken in giving this latter drug as it is liable to cause some gastric irritation. [S.M.H.]

15.—Tipper reports the successful removal of a large, adherent, multilocular ovarian cyst. The pedicle was twisted and evidences of peritonitis were present. [W.K.]

17.—A woman of 45, who had had a **reducible hernia** for 20 years, was brought to the hospital with pain in the lower part of the abdomen; there was a hard tense, tender swelling in the right groin, obstinate constipation and fecal vomiting. The symptoms had been present for 6 days. The operation for strangulated hernia was undertaken, the constriction was freed and the bowel returned to the abdomen. The woman died a few hours after the operation. At the necropsy it was found that only a part of the bowel had been constricted, **Richter's hernia,** and a minute perforation had occurred at the constricted part, which had given rise to general peritonitis. [M.B.T.]

19.—A man of 47 was admitted to the hospital in very poor general condition, and very much emaciated. There were unhealed incisions, covered with exuberant pale granulations on the outer side of the thigh, reaching half way down from the great trochanter, on the anterior surface of the thigh from the anterior superior spine to the middle third, and in the region of the gluteal fold; there was profuse discharge of thick pus. **Amputation** at the left **hip-joint** was performed, and rapid recovery followed. Pathologic investigation showed extensive **gummatous infiltration** of the muscles and fibrous tissue about the femur, and chronic periostitis in the region of the linea aspera. [M.B.T.]

18.—Daniels, from studying **postmortem changes in the lungs,** has discovered that there is a decided increase in the weight at the end of three hours after death, even before putrefaction commences. This increase continues hourly, though more rapidly after 12 hours, when there is always abundant evidence of decomposition. It is only in the late cases that the weight corresponds to the weight given by Quain (45 ounces). The increase is attributed to the lungs increasing their amount of fluid contents, probably the result of loss of elasticity in the dying pulmonary tissues. This diminution in elasticity causes a diminution in weight in two ways: (1) By the diminished contraction and therefore diminished expulsion of fluid, which occurs on opening the chest, and (2), and chiefly, by the constant negative pressure in the pulmonary tissues before the chest is opened and the consequent drawing into the lungs of any fluids in the body which are available. [S.M.H.]

New York Medical Journal.

October 21, 1899. [Vol. lxx, No. 17.]

1. Very Early Rupture in an Ectopic Gestation in a Tubal Diverticulum. Fernand Henrotin and Maximilian Herzog.
2. Report of Two Cases of Accessory Thyroid Gland at the Base of the Tongue. Arthur W. Watson.
3. The Cause of Death from Industrial Eectric Currents. R. H. Cunningham.
4. Surgical Diseases of the Kidneys: Cases Illustrating Some Points in Diagnosis and Treatment. Leonard Freeman.
5. The Effect of Atmospheric Changes on the Hearing in Chronic Catarrhal Otitis Media. Seymour Oppenheimer.

6. A Clinical Note on the Connection Between Asthma and Eczema. H. NEVILLE TAYLOR.
7. The Treatment of Follicular and Suppurative Amygdalitis and the Angina of Scarlet Fever by the Injection of a Solution of Carbolic Acid. H. JUDSON LIPES.

1.—Henrotin reports an interesting case of an **early rupture of an ectopic gestation** occurring in a tubal diverticulum. The patient had only missed one menstrual period when the symptoms of rupture occurred. The diagnosis of ectopic pregnancy was made and an abdominal section successfully performed. A careful microscopic examination showed that the ovum was not located in the main tubal canal, which was preserved throughout its entire extent; but that it must have developed in a diverticulum originating from the main canal. The very thin outer covering of the diverticulum gave way very easily in the course of pregnancy, not later than the third week, under the influence of pressure and pressure atrophy, and a rupture and hemorrhage occurred. Whether the diverticulum was congenital and due to an embryonic anomaly or acquired in later life in consequence of a pathologic process, it is impossible to determine. [W.K.]

2.—Two cases of **tumors** at the base **of the tongue,** composed of thyroid tissue, are reported. A woman, 50 years old, had noticed a lump in her throat for 8 or 10 years, which had recently enlarged, producing uncomfortable symptoms; only a portion of the tumor was removed by the galvanocautery snare. In a second case a girl, 16 years old, had noticed a tumor for 5 years, but it had not given trouble till within a short time. The growth was removed by the electric-cautery snare. In both cases a microscopic examination was made. [M.B.T.]

4.—Freeman reports 21 cases of **surgical operations on the kidneys** illustrating various points in diagnosis and treatment. In a case of nephrolithiasis, abscess-cavities were opened and 3 moderate-sized calculi were removed followed by recovery. In a case of enlarged softened kidney with numerous foci of infection, drainage resulted in recovery, showing that nephrotomy may result in the cure of suppurative nephritis, making nephrectomy unnecessary in some cases. In a case of congenital hydronephrosis the kidney was swung around on its axis to correct supposed faulty insertion of the ureter, and an abundant flow of urine from the wound demonstrated that the renal substance may be capable of performing its function even if but little is left. A case of pyelitis, one of suppurative nephritis, and 2 cases of pyelonephritis were due to the colon-bacillus; the former two following fulminating appendicitis. One case of cystinuria is reported in a girl 16 years old, who was suffering pain and tenderness in the region of the right kidney. [M.B.T.]

5.—Oppenheimer, with a view of ascertaining the **detrimental action of barometric and thermal changes on the hearing in chronic catarrhal otitis media,** studied 50 consecutive cases, applying the usual tests used to determine the variation in hearing under different atmospheric conditions. The results of his work are as follows: (1) The hearing in at least 70% of cases with chronic catarrhal deafness becomes worse under adverse weather conditions; (2) the degree of impairment of audition, as influenced by atmospheric changes, is determined to a great extent by the location and character of the pathologic process in the tympanic cavity; (3) the morbid alterations most susceptible to barometric variations are those of hyperplasia; (4) in purely atrophic changes in the middle ear weather variations have little or no effect upon the auditory function; (5) atmospheric influences also impair the hearing by unfavorably affecting catarrhal processes of the upper respiratory tract and eustachian tube; (6) all things being equal, the impaired audition in chronic catarrhal otitis is diminished more (under unfavorable weather influences) in those whose general health is far below par than in those otherwise healthy. [S.M.H.]

6.—Taylor had under his care a boy, aged 8 years, whose mother was an asthmatic. The patient had some epileptiform convulsions when a babe. There was no evidence of nasopharyngeal adenoids. When 6 years old he had a severe attack of **eczema** which gradually disappeared after persisting for 6 months. During the following year he had a similar severe attack. While this attack was improving he had his first **asthmatic seizure.** For a few months following this he suffered from paroxysms of asthma and eczema, the attacks being sometimes concurrent, sometimes definitely alternating, sometimes overlapping each other, the patient at no time being quite free from either. Latterly he has had intermissions of from 4 to 5 weeks in the asthmatic fits, but the chronic eczema has been more or less constant. Taylor is inclined to believe that asthma may be due to some sudden vascular engorgement or erythematous blush of the bronchial mucosa. As against the eczematous origin of these attacks he calls attention to the nonevanescent nature of eczematous eruptions. [S.M.H.]

7.—Lipes treated 5 cases of scarlet fever, 6 of diphtheria, 3 of suppurative, 4 of simple, and 3 of follicular **amygdalitis** by the injection into the tonsil of a solution of carbolic acid. There was no beneficial effect observed in the cases of diphtheria; in fact, the injections were rather harmful, since they destroyed the combative influence of the staphylococci on the Klebs-Löffler bacillus. Immediate relief was obtained in all cases of scarlet fever, resulting in a quick reduction of the fever and an improvement in the general condition. In the cases of simple amygdalitis, abortive measures were used in conjunction with the injections, and under the combined treatment the cases quickly recovered. The follicular and suppurative amygdalites were very much benefited. [S.M.H.]

Medical Record.

October 21, 1899. [Vol. 56, No. 17.]

1. The Early Diagnosis of Cancer of the Stomach. JOHN C. HEMMETER.
2. The Paralyses Following General Anesthesia. WILLIAM M. LESZYNSKY.
3. A Psychological Study of Jurors. T. D. CROTHERS.
4. Renal Casts—Their Significance and Detection. Jo. H. LINSLEY.

1.—Hemmeter gives a general review of the grounds upon which one may make an **early diagnosis of carcinoma of the stomach,** first insisting that this affection seems from statistics to be increasing. The deaths from cancer seem more frequent in large cities, but this is probably due to more complete returns to the health-boards. As to the age of occurrence of gastric carcinoma it is noted emphatically that practitioners do not usually recognize the fact that it occurs quite frequently before middle life has been reached. Hemmeter finds that constipation occurs in about 75% of cases and diarrhea in about 20%, and only rarely are the bowels undisturbed. Emaciation and cachexia are likely to be extremely marked even with a limited growth. Lactic acid and Oppler-Boas bacilli are usually found because the conditions favorable to their presence are generally seen in carcinoma—they are not of themselves distinctive. He has found lactic acid in 82% of his cases, and Oppler-Boas bacilli in 49 of 52 cases. He recommends once more his unique method of cureting the surface of the stomach with a sharp-edged tube in order to attempt to obtain fragments of a possible tumor for examination. [We must congratulate him that he has escaped causing death by this procedure.] He recommends exploratory laparotomy in all strongly suspicious cases if improvement does not follow medical treatment in 3 weeks. [D.L.E.]

2.—Leszynsky records a case of paralysis of the left arm following anesthetization for vaginal hysterectomy, and insists that foresight should be used to avoid **anesthesia paralyses** by exercising care in placing the arms or head in a position likely to cause pressure upon the nerve-trunks, or in using apparatus that may exercise serious pressure The possibilities of medicolegal responsibility being imposed in such cases is emphasized. [D.L.E.]

4.—Linsley reviews the question of the **significance of casts,** and urges routine microscopic examination of urine in addition to chemical tests. [D.L.E.]

Medical News.

October 21, 1899. [Vol. lxxv, No. 17.]

1. The Arid Region of the United States for Pulmonary Tuberculosis. J. O. COBB.
2. Steatosis of the Liver and Coagulation Necrosis; a Further

Contribution to the Yellow-Fever Discussion. Felix Vitale.
3. Beta-Eucain as an Anesthetic in Eye, Nose, and Throat Work. William H. Poole.
4. Three Interesting Heart Cases. Charles Ross Jackson.

1.—Cobb gives an exceedingly valuable account of the climate of the various regions in the **arid lands** of the West, and relates some interesting experiences with the **consumptive patients.** As he was sent out by the Marine-Hospital Service, his statements are entirely unprejudiced. Between Arizona, Colorado, New Mexico, Western Texas, there is very little difference as long as an elevation above 2,000 feet is secured. A large proportion of the patients suffering from acute recent conditions without complications recover. If the disease is advanced, if there is a tendency to hemorrhage, or if the patient is a woman, medium latitudes are to be preferred. It is important that the physicians sending patients West should give them careful directions as to the duration of stay, etc. It is preferable, if possible, for them to have friends, or some definite place where they can settle; otherwise, as the hotels and boarding-houses are generally bad, and the climate not always delightful, the patients are likely to become discouraged. It is a mistake to believe that this region is warm. It may be so at midday, but often the nights are very cold. In the majority of the hotels, the bed-linen is washed very rarely, and it is better for each visitor to carry his own with him. Nearly all the inhabitants of this region expectorate freely, and the streets are often filthy. The amount of rainfall, so extensively used in local statistics, is comparatively of little importance, for even when it is heavy, the water drains away rapidly. Valvular lesions are a contraindication to high altitudes. Patients with pulmonary hemorrhage or with large cavities certainly do get well, and Cobb mentions several such that he had the opportunity of examining himself. The cavities of course were still present, but the patients were able to take vigorous exercise, and behave themselves as if nothing abnormal was the matter with them. Women usually suffer more than men, as a result of change in the climate. They are subject to indigestion, constipation, and profuse menstruation. Bedridden patients would probably do better at home, although one instance is given of a man carried West on a stretcher, and in 14 months able to play baseball. Nevertheless, the journey is difficult, and the accommodations usually poor. Small towns in particular are to be avoided. In conclusion, Cobb gives a brief directory, something on the style of Baedeker, with an account of the hotel facilities in the more important cities. [J S]

2.—Vitale makes a sharp rejoinder to Reed and Carroll. He calls attention to the fact that Sanarelli does not claim that the **bacillus icteroides** is the only microorganism producing fatty degeneration of the liver. He shows that in a series of comparative observations made upon dogs killed by various infections, it was only found that the bacillus icteroides produced a greater degree of fatty degeneration on the average than did any other microorganism; only one toxin, the rattlesnake poison, equalled it in this respect. He also defends Sanarelli against the imputation of ignorance of the subject of coagulation necrosis, and quotes from his papers to show that he describes exactly this lesion in guinea-pigs and rabbits poisoned by his bacillus. He then calls attention to the lesions generally produced by the **hog-cholera bacillus,** that is hemorrhages and abscesses in addition to the necrosis and diphtheritis. No such lesions apparently occur as a result of infection with the yellow-fever bacillus. The fatty liver cells may recover, and the dog which was kept alive for 5 months, probably had passed through a series of attacks of fatty degeneration, and the liver, therefore, was found to be less abnormal than might have been otherwise the case. [J.S]

3.—The advantages of **Beta-eucain** as an **anesthetic** in work on the eye, nose, and throat, are: that it keeps well in aqueous solution and does not deteriorate by boiling; that it produces anesthesia as well and sometimes better than cocain; that it does not cause heart-depression and other unpleasant effects; that it does not cause mydriasis or disturbances of accommodation, and does not cause desquamation of the superficial corneal epithelium. [G B.W.]

4.—The first patient, a man of 44, had an attack of **endocarditis** at about the age of 38. He now has a typical water-hammer pulse; the heart is enlarged; the apex beat being in the seventh interspace an inch outside the nipple-line. There are no thrills over the heart, but a distinct thrill over the carotid. There is a low systolic murmur at the apex. A diastolic murmur is transmitted down the sternum, and a harsh systolic murmur is heard in the second interspace near the sternum. As, however, there is no reason to suppose aortic stenosis in this case, the last murmur is ascribed to dilatation and roughening of the aorta. The treatment consisted at first of large doses of potassium iodid, as much as 150 grains per day. As this failed to give relief, nitroglycerin was employed in doses sufficient to keep the arterial system relaxed. The patient acquired tolerance, and is now taking so much as 2 grains per day. When the pulse tension is allowed to become high, there is dyspnea, pain, and severe headache. The prognosis is exceedingly grave. The second patient, a man of 40, had been suddenly attacked by dyspnea, weakness, vertigo, and edema. The pulse was 140. No murmurs could be detected. There was oliguria and albuminuria. Under vigorous stimulation, consisting of $\frac{1}{2}$ oz. of infusion of digitalis and $\frac{1}{2}\frac{1}{5}$ grain of strychnia, four times daily, the patient became better, and passed two quarts of urine in 24 hours, the strychnia was then discontinued, and 5 grains of potassium iodid substituted. At the end of two weeks, faint murmurs could be heard in the heart, the enlargement of the left ventricle indicated stenosis of the aorta, and there were the symptoms of tricuspid regurgitation. The case is probably one of acute failure of the cardiac muscle due to some previous condition that had been compensated. The prognosis for the future is probably bad. A third patient, a man of 47, has had anginoid attacks in the chest and left arm for about 10 years. Five years ago, he lost his voice as a result of paralysis of the left cord. He has an aneurysmal cough, retardation of the left radial pulse, and an area of dulness from the right margin of the sternum o the first rib, extending across the sternum about $1\frac{1}{2}$ inches. There was also dullness posteriorily to the left of the vertebral column, but no accentuation of the aortic second sound. A diagnosis was made of **aneurysm of the aorta.** This has been treated with potassium iodid alone. The symptoms are stationary, and the prognosis, therefore, not hopeless.

Boston Medical and Surgical Journal.

October 19, 1899. [Vol. cxli, No. 16.]

1. Acute Abdominal Symptoms Demanding Immediate Surgical Intervention. Maurice H. Richardson.
2. The Treatment of Cerebral Tumors. Philip Coombs Knapp.
3. A Case of Hemorrhagic Pleurisy; Permanent Drainage; Recovery. George G. Sears.
4. Gastric Ulcer at the Massachusetts General Hospital, 1888–1898. Robert B. Greenough and Elliott P. Joslin.

1.—See Philadelphia Medical Journal, September 2, 1899, page 447.

2.—Knapp concludes his article on **cerebral operations** by acknowledging that the outlook for this branch of surgery is discouraging. He says that in about $\frac{5}{6}$ of the cases of intolerable headache trephining will afford temporary relief, though sometimes hastening the end. In some cases of progressive amblyopia palliative trephining may prevent blindness by checking the progress of the neuritis. With regard to the more radical operation of removal of the tumor the chances of success are few and the outlook for the future is more hopeless. Only about 10% of all cases are amenable to operative interference, and a cure is affected in less than 10% of the cases operated on even when the growth has been entirely removed. But even with this small chance of success operation may be perfectly justifiable. [G.B.W.]

3.—This patient, following an exposure, was brought into the hospital with the symptoms of **acute pleurisy** and with a blood-count of only 2,944,000 red corpuscles. On aspiration, 8 ounces of blood was drawn from the chest, and 5 more aspirations were done, removing from 12 to 25 ounces at each time. The patient was tapped twice more after this, but the blood was darker in color and not so fresh. Finally a portion of the ninth rib was resected and the pleura opened,

allowing the escape of more than 2 pints of dark red fluid. A drainage-tube was inserted and the patient was discharged 2 months after the operation with only a small sinus left. Tuberculosis was supposed to have been the cause of the hemorrhage, but no positive proof was obtained. [G.B.W.]

4.—In summarizing the cases at the Massachusetts General Hospital, it is found that **gastric ulcer** is more common in women than in men. Hemorrhage is present in about 81% of the cases. Death takes place in about 17% of male patients, but only in 1.27% of the females. Perforation occurs in 3.2% of the cases, all of which were fatal. The excessive mortality of gastric ulcer among men is due to the fact that it develops at a decade later in men than in women. Surgical intervention is very often called for in other than emergency cases of this disease. [G B.W.]

Journal American Medical Association.

October 21, 1899. [Vol. xxxiii, No. 17.]

1. Progress in Pediatrics. HENRY E. TULEY.
2. Secretion and Exudation Considered as a Factor in Diseases of the Eye. JOHN W. WRIGHT.
3. Examination of the Acuteness of Vision, Color Perception, and Hearing of Railway Employes. CHARLES H. WILLIAMS.
4. Lipemia in Diabetes Mellitus. THOMAS B. FUTCHER.
5. Surgical Significance of Certain Anatomic, Physiologic, and Pathologic Peculiarities of the Peritoneum. H. D. NILES.
6. Three Years' Experience with Vaginal Suturing of the Round Ligaments for Retroversions and Flexions of the Uterus. HIRAM N. VINEBERG.
7. Shock; Its Nature, Cause, and Treatment. DANIEL T. NELSON.
8. The Reconstruction of the Pelvic Structures Incident to Lesions of the Perineum. HENRY O. MARCY.
9. Case of Urticaria Pigmentosa Following Chicken-Pox. ALBERT WOLDERT.
10. Report of Cases of Pulmonary Tuberculosis, Treated with Intrapleural Injections of Nitrogen, with a Consideration of the Pathology of Compression of a Tuberculous Lung. A. F. LEMKE.

1.—See this JOURNAL, Vol. III, p. 1398.
3.— " " " " " p. 1400.

4.—Futcher reports a case of a man of 35 who was suffering from **lipemia and diabetes mellitus.** The patient had used tobacco and alcohol to excess since an early age, and had had purulent disease of the middle ear for 25 years. For some months he had been losing weight, suffered from intense thirst, weakness and headaches. At the time of admission he was forced to urinate about every **three-quarters of an hour during the night, and every half hour during the day.** On one occasion he measured his urine for 24 hours and found the amount to be 2 gallons (about 8 litres). The urine, on admission, was **very pale** in color, **clear, acid in reaction; sp. gr. 1038; no special odor.** There was no albumin. Sugar was present, the polariscope showing 5%. The changes in the blood constituted the chief features of interest. Microscopic examination of the fresh blood showed enormous numbers of refractile granules which varied considerably in size, the largest being about 2 μ in diameter and the smallest about 0.5 μ. The granules showed very active Brownian movement resembling blood swarming with bacteria. When centrifugalized the blood-serum looked turbid and milky as compared with normal clear blood-serum. A few weeks later microscopic examination of the serum showed that it contained enormous numbers of refractile droplets and granules which tended to clump together into fairly large masses. A 1% solution of osmic acid stained a certain number of the droplets a faint blackish tint. Some of the droplets gave the brick-red reaction for fat with Sudan III; many of them, however, were simply stained yellow. After a little over a month's treatment the patient returned to the hospital looking much better. He had gained 10 pounds in weight, and the urine was entirely free from sugar. A microscopic examination of the fresh blood revealed the fact that the minute droplets had almost entirely disappeared, and no more granules were found than could be accounted for by the hemokonien particles of Müller, present in any normal blood. [M.B.T.]

5.—See this JOURNAL, Vol. III, p. 1334.

6.—As a result of considerable experience Vineberg asserts that **vaginal suturing of the round ligaments** is indicated in all cases of retroversion and flexion of the uterus that give rise to symptoms, and in which a pessary for one reason or another cannot be worn. The child-bearing period is no contraindication to the operation. It is also indicated in cases of backward displacement associated with diseased and adherent adnexa of moderate degree. It is contraindicated in cases with shortened and infiltrated broad ligaments, also when the adnexa are very markedly diseased. It is further contraindicated in cases of backward displacement complicated with an ovarian abscess, or with adnexa which are firmly adherent high up in the abdominal cavity. [M B.T.]

7.—See this JOURNAL, Vol. III, p. 1336.

9.—A male child, 11 months old, was taken with chicken-pox, which lasted about 2 weeks, when 3 months of age. He had had no previous rash or disease. About one week after the varicella rash had disappeared, the mother observed some reddish blotches (which she states were not elevated), on the anterior surface of the chest, and these blotches spread to the abdomen, thighs and legs. Within a period of probably one week subsequent to the observance of the eruption on the anterior surface of the chest, the area first involved began to turn brownish in color, while the affected portion of the abdomen was yet reddish, and the eruption pursued the same clinical course on the other parts of the body which were affected. The points of special interest in the case seem to be: its rapidity of development; that it is not markedly itching in character; that the lesions are but slightly elevated; and its predominating tendency to become confluent. A diagnosis of **urticaria pigmentosa** was made. It is stated that only about 60 similar cases have been reported. [M.B.T.]

10.—See this JOURNAL, Vol. III, p. 1329.

American Journal of Obstetrics.

July, 1899.

1. Conservative Gynecology. JOSEPH TABER JOHNSON.
2. Is a Sloughing Process at the Child's Navel Consistent with Asepsis in Childbed? An Introduction to the Study of Complete Primary Amputation. ROBERT L. DICKINSON.
3. Some Observations on the Early Use of Purgatives after Abdominal Section. OTTO G. RAMSAY.
4. The Role of Wound-Infection as a Factor in the Causation of Insanity. A. T. HOBBS.
5. The Remote Results of Shortening the Round Ligaments and Hysteropexy by Vaginal Section. HENRY T. BYFORD.
6. Maternal Impressions. HENRY F. LEWIS.
7. Vaginal Celiotomy: With Report of Eleven Cases. A. LAPTHORN SMITH.

1.—See this JOURNAL, Vol. III, p. 1202.

2.—Dickinson in an exhaustive article reviews the methods of treating the umbilical cord and directs attention to the morbidity and **mortality in newborn children,** and the necessity for better results. A brief synopsis of the treatment of the cord at different periods and by different races is detailed. The writer has practised complete amputation of the cord at the skin edge or capillary margin in a number of cases, using in some electrohemostasis with Dr. Skene's forceps. After careful preliminary preparation he has employed in his treatment either simple ligature, suture, or pressure. The objections to complete primary amputation of the cord are as follows: (1) Increased danger of contact-infection owing to operation on parts supplied with lymphatics, as compared with the ordinary ligation of vessels and jelly on parts having no nutrient capillaries or absorbents; (2) lack of drainage in case of infection; (3) danger of concealed secondary hemorrhage (hematoma) after the suturing method; (4) inaccessibility of vessel-ends in case of bleeding, as compared with the facile placing of second ligature where stump is long; (5) the risk of striking an umbilical hernia; (6) as this is surgery, it is not yet adapted to

the general practitioner, and to the midwife only the pressure-method can be trusted, if that method proves safe. [W.K.]

3.—Ramsay has made a careful study of the value of the **early use of purgatives after celiotomy,** and, although one must be guided by the indications in each individual case, and no fixed rules can be laid down, he feels justified in drawing the following general conclusions: (1) that it is important, both for the welfare of the patient and for the comfort of the operator, to attend carefully to the diet and to the thorough emptying of the bowel before any abdominal operation; (2) that the bowels should be moved and the distention relieved soon after operation, both for the comfort of the patient, as well as to avoid possible dangerous complications; (3) that, in the simpler groups of operations, such as suspension of the uterus, myomectomies, the removal of uncomplicated ovarian tumors, and in uncomplicated hysterectomies, the administration of the calomel and use of enemas on the second day is followed by a perfectly satisfactory convalescence; (4) that, in cases of beginning peritonitis, in cases in which numerous adhesions have been broken up, or large, raw areas left, in cases where the intestines have been freely handled, or long exposed, and, finally, in emergency operations where no preparation can be made, Dr. Byford's method of immediate purgation is indicated. [W.K.]

4.—The bacteriologist by his researches has shown how prominent a factor the microorganisms are in causing the many physical ills that affect and decimate the human race. Hobbs calls attention to **infection** as a **factor** in the production of **insanity.** A study of 8 cases of insanity traced to the infection of the streptococcus of Fehleisen shows that insanity may occur during the attack of erysipelas or follow the subsidence of the infection. Puerperal insanity with little or no local lesion, caused by septic infection and usually of short duration and of mild confusional type, or puerperal insanity complicated by gross local lesion, the result of septic infection, may be found. A third class of cases is that of postpuerperal insanity induced by pelvic disease, the latter being the result of septic infection. The important lesson taught is that too great care cannot be adopted by the accoucheur in conducting a woman through the really dangerous period of the puerperium and in protecting her from sepsis. [W.K.]

5.—See this Journal, Vol. III, p. 1203.

6.—Lewis discusses **maternal impressions,** relates several instances of such supposed phenomena, and shows the fallacious reasoning employed to explain various cases of fetal malformation. He considers that all malformations and monstrosities can be explained by purely physical and mechanical causes, entirely remote from psychic influence, so that there is never any reason to invoke the mysterious or supernatural to explain natural phenomena.

7.—See this Journal, Vol. III, p. 1203.

American Gynecological and Obstetrical Journal.

July, 1899. [Vol. xv, No. 1]

1. The Etiology of Eclampsia and the Diagnosis of Impending Eclampsia. Edward P. Davis.
2. The Preventive Treatment of Puerperal Eclampsia. Richard C. Norris.
3. The Use of Parotid-Gland Extract in the Treatment of Ovarian Disease. E. Pierre Mallett.
4. Personal Experience with Tuffier's Angiotribe. I. S. Stone.
5. Vaginal Incision and Drainge for Simple Broad-Ligament Cysts. T. J. Watkins.
6. The Infrapubic Route in Surgery of the Uterus and Its Adnexa. William H. Wathen.
7. Hour-glass Constriction of the Membranes in the First Stage of Labor: A Clinical Study and Report of Five Cases. Ervin A. Tucker.

1.—Davis discusses the **etiology and diagnosis of impending eclampsia.** At the present time the bulk of evidence is distinctly in favor of the belief that a profound toxemia, originating in the bodies of the mother and fetus, causes eclampsia. The exact agent has not been isolated. An excessive amount of serum, albumin in the urine, accompanied with kidney debris, is a symptom of moment. The amount of urea excreted is a valuable index. A diminution in its amount indicates a retention of toxins. Jaundice is an especially grave symptom, and, hematogenic in origin in these cases, points to a grave toxemia. To summarize, the great majority of evidence assigns toxemia as the cause of eclampsia. The diagnosis of toxemia is made by studying the action of the excretory organs of the patient. As regards the examination of the urine, the quantity, its specific gravity, the amount of urea, the presence and character of sediment, are important. Especial attention must be directed to the functions of the liver and intestine. When close scrutiny indicates that the liver, kidneys, skin, bowels, and lungs are deficient in action, investigation of the nervous system will show that the patient is suffering from retained toxins. Should this condition be unrelieved, the weakest excretory organ will first give way, and the acute nephritis or hepatitis of acute toxemia of the blood will usher in eclampsia. [W.K.]

2.—Norris believes that the rational and efficacious treatment of eclampsia consists in prophylaxis; this will be hygienic as well as medical and obstetrical. Good preliminary ventilation, and easily digested diet of readily oxidized, nonconstipating and nontoxic food, outdoor exercise, avoidance of compression of the waist by the corset, frequent bathing, the selection of proper underwear, and avoidance of taking cold, are hygienic rules. The indications for treatment will be made plain by the critical study of individual cases. Calomel as a laxative for pregnant women is of very great advantage, since it is probably the best intestinal antiseptic and acts upon the liver, the organ which especially requires attention during pregnancy. An exclusive milk-diet until marked improvement occurs, is essential. In very urgent cases hypodermoclysis may be desirable. The hot-air bath or the hot pack should be reserved for cases so alarming as to require the termination of pregnancy. Of all drugs available for the rapid elimination of waste material Norris places most confidence in Epsom and Rochelle salts. The use of an abundance of pure drinking water with rectal injections of salt-solution, is better than the use of diuretics. The future may disclose the identity of the toxin causing eclampsia, and thus raise the prophylactic treatment of eclampsia to a scientific level, by the employment of injections of an appropriate antitoxin. [W.K.]

3.—See this Journal, Vol. IV, p. 422.

4.—Stone reports his personal experience with Tuffier's angiotribe, and considers that in all cases in which fairly healthy, firm tissues permit its use, the angiotribe as a compressor is nearly perfect in its action. The patients mentioned had almost no pain subsequent to operation. [W K]

5.—See this Journal, Vol. III, p. 1203.

6.—See this Journal, Vol. III, p. 1204.

7.—Tucker has made a clinical study of cases of so-called **hour-glass constriction of the membranes** in the first stage of labor. The name is selected as descriptive of the condition, because the entire bag of waters is divided by the partially dilated cervix into two bags, the uterine and the vaginal, between which there is communication so that fluid can pass more or less rapidly from one to the other. [W.K.]

Bulletin of the Johns Hopkins Hospital.

May, 1899. [Vol. x, No. 98.]

1. Acute Diffuse Gonococcus Peritonitis. Harvey W. Cushing.
2. A Case of Atrophy of the Optic Nerves Following Hemorrhage from the Stomach, With a Consideration of the Causes of Posthemorrhagic Blindness. Samuel Theobald.
3. Lichen Scrofulosum in a Negro. T. Caspar Gilchrist.
4. A New Instrument for Measuring Heterophoria and the Combining Power of the Eyes. Frederick Herman Verhoeff.
5. On the Solution of Mercury in the Body. Arthur Smith Chittenden.

1.—Cushing reports 2 cases of **general peritonitis** occurring during menstruation, and following a recent exposure to **gonorrheal infection.** Apparently, the uterus and tubes at such times are less liable to resist infection, and

an acute gonorrheal process can rapidly ascend from the cervix through the patent abdominal ostia to the peritoneum. In both cases the onset of abdominal symptoms was sudden, with pain and vomiting, but without the shock and collapse seen in perforative peritonitis. In neither case was abdominal tenderness a marked feature, nor was there any distention from paralysis of the bowel. Leukocytosis was pronounced in each case. The character of the peritonitis in both was the same—a dry, fibrinous peritonitis. There was practically no pus or serous exudate. The whole serosa was universally injected and the deposit of fibrin on the liver and spleen was so thick that it could be stripped away. Both patients made a complete **recovery after operation.** From the character of the peritonitis, it is possible that they might have recovered without operation, but probably with a following chronic pyosalpinx which would have subsequently demanded operation. The attempts to demonstrate the gonococci in the stained sections of the tubes were unsuccessful, but the organisms were readily demonstrated in the exudate at the time of operation and were obtained in cultures. No other organism being present, the existence of a diffuse general peritonitis of gonorrheal origin is demonstrated. [D R.]

2.—A man, 57 years of age, had suffered for upwards of 20 years with stomach-trouble, the most prominent symptom being frequently repeated attacks of vomiting. May 6, 1898, he had a severe hemorrhage from the stomach, which was followed at intervals of 48 hours by 2 equally severe hemorrhages. His life was despaired of, and for 2 weeks he was in an unconscious state. On the day of the second hemorrhage his sight, which previously had been good, became greatly impaired. At the end of 2 weeks his vision began to improve, and eventually he could see well enough to walk about. In the middle of November his sight again began to decline, and when admitted to the hospital he had to be led about like one entirely blind. He had been a pretty constant smoker, but denied having been a hard drinker, and also denied having had syphilis. Examination showed the existence of a tumor at the pyloric orifice, which was considered by Drs. Osler and Thayer a cicatricial mass in which a more recent development of malignant growth had occurred. The ophthalmoscope showed advanced **atrophy of both optic nerves.** Various theories have been advanced to explain the blindness following severe hemorrhage. Samelsohn held that the optic neuritis, as well as the hematemesis, depended on a central lesion, probably in the optic thalamus; but this view is hardly tenable. Ziegler attributed it to a fatty degeneration of the retina, induced by the ischemia; while Hoffman ascribed it to a retrobulbar neuritis. Neither of these latter views receives much support from ophthalmoscopic examination. A more likely cause, in the author's opinion, is **thrombosis in the retinal vessels.** In addition to the ordinary factors favoring thrombosis after anemia (reduction of blood-pressure, slowing of the blood-current, alteration in the blood itself, and changes in the vessel walls), there is in the retinal circulation an additional factor tending further to obstruct and enfeeble the blood-current, viz., the intraocular tension. The ophthalmoscopic picture of thrombosis of the central retinal artery (thrombosis of the retinal veins is also possible) is much the same as is found in embolism of the artery, and there are grounds for believing that many of the cases in the past regarded as embolism of the central artery of the retina were cases of thrombosis. After reviewing some of the literature, the author concludes: (1) That the weight of evidence afforded by the ophthalmoscope points to thrombosis of the central retinal artery as the usual cause of the blindness which occurs in posthemorrhagic anemia. (2) That the resistance offered to the already enfeebled blood-current in the central retinal artery by the intraocular tension is an important etiologic factor in determining this result. (3) That in exceptional instances the ophthalmoscope indicates that the thrombosis occurs not in the artery but in the central retinal vein. (4) That in other exceptional instances it may be that the loss of sight and the ophthalmoscopic changes which accompany it are the result of a hemorrhagic or serous effusion into the optic nerve or its sheath. And here, again, the obstruction and damming back of the blood-current in the central retinal artery by the intraocular tension, probably have much to do with bringing about this result. [D.R.]

3.—Gilchrist's case is the fifth reported in this country and the first occurring in a negro. The patient was a well-nourished young girl, 11 years of age, on whose back were found a number of round and oval patches varying from 10 to 20 mm. in diameter. A few similar patches were found on the extensor surface of both thighs, above the left groin, on the anterior surface of the right thigh, and in the pubic region. The patches consisted of groups of small, conical, slightly scaly, whitish, firm papules, raised and presenting a flattened summit which was covered with an adherent whitish scale, on removal of which a bleeding surface was exposed. There was a slight red areola surrounding the base of the papules. The oldest groups were the largest, and the central portion appeared to be clearing up, although on close examination the remains of slight, scaling, flattened papules could be detected. Many of the lesions were pierced by lanugo hairs and were therefore situated around hair-follicles. There were no subjective symptoms. A probable diagnosis of **lichen scrofulosorum** was made and was confirmed by the extension of the lesions, their uniform character, and the appearance of a phlyctenular conjunctivitis. Numerous enlarged lymph-glands were present. The family-history was good, except that one sister had died of "consumption." Under the administration of hypophosphites and codliver oil, the cutaneous and eye troubles both rapidly disappeared. Sections of the lesions presented the following appearances: (1) Semiglobular masses situated in the horny layer and in the majority of cases around the hair-follicles. (2) Marked pathologic changes in the upper portion of the corium beneath these papular masses, and also around the hair-follicles, especially the deepest portions. The lower portions of 4 of the sections contained typical tubercles around the hair-follicles. Tubercle-bacilli could not be demonstrated. The true nature of lichen scrofulosorum has been much in doubt, some dermatologists considering it tuberculous, others disputing it. Successful animal-inoculations have, however, been made in three instances, which would justify the title of **tuberculosis follicularis.** The article is well illustrated. [D.R.]

5.—The inunctions of finely divided mercury or the inhalation of the vapor can give rise to marked symptoms of mercurial poisoning. This fact involves somewhere and somehow a solution of the metal, and a determination of the place and nature of this solution has often been attempted. Inhalation and inunction experiments with insoluble mercury show that the metal does not pass through the intact skin, but appears in soluble form in the blood and dejecta. The factors affecting solution might be found in the secretions on the surface and in the menstruum of the ointment. The author's researches prove quite conclusively that the **blood has the power of dissolving metallic mercury.** He injected metallic mercury into the femoral artery of dogs and then tested the urine and feces. From both he obtained mercury; much more from the urine, however, than from the feces. That the mercury had passed into the urine in solution and not in finely divided globules was proved by the absence of globules in the lumen of the renal tubules and in the epithelial cells themselves. Just how the solution of the metallic mercury by the body-juices is effected, and what part is played by the albuminous constituents, cannot be definitely stated; but that solution is effected, and that the mercury is eliminated as an albuminate, seems to be true. [D.R.]

Edinburgh Medical Journal.

July, 1899. [N. S. Vol. vi, No. 1.]

1. Strumous Ophthalmia. A. MAITLAND RAMSAY.
2. Asthma in Relation to the Upper Air-Passages. P. MCBRIDE.
3. On Cardiac Strain in Adolescence and in Middle Age. I. BURNEY YEO.
4. Primary Malignant Disease of the Prostate Gland—A Clinical Study of the First 50 Cases Which Have Been Under the Writer's Care and Observation. E. HURRY FENWICK.
5. An Outbreak of Typhus Fever. HARVEY LITTLEJOHN and CLAUDE B. KER.
6. Repeated Ectopic Gestation in the Same Patient. JOHN EDGAR and JOHN H. TEACHER.

7. Observations on Labor, Complicated by a Minor Degree of Pelvic Contraction, in Primiparæ and Multiparæ.
8. Three Cases of Urethral Calculi Impacted in the Lower End of the Ureter, and Removed by Suprapubic Cystotomy. E. Stanmore Bishop.
9. Partial Retention of Urine—Its Consequences and Treatment. A. A. Warden.
10. On Mouth-Breathing. J. L. Bunch.

1.—Ramsay studies the clinical signs and symptoms of **strumous ophthalmia,** which is very common, especially among the poorer classes. Photophobia is one of its most characteristic and most distressing symptoms. The eyelids, nose and upper lip are swollen, and the involvement of the mucous membranes is in some cases general. The local lesions on the eyeballs are remarkably slight. When the eyelids are swollen the sclerotic may show scarcely a trace. In most cases there are localized congestions, and the ocular conjunctiva is traversed by a leash of bloodvessels running toward a minute phlyctin, situated on the surface of the cornea, often right over the center of the pupil, which, as a result of the irritation of the corneal nerves, is always greatly contracted. The phlyctin is the most characteristic objective sign. These pustular elevations vary greatly in size, and unless proper treatment is instituted may lead to ulcerations that produce severe injury. He insists upon the systemic treatment of the condition. The dietary of the child must be carefully attended to, with regulation not only of diet, but of the time of eating. The elimination must be stimulated both through the kidney, the bowels, and especially the skin. The patient should be kept in bed for the first few days, but without bandages. Tartar emetic in slightly nauseating doses is recommended, combined with powdered rhubarb, which increases its efficiency. The eyes should not be irritated, but bathed as necessary, twice or more a day, with a warm solution of boracic acid. Atropin and cocain may be used for the irritation. The atropin must be instilled when the pupil begins to contract. He also gives the treatment of the complications. [C.L.L.]

2.—McBride believes that hay fever, the most familiar form of **nasal asthma,** has for its development a neurotic basis. In a very large number of cases the nasal passages are practically normal save during the attacks. What probably takes place in these cases is the specific irritant touches a hyperesthetic nasal mucous membrane, causing erectile swelling which is followed by hypersecretion. In certain predisposed persons a reflex asthma is induced. The Anglo-Saxons are more disposed to this disease than other races and it is largely confined to the wealthier classes. A less common form of nasal asthma is that due to polyps. The smaller polypi, probably owing to their greater mobility, being more likely to induce asthma than the larger ones. Hypertrophic catarrh and deviations and outgrowths from the septum create a variety of asthma which may be benefited by local treatment. Conservatism in nasal surgery is always to be recommended, however. In some asthmatics, especially where the atacks are preceded by sneezing and nasal hypersecretion, the application of the electrocautery may be beneficial, even if at the time of application the parts are fairly normal. This treatment probably does good at times by destroying nerve-endings through which reflex vasomotor changes are produced while again the good is done by the formation of cicatrices, thus binding down the erectile tissue and preventing swelling. Nasal treatment may do good even where the paroxysm is not preceded by nasal symptoms. In a considerable proportion of asthmatics there can be detected on the nasal mucosa, most commonly over the inferior turbinated body, spots, which, when touched with a probe, produce cough. In most cases showing these spots the asthma can be greatly ameliorated and even cured by applying the electric cautery to these areas. It is probable that most asthmatics, even those with normal noses, would be benefited by the application of the electric cautery as a counterirritant. It is never safe to promise a cure in these cases, as the nose is rarely, if ever, the only cause of asthma. Asthma is rarely induced by irritation or disease of other parts of the upper respiratory tract. [S.M.H.]

3.—Yeo, in discussing **cardiac strain in adolescence and middle-life,** describes a form occurring in young girls about the age of puberty. The condition is due to rapid physical growth associated with the development of new functions and to the educational requirements imposed at this age. Not infrequently the muscular force of the heart fails to develop with equal and commensurate rapidity, and there results a condition of overstrain. The characteristic symptoms of this condition are palpitation and dyspnea on slight effort, a tendency to fainting and giddiness, edema of the ankles, pain or hyperesthesia of the cardiac muscle and loud cardiac murmurs. The treatment of the condition consists in systematic rest, proper food in sufficient quantity, and the administration of cardiac and blood-tonics. Overindulgence in athletic sports, violent physical exercises, sexual excesses, and the too great use of tobacco, are common causes of cardiac and pulmonary strain in young men. The occasional return to athletic exercises and competitions from a sedentary life are most fruitful causes. The treatment of this class of cases consists in the removal of the cause, and an increase in the number of hours spent in the recumbent posture, together with the use of the ordinary tonics. Cardiac strain in middle-age happens chiefly in men, and is usually due to a failure on the part of the subject to recognize the degenerations of increasing years, and a consequent tendency to overindulge in the physical exercises of youth. Intemperance in eating, drinking, smoking, and sexual indulgence, are also potent factors. In treating these cases, gentle exercise, open-air life, regulation of the digestion, the lightening of business responsibilities, and a very limited use of alcoholic stimulants, should be advised, together with the administration of strychnia and iron. [S.M.H.]

4.—Fenwick does not believe in **dividing malignant tumors** according to their microscopic characteristics, but would consider only 2 divisions which differ most markedly in their symptomatology, prognosis, and treatment: (*a*) the hard, malignant growth, which, to the touch and to the eye on section, and in its rate of progress, is like mammary scirrhus; (*b*) the soft, malignant growth, a much rarer form, which resembles, in the rapidity of its growth and naked-eye appearance, mammary encephaloid cancer. He points out the fact, which he has proved in 50 cases that have come under his care, that by tactile sensation a stony hardness can be detected in the lobe of the prostate in the early stages; that the gland becomes tense within its entire capsule later, and finally ruptures. The symptoms coincide with these stages, and the condition simulates prostatic disease so nearly that it is seldom recognized in the earlier stages, and as the symptoms decrease after the rupture of the capsule, the case is not recognized until the growth has made great headway. A cautious physician will examine per rectum, and then detect the cause of the sudden relief of symptoms, and the true nature of the disease. Where the growth follows a chronic disease of the prostate the diagnosis is more difficult, and the symptoms and signs are not as typical. In treatment, he employs belladonna and conium in a suppository for the frequency and straining. Nux vomica is contraindicated. Morphia should be reserved for the late stages; antineuralgics may be tried. A soft Jacques catheter is the best to employ when needed. If 8 to 10 ounces of urine are removed the patient may be promised relief. If only 1 or 2 ounces are found, the case will be most unfavorable, and probably necessitate suprapubic drainage to give the patient relief from the frequent agony of micturition, which is much increased by carcinomatous urethritis. Suprapubic drainage is also called for in cases in which great spasm of the detrusor is excited by intramuscular growth. The prognosis lies within 3 years in hard, malignant growth of the virgin prostate. The rapid malignant type is generally diagnosed as prostatic abscess; its rapidity is so great, that after it becomes recognized it is frequently necessary to colotomise within a few weeks. [C.L.L.]

5.—Littlejohn and Ker describe **an outbreak of typhus fever** in Edinburgh. They were unable to ascertain the manner of introduction of the disease or to locate the first case. It had probably existed for several weeks before it was recognized. With a few exceptions the cases occurred within a radius of a quarter of a mile of Simon Square, and among families that were in constant intercommunication. The cases outside of this area were found to have been infected from persons living within it. There were 82 cases in all. Over one-fourth of these occurred in children under 10 years of age. Thirty-eight males and 44 females were attacked. The death rate was 12%. There were no deaths in patients under 15 years of age. Dirty houses, deficient

cubic space, and lack of ventilation greatly increased the infectiousness of typhus. The great majority of the cases occurred in the midst of such unsanitary conditions. While fomites doubtless convey the infection this outbreak would indicate that they are not as active in this direction as is usually thought. To prevent the spread of the disease the following measures were pursued: (1) Hospital isolation of the patient. (2) Persons living in the same house and friends and neighbors who had been in close communication with the patient were moved into quarantine for 15 days. When this quarantine could not be carried out, all persons who had been exposed were frequently visited at their homes. (3) Disinfection by steam of all textile articles, destruction by fire of old mattresses, thorough fumigation of the rooms by sulphur fumes, formalin spray or perchlorid of mercury solution, and the plentiful use of soap and water, fresh air, whitewashing, etc. The average incubation period was about two weeks, in one case it extended to 17 days. The onset of the disease was sudden and the first symptoms were usually severe headache, chilly sensations, sometimes a chill, vomiting (occurring in $\frac{3}{4}$ of the cases, an unusually large proportion), pain in the limbs and back. The temperature rose at once and reached the acme on the third day. In two cases there was a fall to normal on the second day. The face was usually congested and stupid, and the eyes pink and watery. There was always great depression. There was nothing irregular noted during the period of advance and eruption save that the subcuticular element of the rash was as a rule present on the third day, and in one or two instances quite recognizable, though very faint, on the second day. The fatal cases grew progressively worse during the second week, but few of them died before the fourteenth day. The evening temperature of the adult cases became, on an average, steadily normal on the fifteenth day. In the children, on an average in $11\frac{1}{2}$ days. Delirium occurred in 40 out of 51 adult cases. Three fatal cases, occurring in males, had true delirium from the end of the first week. Persistent insomnia occurred in half the cases, subsultus tendinum in one-third, twitching of the facial muscles in 6 cases, and in 2 of these actual convulsions of a chronic type. Slight albuminuria was present in 38 adult cases; in a few it was quite marked. The diazo-reaction was present in all of 15 cases examined. All cases were obstinately constipated for the first week and showed a tendency to looseness about the tenth day. Purgatives given at this period caused intractable diarrhea. There was one case, a female, who had been treated in the hospital 6 years previously in an attack of typhus. The complications observed were hypostatic pneumonia, frequent, two cases of lobarpneumonia—both in women—and one severe bronchitis. Three patients—all women—had otorrhea, in one instance followed by Bell's palsy. There were 7 cases of severe diarrhea. One man had parotitis as a sequel, one a sharp attack of nephritis, and many had boils and small abscesses. Of the 9 fatal cases 7 were in men and all of them were large, heavy, and very muscular, and 5 of them alcoholics. The authors consider a fine physique a distinct disadvantage to a man starting an attack of typhus fever. The most severe cases in women were among the fattest ones. In the matter of prognosis the sex, age, and degree of muscular development must be considered. A profuse rash indicates a serious attack. A slight fall of temperature on the seventh day and a very slow lysis from that period to the thirteenth day portend favorably. The Ehrlich diazo-reaction is valueless as an aid in diagnosis. The Widal reaction, on the other hand, the authors consider a most reliable means of differentiation from typhoid fever. The characteristic "rotten-straw" odor of typhus is considered a valuable diagnostic sign. The treatment of the patients was largely a question of proper rest, diet and sufficient stimulation—occasional cardiac tonics, and hypnotics. The temperature was controled by tepid sponging and by keeping the temperature of the wards between 50° and 60° F. After the crisis, patients were removed to a convalescent ward kept at ordinary room-temperature. The disease was not contracted by any of the attendants, which was attributed to the free ventilation maintained in the wards—all doors and windows being open at all times—to care in regulating the bowels, to frequent bathing, a healthy action of the skin, and to regular and frequent exercise in the open air. The patients were frequently sponged with an antiseptic solution, and their mouths carefully swabbed with listerin, which reduced the chance of the disease being conveyed to the attendants. The quarantined patients were kept in bed so that anyone developing the fever would not have come in contact with the others. The temperature in these cases was taken night and morning, and at the first complaint of headache or malaise. [S.M.H.]

6.—Edgar reports a case of **repeated ectopic gestation.** There were several interesting points about the case worthy of note. (1) The fact that rupture occurred in both tubes, the first at the end of the seventh, the other at the end of the eighth week. (2) The very small amount of blood extravasated intraperitoneally on each occasion. (3) The severe attacks of syncope at the time of the second rupture. (4) The presence of decidual cells in the two portions of endometrium removed by the curet. (5) The absence of any history of pelvic pain or other sign of tubal disease prior to the tubal pregnancy, and of any definite microscopic evidence of salpingitis in either tube. (6) No preceding sterility; far too much prominence has been given to this symptom; in 26 cases under Edgar's care almost every patient had had a child a few months or a year or two previously. [W.K.]

7.—Ferguson gives the history of a patient attended in 5 consecutive confinements, and makes observations on **labor complicated by a minor degree of pelvic contraction** in primiparae and multiparae. Franké's statistics seem to indicate that more primiparae than multiparae are delivered spontaneously in cases of contracted pelves, after eliminating altogether other causes of delay not directly due to the pelvic condition, which one knows are more apt to exist in multiparous labors. This is no doubt due to the stronger pains, to the early engagement of the presenting part, to the possible absence of any great uterine obliquity, and to the possibly smaller size of the child in primiparae. [W.K.]

8.—Bishop says of **ureteral calculi** that they are not common, if they are small enough to enter the ureter they usually get down into the bladder. Occasionally, however, they become impacted. If impacted completely the kidney on that side becomes atrophied after a period of intense pain or if double anuria and death ensue. If the impaction is not complete or the calculus shifts from time to time, hydronephrosis, with intermittent attacks of renal colic, possibly pyonephrosis or pyonephric abscess, with their concomitants are the result. These calculi tend to lodge in three definite positions, the brim of the pelvis, the infundibulum, and the vesical end. The author reports three cases in which he successfully removed calculi from this position by suprapubic cystotomy. One of the cases was peculiarly noteworthy, as it had been mistaken for ovarian disease, and the gynecologist had removed both her ovaries without detecting the calculus or relieving the pain. The diagnosis should have been made because the attacks existed before menstruation commenced, from the behavior of the urination during the attacks, the microscopic examination, and the recto-bimanual examination. The calculus could not be detected by vagino-bimanual examination, but was readily felt by recto-bimanual exploration. The third case was noteworthy by reason of the existence of a vesical calculus in conjunction with an impacted ureteral calculus. The ureteral calculus was not found till after the other had been removed. In reference to the best method of operating the author would prefer in females to operate through the vagina when the calculus can be readily felt in that channel. It is readily reached and drainage is all that could be desired. When it is not practical, as in the male, the readiest and safest route is through the bladder. When the bladder is open and the patient in the Trendelenburg position, any work can be carried out with the utmost ease and precision, especially if the base of the bladder is raised by pressure from within the rectum. [C.L.L.]

9.—Warden points out the **importance of recognizing** the condition of **a bladder incompletely emptied** by the urinary act. Early recognition and proper treatment will save many cases from subsequent cystitis and the troublesome conditions that accompany it when conjoined to prostatic hypertrophy. The early symptoms are nocturnal polyuria and persistent digestive troubles. The golden rule of treatment is to empty the bladder often, for long and aseptically. The poisoning of the system which results from such stagnation often brings on a cachectic look that when accompanied by the gastric symptoms may be mistaken for

cancer of the stomach. Such patients may even disregard entirely their urinary symptoms. The regime advised should be a generous one—much milk, meat juice, beef-tea, custards, eggs, soups, wine, bitter vegetable tonics and saline laxatives; out-of-door exercise in moderation. [C.L.L.]

Wiener klinische Wochenschrift.

July 6, 1899. [12. Jahrg., No. 27.]

1. The Clinical Pathology of the Peripheral Nervous System in Tuberculosis of the Lungs, with Special Consideration of Acroparesthesia. R. Schmidt.
2. The Nitro-Naphthalin Clouding of the Cornea—An Industrial Disease. V. Hanke.
3. A Case of Myelitis Transversa Acuta. H. Marcus.

2.—Hanke reports a case of this character where the cornea and sclera between the palpebral margins was the seat of an irritation which was not a true inflammation, but only the epthelium producing an abrasion of the cornea. It is undoubtedly to be classed as an occupation-disease and was due entirely to the vitiated atmosphere in which the patient worked. [C.L.L.]

July 13, 1899. [12. Jahrg., No. 28.]

1. A Case of Addison's Disease, following the Termination of Purpura Hemorrhagica, with Examination of Metabolic Assimilation. F. Vollbracht.
2. A Case of Noma Facei. Fr. Passini and C. Leiner.
3. The Third Case of Tetanus Traumaticus Cured by Injection of Brain Emulsion. A. Krokiewicz.
4. The Clinical Pathology of the Peripheral Nervous System in Tuberculosis of the Lungs, with Special Consideration of Acroparesthesia. (*Continued.*) R. Schmidt.

2.—Passini and Leiner made a careful bacteriologic study of a case of **noma facei,** believing that this condition would find an explanation of its virulence if the bacteria in it could be isolated and determined. Their researches led them to believe that the diphtheria-bacillus is the cause of the virulence. It is not found in the superficial sore, but in a section taken from the line of demarcation in the cheek and from the tonsil. The Weigert-Gram and other methods of staining proved its identity. This case was not subjected to the serum-test which other observers have seen produce the specific reaction, but the characteristic ulceration on the tonsil showed that the process was diphtheria which had spread to the cheek. There were other bacteria present, but they were superficial and not in the tissue. [C.L.L.]

3.—Krokiewicz reports a third case in which the **injection of brain-tissue** emulsified in normal salt-solution produced a cure in a very serious case of **traumatic tetanus.** In this instance the brains of guineapigs were used instead of calves' brains, as they could be had fresh and when required. It was strained through very fine sterile gauze to prevent the formation of abscesses from the coarser particles, a complication that followed in the first instance. The emulsion was injected in the subcutaneous cellular tissue of the abdomen. Forty grams of brain-substance were used altogether. [C.L.L.]

July 20, 1899. [Jahrg. 12, No. 29.]

1. Concerning Thread-formation. A Contribution upon the Theory of Agglutination. R. Kraus.
2. The Casuistic of Pancreatic Cysts. H. Keitler.
3. Chemical Examination of the Contents of a Pancreatic Cyst. E. Zdarek.
4. Chemical Examination of Hydramnios Fluid. T. Pauzer.
5. The Clinical Pathology of the Peripheral Nervous System in Tuberculosis of the Lungs, With Special Consideration of Acroparesthesia. (*Concluded.*) R Schmidt.

1.—Pfaundler has maintained (see Philadelphia Medical Journal, May 27, 1899) that for the production of the **filamentation phenomenon** (Fadenbildung, thread-formation) the serum and the microorganism must come from the same individual; in other words, that the microorganisms react only with homologous serum, and that the reaction is a specific one. Kraus' investigations have led to somewhat different conclusions, which are summed up as follows: (1) Filamentation is a phenomenon which occurs in certain microorganisms under the influence of an agglutinating serum; (2) Filamentation is always preceded by agglutination; (3) Filamentation is not as constant a phenomenon as agglutination; (4) In general the same rules hold good for the practical application of filamentation as in the case of agglutination, the bacillus coli being excepted. [D R]

2.—Keitler reports a peculiar **cystic tumor of the pancreas** which was pedunculated and had an excessive amount of movement in the abdomen. It assumed a position in the median line or a little to the left above the umbilicus, and its excursions throughout the abdomen were excessive, as it could be readily displaced beneath the ribs on the left, or carried anywhere deep down in the abdomen in a wide arch that had as its center the pancreas. There were no symptoms to indicate its character, while its relations made it suggest in some respects a cyst of the kidney. The one symptom that was most important was its movement with the respiration. [C.L.L.]

3.—The **fluid of this pancreatic cyst** (see No. 2) differed somewhat from that ordinarily found in cysts of the pancreas. It was watery, neutral in reaction, had a specific gravity of 1007, and contained less than 1% of albumin. Fatty acids and fats were present in small quantities, also urea, cholesterin, and oxalic acid. It had no proteolytic or fat-splitting action, but contained a diastatic ferment. [D.R.]

4.—The **fluid from a case of hydramnios** had the following composition: A liter contained water 988.254, solids 11.746, ash 8.276, organic substances 3.470, total nitrogen 0.448, urea 0.2105, uric acid 0.053, coagulable albumin 2.010, globulins 0.083, albumins 1.927. There was present in addition cholesterin, soaps, and allantoin. Creatinin, creatin, lactic acid, oxalic acid, indican, and sugar were absent. A study of the ash showed that the chlorids preponderated in a much greater degree over the phosphates than is the case in the urine. [D.R.]

5.—The conclusions of the author are as follows: The **disturbances in the peripheral nervous system occurring in pulmonary tuberculosis** are of two classes: (*a*) Disturbances in consequence of local, principally mechanical, more rarely toxic, influences on regional nerves; (*b*) Disturbances dependent upon diffusely acting toxic or dycrasic influences; (2) Under group *a* the unilateral plexus pressure-pain and the homolateral acroparesthesia frequently associated with it (often localized in the region of the ulnar nerve) are of special diagnostic importance, particularly in the incipient forms of pulmonary tuberculosis and initial hemoptysis; (3) Among the manifold causes of acroparesthesia tuberculosis should be kept in mind, especially in young individuals; (4) The symptomatic acroparesthesias of phthisical patients are distinguished; (*a*) by their frequency in the male sex; (*b*) by their frequent coincidence with catarrhal pulmonary processes (influenzal bronchitis); (*c*) by their tendency to be unilateral; (*d*) by the frequent existence of unilateral and homolateral plexus pressure-pain; (*e*) by the presence at times of such characteristic phthisical symptoms as night-sweats and evening rises of temperature. [D.R.]

Deutsche medicinische Wochenschrift.

August 3, 1899. [25. Jahrg., No. 31.]

1. Upon the Appearance of Vascular Changes during and after the Use of Esmarch's Bandage for Artificial Anemia and its Physiological Explanation. A. Bier.
2. The Diagnosis of Uremia: Albuminuria in Diabetes Mellitus. L. Herzog.
3. Concerning Sac-Diverticulum of the Esophagus and its Radical Surgical Treatment with Skilful Gastrostomose. C. Hoffmann.
4. Concerning the Relation of Leukoplakia Oris and Psoriasis Vulgaris. W. Lissauer.
5. Brain-Cysts a Cause of Epileptic Convulsions. C. Tubenthal.

1.—Bier shows that the hyperemia following **Esmarch's method** of rendering a limb bloodless, cannot possibly be due to pressure on the nerves; and that the real cause of the hyperemia is the deprivation of the tissues of their normal food-supply, and the demand for nourishment causes the

dilatation of the vessels whereby more blood may be brought to the deprived area. [G B.W.]

3.—Diverticulums of the esophagus may be divided into the pressure and traction forms. The etiology of the latter, a drawing force on the outside, is well known, while the development of the former is not so easily explained. Hoffmann reports 2 cases belonging to the former variety, who were operated on successfully. Gastrotomy after Witzel was performed, and 3 or 4 weeks later the sack was removed by an incision through the neck. Neither of these cases throw any light on the etiology. [G.B.W.]

5.—Two years after a severe injury to the head, the patient began to suffer from typical **epileptiform seizures.** At the operation more or less necrosed bone was found and the defect in skull mainly filled up with granulation tissue. Beneath this the dura was wanting, seemingly to have disappeared in the outer wall of a large cyst which communicated with the lateral ventricle. The cyst was packed with gauze and finally healed by granulation. [G.B.W.]

August 10, 1899. [25. Jahrg., No. 32.]

1. Concerning the Curative Effects of Thiocol-"Roche." E. DE RENZI and G. BOERI.
2. Healing, through Suture, of a Wound in the Left Ventricle —a Contribution upon Cardiac Surgery. PAGENSTECHER.
3. The Diagnosis of Uremia, and upon Albuminuria in Diabetes Mellitus. (*Conclusion.*) L. HERZOG.
4. Concerning Diffuse Keratitis. H. SALOMONSOHN.

1.—Thiocol-Roche is a derivative of guaiacol. It is a **potassium salt of sulfoguaiacolic acid,** and contains about 52% of guaiacol. It is a white microcrystallinic powder of a slightly bitter but not unpleasant taste that vanishes as soon as the tongue is moistened with saliva. It is soluble in 4 parts of cold water and 1 part of warm water. A pleasant preparation is one termed syrolin, which is a solution of thiocol in orange sirup. The dose of thiocol used was .5 gm., the daily dose being as high as .4 gm.; the best results were obtained by using from 1 to 2 gm. a day. The orange sirup mixture was used in doses of from 1 to 5 spoonfuls daily. A series of cases is reported which were treated by this drug. One of these was chronic nontubercular widespread bronchitis. The patient left the hospital after brief treatment, but had improved so much that he thought he was well and could not be persuaded to remain. Twenty-four cases of tuberculosis, 6 of them incipient, 8 of moderate extent, and 10 severe, were treated over a considerable period with the following result: The most striking improvement was in the body-weight, which increased very rapidly. The temperature was reduced decidedly in 13 of the cases and in the others was uninfluenced or somewhat higher. There was a large increase in the amount of urine excreted in 16 of the cases. The frequency of the pulse and respiration was decreased, the respiratory capacity increasing in 15 of the cases. The amount of the expectoration was much decreased in 9 cases. The number of bacilli decreased greatly in 15 cases; the rales became fewer in most of the cases, and there was believed to have been in many of them a decrease in the extent of the signs of disease of the lungs. The appetite improved markedly, and thus admitted of their patients taking a greater amount of food. With this there was marked increase in strength; in 4 cases the cough decreased, and in many the sweating was much improved. The digestive tract showed no intolerance toward the drug. In 4 cases metabolism experiments were carried out while taking the drug, the substances estimated being uric acid, the total sulphur, the acid sulfates, and the neutral sulphur. The uric acid decreased decidedly during the treatment in all the cases. On an average the total sulphur increased somewhat, while both the acid sulfates and the neutral sulphur were somewhat increased, the latter most markedly so. The decrease in the uric acid is considered to indicate a marked improvement in the oxidation processes of the body. [There is no statement that the food was controled at all in any of these experiments; and unless it was absolutely controled, such variations in the uric acid as reported here (averaging about 100 mg. a day) indicate absolutely nothing, the one interesting point being, that in all the cases there was some reduction of the uric acid. To state, however, that this was due to increased oxidation under the influence of the thiocol, is to indulge in speculation that is not supported by established facts. D L.E.]

2.—Pagenstecher reports a most interesting case of **suture of the heart.** The patient, 17 years of age, was stabbed just under the left nipple with a dagger-like knife. He walked about 6 steps and fell fainting. He was taken to the hospital where he regained consciousness, but kept getting worse until the next morning when he was operated on; 6 cm. of the fifth costal cartilage was resected. The wound in the pericardium was found and enlarged. On the side of the left ventricle a wound 3½ cm. long and 3 cm. above the apex was seen. There was little or no gaping, but there issued from the incision a small but continuous stream of bright-red blood. After considerable difficulty sutures were finally introduced so that the hemorrhage was controled. No undue symptoms were excited by the manipulation of the organ, and the patient finally made a complete recovery. [G B.W.]

August 17, 1899. [25. Jahrg., No. 33.]

1. Dyspepsia in Motorial Insufficiency of the Urinary Organs (Urokinetic Dyspepsia) A. ROSENBACH.
2. Acute Rheumatic Mental Disturbances with Acute Rheumatic Chorea. M. JASTROWITZ.
3. Observations of Impalement Cases in the Friedrichshain Hospital from 1880 to 1898. A. NEUMANN.
4. A Case of Acute Stomach Dilatation with Fatal Termination. R. KIRCH.
5. The Mechanism and Physiology of Cyclistics. M. SIEGFRIED.

1.—Rosenbach divides his study of **diseases of the urinary apparatus** into several parts, first considering the symptomatology and pathogenesis of various forms of urogenous disturbances, particularly discussing autointoxication and giving separate consideration to the mucous forming (myxopoetic) functions of the urinary tract and the urine secreting (urodesmic) function. He especially insists upon the importance of study of the mucous secreting function which is usually not considered at all. It is, in his belief, a special function, and the mucus is probably merely a by-product. He attributes to the mucous membrane of the pelvis, the ureters, and the bladder an important function in maintaining normal conditions of metabolism and in furnishing many of the components of the urine. (A statement that seems as yet to be based upon theoretical considerations rather than any actual knowledge.) He gives two terms to disturbances dependent upon abnormalities of the urinary tract: Nephrogenous, which indicates a renal origin without any actual organic renal disease, and nephritic, which, of course, indicates an origin in organic diseases of the kidney. [D.L.E.]

2.—The first case reported is that of a girl of 20 years, whose history was almost free from any indication of tendency to **nervous disease.** She had been in practically normal physical condition up to shortly before the time of her attack of rheumatism. In November, 1898, she showed psychic changes. Her countenance became rather expressionless and she asked childish questions and had excessive appetite. The following month there was a swelling over one vertebra. Soon after there were rheumatic pains throughout the whole body, and swelling of numerous joints, with restless movements. In February, the patient became exceedingly restless, talked wildly, and was sleepless. She was subsequently placed in an asylum. She was then without fever, and remained so. She had marked choreitic movements, throwing her head about hither and thither, and twisting her mouth in all directions. She answered questions partly correctly, but oftentimes merely repeated the question again and again. Her memory was weak. The examination of the organs showed nothing excepting a slight systolic murmur over the heart. The swelling of the joints had entirely disappeared and there was no limitation of movement. Her mental condition varied; she had attacks of silly laughter and often asked ridiculous questions, but was sometimes quiet. The physical condition remained good. During the summer she became distinctly melancholy, talked constantly of her misfortunes, and tried to do herself bodily injury. There were slight evidences still of chorea, but these were not particularly notable. She had emaciated somewhat. Jastrowitz then discusses the **relation between the rheumatism,**

the chorea, and the psychosis, and decides that since the patient had no psychic disturbance before the onset of this attack that the three affections were closely related to each other, and that the psychosis was to be attributed to the rheumatism and chorea. The fact that the psychic changes appeared slightly before the rheumatism and chorea does not exclude this view. Cases are often seen in which psychic changes apparently dependent upon some physical disease show themselves a little time before the actual outbreak of the disease. [D.L.E.]

3.—Neuman reports 19 cases of people being **empaled** on various objects. If the empaling object enters the abdominal cavity, the degree to which the parenchymatous organs may be injured is from a slight bruise up to a severe tear. The intestines may be either torn by the point of the object, or ruptured from overstretching or contused by being jammed between the empaling object and a bony prominence, or the intestine may be displaced with rupture of itself and binding fascias. [G.B.W.]

4.—Kirch reports a case of **acute dilatation of the stomach** occurring in a rachitic lad, 19 years of age. For several days he had suffered gastric disturbances when he was seized with vomiting and severe pain in the abdomen. He grew gradually worse and in a few days died. At the postmortem the stomach was found as a loose sac reaching deep down into the pelvis, the lower portion of its wall resting on the pelvic floor. The duodenum participated in the dilatation. [G.B.W.]

Centralblatt für Gynäkologie.

August 12, 1899. [23. Jahrg., No. 32.]

1. Cesarean Section after Vaginal Fixation. Selmar Dietrich.
2. Cesarean Section with Transverse Fundal Incision. A. von Walla.
3. A Case of Cesarean Section after Vaginal Fixation. Otto Fuchs.
4. The Treatment of Fissured Nipples. Le Maire.

1.—Dietrich reports a case of **cesarean section** on account of complications due to **vaginal fixation.** A nurse, 24 years old, suffering from mobile retroflexion of the uterus, was operated upon by Fritsch, who performed a vaginal fixation with the understanding that the patient did not intend to marry. Some time after leaving the hospital she married. At the end of a pregnancy, which was marked by acute disturbances, she called in Dietrich, as labor was tedious and extremely painful. No cervix could be felt. The abdomen was greatly distended, and pains rapid but apparently without result. As a normal delivery seemed impossible, cesarean section was performed, resulting in the birth of a living child and the subsequent death of the patient from sepsis. The uterus was found to be drawn forward and firmly fixed to the vaginal wall entirely precluding spontaneous delivery. [W.K.]

2.—Von Walla reports another case of cesarean section with transverse fundal incision with favorable results. [W.K.]

3.—Fuchs describes a case of abdominal **cesarean section** in a woman, 45 years old, who had had 7 normal confinements. The year before, a **vaginal fixation** was performed following a vaginal operation for leftsided extrauterine pregnancy. The subsequent pregnancy was complicated by disturbing symptoms, and when labor began, spontaneous delivery being impossible, abdominal cesarean section was performed with good results to mother and child. [W.K.]

4.—Le Maire recommends the use of **creolin** in the form of 1% lukewarm compresses, and orthoform in a saturated solution of 80% alcohol, **for fissured nipples.** He finds that the latter is especially good when painted on and around the nipples, and mentions a few of its advantages. [W.K.]

August 19, 1899. [23. Jahrg., No. 33].

1. A Case of Infected Abortion Healed by Means of Atmokausis. Beuttner.
2. A Case of Puerperal Streptococcus Infection Cured by the Use of Marmorek's Serum, Together with Some Notes on the Puerperal Fever Discussion in "Deutsche Gesellschaft für Gynäkologie" in Berlin. Oscar Beuttner.
3. On the Question of Vaporization. Desider Stapler.
4. Remarks on the Above Article. Ludwig Pincus.
5. New Points in the Technic of Atmokausis, and Several Remarkable Facts. Ludwig Pincus.
6. Some Remarks on the Question of Vaporization. W. Pit'ha.
7. Again the Forceps with Removable Handles. Ludwig Pincus.

1.—Beuttner reports from his private practice a case of **septic infection after abortion** which he treated by means of atmokausis, with the best results. [W.K.]

2.—He reports another case of **puerperal infection** (streptococcus) following a tedious delivery, which was treated by an injection of Marmorek's antistreptococcic serum. Although the author seems uncertain as to the true worth of the serum, he gives it full credit for the brilliant results in this case. [W.K.]

3.—Stapler mentions 4 cases from his private practice in which he has used **vaporization** with the most satisfactory results. His conclusions are as follows: (1) Vaporization can take the place of curetment, especially in cases where the patients are forced to keep on with their work. An anesthetic should never be used. (2) An atmocautery should be in every physician's instrumentarium, since by its help many a serious hemorrhage can be stopped. (3) Atmokausis can be used advantageously in the treatment of erosions of the cervix and fistulae of every description. (4) Steam may also be used in the treatment of hemorrhoids. [W.K.]

5.—Among the improvements to which Pincus refers in his article on the **technic of atmokausis** are: (1) The use of a cervical guard of "celluret" in the form of a continuous tube; (2) an arrangement by means of which a curved catheter can be inserted parallel with a similarly curved steam tube; (3) the introduction of a stopcock with a double canal makes the compression of the tube unnecessary. Of the facts which Pincus believes he has established, the following are of interest: (1) He considers atmokausis as a specific in cases of uterine hemorrhages, abnormal climax, and myoma, and a brilliant palliative method of treatment in cases of inoperable carcinoma of the corpus uteri; (2) zestokausis as well as atmokausis produces good results in all forms of endometritis. Zestokausis should be used only in cases of a narrow, smooth-walled uterine cavity, and in isolated treatment of the cervical mucous membrane; (3) both methods render possible the gradual transition from superficial cauterization to entire destruction of the mucous membrane. Atmokausis alone should be used in obliteration; (4) it is always better and safer to precede obliteration by stoppage of any hemorrhage. [W.K.]

6.—As a result of Pit'ha's observation in vaporization the following facts seemed to him especially important. (1) The consequences **of vaporization in the uterine cavity** are not always the same and chemical treatment seems to offer more certain results. (2) Exact dosage of vaporization is not possible with the present form of instrument. (3) This treatment produces contracting scars which are not without danger to the patient. (4) In cases of uterine hemorrhage this powerful and dangerous treatment is only to be used in desperate emergencies, especially as the more ordinary and milder methods are usually successful. Even in desperate cases there are other equally good, if not better, surgical means at hand. (5) The disadvantages of vaporization far outweigh the advantages to the patient. [W.K.]

August 26, 1899. [23. Jahrg., No. 34.]

1. Short Description of Ten Röntgen-ray Examinations of the Fetus. Peter Bade.
2. A Further Contribution in Regard to the Automatic Action of the Human Fetal Heart. Eugen Peiser.
3. Rare Uterine Cyst Extirpated by Abdominal Hysterectomy. Franz Neugebauer.
4. A Case of Vaginal Atresia with Hematocolpos and Hematometra. Max Schmid.
5. Symphysiotomy in the German Clinics. Surdi, of Palermo.
6. Remarks on the Above. Leopold.

1.—Bade has examined 10 fetuses of from 10 to 18 weeks and gives a short account of each. It is of some interest in studying the development of the osseous tissues. [W.K.]

2.—Peiser attended a woman who was in the fifth month of pregnancy and suffering from pneumonia. Abortion following, the fetal chest was opened and automatic action of the heart observed for over 20 minutes. [W.K.]

3.—A very interesting case is reported by Neugebauer of **cyst of the uterus,** an exceedingly rare condition. His patient was a young woman of 24, who had been suffering with irregular menstruation and hemorrhages from the vagina for more than a year. She had also remarked a fluctuating tumor, sometimes as large as a child's head, at other times much less. Neugebauer operated, expecting to find a uterus bicornis with hematoma of one cornu; but upon opening the abdomen he found, rising immediately from the fundus, a long, oval cyst with its base reaching entirely across the fundus and including the tubal insertion of either side. He determined to amputate the uterus and leave both ovaries. The operation was successfully performed, the patient made a good recovery, and the function of menstruation recurred regularly notwithstanding the resection of both tubes. [W.K.]

4.—Schmid describes a case of **atresia of the vagina in a girl** of 16. The retained fluids caused the upper portion of the vagina to become distended to the size of a child's head, while the uterus was of the size of the second month of pregnancy. The case was operated upon by Professor Torggler. The stringlike formation was incised without injuring rectum or urethra. Ten days after operation a ringlike formation still persisted, so that the finger could be passed with difficulty, and a Simon's dilator was inserted for 1 hour daily, with tampons during the remainder of the 24. The patient completely recovered, and 2 years after operation was menstruating regularly with no recurrence of the symptoms. [W.K.]

5.—A criticism of German physicians, especially Leopold, for what Surdi considers the too frequent performance of symphyseotomy in their clinics. [W.K.]

Beiträge zur klinischen Chirurgie.

April, 1899. [Band 23, Heft 3.]

22. Retrodeviation of the Uterus and its Treatment by the Shortening of the Round Ligaments. J. SCHULZ.
23. The Excision of Hemorrhoids. GEO. REINBACH.
24. Final Report in a Case of Total Extirpation of the Stomach for Cancer. CARL SCHLATTER.
25. Branched Carcinoma. GIOVANNI PEREZ.
26. Colostomy with the Formation of an Artificial Sphincter from the Rectus Abdominalis Muscle. V. HACKER.
27. Traumatic Gangrene Caused by Rupture of the Intima of Arteries. ULRICH HERZOG.
28. Osteomata of the Lower Jaw. E. ECKERT.
29. Exostoses of the Lower Jaw. HOFMEISTER.
30. Pathology and Treatment of Gallstones. S. W. PETERSEN.
31. Multiple Papillomatous Tumors of the Ureter and Pelvis of the Kidney. B. POLL.

22.—Schulz finds in the **operative treatment of retrodeviation of the uterus** by shortening the round ligaments a nearly ideal operation, as it results in the restoration of a nearly physiological condition in the position of the uterus and guarantees its maintenance. It is a great help in complicated cases of collapse. Of 54 cases which they have treated by this method 53 were restored to perfect health and activity. [C.L.L.]

23.—Reinbach finds that excision is an operation in the **treatment of hemorrhoids** that is to be most highly recommended. In all the 34 cases operated upon the results were permanent, and as good as could be desired, while the complications were slight, and only resulted in cases where the patient disobeyed orders and got out of bed, or in which it was impossible to prevent motions of the bowels by the use of opium until the sutures had time to heal. These accidents, however, only delayed the recovery, and did not in any case seriously interfere with the final result. [C.L.L.]

24.—Schlatter makes a final report upon the case in which he **removed the entire stomach for carcinomatous disease.** The patient left the hospital and lived for some months outside. Returned, however, losing flesh, which she attributed to the poor food on which she was obliged to live. She gained flesh for a time after reentering the hospital, but finally died, not from lack of nutrition, but from the development of the cancer and the consequent weakness. The autopsy showed a metastasis in the lymph-glands of the mesentery, the retroperitoneal glands, the bronchial and the supraclavicular gland, with multiple carcinomatous metastases in the pulmonary pleura. The patient had lived and been well nourished for over a year, at the age of 57, without a stomach. [C.L.L.]

25.—Perez holds that the **branched carcinoma** and tumors have a characteristic localization in the neck in the superior triangle. These tumors have a particular susceptibility for the lymph-channels, which produces their peculiar branched form, since they follow the lymph channels. They are, however, to be differentiated from the lymph-gland carcinoma which develops in the individual gland by being carried in the lymph-stream from one point to another. The etiology of these tumors is still in doubt; what it is that irritates these epithelial cells and starts them growing is not known. They are undoubtedly originally isolated and misplaced epithelial cells. [C.L.L.]

26.—v. Hacker has modified the operation of **inguinal colostomy,** so that he forms from the left rectus abdominalis muscle a sphincter about the artificial anus which is capable of securing voluntary retention by its sphincteric action. He has employed it successfully in a number of cases, where the result has been not only temporarily satisfactory, but has persisted. He reports in detail three cases of rectal carcinoma in which he has successfully employed this operation. [C.L.L.]

27.—Hertzog calls attention to the frequency with which **traumatic gangrene** arises from the contusion of arteries and the consequent rupture of the intima or inner coat. He has collected 61 cases from literature which point to the frequency of this condition and shows that it should be more often taken into consideration and be combated by elevation of the limb. The consequences of neglect of proper treatment due to oversight or ignorance are the loss of a limb and possibly a life. [C.L.L.]

28.—Eckert reports a case of osteoma of the lower jaw that occurred in Mickulicz's clinic. It occupied the articular end of the lower jaw and caused by its extension upwards a dislocation of the jaw laterally towards the uninvolved side. The growth was removed by a typical resection of the head of the bone. The author then studies didactically a series of 19 cases which he has compiled. [C.L.L.]

29.—Hofmeister reports a case of exostosis of the lower jaw that had persisted for 13 years with suppurating fistulous tracts and the discharge of sequestrums. There were, however, no subjective symptoms except occasional acute attacks of inflammation. The case was apparently one of spontaneous acute osteomyelitis which developed a chronic condition. [C.L.L.]

30.—Peterson reports at length the cases of **disease of the biliary passages** that have come under his observation. In 168 cases he met with carcinoma and sarcoma 34 times. Most of the cases were so far advanced that only exploratory or palliative operations could be done. In only 6 cases was a radical operation attempted. Twice fragments of the liver were removed; in one case the patient died, in the remainder recurrence came quickly. The prognosis is bad. The diagnosis is not easily made. Of the 28 cases only 14 were correctly diagnosed. He divides the indications for operation as follows: Absolute indications:—Acute cholecystitis with empyema and peritonitis; chronic cholecystitis with hydrops of the gallbladder; chronic recurring cholelithiasis with marked symptoms; chronic obstructive icterus which has persisted for a long time. Relative indications:—Chronic recurrent cholethiasis with mild symptoms; obstruction with icterus, at its commencement; relative contraindications in connection with cholelithiasis; intense icterus which is decreasing; cholangitis with swelling of the liver, fever, chills, etc. [C.L.L.]

31.—Poll reports a case of **diffuse papilloma of the ureter and pelvis of the kidney** in which the pelvis was greatly dilated, and the normal tissue almost entirely destroyed. The etiology of the tumor was, however, not determined nor could it be accurately placed pathologically. [C.L.L.]

Revue de Chirurgie.

June 10, 1899. [19me Année, No. 6.]

1. Nerve Complications in Fractures Involving the Lower Extremity of the Humerus. A. Broca and A. Mouchet.
2. Intestinal Occlusion by Meckel's Diverticulum. L. Bérard and X. Delore.
3. Wounds of the Heart and Pericardium and Their Treatment. Ed. Loison.

1.—Palsies of the ulna, median and radial nerves frequently result from injuries to the lower part of the humerus. They are much more frequently the result of such injuries than where the radius and ulna are injured. They may be due either to the tearing of a nerve, its injury by a sharp fragment, its overstretching, or its inclusion and pressure in a mass of callus. The recognition of the paralysis can only be secured with certainty by the employment of electricity. It does not do away with clinical examination, but it is essential to its comfirmation and exactness. The Röntgen-ray examination has materially aided in the discovery of the conditions present in the bone, as faulty apposition, etc., which are responsible for some of the nerve-complications. The treatment varies with the condition present. The nerve if displaced and stretched over a bony prominence may be reduced to its normal position, or portions of the bone that have not been properly adjusted may be chiseled away. The nerve may be freed from its callus or the groove in which it lies may be deepened. The employment of the Röntgen-rays as a means of diagnosis and the adjustment of the fragments into absolute position by their aid is a valuable preventive measure which the author believes will make these accidents much less frequent. [C L.L.]

2.—Bérard and Delore take up systematically the symptoms and methods of **differentiating intestinal occlusions** from the more frequent forms of obstruction. Wherever the positive diagnosis of an occlusion by a diverticulum can be established there is no hesitancy in the treatment, it should be by operation as early as possible. Their certain diagnosis cannot, however, be readily made. Medicinal treatment should be replaced by surgical operation in the first twenty-four hours, if enemata properly employed have brought away no feces or gas; when but a small portion of intestine is involved the author would excise and perform an end-to-end anastomosis. If there is, however, a complicated involvement of a longer portion of intestine with adhesions to neighboring organs he would possibly employ exclusion of the involved portion. [C.L.L.]

3.—Loison tabulates the cases found in literature in the continuation of his article. [C.L.L.]

July 10, 1899. [19me Année, No. 7.]

1. The Formation of a Nearthrosis Between the Clavicle and Humerus. Ollier.
2. Pulmonary Surgery. K. Sapiejko.
3. A Method of Removing the Gasserian Ganglion. O. Jacob.
4. Surgery of the Pericardium and Heart. Ed. Loison.
5. An Intrathoracic Aneurysm Developed in the Subscapular Fossa. M. Crivelli.
6. Post-Anesthetic Paralyses. Mally.

1.—Ollier describes a case in which a bullet wound of the shoulder had resulted in the **necrosis of the scapula,** and had necessitated its total removal with the resection of the upper end of the humerus. The case presented itself to him after recovery from previous operation, and when well planned apparatus had failed to restore in even a slight degree the function of the joint, and the usefulness of the shoulder. He determined to attempt to give the humerus fixation by uniting it to the end of the clavicle, expecting to get bony union. This, however, was unsuccessful, so far as the bony union was concerned. He had, however, taken care to connect, so far as was possible, the muscles that had formed the shoulder-joint formerly in as relatively near normal position as possible. The result was exceptionally good, the patient, in fact, securing complete control over the arm, and being able, not only to carry weights, but to hold them out at right angles to the body. [C.L.L.]

2.—Sapiejko has devised a very clever and certain method of **determining where the parietal and visceral pleura are adherent.** He employs a long U-shaped tube as a manometer, this tube is filled with normal salt-solution, to one end is attached a rubber tube having at its extremity a specially constructed hollow needle which is rather blunt and has an opening on the side a little above the point. When this is passed through a prick in the skin and pushed through the muscles the negative pressure within the pleura draws the air in at the opening if the free pleural sac is entered, as the lung is pushed before the blunt point of the needle and not penetrated. Where pleural adhesions exist there is no such effect and no change is noted in the height of the fluid in the manometer. Intervention in cases of abscess of the lung through pleural adhesions he does not consider dangerous. The thoracic wall is incised, the pleura grasped by forceps to keep the lung from receding and a bistoury passed into the lung. He prefers the bistoury to the thermocautery, as changes in the tissue can be noted more readily and little outlets of pus from small cavities that would otherwise be overlooked can be readily seen. Hemorrhage can be controled by gauze-packing and ceases of itself after the cough has stopped. Scissors may be used to follow up the exploring needle which should not be removed but used as a guide. [C.L.L.]

3.—Jacob formulates a **new operative procedure for the removal of the Gasserian ganglion** as follows: The superior maxillary nerve is uncovered at the commencement of the operation; this leads down to the foramen through which it emerges. The external face of the pterygoid apophyses separates the oval and round foramina and is an exact guide. Tne resection of that portion of the external bony orbit which is necessary in exposing the superior maxillary nerve gives plenty of light and makes it easy to reach the ganglion and to perform the manipulations necessary for its removal. [C.L.L.]

4.—Loison concludes his study of the **injuries of the pericardium and heart,** and their treatment, by the following summary: The symptomatology of these conditions is no less uncertain than that of the abdominal peritoneum and certain viscera in it. The diagnosis is as difficult in one case as in the other, and requires all the astuteness of the surgeon. The prognosis is not always bad, as statistics show. Therapeusis is not disarmed, as is shown by numerous successful interventions. He has striven to show that it should be more aggressive and that many cases might be saved that are now lost. [C.L.L.]

5.—Crivelli reports a case of **thoracic aneurysm of the aorta** which instead of developing anteriorly occupied the subscapular region and involved in the necrosis the posterior portions of the ribs. The only symptom exhibited by the patient was pain, and the true nature of the condition remained unsuspected until an operation was undertaken for a supposed aneurysm of the subscapular artery, when the true nature of the lesion was dectected. [C L.L.]

6.—Mally reports a number of cases of **paralysis following anesthesia,** and in his study of them has reached the following conclusions: Hysterical and reflex paralyses, though occurring after anesthesia, have no true correlation with it. Central paralyses from hemorrhage are rare in which the anesthetic has produced the lesion in a purely mechanical manner. Peripheral paralyses are frequent and are due to compression. The anesthetic only plays a role by making the patient unconscious of the pressure and pain. The toxic action of the anesthetic upon the nervous system is purely hypothetical. The best treatment is preventing, in guarding the patient while unconscious, from the injurious effects of pressure produced by unnatural positions. [C.L.L.]

Operation for Dilated Stomach.—G. Childs-Macdonald (*Pacific Medical Journal*, September, 1899) reports performing the operation of gastrorrhaphy upon a man 48 years old. The patient had suffered from symptoms of chronic gastric ulcer with dilatation for some time. An incision was made from the ensiform cartilage to the umbilicus. On opening the abdomen an indurated surface could be felt on the posterior gastric wall about an inch from the pylorus. The distended stomach was folded on itself in its entire longitudinal axis and sutured with catgut. Above the row of sutures the peritoneum was freshened and a second row passed. In this way the stomach-area was reduced about 8 square inches. The patient made an uninterrupted recovery, gained weight and strength, and when he left the hospital returned to his work. [M.B.T.]

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.

Potassium Iodid in Threatened Abortion.—Montgomery (*International Medical Magazine*, July, 1899) urges the use of potassium iodid in cases of threatened abortion, even when the history leaves the question of syphilis in doubt. He believes that it is one of the most effective remedies in decreasing the irritability of the uterine mucous membrane. In this connection he says: "I have seen many patients in whom it is impossible to elicit any indication of syphilis, who have done well and carried the fetus to full term upon the use of iodid of potash. So much value have I seen from the use of this drug that it is now my custom in every case of irritable uterus where abortion is feared, to place the patient upon the use of iodid, five grains, three times a day, given in water after meals. In cases in which sclerosis or areolar hyperplasia of the uterus has occurred, I know of no plan of treatment which will insure a woman to complete her pregnancy."

Suprarenal Extract in Surgery of the Ear, Nose and Throat.—Bulette (*Journal of the American Medical Association*, August 19, 1899) read a paper at the annual meeting of the Rocky Mountain Interstate Medical Association, on the value of suprarenal extract, based on its use in 201 cases. He finds that it produces anemia of the tissues, reduces swelling, and prevents the bleeding that would otherwise obscure the field of operation. It also aids in securing local anesthesia, which is cut short by the hemorrhage that carries away much of the cocain. Operations can thus be done without pain or loss of blood. There is little secondary hemorrhage, and no unpleasant effects. Since employing suprarenal extract, cases presenting alarming symptoms of cocain poisoning have been fewer. It reduces the dread of operations to a minimum.

Thiocol.—Frieser (*Merck's Archives*, September, 1899) has used thiocol in 19 cases of phthisis with good results. Though in the cases treated a decided influence on the local processes could not with certainty be observed, due to the comparatively short period of observation, he believes that the advantages so far observed will insure to thiocol an important place in the treatment of chronic catarrhal diseases of the air-passages. Its nonstimulant action, entire freedom from the slightest irritating effect on the digestive organs, and its ready absorbability are the advantages claimed for this preparation of guaiacol. The dose is from 15 to 24 grains three or four times daily. [Thiocol is the potassium salt of guaiacol-sulfonic acid. It appears as a white powder, odorless, a slightly bitter taste, and freely soluble in water. It contains nearly 60% of guaiacol.]

A Common Error in Prescribing Potassium Iodid.—The best method of prescribing potassium iodid, according to Koenig (*Pennsylvania Medical Journal*) is doubtless in the form of an aqueous solution, in which one drop represents, approximately, one grain of salt. To prescribe the two ounce for ounce results in a solution measuring 11 fluidrams, and one drop of this necessarily contains considerably less than one grain of the iodid. To overcome this Hynson (*Bulletin of Pharmacy*), makes the following suggestion: Dissolve 480 grains of salt in 5½ drams of hot water, and then make up the solution to 8 drams with water. This always results in a solution representing one grain in each minim, and, approximately, in each drop. Administered in this form in gradually increased doses, the severer symptoms of iodism may always be prevented.

The Treatment of Flatulence and Colic in Infants.—In discussing the subject Dr. John Thomson ("Clinical Treatment of Children," 1898), writes as follows: When the flatulence is due to the swallowing of air along with the food, a change in the method of its administration may diminish or stop it. A sick infant who is being fed out of a small spoon, and is gulping down air each time, will swallow less wind if a large spoon is used, and probably none at all if he is skilfully fed from a bottle, or with a syringe and tube. If the air is swallowed during the process of sucking from a bottle, care should be taken that the rubber teat is full of milk when the child sucks it. If the flatulence is due to fermentation, its treatment is mainly prophylactic, *i. e.*, regulation of the digestibility and quantity of the food and of the way in which it is taken. Alkalies with a carminative:

Sodium bicarbonate	3 grains
Aromatic spirit of ammonia	1 minim.
Spirit of chloroform	1 minim.
Sirup	10 minims.
Dill water, up to	1 dram.

After each meal. Or with pepsin or papain are also useful:

Sodium bicarbonate	2 grains.
Papain	1 grains.

Before each meal.

The best immediate treatment of an attack of *colic* consists in irrigating the lower bowel with a large quantity of warm water or administering a copious warm enema. The applications of hot fomentations to the abdomen and of warmth to the feet are also serviceable, and 20 drops of whisky or a dose of carminative may help to relieve the child. An aperient is usually indicated to clear away irritating matter, and if the bowels are habitually constipated this should be attended to. When there is obstinate recurring colic small doses of codein ($\frac{1}{32}$ to ^{1} of a grain) are occasionally useful as a temporary palliative while the diet is being gradually regulated. The alleviation thus produced encourages the mother to persevere. Older children who have chronic indigestion accompanied by recurrent colic are often relieved by small doses of Fowler's solution (1 minim) taken immediately before meals.

Iodoform in the Bronchopneumonia of Measles.—According to the *Practitioner*, iodoform has been used in the bronchopneumonia for measles in the following form:

Iodoform	7½ grains.
Codliver oil	3½ ounces.
Oil of anise	30 grains.

The initial dose is 2 teaspoonfuls per day, gradually increased up to the point of rejection by the stomach. Inhalations of a mixture of iodoform and turpentine are combined with the internal treatment. The great advantage claimed for this treatment is that the pulmonary symptoms and fever pass away without delay, even though the treatment has not begun early.

The Removal of Gouty Tophi by Injections of Piperazin.—Giofredi (*Gazetta degli Ospedali*, August 20, 1899), reports a case of gout in which he successfully employed injections of piperazin to remove a uratic deposit from the tendon-sheath of the peroneus longus. The man's general condition had improved under the internal administration of piperazin, but the tophus remained unaffected. He thereupon made 10 injections into the mass, each consisting of 8 minims of distilled water and $\frac{5}{6}$ of a grain of piperazin. A little burning followed the first injection, but this was allayed by the application of ice, and in subsequent operations all pain was avoided by having the part first sprayed with ether. The complete absorption of the tophus was effected by the treatment. The author expresses the opinion that gouty joints might be as successfully treated in a similar way, if strict antiseptic precautions were used.

Anesthetics and Antiseptics for the Eye.—Hansell (*Merck's Archives*, Sept., 1899) states that holocain possesses two decided advantages over cocain, namely, its germicidal qualities and the absence of effect upon the cornea, iris, and ciliary muscle. In 1% solution it is a powerful anesthetic, retains its efficacy for many months, and remains free from pencillium. Alpha-eucain and beta-eucain have no material action on the corneal epithelium or the internal muscles, but they have not been received with particular favor, since they cause decided hyperemia and irritation of the conjunctiva for several minutes after instillation. According to the writer the best antiseptics for use in affections of the eye are formaldehyd, 1 to 3000; nosophen, which is dusted over the diseased part; and antinosine, in 3% solution. Other antiseptics, each with its advocates, are ichthyol (in 50% solution), airol, and itrol.

Original Articles.

IMPORTANCE OF EARLY DIAGNOSIS AND OPERATION IN TUMORS OF THE MAMMARY GLAND.[1]

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I have decided to consider a single subject of surpassing interest, rather than attempt in the limited time allotted me, a comprehensive review of the entire field of surgical progress, so customary in such addresses.

In truth, the title of my paper was suggested by a distinguished member of this society, when we recently met in Chicago, during the meeting of the American Surgical Association. I readily concurred with him both as to its importance and comparative neglect, and shall feel that we have made no mistake if this paper should be the mean of giving to a single woman the beneficent results of a timely and rightly done operation.

When one considers that so great and conservative an authority as W. Roger Williams states that there are more than 10,000 women in England and Wales suffering with mammary carcinoma; that the number of such cases is increasing year by year, month by month, almost day by day, just, indeed, as we know it to be true in this and all civilized countries where systematic records are kept, no further argument will be necessary to emphasize the importance of the subject. That carcinoma is increasing in frequency we must admit, so much having been written upon the subject recently by Williams, Cheyne, Snow, Shield, and others of the English school, while Park, Billings, Curtis, Lewis, Warren, Matas, and many others in different sections of our country, show plainly enough that we have little if any advantage over our British cousins. In 1893 I called attention to the increasing number of deaths in the United States from carcinoma.

The same lamentable increase is acknowledged by German, Austrian, Russian, French, and Italian writers; so much so, that we read of "cancer endemics" in certain localities.

So great has been the increase in this country, that the American Public Health Association has called attention to the fact, and urged upon all physicians the importance of reporting accurately their cases; while the American Surgical Association has had for several years a standing committee whose duty it is to make annual reports upon the subject.

The Empire State has, through an appropriation by its Legislature, located and equipped a pathologic laboratory at Buffalo, the center of the cancer district, that the disease might be investigated in the most scientific manner at public expense. In the appointment of that accomplished surgeon and indefatigable worker, Professor Roswell Park as its director, the best assurance is given of its future work. It cannot be questioned that other States, especially Pennsylvania, which has dealt with its charities in so generous a way, will soon follow the worthy example of New York, and establish such a laboratory for the better study of this pitiless enemy to civilization, which is increasing in such a startling way, and today enjoys the melancholy distinction of being the only disease that has completely baffled and set at naught the work of sanitarians.

A recent editorial in the *New York Medical Record* states that cancer is now more to be dreaded than consumption, and the same warning has been given by other journals in this and foreign countries.

Professor Park has said in his report to the Legislature of New York, that "at the present rate at which this disease is increasing (and basing the estimate on figures for the past 11 years the averages are unchanged) it can be plainly seen that 10 years from now cancer will be claiming annually in New York State more victims than consumption, smallpox, and typhoid fever combined."

Amazing—almost beyond belief—as this prophecy seems at first thought; knowing, as we do, the reliability and conservatism of its author; further appreciating the fact that consumption, typhoid fever, and smallpox are each largely preventable diseases, and have been steadily decreasing in frequency since their causes became known, halting credulity quickens, and the mind becomes receptive to a statement primarily appalling in its force.

In the past year the number of deaths from carcinoma in New York has doubled, while consumption claimed practically the same number of victims in 1898 as in 1887. In England the ravages of the disease are even greater, as it is now, according to the Registrar-General's Reports, Williams, and other trustworthy sources, nearly 5 times as great as in 1840. Then the death-rate was, in England and Wales, 1 to 5,646 of population, against 1 in 1,306 inhabitants in 1896.

I cannot, however, accept the theory of Snow, Williams, and some other English writers, that the increase in the death-rate from carcinoma is contributed by the well-to-do classes. I do not believe, as Williams does, that where the struggle for life is hardest, sanitation poorest, and tuberculosis greatest, that carcinoma will be less frequent relatively than among the well-to-do or even wealthy classes. Neither am I prepared to go so far as Sinclair and others have done, in claiming it as a "morbus miseriae." As much can be said in support of one side of the question as the other, and the advocates upon both sides are unconsciously swayed by their prejudices for or against different theories as to the causation of the disease. As yet we know nothing definite as to the etiology of carcinoma

[1] Read before the annual meeting of the Lehigh Valley Medical Association, July 27.

and until we do, we may expect to see facts and statistics marshalled in formidable array to support this or that theory.

It is easy to prove that the disease is increasing in frequency with luxuriousness of living, and just as easy to demonstrate that the lowly-conditioned suffer relatively as often as the more prosperous.

The French and German writers who state that carcinoma is topographically found in the country among inhabitants of forests—especially those living along the banks of rivers—rather than in cities, will find it difficult to reconcile their opinions with official reports from London, Paris, Berlin, Vienna, and other European cities, every one of which shows a marked increase in this affection during the past decennium. From Boston to San Francisco, and Portland to New Orleans, the same is true of American cities, and not a single one, so far as I know, fails to report it as common, and in many of them it is startlingly on the increase.

The North American Indians, who in every way fulfilled the conditions of life calculated to develop carcinoma, if living in forests was a predisposing cause, were singularly exempt from the disease until their habits of life were completely changed by the march of civilization. The last census report shows clearly that they suffer in recent years, and an immunity which they were supposed hitherto to enjoy—and I doubt not existed—has long since been exhausted.

The same is true to a greater extent of the negroes in North America; from a condition of practical immunity in their native country, which abided with them until our Civil War, they have now become one-half as liable to malignant disease in general as the Caucasians, equal to them in their liability to carcinoma of the breast, and more susceptible to carcinoma of the uterus. This I clearly found by the records of the Louisville City Hospital and Louisville Health Department for the past 30 years, reporting the same in my chairman's address before the surgical section of the American Medical Association at Denver, in 1898. So it is readily seen that carcinoma is increasing everywhere, that all classes are sharing the increment, and that barriers which it formerly recognized—topographic and racial—have been broken down.

The same is true of tuberculosis, which fact adds another to the many already existing parallelisms between these two affections. The one being certainly due to a germ, it is to be hoped that the other may in time be proven of parasitic origin. I have not been a believer in the germ-theory of carcinoma, and yet I see in its encroachments—geographic and racial—one of the strongest arguments in its favor. As yet I am simply an agnostic, denying that any theory yet presented gives entire satisfaction to one viewing the subject from a liberal standpoint. Fascinating as the subject of etiology is, it is hardly germane to the question under discussion, and will, therefore, not be considered.

But why so much about carcinoma in a paper upon tumors of the mammary gland? My answer is that 81.66% of all mammary tumors are cancerous; that women are twice as liable to malignant disease as men; that 70% of such neoplasms are located in the reproductive organs; and that 25% at least are located in the breasts.

Add to the 81.66% of carcinomas the 8.75% of sarcomas (Gross), and it is evident that over 90% of all mammary neoplasms are malignant; so that in any given case the chances are more than 9 to 1 in favor of malignancy, and in women past 40 years of age, 13 to 1.

Could we more forcibly emphasize the necessity for an early diagnosis if the treatment is to be successful? If conditions were reversed, and the chances were only 1 in 10 in favor of malignancy, the advice so often given women who present themselves for examination by their family physicians, viz., "wait and see if it is malignant," could only be justified on the ground that a surgical operation promising relief is more dangerous to life than the disease itself. But is such the case or approximately so? All malignant disease untreated by surgical means must sooner or later end in death; none will deny this; yet the mortality following an operation capable of curing permanently from 35 to 50% of mammary carcinomas is certainly not more than 2% or 3%, and some would place it so low as 1%. In 1895 I collected reports of 630 operations done by six American surgeons with only 6 deaths, or less than 1%. What consistency, I ask, is there in advising a woman with a small ovarian cyst or myoma of the uterus—neither of which has a tendency *per se* to shorten much less to terminate life—to travel hundreds of miles that a specialist may do a laparotomy, and the same day, perhaps, admonish her sister or friend with a mammary tumor that she must calmly and resignedly await a lingering, painful, and loathsome death, rather than submit to a less dangerous operation curing permanently all benign growths, and at least one-third of the malignant ones.

It is the quintessence of folly; it is pathology and surgery run mad. The first class of cases are operated largely for convenience, such as relief of pain, mental anxiety, deformity and possible danger to life by accident. They should be operated by all means, but are, as I have said, largely operations of election; whereas a tumor of the breast, being very generally malignant, should demand an immediate operation to save life itself. The fault is, I am glad to say, a divided one, falling as much upon patient as doctor.

The majority of women will at once seek medical advice if they suspect an abdominal tumor, being willing to submit to a local and even vaginal examination; but the same women will conceal the presence of a tumor of the breast from their friends, husbands, mothers, and physicians. Why this should be so I could never understand, but that it is so, no physician or

surgeon of experience will deny. I once treated an elderly woman for a fracture of the left humerus; union was surprisingly slow in taking place, and after sufficient callus had been thrown out to make reasonably good union, refracture, without traumatism, suddenly occurred.

The patient having a cachectic appearance, my suspicions were aroused, and when I asked if she had uterine or other disease of her knowledge, she reluctantly showed me an advanced scirrhous carcinoma of the mamma, which she had concealed from me by declining to expose the parts when the fracture-dressings were applied. Thus the slow union and refracture were sufficiently clear to me. Other women have come to me with a tumor of the breast which they have carried for years (one for 15), saying that no one knew of it, and asking that I deny its existence to their nearest relatives. I can only explain such strange conduct upon the ground that tumors of the breast are considered by the laity as synonymous with cancer, and it the equivalent of death; and that it is sometimes due to a desire of a noble, self-sacrificing woman to suffer mutely rather cause anguish to husband, children, or family. Others will withhold knowledge of such tumors fearing the asymmetry which follows their removal.

The case I refer to of 15 years' standing was seen in 1895. The patient was a maiden lady, about 55, the daughter of a prominent surgeon, the sister of a physician, both of whom she declined to consult. She came to my office with a married sister, but would not permit her to come into my consultation-room during the examination. An immediate operation was advised, as malignant degeneration was feared, and while accepting the advice, she did not permit her family to know of it until she entered the infirmary. Originally benign, undoubtedly, it had undergone sarcomatous change, and she died from internal metastasis, but never had local recurrence. In addition to the internal metastasis, there was an enormous secondary growth in the groin of the same side (right) as the diseased breast.

It was the saddest case I have ever treated. She could so easily have been saved by an earlier operation, had she not considered others more than she did herself.

A third case I saw in consultation with a former colleague in Louisville, Ky. A most intelligent maiden lady, about 50 years of age, a well-known teacher in the female High School, and the daughter of a former distinguished professor of surgery, consulted a surgeon for a tumor of the breast which she had concealed from her sister, with whom she lived and to whom she was greatly attached. An engagement to marry caused her to seek surgical advice, and at the time of doing so the growth was well advanced—almost inoperable.

I could mention other cases, in all circles of life, where the same disposition to conceal mammary tumors has been shown. In fact, I have come to look upon it as a symptom of the disease, and insist upon an examination of the breast in all suspicious cases.

How then shall early diagnosis be made until women are better instructed as to the pathology and treatment of neoplasms of the breast?

In those that do apply early, how is the diagnosis between malignancy and nonmalignancy to be made?

I admit that it cannot always be made with certainty, but as a very general rule it can be done, and in the doubtful cases there is, as we shall see, a perfectly conservative and safe course to follow. Upon an early diagnosis by the physician will depend the result of the surgeon's work. No operation, however skilful and extensive, will be followed by a successful result when the propitious time for surgery has passed. Truth to say, operative measures for mammary carcinoma have been carried to the very "ultima thule" of surgical limits, and better results from this time on must depend upon earlier rather than upon more radical operations.

A surgical procedure which will require from 2 to 4 hours for its proper performance even with the very best of assistants and nurses—the time given by Halsted for his own method, undoubtedly the best for advanced cases—is about all either patient or surgeon can very well endure. There is great room for advance, however, along the lines suggested, for a careful investigation shows that 65% of mammary carcinomata are complicated by palpable secondary deposits in the axillary glands when first seen by the surgeon. That microscopic evidence of metastasis to the axillary nodes would be found in a much larger number of cases—nearly all in fact—cannot be seriously questioned. The desirable time for an operation is, of course, before axillary involvement has occurred; when the cancerous process is strictly local, limited to the mammary gland, and prior to its attachment to skin above and muscle beneath; 50% should be the minimum of cures in cases operated thus early.

Cases of the second degree, in which there is undoubted axillary involvement, adherence between the tumor and superlying skin, but the breast as a whole movable, demonstrating that adhesions do not exist between the base of the gland and retromammary tissues, are operable beyond any doubt, and quite a good percentage will be permanently cured by a thorough operation. Of Bull's cured cases, 40% had unmistakable enlargement of the axillary glands.

In another class of cases, or those we may call of the third degree, involvement of the axillary lymph-nodes will not only have taken place, but the several infected glands have coalesced and formed a large mass or axillary tumor adherent to vessels, nerves—everything. The supraclavicular glands are usually enlarged. The breast is only partially movable—perhaps not at all so. The skin is likely to show extensive infiltration.

Here it is evident to the experienced surgeon, that

only a small percentage of such cases can be permanently relieved by operation—necessarily an extensive one too—and it should not be undertaken until lungs, pleurae, liver, bones, and other favorite sites for metastases have been examined most carefully. Reliable evidence of internal metastasis is a sufficient contraindication to operative measures.

Altogether too many operations are done by the best of surgeons upon these advanced cases, proof of which is had in the fact that death takes place in many of them six months to a year after an operation, entirely successful so far as it was concerned, there being no local recurrence. There can be but one explanation of such cases: that secondary deposits had already occurred prior to the removal of the primary focus. It is, of course, useless to remove a cancerous breast and thoroughly clean out an infected axilla at the same time, if a secondary deposit as large as a pin's head exists in any of the well-known predilections of metastasis. To exclude the possibility of secondary deposits in all cases cannot be done, but they can be reasonably supposed to exist in many cases which are, but should not be, operated.

To suppose that the removal of the primary growth "scatters the disease" and causes it to break out elsewhere, is a common mistake of the laity, and one not infrequently made by members of our guild, the latter forgetting for the nonce the cardinal and most elementary feature of malignant disease—to generalize by means of the lymphatic system, as do carcinomata, or by the bloodvessels, as do sarcomata. That such metastasis may have occurred prior to an operation and escaped notice, seems only natural and what should be expected in a certain number of cases even now with every available diagnostic resource.

Can an early diagnosis be made in every case of mammary tumor with certainty? Surely not. Yet, I am of the opinion that mistakes in diagnosis, even when made early, should not be frequent.

The age of the patient is without doubt the most valuable guide, as carcinoma will be found, on an average, at the forty-eighth year, when the functional activity of the gland has ceased and its structural atrophy is beginning. Over 76% of such cases are seen after 40. It is rare under 30, and practically does not occur prior to 20, the youngest case on record being Henry's (21). Nancrede operated upon a case at 23, which he estimated must have begun at 19.

It is my belief that the increasing frequency of carcinoma is also breaking down age-limitations to a certain extent, and we are finding a relatively greater number of cases in young women. In November, 1897, I operated a case in the Medico-Chirurgical Hospital, Philadelphia, in a single woman, 28 years of age, and the following May, at Louisville, Ky., a married woman with two children, 27 years of age. Both were advanced cases, requiring a Halsted operation, and must have commenced more than a year before I saw them. I do not look upon statements of the patient as to the duration of a tumor as very reliable, however well-meaning the person may be, as a tumor of the breast can be, and is very often, overlooked for months after its real beginning. I would here emphasize the fact that when carcinoma does affect young subjects it usually runs an acute course, and the prognosis, with or without operation, should be more than ordinarily guarded. According to Samuel W. Gross: "The non-carcinomatous growths occur on an average at the thirty-third year; only 30.37% develop after the age of 40." "They develop during the activity of the gland; 15.55% appear before the twentieth year, and 5.18% before menstruation."

The location of a tumor is of great significance from a diagnostic standpoint. Malignant growths are most frequently found in the upper and outer quadrant, lower or axillary quadrant, and behind the nipple. In the last situation they draw upon and cause retraction of the nipple, which is found in 52% of all cases. Benign growths, per contra, affect the upper and inner quadrant or sternal half of the gland. While retraction of the nipple is occasionally seen in benign growths (3 to 6%), it is accidental, and usually of congenital origin. Benign tumors are movable from beginning to end. They are distinctly encapsulated, and slip under the finger like a marble under a cloth. Malignant neoplasms are fixed from their inception, are not encapsuled, and very soon become attached to the surrounding structures. The superimposed skin is usually dimpled or puckered, soon becomes more or less discolored and shows oftentimes enlarged veins beneath. In benign affections the skin is normal. Pain, so generally thought to be present and of distinctive character in malignant disease, is as conspicuously absent early in the case as it is in benign affections.

Enlarged axillary glands, while not, as a rule, an early symptom, practically settle the diagnosis in favor of carcinoma. Both sarcoma and benign growths cause axillary enlargement in 3% of such cases, but it is "irritative" in character, and not due to infection.

The history of heredity, trauma, mastitis, discharge from the nipple, and such remaining symptoms, are of little, if any, value, as they are as about as frequently obtained in benign as they are in malignant affections. When a cyst is suspected, aspiration settles the diagnosis.

An aseptic incision into the tumor for diagnostic purposes has been advised and practised by many surgeons.

A better plan, in my judgment, and one that I have followed in recent years, is to have a competent microscopist present at the operation, with proper apparatus, and he can in 15 minutes give a reliable opinion as to the nature of the growth, if a small portion is given him from near its center. If he reports malignancy, a

complete operation must be done, whereas in benign neoplasms only the tumor and its capsule need be removed.

While highly appreciating the microscope, I wish to say distinctly that a clinical diagnosis based upon the history of the case, the macroscopic appearance of the tumor, its color, consistency, relation to surrounding structures, and above all the resistance it offers to the knife when sections are made through it, is scarcely less to be relied upon.

It is my belief that such a careful examination of every tumor at the time of its removal by the surgeon himself (not an assistant), supplementing it when necessary by Stiles nitric-acid test, would markedly, and at once, lessen the differences between operator and microscopist.

A few words before closing of the treatment. It shall not be my purpose to describe in detail the technic of the several operations in popular favor, but to speak of a few points of a general nature and application.

Shall the entire gland be removed in benign growths? There are some who favor this practice, but I am not one of them. There is no reason whatsoever, surgical or pathologic, for removing the entire breast, along with tumors demonstrably benign.

The young married woman, particularly, has use for her mammary glands, and to be deprived of them unnecessarily, and subjected to the disfigurement and asymmetry their loss entails, is wholly unjustifiable. The removal of the tumor with its capsule, and at most that portion of the gland which surrounds it, always leaving the nipple in women of child-bearing age, will be amply sufficient.

Operations for sarcoma should be as thorough, so far as the removal of the entire mammary gland, with contiguous superlying and subjacent tissues, is concerned, as in operations for carcinoma. Extending by the blood, rather than the lymphatics, axillary involvement will seldom be found, and in such cases is irritative, and not necessarily due to infection. The safe rule here, however, should be to clean out the axilla thoroughly, for I think that it has been clearly shown that in sarcomas of the testicle, tonsil, lymphatic and mammary glands, lymphatic involvement, with sarcomata, contrary to the general rule, may occur. Therefore, no such chance should be taken.

In an operation for mammary carcinoma at the present time one should recall the anatomy of the gland, pathology of the disease, and its natural tendency to disseminate by means of the lymphatics. The lymphatic vessels are far more numerous and complicated than Sappey and former anatomists had led us to suppose; for, instead of all such vessels converging to the nipple and thence passing by main channels beneath the skin to the axillary nodes, we now appreciate, from the teachings of Mascagni, Langhans, Küster, Stiles and Heidenhain, based upon injections, that there are several other important, if not so much frequented, channels. There are two superficial sets of lymph-vessels; in addition to the axillary set, so dwelt upon by Sappey, a second set drains the sternal half of the gland to pass through the second and fourth intercostal spaces, to discharge their contents into the lymphatic glands of the anterior mediastinum.

There are also three deep sets of lymphatic vessels. One, beginning in the mucous membrane of the milk-ducts and acini, drains the deeper portions of the axillary half of the gland, to join with the superficial set in the axilla, and to form with it a network which surrounds the axillary vein, almost or quite up to the clavicle.

A second set drains the deeper portions of the sternal half of the gland, perforates the second and fourth intercostal spaces, follows the course of the internal mammary artery, to finally empty, together with the superficial set, into the mediastinal glands. On the right side they intermingle with the lymphatics of the liver. Hence it is easy to explain the frequent and early implication of the mediastinal glands, causing the bulging of the bone or "sternal symptom" of Snow in cancers originating in the sternal half of the gland.

A third deep set drains the middle of the base of the gland and retromammary tissues, then perforates the intercostal muscles and spaces to follow the course of the intercostal arteries to the spine, affording a ready explanation of those cases ultimately complicated with spinal symptoms, even paraplegia.

It will, therefore, be at once appreciated how necessary it is to have in mind more than one avenue of possible infection. This arrangement of the superficial and deep lymphatics also offers a ready explanation of the clinical fact, that tumors affecting the sternal quadrants of the gland are more quickly fatal than those in the axillary quadrants. Not only is the entire gland to be sacrificed in every case, but all possible outlying supernumerary glandular elements should be removed at the same time.

The incision must include all skin covering the tumor, and *may* embrace that over the entire gland.

Remembering always the tendency to early contamination of the axillary lymph-nodes, the primary incision must in every case be carried into the axilla, and this space, from base to apex, thoroughly cleared of glands and fat, leaving, when the work is completed, vessels and nerves to stand out as plainly as in a dead-room dissection. The space of Mohrenheim, as well as the interval between the two pectorals, must have careful attention in operations other than Halsted's, not contemplating their removal. It is very important to remove breast, lymphatic glands, and intervening lymph-vessels in one mass, thereby avoiding cutting across lymph-bearing channels and liberating cancer-cells to infect neighboring tissues and cause local recurrences.

The researches of Volkmann and Heidenhain spe-

cially make it clear that the fascia covering the great pectoral muscle, along with the most superficial fibers of the muscle itself, should be removed in every case of carcinoma.

The fascia unquestionably acts for a time as a barrier to the proliferations of the disease, and in cases operated early it is unnecessary to remove the muscle. It has been my practice to reserve Halsted's operation for advanced cases—those I have classed as of the third degree—and must say that it is growing in favor with me on account of the facility with which it exposes the large bloodvessels and enables one to control hemorrhage. The theoretical objection urged that it seriously interferes with the future usefulness of the arm, is unsupported by practical results. If one could be convinced that it is best to enter the neck in every case, as Halsted teaches, his operation would have no rival for favor.

The propriety of operating at all in those advanced cases with enlarged cervical glands is, to say the least, still a questionable procedure with a majority of surgeons. Until Halsted taught differently, supporting his position by good pathology and successful surgery, enlarged cervical glands were considered by all an absolute bar to surgery.

Halsted, in a series of 76 cases, has had 41% remain well more than three years after operation.

Watson Cheyne with a smaller series (21 cases) has had seemingly 57% of cures. Dennis in a series of 38 cases had 17, or 45%, to pass the three-year limit. In a later series of 15 cases, the same operator has had 83% of cures. The two last-named operators securing such excellent results, have contented themselves with removing the fascia, and have not removed the pectoral muscles.

Watson Cheyne collected 1,491 cases from various sources operated by older methods, giving 14% of permanent cures; 111 cases operated by recent and more radical methods gave 34% of cures. This, is, perhaps, nearer the truth than the more optimistic statistics of others would indicate, and will, in my opinion, continue to represent the maximum of good resulting from surgery, until patients are brought to earlier operations. Small series in the practice of unusually skilled operators cannot be accepted as average results.

Fully assured as I am that early operations will cure one-half of the cases operated, it is also my conviction that, so long as present conditions obtain, we should not expect to cure more than one-third, and it will be with chastened hopes that better results are looked for in the near future.

The Fourth Italian Congress of Laryngology, Otology, and Rhinology meets in Rome, October 26 to 28, the following being the officers: Professor Gradenigo, of Turin, president; Professor Masini, of Genoa, vice-president; Dr. V. Garcia, of Naples, secretary.

A CASE OF LARGE TUMOR OF THE BRAIN, PRODUCING FEW SYMPTOMS SAVE OCULAR CHANGES, WITH REMARKS ON THE VALUE OF DOUBLE OPTIC NEURITIS AS A SIGN OF BRAIN-TUMOR.[1]

BY JAMES MOORES BALL, M.D.,
of St. Louis, Mo.

Professor of Ophthalmology in the St. Louis College of Physicians and Surgeons; Oculist to the St. Louis City Hospital, the Jefferson Hospital, and St. Joseph's Sanatorium.

THE subject from whom this brain was removed was Dr. W. B. DeV., aged 51, who was brought to me July 21, 1898, by Dr. Frank J. Tainter, of Warrenton, Mo. The following history was given:

Patient had typhoid at 10 years; has had rheumatism for last 7 years. For 20 years has had attacks of supraorbital neuralgia, always on the right side. For 12 or 14 years has had reflex vomiting with no regularity about it. Has never had syphilis. For last 4 days has had great pain in the back of the neck. On lying down this pain is worse. Patient says, "To concentrate my sight or to concentrate my thoughts, brings on pain over the right eye. I feel distracted at times." Pain is greatest over right cerebellum. At times there are rheumatic pains in arms and legs. No bladder or rectal symptoms. He is constipated, and stumbles in walking.

The patient was brought to me on account of failing vision. I found that he began to use glasses 12 years ago and used the same pair continuously since. He had complained of diplopia, both vertical and horizontal, for 7 or 8 weeks. There was no paralysis of any ocular muscle at the time of my first examination, although the right external rectus was paretic. The pupils were small and sluggish. Vision was as follows: R.E. $= \frac{15}{100}$; L.E. $= \frac{15}{100}$; with $+1.00$ combined with $+.50$ axis $90° = \frac{15}{40}$. The ophthalmoscope showed a marked condition of double choked disc.

The patient was seen by several neurologists, general practitioners and surgeons, and each man made a different diagnosis. Dr. B. considered it a case of "chronic vertical meningitis" and gave an unfavorable prognosis. Dr. M. considered the case one of cerebral syphilis and promised to cure the patient. Dr. L. looked upon it as a case of abscess of the brain. I was obliged to disagree with these gentlemen, and regarded it as a case of brain-tumor, but was not able to locate the lesion, and gave an unfavorable prognosis. In deference to the advice of the neurologists I followed out the treatment suggested by them, viz., large doses of iodid and mercury.

On July 24, three days after the first visit, the patient became suddenly blind. His local physician kindly wrote me from time to time, and from these letters I am able to give the history. Under date of August 3, Dr. Tainter wrote:

"The following Sunday after you saw him (being two days) he awoke noticing that a material change in the loss of his eyesight was manifest since the previous evening. He told his wife that before night he would be blind, and true, he was, since which time he is unable to distinguish any object, not even a lighted candle at 3 inches. He imagines at times he sees groups of people, stars, etc. He is unable to tell in what direction sound comes from. After arising from sleep, seated on the edge of the bed he is unable to tell which end of the bed contains the pillow. He will usually attempt to get out of bed to the left side—which is against

[1] Read before the Missouri State Medical Association at Sedalia, May 19, 1899.

the wall. There is a bilateral iridoplegia, pupils both about the same size, measuring 4.5 mm. His gait is unsteady. There is impaired coordination while standing. The last two days he complains of a sense of pressure upon the extreme ends of the fingers of the right hand. I have been pushing the iodids and mercury under which he suffers less, practically nil. With the assistance of from one-fourth to one-eighth grain of morphin he sleeps well."

On August 18 Dr. Tainter wrote:

"Your letter of 16th received. I have been sick myself, today being the first time I have seen Dr. DeV. since I wrote you some 10 days ago. I found him this morning feeling much the same, perhaps more pain in the head than usual. He sees absolutely nothing. His temperature this morning, as has been characteristic throughout, was subnormal. It ranges between 97°, 97½°, and 98°. Pulse is slowly weakening; three weeks ago it was 80, later 85, then 90; this morning 100. While it is uniform in rhythm it lacks in volume. The patellar reflex is entirely abolished; the pharyngeal reflexes are still normal. He still complains of a 'pinching' in third and fourth fingers of right hand, extreme ends; also some slight 'pinching' in the first and second fingers of the same hand, but not so acute as in the other fingers. He is emaciating perceptibly. The pain he complains of he refers to the supraorbit and base of left side. His appetite is fair and digestion fairly good."

On August 22 the patient was again brought to my office. I found him as described in the foregoing letter. The pain, however, was referred to the right parietal region and to the base. The pupils were dilated one-half, with small response to convergence. Vision was absolutely lost. The ophthalmoscope showed choked discs. Patient has never had a convulsion. It being evident that medical treatment was doing no good, the question of surgical intervention was considered and I advised it, although I well knew the difficulties surrounding the diagnosis. Patient was was taken to his home and on September 7 I received a long letter from Dr. Tainter. It is unnecessary to quote this in full:

"After his return from St. Louis he felt better, slept well all night and the pain in his head was not so severe. Temperature 98°, pulse 90. Paralysis of external rectus of right eye; patellar reflex abolished; pupils larger than two weeks previously, measuring 5.5 mm.; reflex iridoplegia of both eyes; sense of numbness in fingers of right hand; no perceptible exophthalmos. Used one dram of mercurial ointment by inunction and am giving sirup of hydriodic acid."

This treatment was continued with the addition of sodium bromid to produce sleep, without any particular change until September 4, when the record shows that he was in a half comatose state, pulse 62, temperature 97½°. Polyuria was now manifest with abundant phosphates, but no other abnormal constituents. The specific gravity was 1.008. His condition gradually grew worse. On September 11 he was operated on by Dr. Lanphear, the skull being opened on the left side. An excessive amount of cerebrospinal fluid was found and nothing more. The operator wished to open the opposite side, but the patient was in no condition to stand further intervention. He died in a few hours.

The postmortem examination, made on September 11, showed the presence of a large tumor on the right side which grew from the dura over the opercula of the island of Reil. Microscopic examination showed this to be a sarcoma of the spindle-cell variety. The tumor measured 7 cm. horizontally, 3 cm. in thickness, and 5 cm. vertically. The tumor was clearly defined from the brain-structure. The accompanying photographs show the appearance accurately. I removed the optic chiasm and the posterior one-third of the left eyeball. There was marked distention of the intervaginal space by serous fluid. The microphotographs, for which I am indebted to Dr. M. Dwight Jennings, are of the left optic nerve and nerve-head. These show thickening of the dural sheath of the nerve, and the usual swelling, increased vascularization and round-cell infiltration accompanying choked disc.

Since the case of Dr. DeV. was seen by some of the ablest diagnosticians in St. Louis, and puzzled them, I deem it only fair to the surgeon who operated that his views be inserted here. Dr. Lanphear has written as follows:

Surgical Aspects of the Preceding Case, by Dr. Emory Lanphear.

There are three aspects of this case which need more careful consideration than they have received in the report of the essayist. The first is in relation to the differential diagnosis; the second, in regard to the peculiar symptomatology, and the third, in regard to the surgical treatment.

1. Relative to the differential diagnosis. The symptoms in this case were such as to lead one to believe that the trouble was an abscess rather than a tumor. There was a history of the middle-ear disease upon the left side, which, next to trauma, is the most frequent cause of cerebellar abscess and cerebral abscess.

The headache which he had was severe and continuous; it was not that peculiar headache which is characteristic of tumor; that is, one which is intensified by the slightest movement, which is so violent as to cause the patient to believe that his reason is tottering and which is increased by tapping the skull. Then it was located chiefly upon the left side, at least during the time I saw the patient, and was not diffuse.

He complained of disturbed sleep.

There was paralysis of the abducens, a condition which is rare in cases of brain-tumor, but is a particular feature in cerebral abscess, according to Wernicke.

There was that long period of subnormal temperature, which also is characteristic of intracranial suppuration.

Against tumor there are also two or three points:

1. There was the absence of a cerebral vomiting, except reflex vomiting, from which he had suffered for 12 years. Now, we know that cerebral vomiting, next to papillitis or choked disc, is the most prominent feature of brain-tumor.

2. There was absence of convulsions, which is the second most important and prominent symptom of brain-tumor, according to Hirt.

3. There was absence of paralysis, except of the abdu-

cens and, later, of the hypoglossal; the first of which (the paralysis of the abducens) would point to abscess of the temporosphenoidal lobe, and the second (paralysis of the hypoglossal), to abscess of the cerebellum.

In favor of tumor, the diagnosis which was made by Dr. Ball, there were three or four things:

First, he had choked disc; but this is not of necessity a symptom of tumor of the brain, because we find it in other conditions where there is increased intracranial pressure as well as changes of the condition of the blood; moreover, the choked disc was very rapid in its appearance, judging from the clinical history of the case, leading to sudden blindness, which also points to abscess rather than to tumor, because it is a rule in intracranial surgery that the larger the abscess and the more rapid its development, the more marked are the symptoms of intracranial pressure, including, of course, all the symptoms of trouble within the brain. The second point in favor of tumor was the headache, but,

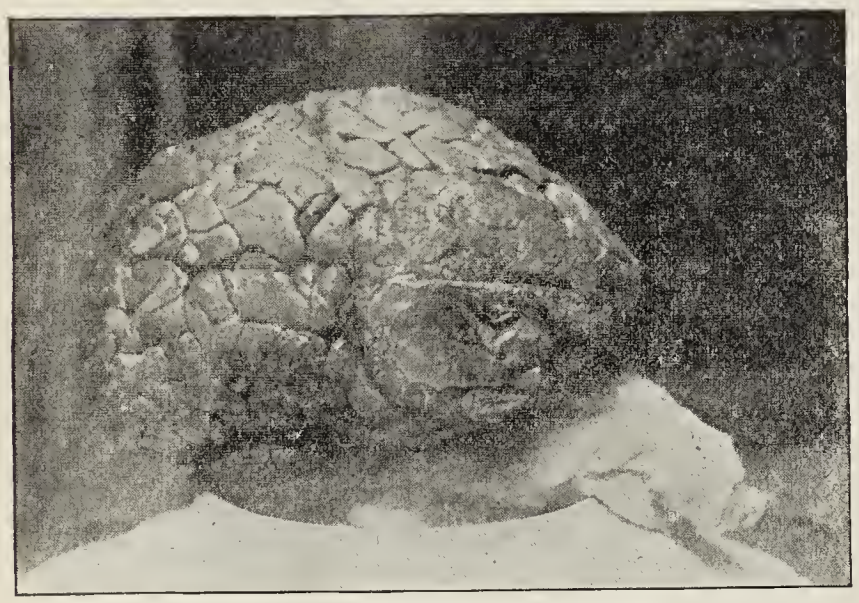


FIG. 1.—Macroscopic appearance of Dr. Ball's case of tumor of the brain.

as I have already said, that was in its peculiarities rather indicative of abscess of the brain than of tumor. Third, the absence of the early fever, which we would expect to find in abscess of the brain, whether due to trauma or middle-ear disease; but unfortunately there was a cloud upon the early history of this case because it had not come under observation of Dr. Tainter until very shortly before he brought the patient to Dr. Ball on account of the blindness, so we were not sure that early fever did not exist. A fourth point in favor of the tumor was the slow pulse, which persisted until very late. It is well known that in tumors the pulse at first is very slow (40 or 50), but that the retardation is soon followed by an increase, that is to say, the primary irritation of the vagus gives rise to or is followed by a partial paralysis of the vagus.

Second, in regard to the peculiar symptoms which were present: First, there was a peculiar absence of localizing symptoms until very late; and they pointed to the wrong side. This was the chief peculiarity of the case; all the localizing symptoms pointed to lesion upon the left side rather than on the right side. The second point which is peculiar is that a tumor located as this is seen to be, impinging very much upon the lower part of the Rolandic area, should not have given rise to convulsive movements of the opposite side, for here we have a tumor of such size and location, pressing upon the motor cortex, that it must have caused very great irritation of the lower Rolandic region, particularly that which presides over motion of the face, and tongue, and lips. The symptoms which, later on, were of such localizing character as to indicate a lesion upon the left side of the brain were: the paralysis of the tongue, the paralysis of the external muscles of the eye on the right side, a pain upon the left side of the head, and later, numbness and tingling sensation of the fingers of the right hand.

Third, referring to the surgical aspects of the case. What were the reasons for trephining? They were three in number. First, to perfect the diagnosis. There was, as the essayist has said, a diversity of opinion on the part of all who had seen the case. While I made a tentative diagnosis of abscess, I was not even at first convinced positively that it was abscess and not tumor, as Dr. Ball contended; later on I came to the conclusion that Dr. Ball was right, and for that reason operated, but it was also to satisfy all of the other physicians connected with the case that it was either a tumor or abscess, and not the things which had been pronounced to be by the neurologists, to relieve the intracranial pressure, and to remove the tumor if it were found.

Now, why was the left side chosen? First, because the only localizing symptoms were such as pointed to the left side. Second, he had had an ear-trouble upon the left side for some years before, which pointed to a possibility of lesion of the temporosphenoidal region or a little higher from the middle-ear affection, or to abscess in the cerebellum. Third, the pain was finally located on the left side. Fourth, the right external rectus was paralyzed. Fifth, we put him upon the table with the idea of opening the opposite side of the head, if the lesion was not found in the part of the brain to which the few localizing symptoms that were present seemed to point. When a large part of the left side of the skull had been removed by osteoplastic resection in the parietal region, it was possible to explore the entire hemisphere of the cerebrum very well, reaching forward as far as the frontal convolutions and backward to the occipital region, and it was soon demonstrated there was no lesion on that side of the brain above the tentorium cerebelli. With the possibility of abscess still in mind I took the trephine and opened over the middle lobe of the cerebellum upon the left side. The reasons why this was done were these: There was no lesion above the tentorium cerebelli upon that side; second, the early blindness—early, relatively; he became blind soon after he fell

into the hands of the doctor, and Hirt says this is always to be interpreted as a focal symptom pointing to lesion of the cerebellum; third, because the cerebellum is a frequent site of abscess following middle-ear disease.

It was suggested that lumbar puncture be made: First, for the purpose of eliminating meningitis; and second, for the purpose of relieving intracranial pressure. I object to this procedure—first, because the drainage is not permanent, the cerebrospinal fluid being of such a character that it is very rapidly formed; it would therefore entirely relieve intracranial pressure only for a few hours, so that if permanent lumbar drainage is not established (which has not yet been done), it would give only temporary relief; second, because it is an operation not entirely devoid of danger; and third, because it is valueless as a therapeutic measure, being only of value from a diagnostic standpoint as a means of eliminating suppurative meningitis.

The case, above all things, proves the correctness of Hirt's assertion, that, especially in tumor, a local diagnosis should only be attempted with the greatest circumspection, and even then errors cannot be altogether excluded.

In this connection I wish to say that I regret very much that the patient did not come into the hands of the operator at an earlier time than he did. At the first visit Dr. Ball and myself both urged the patient to submit to an exploratory operation upon the head. I believe that the fair physical condition which he presented at the time of the first examination was such that it would have been possible to have opened both sides of his head safely; and if the right side had been opened this tumor was in such a location that it certainly would have been within the field of surgical intervention; and judging from the postmortem condition of this brain, I am satisfied that with one item (severe hemorrhage) alone excepted, it would have been a very easy operation to enucleate and remove this sarcoma. It is possible that with the large bloodvessels which supply this tumor the hemorrhage might have been so severe as to interfere with the operation. In one case of very similar character, though not quite so large size, I was compelled to desist in my attempts at removal of the tumor on account of the bleeding from the large vessels which would not yield to any method of ligation or clamp, but simply tore in two as far down as one could reach, and the consequence was, I had to pack the skull tightly with iodoform gauze, without removing the tumor, in order to save the patient from bleeding to death. It is barely possible such a result would have occurred in this case, but from the ease with which the tumor may be lifted from its bed in the convolutions I am of the opinion it might have been possible to remove it had the patient permitted operative interference at an early stage of the trouble, instead of waiting until practically *in articulo mortis*.

Remarks on the Eye-Symptoms of Brain-Tumor, by Dr. Ball.

Since it was by the eye-symptoms alone that I made the diagnosis in the case just mentioned, it may be profitable to discuss this subject.

The eye-symptoms in brain-tumor are numerous and they comprise not only paralysis of the third, fourth, and sixth nerve, but as well unilateral or bilateral exophthalmos from pressure on the cavernous sinus; changes in the fundus; the condition of the field of vision, as regards its concentric limitations and as regards the presence of hemianopic contraction; and, finally, visual acuity.

The eye-symptoms in brain-tumor can best be divided into two classes: Changes in the fundus of the eye, and derangements of sight. The evening is too far

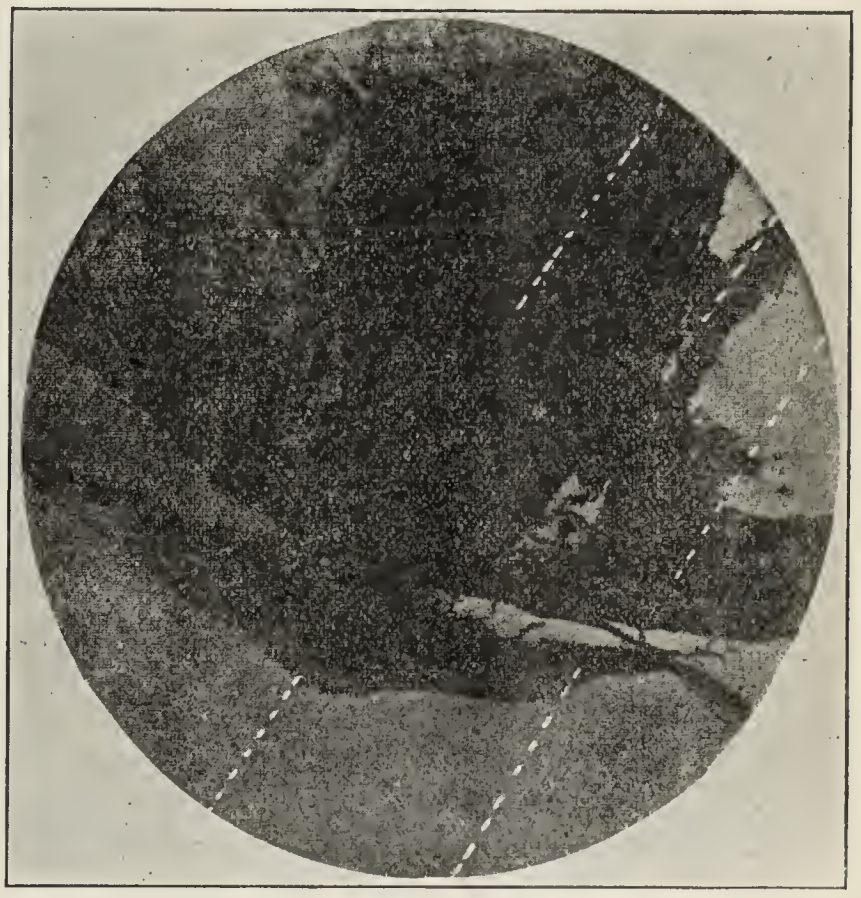


Fig. 2.—Microphotograph of head of optic nerve.

gone to consider all these, but if you will permit, I will take up a few moments in considering the changes in the fundus. Of all the signs of brain-tumor the presence of double optic neuritis is the most valuable for three reasons: In the first place, it is an objective sign. The optic nerve is the only nerve in the body which can be examined while the patient is alive without dissection being made. Second, in 80%, or, as some authorities say, in 90% of cases of brain-tumor we meet with double optic neuritis; and, third, the most frequent cause of double optic neuritis is brain-tumor. In cases of brain-tumor, we can meet with two different pictures as regards the fundus of the eye. We may find double optic neuritis in the form of choked disc, or may see the case at a later stage and find optic-nerve atrophy. In either event the picture to the ophthalmologist is a clear one, and has its distinguishing mean-

ing. If we have an eye with a choked disc, when we look into the back part of the eye we find the whole posterior part of the eye apparently filled up with an elevation of the optic nerve; instead of having the same plane as the retina, the nerve-head is swollen.

On account of pressure, the arteries are diminished in size; and the veins for the same reason are enlarged and tortuous. In addition to this we frequently have hemorrhage into the nerve-fibers. This is what we mean by choked disc. There are some cases of brain-tumor, however, in which this picture is not quite so characteristic; in which the neuroretinitis is not attended by so much swelling; in which we can see vessels running from the optic nerve-head into the retina, but in which there is not a great amount of swelling. Now, as I said a moment ago, in brain-tumor we have a condition of choked disc, or we have a condition of



FIG. 3.—Microphotograph of optic nerve in transverse section.

atrophy. Now, when an oculist sees a nerve that is atrophic, it always sets him to thinking; for he must then differentiate between three conditions: Physiologic excavation, an atrophy, and glaucoma. In glaucoma and in different forms of atrophy the optic nerve-head is shallow; in a physiologic excavation it is an easy matter at once to eliminate or determine the condition; because an excavation that is physiologic never extends to the periphery of the nerve-head. If the excavation extend to the periphery it is either atrophic or glaucomatous. If it is glaucomatous, we find other symptoms; for example, in glaucoma the nerve-head presents a characteristic picture; it looks as if it were punched out, and the central vessels of the retina are seen to climb over the ledge, and it is impossible to focus the vessels climbing over the ledge and at the same time focus the vessels at the depth of the excavation. Of course, there are other symptoms that aid us in making a diagnosis of glaucoma. You probably all know that under normal conditions the arteries of the eye never pulsate; under normal conditions the ocular tension counterbalances the pressure within the vessels. So, when this relationship is disturbed, as it is in glaucoma, we find either that the pulsation is present spontaneously, or that it can be produced by very slight pressure upon the eye. There are other symptoms of glaucoma.

Suppose we have eliminated physiologic excavation and glaucomatous excavation, we have left atrophy. The question then arises: Is this atrophy a simple atrophy, or is it consecutive to an inflammation? and this question is an important one in making a diagnosis. For we find a simple atrophy is present in two classes of cases; we find it present very frequently in spinal diseases, for example, tabes; we find it present in some cerebral conditions, like progressive paralysis of the insane and multiple sclerosis of the brain. The question then is, Is this atrophy a simple atrophy or is it an atrophy sequent to inflammation? In simple atrophy we find that the size of the vessels is not diminished; we may see the line of demarcation between retina and nerve-head; the nerve frequently looks grayish, or bluish, particularly as I have seen in cases of tabes. The optic nerve-head—that is, the periphery of it—the outlines between the retina and nerve-head are regular, and that is about the picture we get in simple atrophy. Now, in the atrophy which has followed an inflammation—and that means, of course, the pouring-out of an exudate—we have a different picture. Here we find the nerve-head shallow, the excavation extending to the periphery; we find the vessels small, sometimes resembling mere threads, sometimes seen with difficulty. We find frequently that the vessels are paralleled and overlaid by an exudation; we may see a whitish deposit, which is the result of an exudation. We find sometimes, as in old cases of meningitis, that the optic nerve has a very bluish appearance, and that the nerve-head instead of retaining its contour is irregular and shrunken. As a rule, the oculist has no difficulty in determining whether the atrophy of the optic nerve is simple or consecutive to inflammation.

Now, suppose we have a case in which there is double optic neuritis, what are we to conclude? We are not justified in concluding, from the presence of double optic neuritis, that the patient has brain-tumor; by no means. For we find there are many causes of double optic neuritis besides tumor; although the most frequent cause of double optic neuritis is brain-tumor.

I want to make one or two general statements: First, there are cases of brain-tumor recorded in which there were never any symptoms, and the tumor was found only on postmortem examination. That can happen in a brain-tumor which grows slowly without increase of intracranial pressure and without irritation at the site of the lesion. A brain-tumor does not necessarily

produce double optic neuritis, for two reasons. In the first place, a brain-tumor may occur in such part of the brain as not to interfere with the optic tract; and, secondly, we find that people sometimes come to us after the optic neuritis has subsided. The double optic neuritis of brain-tumor is rarely equally developed in the two eyes at the same time. If a case of double optic neuritis comes to us, we will think of several conditions; in the first place, we always think of syphilis, for that is a frequent cause of that condition; we think also of meningitis, which can produce double optic neuritis, although not very frequently; we think of brain-tumor, which is the most frequent cause of double optic neuritis; we think of all those constitutional diseases to which the general name of anemia is given —all the way from simple anemia to leukocythemia.

Sometimes we see a case of unilateral optic neuritis—choked disc on one side. And this may be due to causes which reside in the orbit; it may be due to intracranial causes; and I believe it was Hughlings Jackson who said he believed that in these cases of one-sided optic neuritis, the tumor was generally found on the opposite side. But really the number of observations concerning that condition is very small and we should not consider that particular conclusion very valuable. Suppose we have found double optic neuritis and have excluded anemia and meningitis and syphilis; as the statesman said: "Where are we at?" Double optic neuritis is of absolutely no value in localizing a tumor. Of course, Bramwell says that tumors growing from the medulla are more rarely accompanied by double optic neuritis than tumors growing elsewhere; and I believe that Starr, in the "American Text-book of Nervous Diseases," tells us that tumors growing in the cerebellum and tumors of the corpora quadrigemina and basal ganglia are more frequently accompanied by double optic neuritis than tumors of the cortex and centrum ovale. So, valuable as is double optic neuritis as a diagnostic sign of brain-tumor, it is of no value as a localizing symptom. Double optic neuritis in the form of choked disc may come on at any time in the history of a case of brain-tumor, but it is usually an early symptom. It may appear very late. Thus Drummond has recorded a case of tumor of the medulla, lasting for nearly a year, in which choked disc appeared only ten days before death.[2]

Compulsory Insurance in Switzerland.—A law rendering insurance against illness and accidents compulsory in Switzerland has been adopted almost with unanimity by the National Council. It is proposed that the Federal Government should subsidize the insurance by a sum of about eight and a half million francs yearly. If the bill pass the State Council, it will probably be submitted to the Referendum.

[2] Drummond: Diseases of the Brain and Spinal Cord, p. 180. London, 1883.

A DAY'S SURGERY IN THE PENNSYLVANIA HOSPITAL.

By ROBERT G. LeCONTE, M.D.,
of Philadelphia, Pa.
Surgeon to the Methodist Hospital, and to the Out-Patient Departments of the Pennsylvania, and the Children's Hospitals; Assistant-Surgeon to the Gynecean and to the Orthopædic Hospitals.

As an instance of the character and variety of work the Pennsylvania Hospital furnishes its surgeons, I desire to report briefly the cases and operations of Monday, April 10, 1899. With the exception of the first operation, which had been previously arranged for that day, all the cases were admitted during the morning and afternoon, a period covered by 7 or 8 hours, and were of an emergency nature, requiring prompt and immediate attention. The day, of course, is an exceptional one, above the average work, but during the year the hospital furnishes many similar in character.

Case 1.—Necrosis of the elbow-joint; excision. Samuel C., aged 60 years, white. Admitted February 12. Sustained a contusion and abrasion of the back of the right elbow, followed by a frost-bite of the parts. There was marked cellulitis of the arm and forearm with a large patch of whitish-gray necrosed skin over the back of the elbow. Under treatment the cellulitis subsided, and the slough separated, leaving a granulating surface extending from the lower third of the arm to the upper third of the forearm, and from 4 to 5 inches in width. This surface was contracting nicely and skinning over, when the patient insisted on being discharged, and left the hospital on February 25. Readmitted March 19, with a large granulating surface at the back of the elbow, the triceps-tendon sloughing, the joint opened and suppurating, and the humerus and ulna exposed and necrosed. Expectant treatment was pursued for 3 weeks, but as no perceptible improvement followed the patient finally consented to operation.

The patient was etherized and a formal resection of the elbow performed. The necrosis of the humerus had extended well above the epiphysis, and the total amount of bone removed was about three inches. The ends of the bones were not wired together. The sloughing triceps and granulating surface were then thoroughly cureted and the wound drained and closed with silkwormgut sutures.

The recovery was uneventful and the patient was discharged May 11, with a very small area still granulating, and excellent motion at the joint.

Case 2.—Strangulated gangrenous femoral hernia; resection of bowel; end-to-end anastomosis; Bassini radical cure. Ida H., aged 37 years, Russian, married, housework. Two days previously, while walking in the street, without any strain or violence, she suddenly felt a severe pain in the right groin. Two years previously she had had a similar pain in the same region, which lasted a short time, and recovery followed without treatment. On admission, the temperature was 100°, pulse 74, respiration 24, vomiting frequent. There was a tumor the size of a duck's egg at the right femoral ring, extending over Poupart's ligament. The skin covering it was reddened and slightly edematous, while the tumor beneath felt firm and tense, very like an adenitis which was about to suppurate. The tumor was painful and tender, but less so than it had been previously. Taxis apparently slightly reduced the size of the mass. Diagnosis: Strangulated hernia, either inflamed (gangrenous) or with suppurating adenitis. Ether was administered and a three-inch incision made over the tumor. The tissues under the skin were edematous, and two enlarged glands, about to break down, presented. On removing these glands, a gangrenous sac containing a gangrenous hernia of the small intestine was found. The constriction was divided, healthy bowel drawn out, the gangrenous portion excised (about four inches), and an end-to-end anastomosis done with the Laplace forceps. Some difficulty was encountered in the use of these forceps owing to the part which holds the blades

together constantly slipping off. The gut was then returned to the abdominal cavity, the sac ligated as deeply as possible, and cut off, and the femoral opening closed after the method of Bassini, with chromicized catgut sutures, and no drainage. On the third day, when the bowels were moved three times, the temperature rose to 101.4°. On the tenth day a small sinus formed at the upper angle of the wound, disclosing some shreds of sloughing fascia. Otherwise the recovery was uneventful. Discharged May 15, with all evidence of a complete radical cure.

CASE 3.—Compound fracture at the ankle-joint; excision of the internal malleolus. Philip E., aged 39 years, Italian, laborer. While standing at work, a large block of stone weighing several hundred pounds rolled over, striking the outer side of the left foot and ankle and violently bending the ankle inward. Result, a compound fracture of the internal malleolus, opening the ankle-joint, and a large lacerated and contused wound of the dorsum of the foot. Ether was administered, the wound opening the ankle joint was enlarged, the broken fragment of malleolus excised, and the joint thoroughly washed out with normal salt-solution. This wound was then loosely packed with gauze. The lacerated wound on the dorsum of the foot was not sutured, as sloughing of the parts was expected. The two wounds were dressed with separate dressings, and an attempt was made to keep the discharges from communicating. The leg was placed in a fracture-box, as plaster-of-Paris would have prevented the necessary dressing of the sloughing wound. The recovery was uneventful, and the patient was discharged June 7, with excellent motion at the ankle-joint.

CASE 4.—Ruptured ectopic gestation; hysterectomy. Maria C, aged 28 years, married, Italian. No history obtained, as an interpreter was not present. Condition: Temperature 99°, pulse 128, respiration 28. Pulse was small and weak, and the patient was anemic and suffering considerably from cramps and abdominal pain; vomited once. The abdomen was distended, tender from the umbilicus down, with a large rounded tumor extending from the pelvis to the umbilicus, very like a six-months' pregnancy. Vaginal examination revealed a small, slightly patulous, firm os, which was drawn high up behind the pubic ramus, and which could just be reached with the tip of the finger, but could not be exposed with the speculum. The rest of the uterus seemed enlarged, rigid, and immovable, but could not be fully palpated owing to the whole pelvis being filled with a soft boggy mass continuous with the tumor above. The patient was catheterized and a few ounces of urine drawn. This was of high specific gravity, with a trace of albumin, but otherwise negative. No diagnosis was made, but immediate operation was advised and accepted.

The patient was etherized and the abdomen opened in the median line, from above the umbilicus nearly to the pubis. The uterus was found stretched out and tightly drawn over a tense cyst, to which the bowels and omentum were adherent above. The mass was bounded below by Douglas' pouch, above by intestine, in front by the uterus and broad ligaments greatly stretched, and behind by the rectum. It was not possible to remove the mass entire, so it was incised and about a quart and a half of currant-jelly clots removed. The right tube had ruptured and was oozing blood. Hysterectomy at the internal os was performed, and as much of the sac as possible pecled off the rectum and intestine. A glass drain was inserted and the abdomen closed. In 24 hours the drain was removed. The convalescence was uneventful.

CASE 5.—Profuse hemorrhage following abortion; retained membranes; curetment and packing. Ida W., aged 18, colored, housework; last menstrual period 3 months ago; aborted early on the morning of April 10; cause not stated. There was considerable bleeding from uterus with foul discharge and many clots and shreds. The os was widely open, the uterus enlarged, soft and freely movable. The patient was etherized, the adherent membranes removed with finger, and the uterus thoroughly cureted, douched and packed with sterile gauze. On April 12 the packing was removed. The odor was still foul, and daily intrauterine douche of 1 to 5,000 bichlorid were given. She was discharged April 17, cured.

CASE 6.—Peritonitis, probably of typhoid origin. William C, aged 19, colored, florist. Ten days before admission, he began to have pain in the abdomen, but did not suffer much pain until 4 days ago, when it became very severe. It was general in character, and distention of the abdomen soon appeared. The bowels were costive, but, after some calomel had been taken, diarrhea followed. There was no headache, general pains, nor epistaxis The patient was very restless and wide awake all the time owing to the abdominal pain. On admission the temperature was 101.6°; pulse 88, respiration 22; the abdomen was greatly distended, tympanitic and universally tender, and the skin blistered from previous hot applications. The facial expression was anxious, the tongue coated with a red tip and slightly tremulous. A hemic murmur was present, but the lungs were negative. Diagnosis:—Peritonitis; for which no cause could be assigned. No operation advised. Next day the temperature was 103°, pulse 110, respiration 26. He had scarcely slept at all, and was constantly restless and complaining of abdominal pain; he had three bowel-movements which were watery, light in color and not offensive. The diagnosis was revised to enteric fever, and the patient transferred to the medical wards, where he later developed typical typhoid stools, a dicrotic pulse, and gave a positive Widal reaction on two occasions.

The point of surgical interest in this case was whether the patient should or should not have been operated upon on admission, and delay was resorted to because no cause could be assigned for the peritonitis and no obstruction of the bowels existed.

CASE 7.—Concealed Littré hernia of right femoral ring; abdominal section. Harry L, aged 21, Pole, cigarmaker, was suddenly seized with violent abdominal pain the day previous to admission, at 9 A.M., while walking upstairs. The pain was general in character and constant. Bowels moved slightly in the evening, and during the night vomiting began. Next morning he had a chill lasting 5 minutes, and the pain seemed to him more severe. On admission the countenance was pinched, anxious, and very pale, pulse weak and very thready, no fever, vomiting frequent. Abdominal pain general and constant, but more marked in the region of the rectum. The abdomen was moderately distended, tympanitic and tender, the muscles slightly rigid, with slight dulness over the bladder, The urine was freely voided, and was of high specific gravity, containing a trace of albumin and some pale granular casts. The inguinal and femoral openings were carefully searched and nothing abnormal found. Diagnosis: Concealed hernia or volvulus. Immediate operation was advised and accepted. The patient was etherized and the abdomen opened in the median line below the umbilicus. On searching the cavity a portion of small intestine was found drawn out like a cord, and leading down into the right femoral ring, where it was adherent. This adhesion was so firm that on breaking it up the peritoneal coat of the bowel remained behind, leaving a congested oval spot the size of a small olive on the bowel-surface. The rest of the bowel, which had previously been a tense cord, immediately resumed a normal appearance, and although a search was made for some point of adherence above, none was found.

My opinion is that a sort of volvulus took place after the gut became adherent to the femoral ring, and that as soon as this adhesion was freed the intestines readjusted themselves to their normal positions. The abdomen was closed without drainage, and the recovery was uneventful. The patient was discharged May 3, cured.

Palliative Treatment of Carcinoma of the Uterus.—L. G. Towslee (*Bulletin of the Cleveland General Hospital*, July, 1899). In case of inoperable carcinoma of the uterus, Towslee advocates the palliative operation of cureting away the growth. He reports 2 cases in which he has operated in this way, and in 1 of them the operation was repeated 3 times, each operation securing the patient a period of 4 or 5 months of comparative comfort. The operation is justifiable, not only because it makes the patient more comfortable, but from the fact that it checks wasting discharges and hemorrhages, and in some cases lengthens life a considerable time. [M.B.T.]

A FEW REMARKS ON THE THERAPEUTIC EFFICACY OF HEROIN.*

By MAX EINHORN, M.D.,
of New York.

One of the old medical writers once said that he would not like to be a physician without the use of opium. This axiom is true even nowadays. It is still more appropriate if we say "opium and its derivatives." The more recent advances in chemistry and pharmacology have furnished us many useful alkaloids found in the opium group, and, moreover, have changed some of these (by substituting for one or more of the radicals constituting their molecules other groups) into less poisonous and occasionally more efficacious drugs. This remark applies especially to heroin.

Heroin represents a morphin in which the two hydroxyl groups are replaced by acetyl radicals. The formula for morphin is $C_{17}H_{19}NO_3$, while that of heroin is $C_{17}H_{17}\left\langle\begin{matrix}OOC.CH_3\\OOC.CH_3\end{matrix}\right\rangle NO$. Heroin is thus a diacetic-acid-ester of morphin.

Prof. H. Dreser[1] was the first who experimentally examined into the properties of this drug and called the attention of the medical profession to it. He found that the sedative effect upon respiration was more pronounced in heroin than in morphin or codein. At the same time, after the administration of heroin the number of respirations grows less, and the inspiration is lengthened in its duration, thus increasing the amount of inhaled air. Dreser further stated that the sedative effect of heroin is quite high, 0.005 to 0.01 of the drug being very efficient against coughs.

The new drug quickly found entrance into the medical profession, and numerous writers published their experience with it. Thus Floret,[2] Georg Strube,[3] Morris Manges,[4] W. Freudenthal,[5] Julius Weiss,[6] B. Turnauer,[7] Charles J. Lang,[8] and, very recently, H. Leo,[9] and H. Eulenburg[10] highly recommended this remedy and endorsed its value. Eulenburg and Weiss also tried heroin hydrochlorid, which is readily soluble in water, and in this respect presents some advantages over the ordinary heroin, which is insoluble. The medicinal properties were identical in both preparations.

In view of the fact that heroin is quite a new drug, I have thought it of interest to publish my experience with it. I have used this remedy since January 1, 1899, either in powder form or tablets, or heroin hydrochlorid in solutions, giving 5 mg. ($\frac{1}{12}$ gr.) twice daily. The formula prescribed was:

℞.—Heroin..... 0.005
Sacch. alb..... 0.3
Ft. pulv., d.t. d. No. xiv. S. One powder twice daily.

Or:

℞.—Heroin mur..... 0.075
Aq. dest.....60.0
D. S. One teaspoonful twice daily.

TABLE OF CASES TREATED WITH HEROIN AT THE GERMAN DISPENSARY.

NO. IN CASE BOOK.	NAME.	AGE.	DIAGNOSIS.	DURATION OF TREATMENT.	RESULTS.
54	W. R.	60	Carcinoma cardiae	2 weeks.	Relief of pains.
2,002	N. G.	41	Cardiac lesion, hemoptysis	1 month.	Improvement.
2,040	A. F.	49	Cardiac weakness	1 week.	Without effect.
2,068	B. B.	51	Carcinoma ventriculi	3 weeks.	Improvement.
2,120	A. P.	43	Cardiac lesion, and chronic enteritis	2 weeks.	Improvement.
2,004	M. G.	35	Pulmonary emphysema, asthma	2 months.	Improvement; during second month potassium iodid added.
2,052	G. P.	71	Pulmonary emphysema, chronic diffuse bronchitis	5 weeks.	Improvement; complains of dryness; therefore, during last fourteen days potassium iodid added.
2,030	W. E.	37	Pulmonary tuberculosis	2 weeks.	Very favorable.
2,038	H. D.	46	Pulmonary tuberculosis	2½ months.	Good.
2,047	I. W.	43	Pulmonary tuberculosis	2 weeks.	Improved; later claimed to experience no effect.
2,055	H. P.	42	Pulmonary tuberculosis, asthma, chronic bronchitis	2 months.	Favorable.
2,039	G. B.	50	Duodenal ulcer, hyperchlorhydria	1 month.	Relief of pains.
2,048	M. W.	30	Chronic gastritis, constipation, headache	2 weeks.	Improvement.
2,070	S. F.	56	Gastric hyperesthesia, chronic bronchitis	6 weeks.	Relief of cough and pains; drug causes constipation.
2,081	A. T.	59	Tabes dorsalis	1 month.	Improvement.
2,092	O. K.	25	Asthma, chronic bronchitis	2 weeks.	Favorable.
2,098	G. L.	60	Asthma, chronic diffuse bronchitis	1 week.	Not improved.
2,179	H. L.	67	Asthma, chronic diffuse bronchitis	3 weeks.	Improvement.
2,196	L. L.	58	Asthma, chronic diffuse bronchitis	2 days.	Without effect.
2,229	L. B.	42	Asthma	2 weeks.	Favorable; causes constipation.
2,149	J. L.	32	Chronic bronchitis	2 weeks.	Improvement.
2,214	A. G.	26	Bronchitis, hemoptysis	1 week.	Not improved.

I have chiefly employed this drug in my service at the German Dispensary, although I have used it besides in quite a number of my private cases.

In the above I present a concise table of the cases treated with heroin at the German Dispensary.

In reviewing these observations, it will be seen that in 3 out of 4 cases of pulmonary tuberculosis a constant improvement (alleviation of the cough) was obtained, while in one case, after acting beneficially at first, the drug lost its effect in 14 days. In 5 of the 7 cases of asthma its action was good—that is, it diminished the dyspnea and alleviated the cough, although in 2 of them the administration of potassium iodid in conjunction with the heroin was necessary. In 2 other cases no improvement was apparently obtained. In 2 cases of chronic bronchitis improvement occurred in one instance, and no results in the other. In 3 cases of cardiac lesions and slight dyspnea, amelioration occurred in 2, while in a third no effect was noted. In 2 cases of cancer (one of the cardia and

* From the Medical Department of the German Dispensary, New York.

one of the stomach), the pains were greatly alleviated. In a case of hyperesthesia of the stomach and chronic bronchitis, the remedy acted well, but produced constipation; and in 2 cases of gastralgia (one from duodenal ulcer, the other from gastric catarrh), decided amelioration took place. In a case of tabes dorsalis the existing gastralgia and enteralgia were much relieved.

It will readily be seen from the above that we possess in heroin a very valuable therapeutic agent. It principally allays cough and eases respiration, but it has also general analgesic properties which render it of benefit in most painful affections. Except slight dizziness and occasionally dryness in the throat, which I found but rarely, I have never seen any unpleasant symptoms even from a prolonged use of heroin, and I can heartily recommend it as a very valuable remedy.

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STRICTURE OF THE ESOPHAGUS AS A COMPLICATION AND SEQUEL OF TYPHOID FEVER. REPORT OF A CASE CURED BY ABBE'S OPERATION.

BY J. E. SUMMERS, JR., M.D.,

of Omaha, Neb.

Surgeon to Clarkson Memorial and Douglas County Hospitals.

IN his admirable book on the "Surgical Complications and Sequels of Typhoid Fever," Professor W. W. Keen says: "In the extensive tables we have collected no cases of typhoid surgical affections of the esophagus, other than 'diphtheritic,' exudative and ulcerative manifestations have been met with. But through the kindness of Prof. Osler, of Johns Hopkins University, and of Dr. Frederick A. Packard, of Philadelphia, I am enabled to publish two cases, which, so far as I know, are the only cases of the kind on record. Both of them are cases of stricture of the esophagus. Presumably, they followed upon typhoid ulcers resulting in cicatricial contraction."

In each of these cases the history is positive as to the development of the difficulty of swallowing during the later periods of a typical attack of typhoid fever. In each the subsequently demonstrable stricture was of small caliber. In Osler's case the stricture was situated 34 cm. from the incisor teeth, in Packard's 14 cm. Osler's case was cured by gradual dilatation, Packard's was progressing rather unfavorably under dilatation by bougies, November 25, 1897.

During the past winter I noticed in the proceedings of some New York medical society that Packard's case was exhibited, having been subjected to a gastrostomy for the purposes of nutrition, the stricture still existing.[1] My case, which is quite as typical in its history as either of the cases just referred to, may be briefly given as follows:

James Talmage, a resident of Wilcox, Neb., was sent to me for surgical treatment June 1, 1898, by Dr. Dan R. Rogers, of Ragan, Neb.

History.—During the fall of 1897, he had an attack of typhoid fever and was under the care of Dr. Stanton, of Sterling, Colo. At the end of the second week of the fever the patient was seized with acute pain in the stomach (?), and was unable to eat anything for 2 days. After this attack of pain there was great trouble in swallowing. Delirium developed and the fever continued for 10 weeks. At the beginning of convalescence the patient noticed that his nourishment did not always seem to reach the stomach, and unless it was purely liquid and taken very slowly, "came back; it was not a regular vomiting sensation." A diagnosis of stricture of the esophagus was made by Dr. J. C. Chipman, of Sterling, Colo., and also by Dr. F. F. Dennis, of North Platte, Neb. The patient had been able to keep himself fairly well nourished on milk, strained soups, etc., until he consulted me, when he stated: "I have been able to take scarcely any nourishment at all for 5 days. When I can take a little liquid nourishment it must be warm and it requires from 30 to 60 minutes to swallow an ordinary teacupful."

In this condition the man came under my care in the Clarkson Hospital. A tight stricture of the esophagus was found 30 cm. from the incisor teeth. After persistent efforts, a filiform whalebone bougie was passed through the stricture, and this was the best that could be done. All of the usually successful manipulations with filiform bougies and other instruments failed. One month was expended in efforts at dilatation. On July 1, 1898, under chloroform-anesthesia, a median abdominal incision was made and the stomach opened between two "guy rope" sutures by an incision 6 cm. in length. A piece of heavy braided silk was fastened to the introducing end of a filiform bougie which was passed in a retrograde fashion through the stricture, and the bougie with its silk attachment drawn out of the mouth. With the head well extended, the end of the silk coming out of the mouth was grasped in the left hand. The other end of the silk was held in the right hand, the silk running along the palmar surface of the index-finger, which was passed into the stomach towards the esophagus in order that when tension was made upon the silk it would straighten out nearly in a right line. By a sawing motion the stricture was cut somewhat, until a bougie, 16 F., could be drawn through without much tension. The stricture was again sawed until a larger bougie could pass, and again until a larger, 30 F., bougie passed easily. The wound in the stomach was then closed by a double continuous Lembert stitch, and the abdominal incision sewed up. On the third day after operation, dilatation was begun by means of bougies, and continued for several weeks until the largest instrument passed without difficulty.

In a recent letter, written about one year since the operation, the man says he is well and hearty, and can swallow anything any one else can. He has a large-sized bougie passed occasionally. This is the second case of stricture of the esophagus in which I have employed identically the same technic, with the same happy results. The first case was that of a little boy who had swallowed lye. The stricture was located at about the same relative position as in the case just related. Whenever it is practicable I believe it wise to complete the operation by sewing up the incisions in the stomach and abdominal wall. Of course, in cases of

[1] Marwedel's operation had been performed in April, 1898, by Dr. Frederick S. Dennis, of New York.

extreme exhaustion, or when primary efforts at division and dilatation of the stricture (with or without a shortening of the working route by an external esophagotomy), are unsatisfactory, a gastrostomy should be done. In a case in the practice of a friend, in which the stricture was impassable, after the rest given the esophagus by a gastrostomy, little trouble was found in obtaining good dilatation by every-day methods. In order to obtain the nearest approach to the site of stricture and be able to saw in a right line, and not cut the cardiac end of the stomach with the silk, the abdomen should be opened on the left side either by an incision parallel to the ribs or by a vertical incision through the outer border of the rectus muscle.

These incisions also give the best approach for the establishment of a satisfactory fistula into the stomach, should this be deemed advisable. It is quite likely that unreported cases of stricture of the esophagus following typhoid fever have been observed. The writer has knowledge of one such case operated upon within a year in a Philadelphia hospital. A retrograde procedure was adopted (not that of Abbe), the case terminating fatally.

PNEUMONIA INTERSTITIALIS WITH PURULENT DESTRUCTION OF LUNG-TISSUE; RECOVERY.

By H. BECK, M.D.,
of New York.

I consider it important enough to report the following case, because the disease is of rare occurrence in adults, and still rarer in children, and because the diagnosis may be difficult with the most careful examination, and because of my patient's complete recovery.

The patient, Lily T., about 9 years old, had a cough of a few months' duration, which the parents believed to be whooping-cough. They noticed of late also, marked emaciation and increasing pallor. It was only two weeks prior to my first visit, made on December 7, 1898, that the child was placed in bed upon medical advice. From the history given to me I understood that a diagnosis of empyema was made, and immediate performance of thoracotomy was advised on December 6. Aspiration for diagnostic purposes was objected to by the parents, so that the character of fluid, if any was present in the pleural cavity, could not be ascertained. In the absence of the family physician, who left town permanently, I found the patient's condition as follows: No heredity of any chronic pulmonary trouble could be traced as far back as great-grandparents of patient; the child has never had any serious malady—with exception of those peculiar to children in infancy—up to the time the persistent cough made its appearance, which lasted to the time I first saw her; appetite poor, movements of bowels more or less regular; other secretory and excretory functions were said to be normal with the exception of profuse night sweats.

Status præsens, December 7, 1898: Patient well built, well developed, normal panniculus adiposus, color of face rather pale, transparent, expression of face rather anxious, tired, but no expression of pain; muscles soft and flabby. Respirations in dorsal posture 32 per minute, costoabdominal, interrupted at intervals by attacks of cough and expectoration of yellowish-green sputum in moderate quantity. We find further that the right half of the thorax, namely its lower part, participates decidedly less in respiration than the left, a phenomenon which is still more distinct on inspection of the dorsal part of the thorax. Otherwise nothing abnormal on inspection. Palpation confirms physical signs of inspection, namely the impairment of respiratory movements on the right side. No pain, either superficially or in deeper layers, present on palpation. Vocal fremitus increased in the region of the right apex, completely absent in the lower posterior part of the same side.

Percussion. Anteriorly and posteriorly on the left side of thorax sounds are clear; on the right side dulness extending from the apex to the spine of the scapula; from the spine of the scapula down to the sixth rib, sound is clearer, yet tympanitic. Flatness marked from the upper margin of sixth rib extending down to the base of the lung, and from the vertebral column to the posterior axillary line, decreasing in intensity the more we approach to the mammillary line. On the right anterior side percussion was normal.

Auscultation. Sharp vesicular breathing in the left lung anteriorly and posteriorly. Over the right fossa clavicularis rough vesicular breathing is heard; over the right fossa supraspinata marked bronchial breathing. Rough vesicular breathing extending downwards from the spine of the scapula to the line of flatness. On the lower part of the right lung throughout the area of flatness respiratory murmurs are completely inaudible. Towards the front of the right axillary line bronchial breathing is slight and sounds as though reechoed from a distance. On the right apex posteriorly fine subcrepital rales are heard.

Cardiac sound normal, pulse 110. Abdominal organs and organs of sense normal; joints painless. Temperature 102° F. in the rectum.

The striking feature was then the complete flatness at the right inferior posterior part of the thorax on an area of about 7 cm. from the sixth rib downwards, and about 7 cm. from the columna vertebralis towards the linea axillaris dextra, the absence of vocal fremitus and respiratory murmurs over that space. So, then, by careful examination of the limits of the area of flatness and all the phenomena of respiration, the presence of *free* fluid (serum or pus) within the pleural cavity had to be excluded. A fact that could not be denied was the going on of an acute or chronic exacerbating process in the lower lobe of the right lung, preceded by or associated with lobar pneumonia, the symptoms of which were still manifested in the upper lobe. I could furthermore infer that the morbid process existed in the lung-tissue proper from the symptom, that on diligent auscultation exteriorly of the axillary line, bronchial breathing resounding from the depth was heard, and at intervals disappeared for a few minutes. Of course, the presence of incapsulated fluid within the pleural cavity more than once would come uppermost in my mind; but inasmuch as aspiration was objected to, the presence or absence thereof could not be ascertained. I consequently decided to continue my observation and proceed with operative measures when they became imperative on vital indication.

A few days' observation was sufficient to confirm that the pathologic condition was located in the lung-tissue. December 12, 1898, I noticed that the sputa assumed a typical purulent character, that they were expectorated in a large quantity, but became more scarce within the next 24 hours, resembling the sputa of tuberculosis. Besides, blood was contained abundantly in the expectorated masses. On microscopic examination I found red blood-cells, mucus and pus-

cells, as well as *elastic fibers* (no scolices or other parts of echinococcus). Physical examination, however, could not reveal the evacuation of a large abscess. The temperature fell to 101° F., pulse to 90, but on the right posterior inferior region of the thorax impairment of respiratory movements was still well marked, flatness absolute, and total absence of respiratory murmurs. Anteriorly, towards the linea axillaris, keen vesicular breathing was now heard, while bronchial breathing entirely disappeared.

In the course of two weeks it was evident that flatness was gradually *laterally* decreasing, so that on December 30 the area of flatness extended from the sixth rib downwards to the base of the lung and laterally about 3 cm. from the vertebral column. Flatness disappearing, normal vesicular breathing made its appearance; so that at the end of January, 1899, all physical signs of the morbid condition in the lower part of the right lung disappeared (at the apex the dulness and auscultatory symptoms had disappeared long before), Temperature was 100°, pulse, 90, the condition lasting until March. Several examinations of sputa at various times did not show the presence of tubercle-bacilli.

I must therefore come to the conclusion that the child was suffering from chronic bronchitis throughout the summer, followed by a condition of interstitial pneumonia in the lower right lobe. The exudation in the interstitial tissue compressed the alveoles, causing them to become airless. Within the subchronically inflamed tissue, toward the center of the lung, a purulent destruction of the lung took place, the product of which, coming in communication with a bronchus, was thus discharged.

At present the expansion of the right side of the thorax exceeds by 1½ cm. the left side on deep inspiration, which obviously tends to prove that the functions of the right lung are completely restored, and that the inflammatory product in the interstitial tissue entirely disappeared, without leaving any evident traces of permanent cirrhotic contraction.

A PRELIMINARY NOTE ON THE TREATMENT OF LEPROSY BY INJECTIONS OF CALMETTE'S ANTIVENENE.

BY R. S. WOODSON, M.D., U. S. A.,
of Fort Clark, Tex.

THE very evident improvement in a case of mixed leprosy isolated at this Post for the past 3 months, and which I have been treating with antivenomous serum, leads me to publish the following brief preliminary note.

So grave is the question of the cure of leprosy that I approach it with the utmost conservatism, forming as it does the *bête noir* of the medical profession.

Mrs. H., a resident of Eagle Pass, Tex., of German nativity, aged 36 years, first noticed the disease 7 years ago. The source of infection is uncertain, most probably Mexico. The disease was unrecognized un il the past 6 months. The case was reported by the Marine-Hospital service in July. The diagnosis was made, independently, by Professor Smith, of Galveston, and myself, clinically and microscopically, and was confirmed by Dyer, of New Orleans, whose opinion was accepted as final.

The patient was placed under my charge in July, since which time she has been under my constant observation. I received direct from the Pasteur Institute a large supply of Calmette's antivenomous serum August 18,1899,at which time the treatment was begun, commencing with injections of 2 cc. daily, and gradually increasing to 40 cc. The reaction after each injection was marked, and the daily temperature increased *pari passu* with increasing dosage.

During the first few weeks of the treatment the case assumed an acute form, as manifested by fever, the efflorescence of numerous crops of tubercles, disappearing in a few days, and a general neuritis of all extremities.

It is but fair to say that she has been kept on large doses of hoangnan at the same time; also her manner of living, from a hygienic standpoint, has been perfect. It is a problem, therefore, what proportion of the improvement can be attributed to the serum.

The improvement, however, is manifested by the following facts:

1. At the present time there are no ulcerations on any portion of her body.
2. There are no tubercles on her body.
3. Her nasal secretion is greatly diminished.
4. The anesthesia of her extremities is diminishing to a marked extent.
5. The change in her general appearance is noticeable.

It is too early, yet, for definite conclusions. Further treatment and time are necessary to effect a complete cure and to furnish proof of its permanence.

Puerperal Hematoma.—J. D. Lower (*Cleveland Medical Gazette*, September, 1899). A woman, 31 years old, had been delivered of a child by the high forceps operation with considerable difficulty. At a later call the same day an elevated mass larger than a hen's egg was protruding from the vulva; it was very painful and obstructed the flow of lochia. Anodynes were administered and careful antiseptic precautions were taken and the swelling subsided after a few days without any treatment. [M.B.T.]

A Case of Glanders.—M. Friedrich (*Bulletin of the Cleveland General Hospital*, July, 1899) reports the case of a colored hostler, aged 36, who entered the hospital with enlarged and suppurating cervical submaxillary, sublingual and inguinal glands. He coughed, had purulent expectoration; there was slight dulness on percussion, vesicular breathing, and increased vocal fremitus over the apex of the right lung. His sputum was repeatedly examined for tubercle-bacilli, with a negative result. The affection of the glands was not chronic, and the lesions were symmetric, which was not in favor of the diagnosis of tuberculosis; moreover, the glands were too large for tuberculosis, and were not matted together. There was also an eruption of papules on the forehead, above each eyebrow, which by morning had changed into pustules; other groups of papules soon appeared, and in their turn became pustular. Microscopic examination of the sputum and pus from the glands was not satisfactory, but cultures made on boiled potato and blood-serum showed a yellowish-brown growth after 24 hours and the typical bacillus mallei was found. [M.B.T.]

The Philadelphia Medical Journal

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A Great Victory in Porto Rico, and one of which we may be as proud as of winning any battle, is indicated in the following letter:

SUPERIOR BOARD OF HEALTH
OF PORTO RICO.
San Juan, P. R., October 23, 1899.

To the Editor of
THE PHILADELPHIA MEDICAL JOURNAL,
Philadelphia, Pa.

Sir—I have the honor to inform you that the existence of a single case of smallpox is at this moment unknown on this island. Nine months ago a serious epidemic was threatened and the disease prevailed over the whole island. Since then 800,000 vaccinations have been performed. It is possible to stamp out smallpox in Spanish-American countries. There has not been a case of yellow fever all summer. No serious diseases have followed the hurricane of August 8.

Very respectfully,
GEO. G. GROFF,
Secretary.

The Report of the United States Marine-Hospital Service for the fiscal year ending June 30, 1897, has just been issued. Although this is only the 26th published annual report of the Service, it marks the conclusion of the 99th year of its existence. At the present time, therefore, it has entered its second century and has completed its 102d year. Originally established simply for the care of sick and disabled sailors of the Merchant Marine, it gradually, as a matter of convenience and economy, assumed the functions of a National Seaboard Quarantine Bureau, organized under the auspices of the Treasury Department. At the present time the number of cases treated in its 21 fully equipped marine hospitals, and 53 relief stations, is very considerable, having amounted, in the year for which the report is made, to 54,477, of which number 12,154 were treated in hospitals, and 42,323 were dispensary patients. The report affords material for a very interesting medical study. The service owes its present prominence in the eyes of the public and of the medical profession to the fact of its having become essentially the Sanitary Department of the United States Government, and to the splendid services of its energetic chief officer, Dr. Walter Wyman. The volume contains, including the table of contents and a full index, a little over 800 pages. The first half of the book is devoted to matters connected with the administration of the hospital service proper, while the entire second half constitutes a report of the "Public Health Service." In the strictly medical portion we find 204 pages, or about one-half, devoted to reports of fatal cases with necropsies, 70 to carefully prepared statistical tables, and the remainder to contributed articles on medical and sanitary subjects by officers of the service, historical sketches of certain of the hospitals, and routine matters. We purpose considering these reports, for they really constitute two reports rather than one, somewhat in detail in subsequent issues.

Color Photography in Medicine.—On Wednesday evening Mr. Frederic E. Ives demonstrated his krōmskōp to the members of the College of Physicians of Philadelphia. We give in another column a brief description of his invention as outlined in his lecture, and desire now to add our cordial appreciation of its value in medicine and surgery. From the description and cuts given it will be seen that the method of taking the photographs insures absolute perfection of relief or stereoscopic effect, when the three photographs are fused to unity, and that in making the fusion the krōmskōp also adds every tint and color of the original. Mr. Ives showed a number of pictures of diseased persons and tissues (ulcers, a jaundiced individual, etc.), which were of most astonishing lifelikeness and accuracy. In the preservation of the records of disease the invention will undoubtedly prove of inestimable use to surgeons and specialists, and one foresees many ways in which lecturers and teachers will find the invention of manifold and excellent service. The only regret one can have is that as yet there can be no application to the illustrating of books and periodicals.

A warning to Managers of Expositions and Fairs, and one that physicians should make sure will be fitly and emphatically emphasized in future, is against quack opticians. Managers of these institutions in the past have usually had the shrewdness to resist the bribes of the worst patent-medicine humbuggers, and the most shameless nostrum dealers. They have now to take in hand a class of equally infamous quacks calling themselves opticians. These scamps, who travel from fair to fair, and from town to town, deceiving and hoodwinking people, and who have neither optical knowledge nor a trace of civilized morality, are a fourfold curse,—to the great body of legitimate and honorable opticians of the land, to the States and public gatherings which

they infest, to the medical profession, and to the public. The ignorant people, especially when they find these fellows plying their trade under cover of an institution of character, suppose they have the guarantee of the managers, and thus the trustful are bamboozled out of their money. It was quite a rise in the world for the "Eyes-examined free" gentry,—from the country circus to the great Exposition, but "the higher the monkey climbs"—

Professional traitors are they, and they should be branded as such, who, having lost all sense of honor and decency, act in the way suggested in the following letter addressed to us. A clipping from some newspaper precedes, reading thus:

WANTED—Doctor; licensed for the State of New Jersey; good salary will be paid the right man. Address Doctor, ————, Philadelphia.

One wonders whether the impudence of the letter or its stupidity is the greater. We copy verbatim:

PHILADELPHIA, Oct. 23, '99.

Doctor

Dear sir—you will see by enclosed circular that I am engaged in Lectureing and healing magnetically and in order to avoid all criticism I do so under the auspices of a regularly Licenced Physician—we generally stay from three to Nine weeks in each city—I pay a salery of from $15 to $20 per week includeing both traveling and hotel expences in adition to the salery I allow one half of all outside calls none are made for less than $5 and often a number are made each day thus paying acording to the ability of the Physician hopeing to hear from you again I am most

Rcspectfully

———— ————.

Not long ago the exploiters of a cure for drunkenness were able to secure the services of all the doctors of medicine they desired to act as legal buffers and professional protectors against punishment for professional crimes. When an army catches its deserters and traitors it does not reinstate them in their old positions of office and trust. Should we not have a similar self-respect and at least forever read out of social and professional comradeship the wretches who turn traitor to us and sell our honor for the quack's dollars?

The Pathology Demonstration Course at the Philadelphia Polyclinic is one of many evidences of the remarkable earnestness and ability of Philadelphia pathologists. The plan is a novel one. Five or six of the younger pathologists connected with the different hospitals collect their pathologic material, and each one in turn gives a weekly demonstration. In this way a very large postmortem material is brought together for demonstration. The establishment of well-equipped laboratories in connection with several of the hospitals, and the appointment of special pathologists, who are well-trained, to take charge of these, has stimulated pathologic work in Philadelphia, and these enthusiastic young men are ready to present the results of their investigations in weekly demonstrations. Such a course should be very useful and attractive, especially to hospital internes and young doctors starting in practice. The cooperation secures the utilization for instruction of most of the morbid material of the city, at least of some 600 autopsies. The cases demonstrated have been previously worked up carefully. The Polyclinic is neutral ground—an ideal place for such a course, and the movement deserves, as it will undoubtedly achieve, success. Many of the graduates of our schools learn too little of morbid anatomy, the very groundwork of the science as well as the art of medicine, during their college courses, and we trust that large classes will seize the unique opportunity so admirably provided by Dr. Kirkbride and his enthusiastic coworkers. We also hope other cities may adopt this excellent system of union work.

Anesthesia by Injection of Minute Quantities of Cocain into the Spinal Canal.—In spite of the slight mortality usually following general anesthesia, efforts are being constantly made to discover some substitute; for when death does occur, it is usually under circumstances so unexplainable and apparently so unavoidable, as to give rise to a dread of general anesthesia, not only in the minds of the laity, but also among many experienced surgeons. This has led to the introduction of local anesthesia as a substitute for general anesthesia, but, unfortunately, local anesthesia by the methods of infiltration, etc., is applicable only in a limited number of operative procedures, mostly in minor surgery. Professor August Bier, of Kiel (*Deutsche Zeitschrift für Chirurgie*, Bd. li, Hefte 3 und 4), has recently introduced a method of producing more extensive anesthesia by the introduction of a solution of cocain into the vertebral canal. A hollow needle is introduced as in the operation of lumbar puncture and a comparatively small amount of a weak solution of cocain (usually 0.5 of 1%) is injected. Bier believes that the anesthetic effects are produced by the action of the drug upon the nerves without sheaths and the ganglions which are found within the spinal canal; he has used this method in six major operations without any suffering to the patient and without perceptible after-effects. The average amount of the drug used was about 0.005 of a gram, and anesthesia of the entire lower extremities, and most of the abdomen resulted in about eight or ten minutes after the injection. Although having its origin from so reputable a source, this method of anesthesia does not seem to have attracted much attention. In the current number of the *Centralblatt für Chirurgie*, 1899, volume xxvi, page 1110, Seldowitsch reports four cases in which he has used this method of anesthesia for major operations. A slightly larger quantity of cocain was used than recommended by Bier (0.01 grams of cocain), but the effects produced were practically the same, complete anesthesia following in every case and lasting sufficiently long for the comple-

tion of the operations, the longest of which lasted fifty minutes. The operations performed were a Pirogoff amputation of the foot for carcinoma; amputation of the leg and extirpation of the inguinal glands for melanosarcoma of the calcaneum; removal of an extensive skin carcinoma in the region of the knee and enlarged inguinal glands; and resection of the knee for tuberculosis. Sensation returned a short time after the completion of the operation and there were no serious after-effects in any case. Seldowitsch's results differ from those of Bier, however, in that there were symptoms evidently due to the effect of the drug following in all cases. A chill, slight rise of temperature, and increased frequency of the pulse were noted in all of the cases, and in two of the cases there was headache, vertigo, vomiting, and some nervous excitability. The patient operated upon for melanosarcoma died from cachexia five weeks after the operation, and at a necropsy nothing abnormal could be found in the spinal canal or spinal cord. With the exceedingly minute amount of the drug used it is difficult to see how any very serious consequences can follow. Probably the application of this method will be limited to operations on the lower extremity and abdomen, but if it proves successful in the future as thus far, a decided advance has been made. It remains to be seen whether the anesthesia is due to the minute quantity of cocain used, or largely to some other source, as is the case in local infiltration-anesthesia. The results of this method of anesthesia thus far are so entirely satisfactory that it would seem that the method is worthy of a more extensive trial.

"The Postmedical Fraternity."—The undertaker's business must be poor when he seeks to increase it by the methods illustrated in the following letter from a company to a physician. But what might be said both of the business and the professional ethics of the physician who would enter the secret copartnership were perhaps better left unsaid.

"Dear Sir:— Chicago, Ill., ——.

It is proposed to inaugurate a system of obtaining immediate information of deaths, as they occur, and we will be pleased to confer with you as to the best method of doing so. Physicians, as a general rule, have such information first, and it has been suggested that they telephone this office, any hour of the night or day, that such an occurrence has taken place. Physicians' time is valuable, and we understand that they must be remunerated for their services, and in order to do so we propose to furnish (in each case) one undertaker with the information and charge him for it, so as to enable us to pay the physician, say three dollars each, for such cases as the undertaker may have charge of, or in other words pay the physician one dollar in each and every case of which he gives us notice within an hour of its occurrence, and two dollars extra, making three dollars in all, for such cases as he tells us to send an undertaker.

Physicians are expected to give us as many cases for the undertaker as they consistently can, for the reason that the other cases are an entire expense to us. It seems very easy for a physician to say, he is going to telephone —— —— —— of the death and will tell them to send an undertaker, if desired, especially if the death occurs at night. In any case it is the quickest and best way to obtain an undertaker, and in most cases it is a convenience to the family.

We are not connected with any particular undertaker, but exercise the right to select one, generally the nearest to the house where the death occurs, and if possible one of the same nationality as the diseased. We will protect the bereaved from any importuning of any kind, and use the information solely for the purpose intended.

It is not necessary that either the undertaker or anybody else should know how the information is obtained, and it is desirable to furnish each physician with a card bearing a signature in number, which he will use instead of his name, thus telephone operators and others need not be enlightened.

We are referring or speaking of the death of adults only. In case of children it would be merely a convenience to the family, nothing more.

If you approve of the arrangement drop us a line saying 'Send me a card,' and the receipt of the card will notify you that we are ready to receive and pay for information. Or if you have any suggestions to make we will be pleased to consider them. If not, and you do not desire to furnish the information, please consider it a professional secret and let the matter drop.

Yours very truly,

—— —— ——."

Testimonials for Sale.—An interesting sidelight was recently thrown upon the methods of quacks and patent-medicine vendors by the privilege (?) of perusing a letter from an individual in an eastern country town to a firm of manufacturing chemists, offering, for a consideration of $100.00 down and $1.00 for every letter of inquiry answered, to write a ringing endorsement of the marvelous beneficial effects upon his much-diseased (?) body of the remedy offered for sale by the firm. This sharper naively wrote that he had charged his last customer, a well-advertised quack, $150.00 for a letter detailing a long list of ailments of which he therein asserted the aforesaid quack had cured him. This letter was widely published in the daily papers by its purchaser, and many inquiries poured in to its writer, who for the further consideration of $1.00 per letter answered each with a circumstantial description of the great benefits he had received from the charlatan's treatment. Heretofore it has been assumed that it was the ever-present fools who furnished the Elysian feeding-ground for quackery, but it seems the clever knave has profitably preempted the fool's occupation and thereby added materially to the accuracy and certainty of the returns from quack advertising. A more complete reduction to absurdity of the value of the "testimonial" could not well be found, to which to direct the attention of the few who think that physicians, because they do not advertise, are much behind the times. How completely gulled is the public by commendatory letters from persons who, like enough, never saw the man or article they laud so highly! Until the method is widely exposed in the public prints (at the millennium?) it furnishes a lucrative field for the indolent indigent residents of obscure localities.

The Morphin Habit Among Physicians.—Dr. T. D. Crothers, in his recent paper before the New York State Medical Association, brought a grave charge against the medical profession. If correctly quoted, he

claims that his statistics prove that 21% of physicians seen by him are taking alcoholics or drugs; 10% of them being secretly addicted to opium or other drugs. From his figures, based on a personal study of all physicians who came within his reach—3,244 in number—he concludes, by what process of reasoning we do not know, that at least 6% of all the physicians in the country are opium-inebriates. morphin habit. Dr. Crothers is further quoted as stating that a large proportion of physicians die as a direct result of their use of morphin by the hypodermic syringe. The habit, however, is not limited to the use of morphin, but many doctors are using the tincture of the drug. He says that the "morphin physician" can occasionally make a clear diagnosis or perform a difficult operation, but more often he fails completely. The increase in the number of physicians among inmates of the asylums is not merely astonishing but alarming. The physician who frequently gives hypodermic doses of morphin to his patients is usually, according to Dr. Crothers, addicted to this use of the drug himself. In conclusion, the writer of the paper states, not illogically, that no patient is safe in the hands of a physician who takes morphin.

This is an ugly indictment, based upon insufficient facts. Nothing is gained by concealing the facts; but, on the other hand, much injury may be done by distorting or exaggerating them. It is impossible for us to believe that anywhere in this country 21% of practising physicians are addicted to drugs and liquors. Dr. Crothers, who makes a specialty of this subject, has probably been thrown in with a far larger percentage of such cases than the average. Anyhow, we cannot admit the validity of a statistical study which draws conclusions from 3,244 physicians and then applies them to the whole American profession numbering more than 100,000. The medical profession undoubtedly, and unfortunately, does contribute its share of drug slaves, but it should not be exposed to a charge of such startling delinquency on such dubious figures. With plenty of opportunities for observation in this city we think the instances in which physicians injure themselves or their patients by the use of morphin are extremely rare, although, of course, they are not unknown. In this connection it should be remembered that it is not uncommon for a layman, and especially a laywoman, who has acquired the morphin habit, to lay the blame at the door of some physician, usually without the least justice.

Suggestions to Writers, No. 44. A Question as to Pronunciation.—In modern psychologic works one will find on almost every page the words, neuropsychology, psychophysiology, psychophysics, etc.; in reading these and similar words one would not pronounce them, *nu-rop-si-kol'-o-je*, *si-kop-hiz-e-ol'-o-je*, *si-kop-hiz'-iks*, etc. But there are a number of words in the medical dictionaries, concerning which a similar barbarism of pronunciation is laid down as lawful and proper. Of these words, *apneumatosis*, *iliopsoas*, *hysteropsychosis*, *uropsammus*, *enteroptosis*, *gastroptosis*, *trichoptilosis*, *uroxanthin*, and *metapneumonic* occur to us as examples. We are ordered to pronounce them, *ap nu-mat-o'-sis*, *il-e-op-so'-as*, *his-ter-op-si-ko'-sis*, *urop-sam'-mus*, *en-ter-op-to'-sis*, *gas-trop-to'-sis*, *trik-op-ti-lo'-sis*, *u-ro-zan'-thin*, and *met-ap-nu-mon'ik*. In all other words the *p* (as in pterygoid, ptilosis, pneumonic, psoas, ptosis, psychology, etc., has never been sounded in English. What, therefore, is the reason that when placed after other stems in compounds the fact revives the spirits of the letters silent and dead for thousands of years? Let us, therefore, disobey the dictionaries and pronounce, *ptosis*, *ptilosis*, *psycho-*, *pterygoid*, etc., without the initial silent letters, whether in the beginning or in the middle of a word. Let us say, *ah-nu-mat-o'-sis*, *il-e-o-so'-as*, *met-ah-nu-mon'-ik*, *en-ter-o-to'-sis*, *gas-tro-to-'sis*, *trik-o-ti-lo'-sis*, *si-ko-fiz'-iks*, *nu-ro-si-kol'-o-je*, *sfen-o ter'-e-goid*, etc.

Gastric Ulcer in a Child.—W. L. Johnson (*Medical Council*, October, 1899), reports the case of a girl aged 5, who, for more than 10 months had suffered from pain in the stomach soon after eating. Red blood mixed with mucus was vomited on two occasions, and on palpation there was tenderness in the left hypochondriac region. Suitable dietetic and medicinal treatment was prescribed and for some time there has been no pain or hematemesis. [M.B.T.]

Smallpox.—F. Leavitt (*St. Paul Medical Journal*, October' 1899) gives brief notes on 21 cases of smallpox which have occurred during the recent epidemic at St. Paul. There were only 2 cases of varioloid; in 3 cases the disease was modified by vaccination during the period of incubation; 1 was reinfected; there were 14 cases of the discrete variety, and 2 of confluent smallpox; there were no deaths. Drugs are considered of but slight value in the treatment of the disease; an acetanilid combination may be used to relieve the malaise of the period of invasion; salts may be given to favor elimination; the eyes need irrigation when congested or discharging; severe throat symptoms are sometimes relieved by gargles, and carbolized olive-oil relieves the irritation of the skin, and doubtless acts as an antiseptic, but Leavitt is very skeptical about any application having much effect in preventing pitting. [M.B.T.]

Surgical Kidney following Confinement.—R. E. Webster (*Montreal Medical Journal*, August, 1899) reports the case of a woman who was admitted to the hospital about two months after her confinement. She stated that following delivery she had had chills, fever, and sweating for two weeks. One week after confinement frequent micturition was noticed and a creamy deposit was noticed in the urine. The pus continued present in the urine up to the time of admission. On examination, fulness and tenderness were found in the left lumbar region, but there was no fluctuation, the temperature was running a typically septic course; there were chills, sweats, pain in the side, loss of appetite, and heavily coated tongue. On cystoscopic examination thick, yellowish pus was seen oozing from the left ureter; microscopic examination showed very numerous pus-cells, but no tubercle-bacilli. An incision was made below the twelfth rib, exposing the kidney. The capsule was adherent and the kidney enormously enlarged; the kidney-substance was so thin and friable that it ruptured almost immediately, and about a quart of thick pus poured out. The kidney was rapidly enucleated, the ureter, vein, and artery secured by a clamp, and the cavity washed out and packed with iodoform gauze. Some shock followed, but the patient rallied and made a good recovery, leaving the hospital with the wound completely healed one month after operation. [M.B.T.]

Correspondence.

FURTHER HISTORY IN A CASE OF AKROMEGALY.

By W. M. LESZYNSKY, M.D.,
New York.

To the Editor of The Philadelphia Medical Journal:—

The following subsequent history of the patient with akromegaly reported by me in the Philadelphia Medical Journal of October 7, 1899, was obtained from Dr. John J. Muleahy, house physieian at St. John's Hospital, Long Island. "Patient was admitted August 30, 1899. Constipation had existed over 2 weeks. The heart's action was very feeble. The urine contained albumin and granular casts. Left hemiplegia gradually developed, and after a few weeks of inereasing hebetude death took plaee from exhaustion October 15, 1899. No autopsy."

MAGNETIC HEALING 50 MINUTES LATE.

By IRENEUS D. HITCHCOCK, M.D.,
of Afton, I. T.

To the Editor of The Philadelphia Medical Journal:—

I am very much interested in your crusade against all forms of quaekery and charlatanism. We of the West are burdened with an oversupply of this eommodity, and you will perhaps be interested to learn how it is done in some instances. I enelose herewith a sample of what the advertising eolumns of Missouri papers are disseminating far and wide. The methods of this "wizard professor" are an improvement over those of the average Christian seientist inasmuch as he operates under the sanetion of a State lieense, thus forestalling any possible legal complications. He also caters to popular ideas by reeognizing the existence of disease in the beginning, and boldly asserts his supernatural ability to cope with any and every ill that flesh is heir to. His first requirement, as I have learned from some of his "patients," is a fee in advance. Next he supplies a printed set of directions,—the same in every case, so far as I have been able to learn, from ringworm to yellow atrophy of the liver,—by which they are to act in order to receive the effeets of his "influenee." At a certain hour of the day the patient is to reeline and compose the mind, endeavoring to think as nearly of nothing (*sic*) as possible. At the same hour the "professor," perhaps hundreds of miles away, sets his mental magnetie machine to work in behalf of the sufferer, and for a half to one hour the "healing forces" are in operation. The patient is supposed to feel the benign influenee permeating his disease-ridden frame, palliating and purifying, and gradually driving out all the evil conditions. Of course an oecasional stimulant in the way of an additional fee is neeessary, and thus the good work goes on. The necessity of having aecurately corresponding time does not seem to be a factor in the course at all. And it is a faet that one gentleman of my aequaintanee, who had been taking 45 minute "treatments" daily for several months, regulated his time by a eloek which ran just 50 minutes slow. Minor points like this, however, do not queer the faithful.

N.B.—This patient died. He had chronic interstitial nephritis.

This is only one of the many medical fakes we have to contend with and whieh we will ever have as long as State legislatures grant indiscriminate eharters.

Special Article.

THE SURGICAL COMMISSION MAN AND SURGICAL CANVASSING.

By G. FRANK LYDSTON, M.D.,
of Chicago.
Professor of Genito-Urinary Surgery and Syphilology in the Medical Department, Illinois State University.

Some twenty years ago, at about the time I began the praetice of medieine, I chanced to be in the eompany of a coterie of medical men who were eonversing on matters professional. One of the gentlemen happened to allude to his *clientèle* as "eustomers," to the consternation of the assembly. Harking baek from the "business" status into whieh medicine and surgery are rapidly drifting in certain quarters, I wonder whether the surviving members of that group of physicians have yet thawed the frost which the careless verbiage of their unfortunate friend spread upon their ethical souls. I fancy they have, for it has come to pass that the blithesome roper and steerer, and the suave capper of the medical shop, stalketh abroad in the land, even in the light of the open day. The surgical and medical trust is looming up on the horizon, and that delightful and charitable friend of ours, that valued "postmedical" adjunct to our profession, the undertaker, is not only ready to divide his gruesome gains with us, but to our shame be it eonfessed, finds physicians who expeet such a division. This may be challenged, and, although I contemplate allusion to the matter in a future article, I will state at this juncture that my attention was called to the subject by the tender of "the usual courte-y to the profession—25%,"— which was "pretty liberal, considering the hard times," by a certain postmedical artist, into whose hands one of my deeeased patients happened to fall. My lugubrious friend, whom we will eall Mr. Weeps, for the benefit of those of the local profession who may be getting a wee bit nervous and apprehensive at this juncture, assured me that he supposed there was a general understanding between physicians and the postmedical fraternity on the question of division of the undertaker's spoils.

The "trade" aspect of the trend of medicine and surgery at the present day is well illustrated by the fact that medical periodicals of recent date have contained eonsiderable serious discussion, *pro* and *con*, relative to the division of fees by the surgeon with the general practitioner. The first article that eame under my observation was published by a St. Louis gentleman, and dealt with conditions prevailing in that city. In a subsequent conversation with a St. Louis physieian friend, I was assured by him that conditions were fully as bad in Chicago as in his own city. This I vigorously disputed and am still ready to dispute.

A short time after this, the wife of one of my physieian friends said to me, when I inquired as to the status of her husband's praetice, "Oh, he's doing finely. He has worked up a lot of cases for some of his surgeon friends, and has made more money out of that lately than out of his own practiee—he gets half the fee, you know. You ought to do the same; all the other surgeons do; you would get lots of cases that way." "All the other surgeons" was a broad proposition, but inquiry showed that it was correct enough so far as the lady's own little world was concerned.

A few weeks later, I brought the subjeet up in conversation with one of my medical friends, who agreed to aseer-

tain, as a matter of information, the extent of the practice of giving commissions among Chicago surgeons of repute. A suitable letter was accordingly written to nearly all the representative surgeons of the city. This letter was so plain in its construction, that no recipient could profess ignorance of its purport—indeed, it was no more nor less than a bald proposition from my country doctor friend, to bestow his patronage upon the surgeon addressed, for a commission of 50%. It was also indicated that the writer of the letter, being in a position to know the financial status of the prospective patients, was likely to prove a very lucrative agent for the surgeon.

The answers received by my friend constitute the most interesting contributions to medico-epistolatory literature that I ever read. As a human nature-study some of the letters are superb. Over 60% of the answers received show that their writers are ready to do business upon the plan proposed by their country correspondent. I will state in passing that not one of the gentlemen approached is an irregular. Neither is there a man among them whom I do not consider as possessing the highest professional attainments. In nearly every instance, moreover, I have the warmest personal regard for the recipients of the letters.

In a number of instances no answer was received—I place this to the credit of most of the gentlemen who failed to answer, who had no time to devote to questionable business proposals. In several instances credit is due to the intuitive cleverness of the surgeons approached—if current opinions are worthy of credence.

The tone of the favorable answers varied from an out-and-out acceptance of the 50% proposition, to a coy dalliance with the gilded proposal that savored much of Donna Julia, who, "swearing she would ne'er consent, consented." Standing out in bold relief against the preceding were letters which showed that a number of my Chicago brethren have that within them which is above degrading their profession to a commission basis.

Admitting, for the sake of argument, that those professional gentlemen who are bidding for "business" are conscientious in the belief that it is right and proper to do so, there is a wide breach between them and those who set their faces against such practices as iniquitous. This, I think, is shown by contrasting some of the answers to the 50% fee-bisection proposition.

The author of the following, an excellent surgeon and a warm personal friend of mine, seems to regard the commission proposal as an everyday business matter, and wastes no words:

CHICAGO, Aug. 14, '99.

"DEAR DOCTOR ————:
I think I can take care of your patients in a manner satisfactory to you. Let me know when I can be of service.
Truly, yours
————."

The author of the following is disposed to haggle a bit. He and I differ as to his value—I think he is entitled to all, and more than most of our patients pay. He concludes his somewhat lengthy letter as follows:

". . . . I have every disposition to be fair, even generous in such matters, and I would be glad to make any proper arrangement for operations. . . . It occurs to me that one-third of the fee agreed upon might be considered by you as a liberal portion, etc." Very truly, yours
————."

The following from a capable surgeon, occupying an important position and one of my long-time friends, is frank and to the point. His answer, by-the-way, is much more admirable than the proposal of one gentleman to allow the physician bringing the case to "assist at the operation," in consideration whereof the fee would be divided.

CHICAGO, Aug. 15, 1899.

"DEAR DOCTOR ————:
I am very glad to have heard from you, and I shall be glad to make such arrangement as you suggest, by which you and I shall equally divide the operation-fee in any and all such cases as you may refer to me, and I shall operate upon. A private letter from you advising me of the fee which the patient can pay would be a good idea. My assistant will meet patients at the depot if necessary.
I am yours very truly,
————."

And now for the other side of the picture. There is evidently some room for serious disagreement between our surgeons. One set of men seems to consider the practices of the other as in the highest degree reprehensible. It would be interesting to know what a nonpartisan jury would decide as to the merits of the two sides from a perusal of the two classes of letters. There is a difference in the ring of metals.

I was especially glad to peruse the following letter, for, to be candid, I had heard that the gentleman was on the other side of the fence. My ever great admiration for the writer's personality is increased.

CHICAGO, Aug. 10, '99.

"MY DEAR DOCTOR ————:
I have your inquiry of the eleventh of August in which you ask me what commission I would pay you for such surgical work as you may send to me.
I have referred many cases to physicians and surgeons for treatment, and have uniformly done so without expectation of receiving any consideration in return, nor have I ever, except in good will, expected any remuneration. Consistent with this I have also made it a rule to decline all overtures of the sort which your letter contains, and much as I would value your professional confidence, I must reply that it will be quite impossible for me to enter into any such arrangement as you propose. Yours truly,
————."

The following forcible and sensible letter, from one of our ablest surgeons, presents in no uncertain way the proper view of the commission trend of surgical practice. There is no "whipping the devil around the stump," nor any attempt to compromise matters:

CHICAGO, Aug. 12, 1899.

"DEAR DOCTOR ————:
Your favor to hand today, requesting to know what I usually give a doctor for bringing me cases, and stating that you have always had 50% of the fee. Allow me to say that I give no percentages whatever, my fee for operating is my own, and there is no reason on earth why anybody should receive a portion of it for bringing me a case. This custom of dividing up with the attending physician is carried on largely, I am aware, but it is a damnable practice, and deception is practised upon the patient at the expense of the surgeon. This is not fair. I must admit, however, that every man is worthy of his hire, and a practitioner often loses time, and money out of his own pocket, in bringing a patient to a surgeon. Such a physician should be remunerated, but inasmuch as the services are rendered to the patient, and not to the surgeon, the patient should pay the physician for his trouble. Therefore, let there be a distinct understanding that the patient pays the surgeon a certain stated sum for the operation, and that the patient pays the physician a certain stated sum for his services. On such grounds I will be pleased to operate on any patients you may bring.
Yours, very truly,
————."

The following emphatic declaration of principles from one of our most distinguished surgeons, should afford some food for contemplation for the commission man and the "parasites who feed off his labor and responsibility:"

CHICAGO, Aug. 14, 1899.

"DEAR DOCTOR————:
Your letter of August 11th received. I am surprised and grieved, at its contents. The candor with which you admit your nefarious practice of asking and receiving commissions for patients sent to Chicago for operation, shocks me.
In reply to your question would say that I do not give any portion of my fee to doctors for bringing patients to me. I do not wish doctors to bring cases to me unless they bring them with what I consider the proper motive for the family physician to have, which is the belief that I would render as good or better service to his patient than anybody else.

If I render service to a patient I expect him to pay me for such service, and I do not allow parasites to feed off the products of my labor and responsibility; nor will I be a party in a conspiracy, which I consider to be criminal under the statutes of Illinois, not to speak of its unprofessional character, to obtain money from patients for doctors who have rendered the patients no professional service.

If you render a patient a service you are entitled to your fee with the patient's knowledge and consent. If you render him no service you are entitled to no fee.

If a proposition of this kind had come from any other than a medical man, I would not feel it my duty in declining the proposition to go into details as much as I have with you, but coming from a medical man I feel it my duty to call your attention to the irregularity and unprofessional character of your proposition, and to forcibly object to your abuse of your profession by obtaining money in such a manner. Respectfully,

———————."

There is evidently a difference of opinion on the commission question, which, if the parties could be brought together under the proper conditions, should call for "pistols and coffee." It is not difficult to guess who would be "behind the guns," and who "behind the coffee."

The stock excuse of the commission man is "business is business." Every medical man who has given the subject any thought knows that one of the crying needs of the profession is business methods in practice. I maintain, however, that even admitting—which I do not—that the practice under consideration is fair and above board, as a business pr position it approximates imbecility. What business can afford to divide its gross receipts as a bait for more business? If the customer is fairly dealt with, one can readily prophesy the result—speedy bankruptcy. If dishonest dealing is practised with the customer, the end is deferred, perhaps, but comes as soon as the victim discovers the dishonesty of the man with whom he is dealing.

The average hospital surgeon performs a large proportion of his operations gratis; he is confronted with, and adopts, a poor stroke of business policy to begin with—he is the victim of a vicious system. Can he afford to charge appropriate and just fees for his services and divide them with a "steerer?" In order to make such a division he must rob either the patient or himself. The general practitioner, especially he of the cross-roads, has long known, just as the managers of public hospitals have always known, that the surgeon is a "soft mark." He will operate on any case on any terms, providing he can add to his wonderful "record" and keep the other fellow from getting the case. Not content with the opportunities this condition of affairs affords, the gentleman from the cross-roads must needs cast a covetous eye upon the fees that come from the "semi-occasional pay-patient." He knows well that the surgeon's ambition may be trusted to off-set his country brother's cupidity. He is now expecting 50%; he will shortly demand an increase and finally there will be no pay-patients. It would appear that there is a real danger in this direction. I have heard from reliable sources of a surgeon of great prominence who began dividing fees some years ago. His cross-roads friends and city satellites raised their demands from time to time until he had small margin indeed for himself. Whenever he refused to stand the pseudo-blackmail, he made a bitter enemy, who forthwith found some inferior man who was glad to get the work at any price. After all his years of hard and unremitting toil, I doubt whether the surgeon aforesaid has even a modest competence—and he deserves it if any mortal ever did.

I have used the word "blackmail." It looks and sounds a bit nasty; it is nasty, but is there a better term? Providing the surgeon has not taken the initiative in the commission business—No. I have used the word "steerer." Is it not appropriate?

I suppose my commission friends will resent the implied imputation of dishonesty or unethical conduct on the part of either the commission man or his agents. Very good, then let us have a newspaper controversy, and let the laity—our field of work—have a chance to pass upon the merits of the case. Let us see what the patient thinks of a transaction between his family physician and the surgeon who operates, which neither of them dare put on paper or even acknowledge.

The commission men surely could not object to such an airing of the question—they are, of course, convinced of the honesty and conscientiousness of their position. The public can easily be convinced of the soundness of their views, for the names of commission men that can be furnished bear the stamp of authority and ethical propriety.

Some years ago a couple of medical men started a private hospital in this city. It is said by competent authority that the institution has been supported largely by work sent in from the country towns by paid agents—medicocommercial travelers, as it were. The wealth of vituperation poured out upon the luckless wights who thus openly violated the tenets of ye regular profession has been appalling. The poor fellows have narrowly escaped professional ostracism at the hands of the surgeons who do not happen to have private hospitals and wouldn't have agents on the road—oh no! Let me say right here, that I fail to see any difference between the alleged management of the hospital mentioned and the commission business that is not in favor of the former.

A very important question relative to the commission business in surgery is its relation to honest work. The most important part of the commission practice is evidently the gathering of cases. The fee-bisecting surgeon must catch up somewhere, and quantity must replace quality. "I will work up cases for you," quoth the agent, and, in view of the fact that the "steerer's" opinion of the necessity of an operation is always a staff for the surgeon to lean upon, the latter may become rather callous as to the manner of "working up cases," and somewhat indifferent as to their surgical merits. A doctor who urges operation and views the patient's disease through 50% spectacles, a patient who is convinced, and a surgeon who, like Barkis, is willin'—is not this the correct formula? Whatever the merits of the case, whatever the result, the surgeon is backed up by the general practitioner who brought it, while the latter, with his tainted money in his pocket, is protected by the eminence of the surgeon. The patient is the buffer, but "d—n the patient, business is business."

Now, it may be that I have exaggerated this particular danger from the commission business, but who, knowing human nature, can dispute its far-reaching possibilities in this particular direction. I know of a case of inoperable carcinoma uteri that was hawked about like a bale of goods from surgeon to surgeon until the hawker finally found his Barkis. At least one surgeon of repute had pronounced the case inoperable—an opinion that required no great degree of surgical acumen.

What is to guide the steerer in his selection of a surgeon?—ability? Oh, no—the percentage. Dr. X. has been giving him 50%; he hears that Jones will give him 60%—and Jones gets the case. And the steerer need not stop at 60%—there are Joneses and Joneses.

I presume the commission man who conceals his "fine Italian hand" by allowing the cross-roads doctor who brings the case to "assist" at the operation and thereby earn (?) a

goodly portion of the fee, will have no difficulty in defending himself. With Dr. Haystack's hand in his belly dallying with his viscera under the guidance of the eminent city surgeon, Dr. Timothy giving the anesthetic, and Dr. Turnipseed handing the instruments, the patient should be reconciled to a division of fees—with the undertaker. I presume some commission men would not hesitate to recoup themselves at the expense of the corpse by compounding a felony with the postmedical profession—it is not without precedent apparently.

The surgeon who desires to do the square thing by his staff of steerers, should give them all a fair chance at every operation. As he considers the practice fair, he ought to carry the courage of his convictions to the limit and itemize his bills. May I suggest a form for an up to-date surgical bill?

CHICAGO, ——, 1899.

MR. JOHN SMITH, DR.
To A. KEENE CARVER, M.D.

To services of Dr. X. (By shaving and scrubbing of abdomen) . .	$150
To services of Dr. XX (By administration of anesthetic)	200
To services of Dr. XXX. (By handing of instruments)	150
To services of Dr. XXXX. (By manual assistance in operation)	400
To services of Self. (By ovariotomy)	100
Total	$1000

The above would afford an easy way out of the dilemma and is not copyrighted. The sum total is very pretty, and almost hypnotizes one.

So far as I am able to learn, the commission surgeon and his agent are not peculiar to either Chicago or St. Louis and the great West. It would be interesting to know what proportion of surgeons of repute in other large cities are doing a commission-trade.

What I have said in the foregoing remarks is not in the least vindictive in intent, however it may be interpreted. Having made this statement, variations of interpretation suggestive of feverishness on the part of the reader will not disturb me in the least.

Leaving "business" and ethical considerations aside, there is an element of unfairness about the commission practice of surgery that demands consideration:

I would respectfully submit the following questions to the profession:

1. Is not the practice of receiving or giving surgical commissions dishonest dealing with the patient?

2. If a proper fee is assessed, does not the agent rob the surgeon when he collects his percentage? If an exorbitant fee is assessed and divided, is not the patient robbed?

3. Does not the practice put a premium upon ignorance?

4. Does it not in the end react upon the profession at large by creating a surgical trust through which nobody but hospital men may profit? What chance has the struggling young practitioner against older and more experienced men who pay commissions? Can he do other than cease studying the technic of operations which he never will have the opportunity of performing and become a mere agent for his more opulent brother? His percentage is likely to be more than his fee for doing his own operating. When the old fellows die off, there may be a dearth of surgical geniuses,—their immediate successors will rely upon commissions, not talent and scientific attainments.

5. Does it not put a premium on quackery and diagnostic dishonesty? With 50% in sight, human nature must either change or acquire a surgical "optic sharp I ween, which sees things that are not to be seen."

6. Is it "business" after all? I believe in, and advocate, better business methods in the practice of medicine and surgery, but, frankly now, oh, brethren of the bisected fee, is it really business?

7. And thou, my brother, who playest Shylock, thou into whose pocket the percentage goeth, dost sleep just as well o' nights as in the halcyon days when thy profession ranked above the arts and tricks of trades? Doesn't your pillow sometimes feel as though the maker had forgotten to take the chickens out? And doesn't a sort of sticky, clammy feeling creep over you at times? And haven't you a bit less respect for yourself and much less for your principal in the commission business than is comfortable? Come, now, "honest injun'"?

Argument aside, there should be a definite settlement of the commission question. What is ethical and fair for one is so for all. Let the men who give commissions come out and say so; let us have a fair field and no favor. If the consensus of opinion is against the practice, then let the commission men be warned that their conduct if persisted in will put them without the pale of the regular profession. Let us not "strain at gnats and swallow camels." It is high time we had an understanding. Fairness to all is a crying need. The young practitioner, already puzzled by the distinctions drawn between out-and-out advertisers who pay for their advertising and men who fee reporters, between obscure but reputable and competent men who must not advertise and big fellows who publish their clinics in the daily press, ought to know where he stands. If the commission-practice is pronounced ethical, well and good; let's all have a whack at it, and, with a clear understanding on the part of the patients, give the system a fair test.

'Tis but a step to the undertaker's—a short step indeed from some commission men's operating tables—so let us arrange for a fixed standard of percentages all around.

Carcinoma of Both Breasts.—E. C. Brush (*Cincinnati Lancet Clinic*, October 7, 1899) reports the case of a woman of 56 who had noticed a lump in the breast 4 months previous to the time when first seen. A diagnosis of carcinoma was made and an operation was performed, removing the entire breast with the axillary glands. Prompt recovery followed, but about 4 months later the patient noticed a lump in the other breast which was not present at the time of the first operation. A second operation was performed for the removal of the breast and axillary glands, although no appreciable involvement of the glands was found. Recovery followed and there are no signs of recurrence 3 months after the operation. [M.B.T.]

Symphysiotomy.—H. H. Young (*Maryland Medical Journal*, September 16, 1898), reports the case of a woman who had been in labor 18 hours; the os was fully dilated, the membranes ruptured for 4 hours, and the head low down, jammed against the symphysis; pains were frequent but ineffectual. Numerous attempts were made to deliver by means of forceps; then version was performed, but it was found that the head was too large to be delivered. As the child was alive and no craniotomy instruments were at hand, symphysiotomy was undertaken. Separation of an inch was at once obtained and the head was extracted with ease. The child was alive just before delivery, but failed to breathe and attempts at artificial respiration were unsuccessful. The convalescence of the mother was uneventful. The child weighed 9 pounds; the head was very large, the sutures considerably ossified, the fontanelles small. The biparietal diameter was 4½ inches; the pelvic measurements were normal except the external conjugate which showed about 1 inch narrowing. [M.B.T.]

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending November 11, 1899:

Monday, November 6—Academy of Surgery.

Wednesday, November 8—County Medical Society.

Thursday, November 9—Pathological Society.

Friday, November 10—College of Physicians, Section on Surgery.

Diphtheria and the Public Schools.—The prevalence of an unusual number of cases among the school children necessitated the closing of Kenderton and Greenway Public Schools of this city, and the public schools of Princeton. The schools will be thoroughly fumigated and cleansed and reopened after a lapse of about ten days.

Alvarenga Prize of the College of Physicians of Philadelphia.—The next award of the Alvarenga Prize, being the income for one year of the bequest of the late Señor Alvarenga, and amounting to about $180, will be made on July 14, 1900, provided that an essay deemed by the committee of award to be worthy of the prize shall have been offered. Essays intended for competition may be upon any subject in medicine, but cannot have been published, and must be received by the secretary of the College on or before May 1, 1900. Each essay must be sent without signature, but must be plainly marked with a motto and be accompanied by a sealed envelope having on its outside the motto of the paper and within the name and address of the author. It is a condition of competition that the successful essay, or a copy of it, shall remain in possession of the College; other essays will be returned upon application within 3 months after the award. The Alvarenga Prize for 1899 has been awarded to Dr. Robert L. Randolph, of Baltimore, Md., for his essay entitled: "The Regeneration of the Crystalline Lens—An Experimental Study."

Vital Statistics of Philadelphia for the week ended October 28, 1899:—

Diseases.	Cases.	Deaths.
Total mortality		342
Pulmonary tuberculosis		43
Marasmus 20, inanition 5, debility 9		34
Heart-disease 25, fatty degeneration of the heart 3, neuralgia of the heart 3, inflammation of the heart 1		32
Pneumonia 27, congestion of the lungs 1		28
Diphtheria	103	21
Apoplexy 15, softening of the brain 4, paralysis 3		22
Carcinoma 15, sarcoma 2, tumor 1		18
Gastroenteritis 11, cholera infantum 7		18
Inflammation of the brain 10, diseases of the brain 1		11
Casualties 10, burns and scalds 3		13
Nephritis 9, uremia 3		12
Convulsions		10
Typhoid fever	34	4
Scarlet fever	57	4
Senility 6, bronchitis 5, diabetes 4, peritonitis 4, pertussis 4, dropsy 4, spondylitis 3, appendicitis 3, intestinal obstruction 3, hemorrhage 3, suicide 4, asthma 2, atheroma 2, cirrhosis of the liver 2, cyanosis 2, dysentery 2, erysipelas 2, hepatitis 2, syphilis 2, alcoholism 1, gallstones 1, gangrene 1, laryngitis 1, pleuritis 1, insanity 1, rheumatism 1, retention of urine 1, sclerosis 1, septicemia 1.		

Pathological Society of Philadelphia.—At a meeting held October 26, Dr James Hendrie Lloyd reported a case of **brain-tumor in the anterofrontal region.** The patient was a woman, of middle age, who presented constant headache, some vomiting and nausea, a peculiar ataxic gait, later hemiparesis, pain in the paralyzed arm, mental sluggishness, optic neuritis, finally stupor and death. The symptoms had lasted 4 years, and there had been no convulsions. The tumor was an infiltrating gliasarcoma. In the discussion, Dr. J. P. Arnold made mention of a somewhat similar case, and tumor starting, however, from the falx cerebri. He referred to the absence of convulsions in the tumor of the brain that grew within the brain-substance and pressed upon the cortex from below, and stated that he had been able in some experimental work to confirm the opinion that tumors are much less likely to give rise to convulsions than are those that grow from without and compress the cortex from above. Dr. William G. Spiller referred to the same subject.

Dr. Henry W. Cattell presented two specimens of **cirrhosis of the liver,** of the hypertrophic and atrophic form, respectively. Dr. M. H. Fussell presented a heart with well-marked **mitral stenosis and a kidney with renal calculus** from the same patient. Neither of the conditions had given rise to any noteworthy symptoms until a short time prior to death, which occurred at the age of 60 years.

Drs. DeW. Sherman and W. G. Spiller reported a case of **acute polioencephalomyelitis.** The paper will be published in a future number of the Journal.

Dr. W. M. Welch and Dr. David Riesman presented some specimens from a **case of typhus fever.** Dr. Kennedy spoke of the resemblance of the case to cerebrospinal meningitis.

Dr. D. J. McCarthy read a paper entitled: **Iron infiltration in ganglion cells.**

Dr. David Riesman presented certain **specimens from a young lioness** that had died suddenly of suffocation.

Philadelphia County Medical Society.—At a meeting held October 25, Dr. William J. Taylor introduced a resolution providing for the appointment of a **committee to examine into the system of milk-inspection practised in Philadelphia,** and to report to the Society with any recommendations. The president, Dr. S. Solis Cohen, appointed Drs. William J. Taylor, F. A. Packard, and William M. Welch a committee.

Dr. Henry W. Stelwagon presented a patient with an **extensive x-ray burn of the thigh,** which has persisted for the past 15 months. The burn followed four exposures of about 15 minutes each, the tube being 5 or 6 inches from the thigh. It is proposed to curet the burn and skin-graft.

Dr. Joseph Price read a paper entitled, **Delayed operations for suppurative forms of pelvic disease.** He made some reference to old and antiquated methods, argued for complete and thorough operation by the abdominal route, and condemned the vaginal route. After preliminary puncture through the vagina, the removal of diseased organs through the abdomen is difficult and dangerous, and many patients easily cured by early recourse to the abdominal operation, are rendered difficult of recovery by the initial vaginal operation. The latter is unnecessary and incomplete, whereas precise methods are possible from above. Lesions of the omentum, intestine, bladder, etc., go unrecognized when the operation is performed through the vagina; the same lesions are easily dealt with by operation through the abdominal wall.

Dr. William Welch read a paper entitled, **Remarks upon the present mild type of smallpox; its symptoms and diagnosis.** He referred to the development of smallpox in the South several years ago, and to the fact of the prevalence of the disease among the negroes. Many of them were so mildly affected that they were confined to the house during the initial stage of the disease only, and were often found working in the cotton-fields during the stage of eruption. Thus the spread of the infection was easy, and it was thought that it was in this manner that the two persons first affected in Philadelphia recently acquired the disease. The mild clinical manifestations were detailed, and to the

fact that many physicians seem unable to recognize the disease in its present form. Many of the younger generation of physicians have never had an opportunity to see a single case, and it was argued that the Municipal Hospital should be open to medical students, under proper precautions, for study of certain infectious diseases. Reference was made to the value of vaccination as a precautionary measure, and the differential diagnosis was given in detail. The diseases likely to be confounded with smallpox are varicella, contagious impetigo, and pustular syphiloderm.

DR. JAY F. SCHAMBERG gave **a lantern-slide demonstration of photographs of smallpox.** Numerous photographs were thrown on the screen, and these showed in splendid detail the various lesions of the different varieties and stages of smallpox. In the discussion, DR. DUHRING spoke of the differential diagnosis of smallpox and pustular syphiloderm. DR. R. G. CURTIN spoke of his experience with certain cases of hemorrhagic smallpox and of the disease with an eruption resembling measles. The discussion was also participated in by DRS. CLEEMAN, LEE, ATKINSON, HARE, M. PRICE, HARTZELL, DALAND, STAHL, STELWAGON, and WELCH.

College of Physicians of Philadelphia—Section on Otology and Laryngology.—At the meeting held October 18, a communication entitled **Some points in the diagnosis and treatment of laryngeal tuberculosis,** was read by DR. P. S. DONNELLAN. This will appear in *The Philadelphia Monthly Medical Journal.* DR. JOSEPH S. GIBB said that a granular or a mammillated appearance of the surface, especially at the posterior commissure, between and upon the arytenoids, is of importance in making an early diagnosis. Treatment is successful only when practised early in the disease, in advanced cases it is only palliative. He favored curetment and applications of lactic acid. DR. FRANK WOODBURY, regarding the laryngeal lesion as symptomatic of a general condition, advocated remedies directed to the blood and, principally, hygienic measures. Change of climate is advantageous, but its good results may be largely counteracted by homesickness and want of adaptability on the part of patients. Women are less frequently benefited than men by change, on this account. Sunlight is a curative agent, even transillumination of the larynx with electric light, has been followed by favorable results. Local treatment by cocain, lactic acid, and sprays afford much relief. DR. E. B. GLEASON endorsed the statement with regard to the good effects in laryngeal ulceration of insufflations of iodoform, and reported a case which had healed completely under orthoform powder without any other local treatment. DR. BLISS advocated curetment of the base of the ulcers. There is very little reaction even after extensive use of the cutting forceps, on the contrary the relief is marked. DR. B. A. RANDALL called attention to a probable source of infection in the pharynx. The disease usually begins at the posterior part, when the mucus flowing down from the posterior nares tends to collect and excite cough. Adenoid vegetations of the vault often show abundant bacilli upon examination. More lesions of the ear are tuberculous than is often thought to be the case, and this might be a source of cervical lymph-gland enlargement. DR. BLISS agreed that primary tuberculosis of the larynx is rare, as a rule it is secondary to lung disease. In his clinic, he had seen many cases of pulmonary tuberculosis with simple laryngitis. The chronic laryngitis may subsequently become tubercular. He relied principally upon treatment by curetment and applications of lactic acid. He had obtained good results with Heryng's cutting forceps in removing as much of the infiltrated material as possible.

DR. B. A. RANDALL reported a case of **phlebitis of the lateral sinus following otitis media in typhoid fever.** A man, 26 years of age, had aural disease in the fourth week of typhoid fever. He had also several furuncles on his body and an abscess in his axilla, but there were no rigors, sweats or the usual temperature-changes of septicemia. A relapse occurred in the sixth week, lasting 2 weeks, followed by 2 weeks of convalescence. He now complained of pain back of his right ear, with local edema, redness, and tenderness, and a temperature of 101.4°. No operation was done. The patient was discharged well on the one hundred and twentieth day. Dr. Randall was inclined to attribute the complication to the use of the cold bath. DR. BLISS said, that out of 260 typhoid patients at the German Hospital last winter there were only 9 cases of ear-affection. He did not think that the use of the cold bath had increased the proportion of ear-complications. DR. WOODBURY asked the reporter if the case, on account of its long duration, might not be properly considered one of typhoid septicemia. DR. RANDALL said that he would not regard the case as septicemic. There was no pus in the ear of the affected side.

Radical Operation by Passow's Method for Otitis Media.—DR. E. B. GLEASON showed the tympanic bone taken from a whale. He also exhibited 2 cases upon which the radical mastoid operation, with permanent postauricular opening by Passow's method, had been performed. The amount of the deformity was very slight. The opening was slitlike, and was only noticeable when the auricle was pulled forward. One advantage of this operation is, that the patient's friends can readily keep his ear clean, and thus prevent dermatitis and otorrhea.

Recurrent Fibroma of the Auricle.—DR. B. A. RANDALL exhibited a number of specimens of fibroma illustrating recurrence of this growth after operation for its removal from the auricle.

NEW YORK.

New York State Medical Association.—On the day following the adjournment of the New York State Medical Association, 31 of the members availed themselves of the invitation, extended to the Association by the Department of Charities, to make a tour of inspection of the institutions under the charge of this department.

Physicians Held Blameless.—A few days ago Drs. Henry Purdy and Otto Meier were arrested because they had been the last medical attendants on a woman who, the coroner declared, had died from the results of a criminal operation. It turned out that these medical men had treated her for acute rheumatism, and had had no reason to suspect that any operation had been done on her.

According to the will of the late Cornelius Vanderbilt, bequests are made to the following institutions:

Yale University	$100,000
St. Luke's Hospital in New York City	50,000
Domestic and Foreign Missionary Society of the Protestant Episcopal Church	50,000
Trustees of Vanderbilt University, Nashville, Tenn.	50,000
Redwood Library at Newport	10,000
Newport Hospital	10,000
Christian Home for Intemperate Men in New York,	10,000
Manhattan Working Girls' Society of the City of New York	10,000
New York Bible and Common Prayer Book Society,	10,000

A Physician Sued for Debt.—It is with regret that we note that the son of the illustrious Dr. J. Marion Sims has just been subjected to judicial examination in the City Court Chambers with reference to his financial ability. In his deposition, Dr. H. Marion Sims swore that his father, at his death, in 1883, left the estate to deponent's mother, and that at her death, in 1890, his share was $20,000. Of this sum there was now nothing left, he stated, except $6,000 given by him to his wife in 1894, because he had owed her this amount for a long time.

Watered Milk.—The health-board inspectors have made a number of arrests among the small dealers who persist in selling what they call milk at a price so low as, of itself, to lead one to believe that a fraud had been committed. There is much of this wretched swindling going on at all times, and, naturally enough, the poor are the greatest sufferers. According to the records of the health department certain dealers have, in the past, found it profitable to

continue their iniquitous practice of adulterating milk, and have paid their fines cheerfully again and again, but have not been deterred thereby from going on with their business.

Many Dispensaries Licensed.—Under the working of the new law it has been necessary to issue licenses to numerous dispensaries, *i.e.*, institutions existing at the time the law went into effect, but those who are inclined to be radical, and yearn for the adoption of drastic measures, have no reason for looking upon this as an indication that the State Board of Charities does not fully appreciate the importance of the trust thus imposed upon it. The efforts of this Board in dealing with this complex problem must necessarily be largely tentative at the present time, and it is well that they should proceed slowly, deciding each case upon its merits, and only after careful and impartial investigation.

Good Services Recognized.—As the readers of the Journal have been kept fully informed regarding dispensary legislation, and especially of the good work done by the legislative committee of the New York State Medical Association, they will not be suprised to learn that the medical profession of New York has seen fit to make some recognition of the services rendered by the chairman of this committee, Dr. E. Eliot Harris. At the time of the signing of the Dispensary bill mention was made of the untiring efforts and singularly successful labors of Dr. Harris. That they have been appreciated was demonstrated at a meeting, held on the evening of October 27, at the Mott Memorial Hall, the object of which was to present to Dr. Harris a handsome silver tea-service.

Dr. Doty and the Marine-Hospital Service.—The old-time friction between the United States Marine-Hospital Service and the Health Officer of the Port of New York has been aggravated by the news that the present incumbent of that office, Dr. Alvah H. Doty, has gone on a trip abroad with the object of advocating stricter sanitary precautions being taken in regard to immigrants from Russia and Mediterranean ports. It is openly charged that the real object of the trip is to make political capital, and that the surgeons of the Marine-Hospital Service are at the principal foreign ports, and see to it that all necessary restrictions regarding the embarkation of emigrants are rigidly enforced. Dr. Doty's secretary, in replying to these attacks, states that he went abroad, after consultation with Governor Roosevelt, to confer with the steamship companies from all the ports bringing emigrants to the port of New York, with the object of establishing better sanitary measures in the transportation of emigrants coming from infected districts.

Opposition to a New Hospital.—At a hearing before Dr. Stephen Smith, of the State Board of Charities, on October 25, in the effort to secure the approval of the board to a charter for the Emmanuel Hospital and Dispensary, a very strong opposition was developed. The ostensible reasons for this hospital were the great density of the population in the district, and the alleged inadequate accommodations at the existing hospitals. It is asserted, however, by one who has looked into the matter, that the promoters of this latest east-side scheme hardly take the trouble to conceal under even a thin veil of pretended charity the fact that it is a money-making scheme, pure and simple, to be carried out on business principles. As the attorney representing the incorporators was not on hand, an adjournment was taken, but before this was done enough was said and done to make it fairly certain that when final arguments are heard the promoters of this hospital must present very cogent reasons if they would secure favorable action from the State Board of Charities. One of their Board of Directors, Dr. Landesmann, after hearing the statements of the oppostion, and particularly the provision for 125 beds soon to be made effective in the Beth Israel Hospital, announced his determination to immediately withdraw as a director.

New York Academy of Medicine—Section on Pediatrics.—At the October meeting of this Section Dr. A. Jacobi presented a paper entitled **Antipyresis in the febrile disorders of infancy—antipyretic drugs; their use and abuse in the treatment of fever.** He stated that the effect of quinin was local in the cells of the tissues, while the phenols acted both on the heat-regulating centers and upon the body-surface. He asserted that it had not been conclusively demonstrated that the high temperatures of the acute infectious diseases were requisite to the formation of the antitoxin, whereas all clinical experience pointed out the danger of prolonged high temperature. The reason that the mortality was so low in relapsing fever was that the long remissions counteracted the harm done by the hyperpyrexia. Fever was not an entity, but a symptom, and its treatment should not be governed by rigid rules. A temperature that would be dangerous to one person would have but little significance in another; similarly, a fever that could be easily tolerated by a patient at the beginning of a long illness might be of the gravest importance in that same individual in a later stage of the same illness. Prolonged high temperature gave rise to malnutrition and marked anemia—conditions to which the young fell easily a prey. The speaker then considered in detail the effects of several well-known drugs. Of quinin he said that it accelerated the pulse and raised the blood-pressure when given in small doses, and was certainly an antipyretic, not only in malaria, but in febrile diseases of a remittent type, such as pneumonia and typhoid fever. The neutral tannate was a useful preparation in pediatric practice, yet he thought most physicians would prefer to give quinin sulfate, disguising its taste by means of sirup of coffee, elixir adjuvans, or chocolate. The latter was particularly acceptable to many children. Except in the fevers arising from intracranial disease he had found antipyrin a useful drug for the prompt reduction of fever. It was a sedative and analgesic, and, as it increased the blood-pressure, was contraindicated in hemoptysis, although having a markedly styptic action. Acetanilid he characterized as a poisonous and dangerous drug—a derivative of anilin which, by changing the hemoglobin of the blood into methamoglobin, gave rise to the well-known cyanosis. Phenacetin had a similar, though milder, action. Alcohol was very well tolerated by feverish children. It was chiefly indicated in septic fevers, and should then be given with a liberal hand. Experience had shown that while very large doses were not only well borne but were beneficial during the height of the malady, these doses would not be tolerated when convalescence had begun.

Dr. Simon Baruch then read a paper on **Hydriatic measures in the management of the febrile disorders of infancy and childhood.** He declared that hydriatic treatment could be advantageously substituted for antipyretic medication in most of the fevers of childhood. A method of general application was to completely immerse the child for 10 minutes in a bath at 90° F., and while this was being done, bathe the head and face with water at 60°. At the conclusion of this bath the little one should be wrapped in a blanket. When the temperature continued at 103° or higher, this bath should be repeated at an interval of 3 hours, the temperature of the water being reduced 5° each time until it had reached 75° or 70°. In many of the infectious diseases, as a result of the circulation in the blood of toxins, the cutaneous vessels became atonic, and the heart was required to compensate for this enfeebled circulation by increasing its beat. It was just here that the superiority of hydriatic treatment could be easily demonstrated. It tended to restore that peripheral resistance in the bloodvessels which was so necessary to maintain a healthy balance in the

circulatory system and protect the heart from undue strain. In many of the fevers of childhood it was well to have the child sponged off hourly, beginning with a temperature of 90° F., and gradually reducing until the water used had a temperature of only 60° F. Where the antipyretic action of this measure was too transient, he would advise wrapping around the abdomen hourly 3 folds of toweling wrung out of water at 70° and covered with thin flannel. An old linen sheet or tablecloth was most suitable for making these compresses, and they should not be covered with oil-silk. In cases of pneumonia, a chest compress at 60°, renewed every 2 hours, would be found an efficient means of arousing the heart and diminishing the cyanosis. If the first applications were made at a temperature of 100°, and the temperature gradually reduced, the parents would rarely object. In making use of the wet pack the patient should be wrapped in a sheet wrung out of water at 75° or 80°, and then snugly covered with a blanket for 10 minutes. At the end of this time the body-surface should be rubbed with the hand wetted with water at 60° or 70°, and then dried. This application would be found very soothing as well as antipyretic.

NEW ENGLAND.

Lectures on Edible and Poisonous Fungi.—The *Boston Medical and Surgical Journal* announces that a course of six lectures, under the auspices of the Lowell Institute, will be delivered by Prof. William G. Farlow, of Harvard University, on Tuesdays and Fridays at 7.45 P.M., beginning Tuesday, October 24, on "Edible and Poisonous Fungi and their Allies;" (1) General Characteristics of the Larger Fungi; (2) Basidiomycetes; Classification; (3) Mushrooms and their Allies; (4) Poisonous Fungi; (5) Morels and Truffles; (6) Esthetics of Fungus-eating.

Boston Society for Medical Improvement.—At the first meeting of the season held October 23, DR. CHARLES HARRINGTON read a paper entitled: **Disinfection and prevention in the sick-room.** The protective measures in such cases were isolation, prevention of dissemination of infectious material, and disinfection, and the reader predicted that in a few years they would be enforced, not alone in the so-called contagious diseases, but in all diseases of a serious nature spread directly or indirectly by the excretory products of the body. He referred to the popular idea that a doorway was quite as efficient in stopping the spread of infectious germs as the door itself, and pointed out that even the cracks under a door were a menace, and recommended that they be stopped in some cases by sandbags, such as are sometimes used on window casements. The place for isolation was an upper floor or an L, separated from the rest of the house, and ventilated thoroughly by direct communication with the outer air. The uselessness of attempting aerial disinfection by the use of ill-smelling compounds was pointed out, and the merits of direct sunlight and free ventilation urged. The excretory products must be destroyed in one or two ways—by burning or by the use of a germicide which would kill all forms of bacteria and spores within reasonable limits of time. Disinfectants that kill almost every time will not suffice; they must always kill. Corrosive sublimate and chlorinated lime did not meet all the requirements. Formaldehyd possesses all the qualifications of a good disinfectant, because in diluted form it has no unpleasant odor, does not injure fabrics, makes no stain, and is cheaper than any of the proprietary preparations. Whatever the disinfectant, generous amounts must be used. In case of stool, urine, and vomitus, at least an equal amount of the disinfectant should be used, and it is best to continue the exposure for about two hours.

Suffolk District Medical Society—Section for Obstetrics and Diseases of Women.—At a meeting held October 25, DR. E. S. BOLAND, of South Boston, read a paper upon **Unlooked-for dystocia in certain multiparae,** dealing especially with cases in which early labors had been normal, but later ones difficult and dangerous. His conclusions were as follows: Certain multiparae after one or more early deliveries lose the power of natural parturition. This is due to failure of the expelling forces in the uterine and abdominal walls. Artificial delivery is imperative in such cases as promptly as a diagnosis is established. Infant mortality is high in artificial delivery by the natural passages. The human female is very tolerant of aseptic mechanical genital injuries. Is suprapubic delivery, he asked, justifiable in these cases when a positive diagnosis is established?

DR. EDGAR GARCEAU reported a case of **extraperitoneal ureterectomy for tuberculous disease.** The patient was an unmarried woman of 22 years, and of negative family history. There had never been purulent affection of the genitalia, nor had she ever been catheterized. The symptoms followed the lifting of a heavy weight, and consisted of pain in left lumbar region, and painful and frequent micturition —as many as 40 times in 12 waking hours. The desire to urinate was constant. There was loss of strength and emaciation, but the patient was able to work up to two weeks before the operation. In October, 1897, a year after the symptoms developed, a cystoscopic examination was made. The whole bladder was red and intensely inflamed; small ulcerated areas were numerous, the left ureter could not be catheterized. Palpation showed the left kidney to be twice as large as the right; was somewhat sensitive. The left ureter, examined through the vagina, was found to be three times the size of the right. A diagnosis of pyelonephritis was made, and on October 25, 1897, the kidney was removed. Three weeks later the ureter was also removed. It was tied off with catgut at its termination in the bladder and the stump was cauterized. The ureter was then five times its normal size. It was hard and gristly, white in appearance, and on section showed characteristic tubercular changes. Improvement on part of the bladder followed immediately after the operation. Urination was reduced first to six times per day and twice at night, then to three times a day and once at night. In September, 1898, she resumed her work and considered herself well. In May, 1899, she returned for treatment of bladder symptoms and was relieved. She was last seen October 25, 1899, and she was in excellent health. Examination of the bladder showed the surface to be of normal color, here and there scars of white tissue, a small area of redness, one centimeter in diameter, over the site of the left urethral eminence, not painful or tender. The peculiar feature of the case was that only once was a tubercle-bacillus found in the urine; the failure to get a reaction with the guineapig-test, yet the diagnosis was proven to be correct from the organs removed. This experience, said Dr. Garceau, "goes to show how imperfect our methods of examination are." The patient could not be considered cured so long as there is pus in the urine, associated with lesions in the bladder, yet the outlook should be considered hopeful. The possibility of a cure in such cases should be entertained. It is at least certain that symptoms may be relieved and life prolonged by surgical interference in such cases.

CHICAGO AND WESTERN STATES.

Dunning Infirmary, Chicago.—Dr. Frederick Tice, head physician, has tendered his resignation. He contemplates spending 2 years in study in Europe.

Chicago Gynecological Society.—The following officers were elected at the last meeting: President, Dr. T. J. Watkins; vice-presidents, Dr. Reuben Peterson, and Dr. Lister Frankenthal; treasurer, Dr. A. H. Foster; Editor, Dr. Charles S. Bacon; pathologist, Dr. Emil Ries, and secretary, Dr. William H. Rumpf.

The Supreme Court of Illinois has sustained the decision of the Circuit Court of Cook County which excluded the **Independent Medical College** from the use of its corporate franchises. Evidence introduced at the trial tended to show that the College was selling diplomas for a consideration, even though the applicant had no knowledge of medicine. In one case a bunch of razors was traded for a diploma.

Free clinics are being agitated by the physicians and surgeons of Cook County. At a meeting of the County Board it will be asked to abolish the law that now requires a medical student to pay $5 a year for the privilege of attending clinics at the County Hospital. The County at present derives a revenue of between $2,000 and $3,000 for tickets of admission to the clinics.

Medical Inspectors of Schools in Chicago.—Dr. W. S. Christopher, a member of the Board of Education, urges the appointment of 75 medical school-inspectors at the expense of the school fund to protect the City's public school children from contagion. New York City has 150 of these inspectors, who visit the schools daily, at an expense of $187,500 a year. The Board voted in favor of Dr. Christopher's proposition, and $20,000 has been appropriated for the employment of 50 inspectors this year.

The Conference of State Charities will meet at Bloomington early in November to consider various subjects, and among them provision for epileptics. The last legislalature appropriated $25,000 to found an institution for their care, and the disposition of this fund, and the necessary steps that should be taken for its location will come up at the Conference. The establishment of a colony in Illinois is greatly desired by the medical profession, but there must be some limit to the never-ending expansion of the system of State public institutions for the care of unfortunates.

The increased death-rate in Chicago, which it was feared would result from exposure during the Fall Festival, is shown by the monthly report of the Health Department, just issued. A total of 495 deaths was recorded during the week ending October 23, being 76 more than the previous week, and 130, or 35%, more than the corresponding week of 1898. The causes showing the most marked increase are apoplexy, Bright's disease, cancer, consumption, diphtheria, nervous diseases, and pneumonia. Deaths from diseases caused by impure water continue steadily to decrease, keeping pace with the improving character of the public water-supply since lake-dumping has been stopped.

Christian Scientists and the Teaching of Physiology in the Schools of Chicago.—So patiently have people endured the follies and blasphemies of "Christian Science," as well as the very grave danger to public health which its perpetuation involves, that the followers of that squalid delusion are dropping the deprecatory air they have hitherto worn and are now giving frequent displays of the insolence that naturally results from the combination of fanaticism and fraud. This change was strikingly illustrated in Chicago the other day when a well-dressed man went to Superintendent E. B. Andrews, and in the name of "Christian Science" and its innumerable believers solemnly demanded that the teaching of physiology in the public shools be instantly abandoned. Such instruction, the fellow gravely said, was recognition of the body's existence, and therefore not only false, but offensive, to the only really intelligent and religious part of the community. Instead of kicking the man out of his office or having him locked up as a homicidal maniac, either of which courses would have been much more than justifiable, Superintendent Andrews contended himself with a calm exposition of the law defining the subjects to be taught in the schools, and the "Scientist" went away threatening terrible things as to the number of children whom he and other worshippers of the late Dr. Quimby's private secretary would at once remove from schools in which the useless and debasing myths of physiology were presented as facts. Possibly enough, the man's threats were the reverse of empty. There are hundreds of unfortunate children in the power of these reckless dupes of more reckless knaves, and as the Eddyites do not hesitate to let their children die in agony rather than admit the fallibility of their cult, there is no reason to suppose that they would have any compunctions about letting them grow up in completest ignorance of all matters not contained in or harmonious with the sacred "key" to the Scriptures—price, $3 and some cents. —[*N. Y. Times.*]

Chicago Medical Society.—At a clinical meeting, held October 25, Dr. Otto J. Stein reported a case which demonstrated the importance of **nasal inflammations as a cause of some cases of facial erysipelas** that have been designated as idiopathic. A patient, 35 years of age, of previously good health excepting a "chronic catarrh of the head," was suddenly taken ill with a temperature of 105° F., full, strong, and rapid pulse, repeated vomiting attacks, and severe headache and pain over the region of the right cheek-bone. On inspection, the right nares was found swollen and of a dusky red color, and of glazed appearance, filled with a fetid mucopurulent secretion. There was marked tenderness on pressure over the right malar region and tapping on the second molar tooth on the same side elicited painful sensations. The nostrils were flushed with an alkaline solution. The following morning temperature was reduced to 102.5° F., and by evening to 100.25° F. The nostril was now more patent and showed the appearance of the bright yellow pus coming from under the anterior end of the middle turbinated body. The purulent discharge from the nose was now more free and profuse, and, as a consequence, there was much less pain and tenderness over the parts. A bacteriologic examination of the secretions demonstrated the streptococcus erysipelatosus. On the third day the first signs of the cutaneous involvement made their appearance, which rapidly spread over the entire nose, forehead, and right and left cheek, so that by the fourth day the entire face was involved. Cultures were taken from the vesicles and pustules on the skin and showed the streptococcus erysipelatosus. After 10 days the entire cutaneous as well as nasal symptoms subsided.

Dr. Hugh T. Patrick exhibited two patients in whom a diagnosis of **brain-tumor** had been made, and demonstrated 4 brain-tumors which had been removed postmortem. The first patient was a boy, 9 years old,who had begun more than 2½ years before to lose the power of speech and the comprehension of spoken language. These difficulties gradually increased until when first seen he was practically speechless and was apparently idiotic. At first, examination seemed to show that he was deaf, as he evidently understood nothing that was said to him, but responded at once to gestures. More careful examination, however, revealed the fact that the lad had complete motor aphasia and was totally word-deaf. He had no word-blindness, but fully comprehended the few printed words he had learned before the onset of his trouble. Results of further examination were entirely negative, and the history contained nothing of importance except one slight convulsion about two years after the first symptoms. By process of exclusion the diagnosis of brain-tumor was made, the location of the growth necessarily being such as to impair the motor and auditory speech-centres while leaving the visual word-center comparatively intact. The second patient, a middle-aged man, showed apparent arrest of growth of a brain-tumor. The first symptoms of the growth apparently appeared nearly 8 years ago, as he began at that time to have very severe headaches. He was first seen by Dr. Patrick somewhat less than 4 years ago, when, in addition to severe and almost constant headache, he presented double choked disc with beginning atrophy, right homonymous hemianopsia,weakness of both abducens and questionable weakness of the facial muscles on the right side. There was no evidence whatever of syphilis, but on iodids and mercury the head-pain became much better. Later this headache recurred and disappeared several times without treatment. The present condition, aside from total blindness which soon supervened, was somewhat better than 4 years ago, the weakness of the facial and the external recti muscles having disappeared.

The first specimen was the brain of a girl of 16 years who was supposed to have hysteria on account of the peculiar spasms to which she had been subject for several months, severe headache, some change in disposition and finally a

weakness of the left half of the body. Examination revealed all the typical signs of brain-tumor which was localized in or near the right arm center, and operation was advised. Through the opening in the skull nothing abnormal could be detected, and the surgeon declined to open the dura, fearing a hernia cerebri. The operation relieved the symptoms to a very marked degree for about 3 months, and then the administration of large doses of potassium iodid made the patient comparatively comfortable for an additional 2 months. She finally died and the autopsy revealed a glioma the size of an orange in the right hemisphere subcortical to the arm-center. The case showed, among other things, that tumor of the brain may simulate hysteria, the relief afforded by operation, even when the dura is not incised, the relief which may be obtained from iodids in nonspecific neoplasms, that typical cortical fits may be caused by a subcortical growth, and that an enormous tumor in the motor region may be tolerated for a long time. The second specimen was removed from a middle-aged woman whose illness had begun with a typical Jacksonian attack llmited to the left arm. Others soon followed, but the subsequent attacks were exceedingly variable, sometimes beginning on the left side, sometimes on the right and sometimes being of the nature of ordinary *petit mal*. The case ran a course of about a year, many of the ordinary symptoms of tumor being absent and mental hebetude with great physical prostration being very prominent. At the autopsy a glioma as large as the last phalanx of the thumb was found beneath the anterior part of the right leg-center. The case illustrated that a very small growth may cause very severe symptoms and death, that a subcortical tumor may cause typical Jacksonian spasms, that a lesion beneath the leg-center may cause such spasms beginning in the arm, that a very insignificant and infiltrating growth of the vortex far removed from the optic tracts, and incapable of materially increasing intracranial pressure, may cause double optic neuritis, and that a very limited lesion of the vertex comparatively removed from the so-called psychic centers, may cause profound mental disturbance. The next specimen was a tumor in the left parietal lobe which had caused, in the beginning, symptoms superficially very much like those of general paresis. Another point of interest in the case was that, although there was present homonymous hemianopsia with Wernicke's pupillary reaction, the growth was situated well posterior to the corpora quadrigemina. It was evident that the earlier symptoms, apparently those of general paresis, viz.: Mistakes in writing letters, errors in the writing of figures, accounts, orders, etc., and difficulty in reading were due, not to mental impairment, but to the involvement of the visual speech-center by the new growth. The last specimen shown was a glioma larger than a hen's egg, which had apparently been at first subcortical, of the left arm-center, and which had caused at no time dizziness, headache, vomiting or optic neuritis. The symptoms very closely resembled those of general paresis, in that there were marked mental impairment, slow and stumbling speech, tremor of the hands, lips, and tongue, somewhat ataxic gait, with exaggeration of all the deep reflexes. Up to within 3 weeks of the patient's death, which occurred about a year after the occurrence of the first symptoms, there was no paralysis except some weakness of the right hand with incapacity to execute finer movements, and yet the growth was found to occupy nearly the entire posterior central convolution, apparently almost destroying the entire arm-center. About 3 weeks before death the patient suddenly became completely paralyzed on the right side, which paralysis was accompanied with total loss of speech, and 2 weeks after this he rapidly became comatose, dying 4 days later.

DR. CARL BECK exhibited a case of **rhinoplasty,** the nose of the woman having been destroyed by lupus and syphilis. By plastic operations a fairly good cosmetic result was obtained.

DR. HAROLD N. MOYER reported a case of **Reynaud's disease** in a man, 35 years of age, although he did not regard it as typical of that affection. It was impossible in the description of the patient to identify the three stages of pallor of the surface, hyperemia and local asphyxia. In some respects the case resembled erythromalalgia. The patient had had twelve attacks, covering a period of nearly 8 years, and in only two instances did the attacks occur simultaneously in two parts; in every other instance the preceding attack was completely healed before the following one appeared. There was absence of both the left and right radial pulses.

DR. LUCIUS C. PARDEE presented a case showing simultaneously the eruptions of **psoriasis and dermatitis herpetiformis.**

DR. ARTHUR D. BEVAN showed a case of **extensive lupus** in which he had resorted to skin-grafting with excellent results. The lupus involved the entire forehead, the eyebrow down the left side, and both eyelids, and a number of points on the face on either side of the nose. In the muscular tissue of the left eyebrow numerous trichinæ were found by microscopic examination, the patient having been infected by both tubercle-bacilli and trichinæ.

DR. BEVAN showed a specimen of large **fibroid tumor complicating pregnancy,** which he had removed. An operation was necessary to save life.

DR. A. H. FERGUSON presented a boy, 5 years of age, upon whom he had operated for **double psoas abscess,** treated by the open method. An incision was made internal to the anterior superior spinous process of the ilium, the abscess cavity cureted and drained, with complete recovery.

SOUTHERN STATES.

The Maryland General Hospital, situated in Baltimore, has received a bequest of the late George R. Goldsborough for the endowment of a free bed for the white poor of Talbot County, Md.

A Special Police Officer to be Detailed to Enforce the Medical Practice Law of the District of Columbia.—A short time ago Dr. J. B. Gregg Custis, the president of the board of medical supervisors of the District, wrote to the Commissioners asking that they include in their estimates for the coming fiscal year provision for an officer to be detailed for the special duty of enforcing the law regulating the practice of medicine in the District. It was also asked that they recommend a fixed compensation for the board of members of the medical examiners. The District Commissioners having referred the whole matter to Dr. Woodward, the health-officer of the District, for his opinion in regard thereto, have this week received his reply, in which he states his belief that the laws regulating the practice of medicine, dentistry, and pharmacy cannot be enforced unless there is an officer or officers detailed specially for that duty. An officer constantly engaged in such work, Dr. Woodward says, could and would familiarize himself with the names and addresses of those lawfully entitled to follow the calling of physician, dentist, or pharmacist. Such an officer would become familiar, too, with the evidence necessary to support charges for violations of any of the laws mentioned, and with the methods to be adopted to secure such evidence. Dr. Woodward expresses himself as believing the appointment of such an officer for the enforcement of these laws as practically equal in importance with the existence of the laws themselves, because without such an appointment they are to a certain extent without effect. So far as relates to the matter of compensation, Dr. Woodward thinks the amount suggested by Dr. Greggs Custis seems to be extremely reasonable. Dr. Custis suggested as a compensation $10 to each member of the medical examining boards and the board of medical supervisors for each meeting actually attended, and that this compensation be in addition to that now received, which is dependent upon the number of applicants examined and the amount received from such examinations. Dr. Woodward thinks it is desirable that the compensation thus provided for be as suggested by Dr. Custis, so that the compensation as a whole may be proportioned in some degree to the amount of work done. Upon the receipt of this report Commissioner Wight recommended that the major and superintendent of the police be requesting to detail a police officer to look after the laws referred to, and that the compensation for the medical examiners and supervisors be requested of Congress.

MISCELLANY.

Obituary.—Dr. Henry J. Kelly, instructor in bandaging in the New York Polyclinic, October 16, aged 42 years.—Dr. F. Marshall, East Lake, Ala., October 19, aged 81 years.—Dr. Ernest Diese, a graduate of the University of Jena, in Philadelphia, October 30, aged 79 years.—Dr. H. D. Chipp, White Lake, N. Y., October 20, aged 26 years.—Dr. Philip Scheu, New York, October 21, aged 41 years.

Health-Reports.—The following cases of smallpox, yellow fever, cholera, and plague have been reported to the Surgeon-General of the U. S. Marine-Hospital Service, during the week ended October 27, 1899:

Smallpox.—United States.

			Cases.	Deaths.
Massachusetts:	Butler	Sept. 30-Oct. 18	2	1
"	Everett	Oct. 14-21	1	
Michigan:	Saginaw	Oct. 14-21	Present in five places.	
Montana:	Butte	Sept. 30-Oct. 18	2	1
New York:	New York	Oct. 14-21	3	
Ohio:	Cleveland	Oct. 14-21		5
Texas:	Galveston	Oct. 20	1	
Virginia:	Alexandria	Oct. 20	1	
"	Portsmouth	Oct. 19	1	

Yellow Fever.—United States.

Florida:	Key West	Oct. 16-27	61	4
"	Miami	Oct. 23-26	12	
Louisiana:	New Orleans	Oct. 21-25	7	2

Smallpox—Foreign.

Argentina:	Buenos Ayres	Aug. 1-31	1	1
Austria:	Prague	Sept. 23-Oct. 7	5	
Belgium:	Antwerp	Sept. 25-Oct. 16	4	4
Brazil:	Rio de Janeiro	Aug. 11-25	180	75
Greece:	Athens	Sept. 30-Oct. 7	8	3
India:	Bombay	Sept. 19-26		5
"	Madras	Sept. 16-22		1
Russia:	Moscow	Sept. 23	1	1
"	Odessa	Sept. 6-Oct. 7	7	2
"	St. Petersburg	Sept. 23-30	3	1
"	Warsaw	Sept. 23-30		5

Yellow Fever.—Foreign.

Argentina:	Buenos Ayres	Aug. 1-31	1	1
Brazil:	Rio de Janeiro	Aug. 11-25	3	6
Cuba:	Havana	Oct. 5-17	15	9
"	Matanzas	Oct. 16	Suspected.	
"	Santiago	Sept. 23-30		1
Mexico:	Tampico	Sept. 22-29	2	1
"	Tuxpan	Oct. 3-13		18
"	Vera Cruz	Oct. 12-19		2
Straits Settlements:	Singapore	Sept. 2-9		4
Teneriffe:	Santa Cruz	Sept. 16-23		2
Turkey:	Erzeroum	Sept. 16-23	3	
"	Smyrna	Sept. 25-Oct. 1		1

Cholera.

India:	Calcutta	Sept. 3-10		2

Plague.

China:	Hongkong	Sept. 2-9	13	12
"	Yingkong	Aug. 18	Reported.	
Egypt:	Alexandria	Sept. 25-Oct. 2	1	1
India:	Bombay	Sept. 15-28		82
"	Calcutta	Sept. 6-16		46
"	Kurrachee	Sept. 16-23		4
Madagascar:	Tamatave	Sept. 8-16	2	2

Changes in the U. S. Marine-Hospital Service for the 7 days ended October 26, 1899:

Irwin, Fairfax, surgeon, to report at Washington, D. C., for special temporary duty. October 25.

Banks, C. E., surgeon, is granted leave of absence for 4 days. October 25.

Kinyoun, J. J., surgeon, to inspect unserviceable property at San Francisco, California. October 21.

Guiteras, G. M., passed assistant surgeon, detailed as temporary quarantine officer at Havana, Cuba. October 23.

Young, G. B., passed assistant surgeon, to proceed to Baltimore, Md., for special temporary duty. October 20.

Rosenau, M. J., passed assistant surgeon, to rejoin station at Washington, D. C. October 20.

Sprague, E. K., passed assistant surgeon, detailed to represent service as technical delegate at meeting of American Public Health Association (Laboratory Committee), at Minnesota, Minn., October 30 to November 3 (inclusive), 1899. October 21.

Cofer, L. E., assistant surgeon, relieved from temporary duty at Mexico, Mexico, to take effect on or about November 15, 1899, and to rejoin station at San Diego, Cal., transferring command thereof to C. E. Decker, assistant surgeon, then to proceed to San Pedro, Cal., and assume command of the service. October 26.

McMullen, John, assistant surgeon, to rejoin station at Louisville, Ky. October 20.

Foster, M. H., assistant surgeon, to inspect unserviceable property at Port Townsend, Wash. October 21.

Heiser, V. G., assistant surgeon, to proceed to Alexandria and Cairo, Egypt, for special temporary duty. October 23.

Hallet, E. B., acting assistant surgeon, granted leave of absence for 4 days. October 23.

Hallet, E. B., acting assistant surgeon, granted extension of leave of absence for 2 days. October 24.

Richardson, S. W., hospital steward, granted leave of absence for 10 days from November 14, 1899. October 24.

Peck, F. H., hospital steward, to proceed to Miami, Fla., for special temporary duty. October 25.

Changes in the Medical Corps of the U. S. Navy for the week ended October 20, 1899:

Drennan, M. C., medical director, promoted to medical inspector.

Wise, J. C., medical inspector, ordered to duty as member of the Naval Examining Board, Washington, D. C., November 1.

McClurg, W. A., surgeon, detached from duty as member of the Naval Examining Board, Washington, D. C., November 1, and ordered home to be ready for orders for sea service.

Riggs, C. E., passed assistant surgeon, ordered to the marine recruiting rendezvous, New York, November 1.

Drennan, M. C., medical director, retired October 24; Section 1453 Revised Statutes and Section 11 Navy Personal Law.

Cleborne, C. J., medical director, detached from duty in charge of the Naval Hospital, Philadelphia, Pa., November 1, and ordered to Washington, D. C., November 2, for examination for retirement and then home to wait orders.

Marmion, R. A., medical inspector, ordered to duty in charge of Naval Hospital, Philadelphia, Pa., November 1.

Lowndes, C. H. T., passed assistant surgeon, detached from the "Princeton" and ordered home by the first public conveyance.

Eakins, O. M., assistant surgeon, appointed from October 21.

Boyd, J. C., medical inspector, promoted to medical inspector.

Holcomb, R. C., assistant surgeon, detached from duty at the Naval Academy, Annapolis, Md., and ordered to the "Solace," November 9, for duty in connection with battalion of marines for Manila.

Spear, R., assistant surgeon, detached from the "New York" to home and sick leave 2 months.

Changes from Asiatic Station, by cablegram.

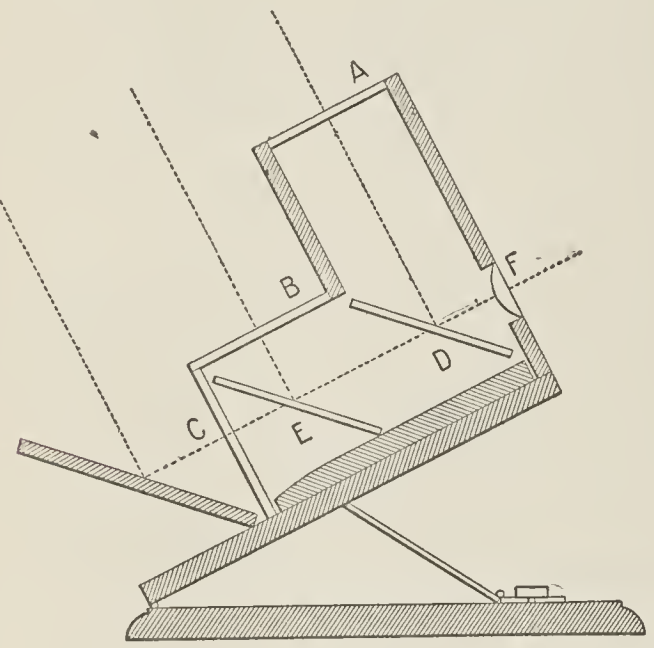
Stone, M. V., assistant surgeon, detached from the "Brutus" and ordered to the Island of Guam.

A demonstration of color photography at the College of Physicians of Philadelphia, by Mr. Frederic E. Ives, took place on Wednesday evening, November 1. In introducing the inventor the Vice-President, Dr. W. W. Keen, called attention to the value of this method of photography as applied to several departments of medicine, especially in pathology, surgery, internal medicine and dermatology. The difficulty of reproducing by drawings the exact pathologic appearances, for example, of pneumonia, apoplexy of the brain, infarct in the kidney, cancer of the liver, etc., is very great, but a good photograph by this method would give a far better and more accurate idea of the appearance to the student. The tints are exactly reproduced, so that whether it is employed in teaching or in demonstration of specimens in connection with a paper before a society, it would be invaluable. The same would apply to surgery, as, for example, the appearance of an ulcer, of an ulcerated carcinoma of the breast, of a cystitis, or the varying appearances on section of carcinoma and sarcoma.

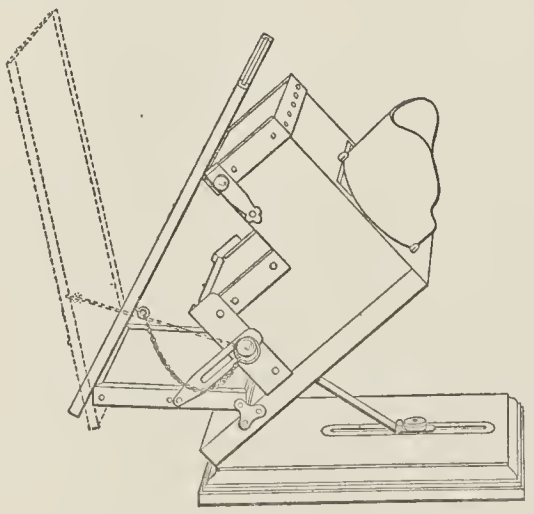
In medicine, he was a little uncertain whether the instrument was delicate enough to show the taches rouges of typhoid, though it would probably show the petechial spots of purpura and possibly of typhus. Jaundice could be well shown, the appearance of the vaccine vesicle, the differentiation between smallpox and chickenpox would be facilitated very much by such photographs. In dermatology it goes without saying that all of the affections of the skin in which color enters could be well reproduced. It would be well if our hospitals especially would furnish themselves

with outfits for the purpose of taking such photographs, and great improvements undoubtedly would follow the wide use of the method.

Mr. Ives briefly epitomized the history of photography and of the attempts that had been made to discover a method of true color-photography, and culminating in the Krōmskōp. The construction of the Krōmskōp will be readily comprehended by studying the sectional plan. *A*, *B*, and *C* are red, blue, and green glasses, against which the corresponding images of the color record are placed when the instrument is in use. *D* and *E* are transparent reflectors of colored glass. *F* represents the eye lens for magnifying the image. Beyond *C* is a reflector for illuminating the images at *C*—those at *A* and *B* being illuminated by direct light from above.



The operation of the Krōmskōp is as follows:—The green images are seen directly, in their position at *C*, through the transparent glasses *D* and *E*. The blue images are seen by reflection from the surface of the glass *E*, which makes them appear to occupy the same position, and in fact to become part of the images at *C*. In the same way the red images are seen by reflection from the surface of the glass *D*, and also appear to form part of the images at *C*. And finally, the eye-lenses at *F* not only magnify, but cause the eyes to blend the two images which constitute the complete stereoscopic pair, as in the ordinary stereoscope. The result is a single image, in solid relief, and in the natural colors. The appearance of the finished instrument is shown in the annexed illustration.



KRŌMSKŌP AND DAYLIGHT DIFFUSER.

As to the uses of the invention in medicine Mr. Ives said: "It will aid in medical diagnosis by acquainting the practitioner with the actual appearance of skin diseases, and their changes from day to day under various conditions which he has not met with in his own practice. I shall not be at all surprised if its value to the science and practice of medicine shall prove to be as great or greater than that of the so-called 'new photography' with the Röntgen rays."

Foreign News and Notes.

GREAT BRITAIN.

The Opening of the Scotch Medical Schools is always later than that of the English. The Edinburgh University Medical Classes were not commenced until Tuesday, October 17, and the chief interest of the day was centered upon Professor Shäfer, who was inducted by the Principal of the University, Sir William Muir, and the Dean of the Medical Faculty, Dr. T. R. Fraser, into the late Professor Rutherford's chair of physiology.

A Case of Plague in England.—At last and after several false alarms in the lay journals, a case of undoubted plague has arrived on English shores. On October 14, the *Peninsular*, a boat belonging to the Peninsular and Oriental Steamship Company, arrived at Plymouth flying the yellow flag. The port medical officer boarded and found an Indian coal-trimmer to be suffering from undoubted bubonic plague, his attack dating from October 9, just as the vessel left Marseilles. The patient, who had been very ill on October 9, 10, and 11, was already much better. He was placed on board the hospital-ship *Pique*, stationed in Plymouth Sound, and isolated. The *Peninsular* was then thoroughly disinfected and allowed to proceed on her way to London. All passengers landing at Plymouth were medically examined and allowed to continue their journeys on leaving their names and destination, and our correspondent, writing on October 21, says that no spread of the disease has occurred. The *Peninsular* started from Bombay, so that the disease was of abnormally protracted incubation not to show itself till the vessel reached Marseilles, 16 days later.

The Pathological Society of London has inaugurated a new departure with regard to its meetings. Four of the 15 meetings held throughout the year which have hitherto been held in the rooms of the Royal Medical and Chirurgical Society are to be held in different London laboratories, in connection or not, with medical schools. The object of this innovation is to insure facilities for the demonstrations of certain subjects incapable of adequate presentation in the usual meeting-rooms of the Society. In addition, it has been determined that the report of an author's communication or demonstration given at any of the four laboratory meetings shall be made public only if the author himself so wish. The chief reason for this regulation is that the work being carried out at laboratories may be at such a stage of progress when brought forward that its publication would be premature and injudicious. The next meeting of the Society will be held at the Jenner Institute of Preventive Medicine on November 7, and subsequent laboratory meetings will be held at University College, London, February 6, at the laboratories of the Royal Colleges of Physicians and Surgeons, March 6, and at King's College, May 1.

The Opening of the London Medical Societies.—The London Medical Societies commenced their sessions in the third week in October, and all the principal ones have made arrangements for giving their members evenings of scientific and clinical interest. The Pathological Society of London, under the presidency of Mr. Walter Cheyne, F.R.S., announce an interesting departure in the shape of private laboratory meetings. These meetings, four of which have been arranged, will take place in the laboratories of the Jenner Institute of Preventive Medicine, of University College, of the

Conjoint Board of the Royal Colleges of Physicians of London, and Surgeons of England, and of King's College, respectively, and the proceedings at them will be confidential save where a member may desire to have his words reported in the medical press. This privacy, it is believed, will allow members to take their fellow members into their confidence with regard to new research work; for by thus communicating his idea to the Society the worker in new fields will secure his title to priority and may obtain valuable hints from his colleagues, at the same time the tentativeness of his work will escape publicity, so that the risk of promulgating mistaken deductions from immature results will be avoided.

The Leicester Guardians and the Local Government Board.—The Leicester Guardians are the people having charge of the municipal government of the town of Leicester; and, as has been already narrated in our columns, being antivaccinationists by a large majority they resolved to refuse to appoint a vaccination officer, thus rendering the law on the subject a dead letter. The Local Government Board gave the Guardians notice to do their duty. The Guardians refused. The Board took legal action against the Guardians, who were told by the Court that within a certain time they must comply with the Board's order. The Guardians remained intractable, and the Board has now informed them that if they are not obedient they must go to prison. The "brutal and arbitrary" action of the Local Government Board (see the antivaccination journals for epithets from which to choose) has not been without its effect. When the Guardians some weeks ago first decided to oppose the Board, out of 48 members only 2 voted for obedience. But when it became clear that disobedience was going to be followed by punishment and that the game of bluff had failed, 20 Guardians altered their minds and 2 abstained from voting, but are believed to have also come to their senses. So that the figures are now probably 26 against 22; which means that if only 3 more persons go over to the rapidly increasing minority the vaccination officer will be appointed and the Guardians saved from a ridiculous martyrdom.

The Consumption of Whisky in Great Britain.—The *Investors' Review*, according to the *Lancet*, has recently given an account of the enormous consumption and production of whisky in the year ending March 31 last. The population of the United Kingdom swallowed considerably more than 1 gallon per head of what is called whisky. Very little of the spirit drunk, however, is of proof strength. On the proof-standard test for last year the consumption reached 0.852 of a gallon per inhabitant, and aggregated 34,334,421 gallons. Nine years before, the consumption was only 29,850,523 gallons, or 0.747 of a gallon per head. The consumption for last year is the highest yet reached. This does not include the spirit exported, methylated spirit, and other odds and ends. If these are added to the home-consumption the sum total becomes 49,381,821 gallons. Great as is the amount consumed it does not satisfy the distillers, who produced last year the prodigious quantity of 63,437,844 gallons—an increase of about 2,785,000 gallons on the previous year's output—and the total increase in consumption was about 2,898,000 gallons. It is estimated that the total accumulations of home-made spirit, mostly whisky, amount to 151,732,539 gallons, or more than 3 years' consumption, and the value of this dead stock is about £35,000,000. When, in a recent speech, Sir Michael Hicks-Beach expressed, to the amazement of many good people, his satisfaction at the unprecedented consumption of beer last year, and his hope that it would increase, he defended himself on the view that the consumption of beer is better than that of spirit. The remedy is a very doubtful one. But the consumption of spirit is appalling. The Registrar-General, in his last report for 1897, says: "To intemperance there were directly attributable during the year 2,397 deaths—1,460 of males and 937 females. The male death-rate from intemperance was 97, and the female rate 59 per 1,000,000 living of the respective sexes, *both rates being the highest on record.*" The tables given show what is so obvious to common observers—the increase of alcoholism among women. We have extracted a few items: thus, the deaths from chronic alcoholism in the year 1897, as compared with the year 1878, in men, show an increase of 82½%; those of females, of 145½%; and the deaths from cirrhosis in men, an increase of 12%, and those from cirrhosis in females, of 26%.

The Public and Sanatoriums for Phthisical Subjects.—The National Association for the Prevention of Consumption and other Forms of Tuberculosis have done excellent medical service in England by arousing public conviction that phthisis is an infectious and preventable disease. At the same time all physicians have been advocating the claims of the open-air treatment of phthisis and as a consequence the necessity of building sanatoriums to carry out this treatment. But the British public having grasped the fact that phthisis is in a certain measure infectious does not enthuse over the idea of the foundation of sanatoriums in its immediate vicinity. With a view of allaying these natural fears the National Association for the Prevention of Consumption at a recent meeting passed the following resolution which has been widely circulated in the press.

"Having understood that apprehensions have been entertained as to the spread of consumption from sanatoriums established for the treatment of the disease, the Council of the National Association for the Prevention of Consumption desire to express their opinion that there is no danger of communication from any well-conducted hospital for consumption, or from any sanatorium where the open-air treatment for this disease is properly carried out; and, further, that the inhabitants of houses in the immediate neighborhood of such institutions are perfectly safe from local propagation from this source."

The Harveian Oration was delivered before the Royal College of Physicians of London, on Wednesday, October 18, by Dr. George Vivien Poore, physician to University College Hospital. As 181 Fellows of the College have now complied with the terms of Harvey's endowment and delivered these orations it goes without saying that not much that is new remains untold concerning Harvey, his life, his work, and its results. This fact has perhaps proved a stumbling-block to some orators, but Dr. Poore is a man of wide reading and nimble wit, and contrived to make the dry bones live by investing them with the flesh and blood of a pleasant and informatory fancy. The latter part of his oration dealt with the critics of scientific progress, and although he spoke with some warmth of the sophistic arguments of the antivivisectionists, he recognized in the most liberal way that those responsible for departures in medicine must not only expect but benefit by criticism.

"In this country," he said, "we have always wisely recognized the uses of opposition. The stability of our political organization has been largely due to the fact that the party in power is subjected to the ruthless criticism of the Opposition—'the toad ugly and venomous' which 'wears yet a precious jewel in its head.' So it has been in medicine, where scientific advance has been checked not only by the criticism of the learned but occasionally by the clamor of the prejudiced and ignorant. We have seemed at times to lag behind our neighbors, but our advance, if occasionally slow, has generally been sure. The party of scientific advance is necessarily always a small one, and it is possible that the relatively ignorant may cause some temporary discomfort to the learned few. But this is the extent of their power. The true spirit of inquiry, like the divine afflatus of the poet, is not subject to human control, and the laws of Nature are more permanent than Acts of Parliaments."

Dr. Poore may have singled out the antivivisectionist party for special contempt because he is the inspector under the "Cruelty to Animals Act," and so, in a measure, responsible to the Home Office for the way in which vivisection is practised in England.

The Medical Arrangements for the Transvaal War appear to be very well thought out. There will be 12 field hospitals, 4 stationary hospitals, and 4 general hospitals, each completely staffed. The St. John Ambulance Association has provided all sorts of ambulance material, and will cooperate with the regular medical department of the army in every way. It has always been the habit in English military campaigns to rely largely upon such voluntary assistance, and several other associations will be represented at the seat of war. The British Red Cross Committee, a working amalgamation of the National Society for Aid to the sick and wounded in war, of the Army Nursing Reserve, and of the St. John Ambulance Association, are fitting out a hospital-ship which will be used for the purpose of carrying invalids between Durban, the capital of Natal, and Capetown, and from Capetown to England. The same committee will also undertake the running of a completely equipped hospital train from some spot generally accessible to the front down to Capetown. Without the aid of such voluntary associations the Army Medical Department could not, undermanned as it is, look after the sick soldiers properly, and in times of excessive strain the department knows that it can always expect the best of civil help. Major W. C. Beevor, R.A.M.C., has left for the front with a complete Röntgen-ray outfit, as well as cameras and a cinematograph. Major Beevor has already had experience of the great use to an army medical department in active service of an x-ray equipment, for in the Tirah campaign of 1895, he was in charge of such an equipment, and was able to prove it to be of the greatest value in getttng good results after bullet-wounds by early localization of the pellet. It is widely reported, though the statement has not yet been officially confirmed, that the Atlantic Transport Company, a line between New York and London, under American management, has placed at the services the Government the steamship *Maine*, to be used as a hospital ship, the Company also providing, free of charge, a complete staff of officers and crew. This graceful piece of generosity on the part of the American line has been much appreciated in England, as it should be.

CONTINENTAL EUROPE.

The Bavarian universities are spending quite considerable sums in enlarging their hospital buildings and bringing their appointmenis up to date. Besides this, Munich expects a new psychiatric clinic.

The French Association of Urology met in annual session in Paris recently, under the presidency of Prof. Guyon. The subject for discussion was: "So-called essential hematuria," opened by Dr. Malherbe and Dr. Legneu.

University Appointments.—BUDAPEST: Professor M. von Lenhossek of the University of Tübingen, has been invited to assume the chair of anatomy. KLAUSENBURG: Dr. G. Rigler has been appointed extraordinary professor of hygiene.

An institute for the study of malaria and other diseases prevalent in man in Merv has been established as a department of the St. Petersburg Institute of Experimental Medicine. The staff consists of a director with three assistants.

The Thirteenth French Congress of Surgery met recently in Paris, under the presidency of Professor Poncet, of Lyons. The subjects for discussion were: (1) Total abdominal hysterectomy; opened by Professor Ricard; and (2) tumors of bone, opened by Dr. Pollosson and Dr. Berard, of Lyons.

French Army Medical Supplies.—The French journals, after enumerating the vast amount of medical supplies sent to our army in the Philippines, point with pride to the fact that the French army in Madagascar has no quinin in any form, and the last shipment of medical supplies consisted of 1,000 cases of absinth.

A curious case of amnesia was discovered at the prefet de police in the quarter of Plaine-Marceau. The subject of this strange freak remembered perfectly his name, age, and occupation, but his address had completely passed out of his mind, and for two days he had wandered about the city in a vain search for his residence.

Rhythmic Traction of the Tongue in Asphxia.—During a recent balloon ascension at the Jardin d'Acclimation (Paris) the aeronaut was asphyxiated. An ingenious doctor arrived with a pair of common dressing forceps, seized the tongue of the patient and after 45 minutes of rhythmic raising and lowering of that organ had the satisfaction of completely restoring the man.

A somewhat moral tone was assumed by the Hessian ministry the other day, when it issued a decree whereby a restaurant or saloonkeeper's license is to be taken away if it be found that he pays his girl waiters insufficient wages and compels them to depend on tips for their living. The ministry holds that the proprietor is responsible for what happens in his place, the more so if he makes it expedient for his employes to enter into illegitimate relationships.

Anglo-American Nursing Home in Rome.—It is reported that the proposal to establish an Anglo-American Nursing Home in Rome is likely to be carried out. The need for such an institution has been felt by many British and American practitioners in Rome. A sum of $5,000 has been subscribed for a building fund, and negotiations are on foot for the purchase of a house. The home when established will receive cases of illness of any kind, including typhoid fever.

At the late **Congress of Physicians,** held in Munich, the Hofbibliothek (1½ million volumes, and at least 183 medical publications on file) issued a little booklet giving the contents of an exhibition of medical manuscripts and autographs, which they had prepared in honor of the meeting. Herein we find enumerated MSS. of Hippocrates, Galen, Celsus, Honein, Abbas, Avicenna, Abul Hasan, etc. The fifteenth century treatise of Hermann Schedel (died 1485) of Nürnberg, on the pest has also a present interest. In all there are 104. The autographs vary from those of Agassiz, Cuvier, Göppert, to Zimmermann's (1728–1795).

One of the late suggestions in Germany, to secure for the young practitioner a more practical idea of his duties, is to require that every candidate spend a year in a hospital or with an approved private physician as assistant before he is allowed to practise for himself. At present very few of the young physicians have more than a theoretical and scientific knowledge of medicine; and their application of general rules for the first few months is apt to produce weird results. This new requirement would so increase the difficulties in the way of a medical education that it is doubtful if it passes beyond the suggestion stage.

The Perils of Electric Lighting.—M. Regnier, in the *Progrès Medical*, according to the *British Medical Journal*, gives a long catalog of the accidents due to the electric method of illumination which have occurred in Paris alone during the past 10 years. He distinguishes between the variety of injury caused by the currents. The continuous current from a broken or badly isolated wire burns the tissues very deeply, and is fatal if the shock be violent. The alternating current also burns, but less severely. When the shock is violent it causes dangerous syncope, but the patient may be revived by artificial respiration or rhythmical traction on the tongue.

Congress of Hungarian Physicians.—According to the *British Medical Journal* a Congress of Hungarian medical practitioners was held last month at Grosswardein, for the consideration of questions affecting the interests of the profession. Some 350 practitioners attended. The Congress, which was presided over by Prof. Kétli, was formally received by Cardinal Schlauch, the Burgomaster, and other officials and representatives of the local medical committee. Resolutions were passed asking that the public-health law should be modified so as to safeguard the moral and material interests of the profession; that quackery should be suppressed; and that the conditions of hospital assistance should be reformed.

One way of treating quacks is to publish their dealings. This method has been adopted by Professor von Hippel (ophthalmology) of Heidelberg. He writes to the *Frankfurter Zeitung*, one of the most influential papers of Germany, a full description, giving the name and address of the swindler, of a case where a poor wagoner was led into paying a Wiesbadener quack some 800 marks for treatment in a case in which healing was absolutely impossible. The institution was styled: "Physical Institute, Specialty: Professor Röntgen's X-ray illuminations. Electro-homeopathic hospital treatment." The case was one of brain-affection bringing on blindness, where the veriest tyro must realize the hopelessness of treatment. The heartlessness of the quack is shown by the fact that the husband's entire yearly income could not be more than 800 marks; and, too, that he had a large family to support. Similar heroic treatment of swindlers in this country, on the part of the profession, might have a good influence.

Judiciary of Physicians.—The Bavarian government has just proposed a system for the judicial treatment of physicians. The kingdom is divided into 8 districts. Each district constitutes a society of which every practitioner (in that district) must become a member. This society elects a tribunal of 4 physicians, which together with 1 governmental appointee shall be a court of first instance. Decision is by absolute majority. The physician against whom charges are brought may appear personally or by counsel. The hearing is secret. In case of conviction the punishment is warning, or fines (20 to 2,000 marks), or suspension from practice. The decision may or may not be made public, as the court shall determine. The court elects as president one of its own numbers. Appeals from the decisions of this court may be made (within 14 days) to a second and final court at Munich. This court is composed of 1 representative elected by each district (therefore 8 in all) and one governmental appointee. Its president is elected from and by its members. The members of both courts are elected for 3 years.

The Bacillus of Dysentery.—According to the *Lancet*, M. Roger, *agrégé* professor at the Faculty of Medicine and physician to the hospitals, read a paper on October 7, before the Society of Biology on a bacillus which he had discovered and which he believed to be the pathogenic agent of non-tropical dysentery (*dysenterie nostras*). He obtained it easily enough in 7 cases of dysentery by sowing a little intestinal mucus in bouillon and on the following day injecting 10 drops of the impure culture thus obtained into the veins of a rabbit. In less than 24 hours the animal died and on examination there was found in the blood and in the tissues an enormous quantity of bacilli. They closely resembled the bacillus anthracis but were shorter, had rounded ends, and occasionally showed a waist (*étranglement*) in the middle of their bodies. They were motile, they could be stained by Gram's method, and they grew easily in any culture medium, though they were then of smaller size than when grown in an animal. In vegetable media they grew of an oval form and looked like large micrococci. They liquefied gelatin rapidly and coagulated milk. In bouillon they grew quickly with the production of flakes of mucin and the culture gave off a very fetid odor; in the case of bouillon mixed with glycose this odor was absent. Grown on agar they formed a thick, creamy, fetid crust, while on gelose or gelatin they produced numerous bubbles of gas. Pure cultures of this bacillus injected into the veins of a rabbit produced death after an interval varying according to the virulence of the dose. In acute cases the rabbit died in 24 hours with hemorrhagic diarrhea, while numerous hemorrhages were found in the large intestine. If the animal survived for a longer period the characteristic lesions of dysentery were found in the intestines and in one case the descending colon was covered with deep ulcers showing sharp-cut edges. The wall of the bowel around was thickened and there were deposits of lymph on the peritoneum. The bacillus had an obvious tendency to localize itself in the large intestine even when injected into the veins. It was only found in these cases of nontropical dysentery and never in cases of choleraic diarrhea (*diarrhéa choleriforme*). M. Roger intends to continue his researches into the relations between the form of dysentery found in France and the genuine dysentery of tropical climates with a view to observing whether the bacilli of the two forms are identical.

Pellagra in Italy.—Reference has been made in these columns on several occasions to the grave increase in pellagra in Italy. That this disease, accounted one of the 7 plagues of Italy, owes its origin to defective or unsound alimentation has sometimes been denied; but it will hardly even be doubted now that, according to the *Lancet*, the permanent pellagra commission for the province of Modena has published its report. Last year, according to that commission, there were throughout the whole province of Modena only 40 cases of pellagra, or "pellagrosi," as they are compendiously called. In the first half of the present year the pellagrosi put on the register of the sanitary office were 304! Nor do these figures tell the whole tale. Very many pellagrosi on the first appearance of the characteristic symptoms do not report themselves to the medical or sanitary authority; out of sheer "non-curanza" they "let matters slide." So that 304 is considerably under the total of *bona fide* victims to the disease. According to the report of the commission the immense increase of pellagra in the first half of 1899 is due to its abnormal spread in the mountain districts—a part of the Modenese province hitherto free from it. To what is this due? To the failure of the chestnut crop, the staple diet of the mountaineers. For want of the chestnut they have been driven back on the "granturco," or maize, generally unsound, and (in the Modenese region) not subjected to the salutary "essiccatoio" (drying-oven) in constant use throughout the Lombardo-Venetian territory. A few months of such unfamiliar, distasteful, and eminently unsanitary food have sent up the sick-list of pellagrosi by leaps and bounds. Another grave feature of this visitation in the province of Modena has been the heavy proportion of victims to pellagra mania which it presents. That proportion has been 1 in 6! A prompt and peremptory order has, in consequence, been given to the provincial authorities of Modena to pay strict attention to the quality of the granturco (maize) as exposed for sale, and thereafter to provide the means of depriving it, by the "essiccatoio" or otherwise, of its noxious properties. Should pellagra continue to spread in the proportions of the last half year, and to furnish one pellagrose lunatic out of each 6 cases, the duty of providing

asylum accommodations and treatment for this latter type of victim will weigh heavily on the all too inadequate communal exchequer.

The Medical Courses at the University of Munich, and the University of Paris.—In the *Pedellzimmer* of the University of Munich was discovered recently the following course of study recommended by the Munich faculty. In view of the recent editorials on medical education, it is thought worthy of mention. Of course, it is in no way compulsory.

I. SEMESTER (WINTER).

9—10 A.M. Inorganic Chemistry, 5 hours.
10—11 " Physics, Part I, 5 hours.
12— 1 P.M. Anatomy, Part I, 6 hours.
4— 5 " Zoology, 6 hours.
5— 6 " General Botany, 5 hours.
8 A.M. / 4 P.M. Dissection.

II. SEMESTER (SUMMER).

7— 8 A.M. Anatomy, Part II, 6 hours.
8— 9 " Comparative Anatomy, 4 hours.
9—10 " Organic Chemistry, 5 hours.
10—11 " Special and Medical Botany, 5 hours.
11—12 " Physics, Part II, 4 hours.
Chemical Laboratory.
Medical Chemistry.
Mineralogy for Medical Students.

III. SEMESTER (WINTER).

9—10 A.M. Physiology, Part I, 6 hours.
10—11 " Histology, 4 hours.
10—11 " Generations Lehre, 2 hours. (Theory of Generation,)
8 " / 4 P.M. Dissection.
Medical Physics.

IV. SEMESTER (SUMMER).

8— 9 A.M. Physiology, Part II, 6 hours.
9—10 " Embryology, 5 hours.
10—11 " Topographic Anatomy, 5 hours.
11 " / 1 P.M. Histologic Course in Laboratory, 4 hours.
Physiologic Laboratory, 6 hours.

Here occurs the first state examination (Physicum or Vorprüfung).

V. SEMESTER (WINTER).

9—10 A.M. General Surgery, 4 hours.
10—11 " General Pathology and Pathological Anatomy, 6 hours.
11—12 " Pharmaceutics, 4 hours.
3— 4 P.M. Physical Diagnostic Course, 3 hours.
4— 5 " Surgery, 4 hours.
5— 6 " Special Pathology and Therapy, 6 hours.
Chemical and Microscopic Diagnostic Course.
Fractures and Luxations.
Bandaging Course.

VI. SEMESTER (SUMMER).

7— 8 A.M. Pathologic Anatomic Postmortems, with demonstrations.
8— 9 " Medical Propædeutic (Course or) Clinic, 6 hours.
9—10 " Obstetrics, 4 hours.
10—11 " Special Pathologic Anatomy, 4 hours.
11—12 " Toxicology and Pharmacology.
12— 1 P.M. Surgical Propædeutic Clinic, 4 hours.
3— 4 " Skin Diseases, 2 hours.
4— 5 " Surgical Operations: Theory, 4 hours.
5— 6 " Special Pathology and Therapy, 6 hours.
Pharmacologic Experiment Course.
Diagnostic Practice.

VII. SEMESTER (WINTER).

8— 9 A.M. Surgical Clinic, 6 hours.
9—10 " Medical Clinic, 6 hours.
10—11 " Gynecology, 4 hours.
11—12 " Ophthalmologic Clinic, 2 hours.
11—12 " Gynecologic Clinic, 4 hours (with 2 hours, 10—11).
2— 4 P.M Pathologic Histologic Practice, 4 hours.
3— 4 " Lectures on Syphilis, 2 hours.
4— 5 " Ophthalmology, 4 hours.
5— 6 " Pathology and Therapy of Brain Disorders, 3 hours.
5— 7 " Ophthalmoscopic Course, 2 hours.
5— 6 " Obstetrics.

VIII. SEMESTER (SUMMER).

7— 8 A.M. Hygiene, 5 hours.
7— 8 " Postmortems and Demonstrations.
8— 9 " Surgical Clinics, 6 hours.
8—10 A.M. Gynecologic Operations.
9—10 " Medical Clinics, 6 hours.
10—11 " Gynecological Clinics, 4 hours (with 2 hours, 11—12).
10—11 " Ophthalmologic Clinics, 2 hours.
2— 3 P.M. Syphilitic Clinics, 2 hours.
3— 9 " Pediatric Clinics and Polyclinics.
4— 5 " Course in Technic of Vaccination.
4— 6 " Ophthalmologic Operations, 2 hours.
5— 6 " Pathology and Therapy of Mental Disorders, 3 hours.
5— 6 " Surgical Operations.
Ophthalmoscopic Course.

IX. SEMESTER (WINTER).

8— 9 A.M. Surgical Clinics, 6 hours.
9—10 " Medical Clinics, 6 hours.
10—11 " Gynecological Polyclinics.
10—11 " Diagnostic Course.
11—12 " Surgical Polyclinics, 6 hours.
12— 1 P.M. Medical " 6 hours.
3— 4 " Otology, with Practical Exercises.
4— 6 " Psychiatry Clinics, 4 hours.
4— 5 " Legal Medicine, 3 hours.
Bacteriologic Course.
Laryngoscopic "
Electro-Therapeutic Course.
History of Medicine.
Pharmaceutic Dispensary.
Pathologic Anatomic Demonstrations.
Course in Vaccination.

X. SEMESTER (SUMMER).

Devoted to the State examination and to those courses previously neglected. Then comes the examination for the doctor's degree.

The faculty recommends the above as a minimum course, but prefers a longer one, when possible. In Paris, which is now open to Americans, the following course is required:

First Year: Biologic Chemistry, Dissection, Physics, Histology, Physiology.
Second Year: Dissection, Biologic Physics, Biologic Chemistry, Histology, Physiology.
Third Year: Pathologic Anatomy, Parasitology, Pathologic Chemistry, Operative Medicine.
Fourth Year: Obstetrics, Special Course in Clinical Chemistry.

The practical exercises accompanying the above are:

First Year: Biologic Chemistry, Histology, and Dissection in Winter, and Physics and Physiology in Summer.
Second Year: Dissection in Winter; Biologic Chemistry, Physics, Histology and Physiology in Summer.
Third Year: Pathologic Anatomy, Parasitology and Biologic Chemistry in Winter; Operative Medicine in Summer.
Fourth Year: Clinical Chemistry, Botany, Pharmacy, and Bacteriology.

Five examinations are given in various stages in the course somewhat similar to the American plan. Inasmuch as the fourth and fifth examinations have two parts, there are virtually 7 examinations.

The fees to be paid by Americans seeking the "University" degree, are:

A. Faculty of Letters, Dispensation of Bachelor's Degree . .	120 fr.
B. Faculty of Science, Certificate of Physical Studies	300 "
C. Faculty of Medicine: 16 inscriptions at 32 fr. 50 each, with library privileges	51 "
Laboratory Fees	240 "
Seven Examinations, at 55 fr. each	385 "
Thesis	240 "
Total	1805 "

More direct information as to the work in Paris may be obtained from the Secretary of Comité Franco-Americain, 70 rue d'Assas, Paris, France.

MISCELLANY.

Obituary.—DR. HERMANN BLASCHKO, of Berlin, a distinguished hygienist and collaborator with Professor Eulenberg in his *Encyclopædia of Hygiene*, aged 74.—DR. GIUSEPPE PUGLIA, sometime professor of physiology in the University of Modena; DR. THEODORE PUSCHMANN, professor of the history of medicine in the University of Vienna, and DR. DOMINGOS FREIRE, formerly professor of organic chemistry in the Medical Faculty of Rio de Janeiro; DR. GERHARD WESTFELD, physician to the Queen of Sweden.

Society Report.

[From our Special Correspondent.]

NEW YORK STATE MEDICAL ASSOCIATION.

Sixteenth Annual Meeting, Held at New York, October 24, 25, 26, 1899.

(Continued from page 802.)

The sixteenth annual meeting of the New York Medical Association, which was held at the Academy of Medicine, New York, on October 24, 25, and 26, was the most successful the Association has ever held, there being over 700 members and delegates from other State organizations in attendance, while the papers read were of exceptional interest and ability, and the discussions which followed showed an awakening interest on the part of general practitioners in the advances made in the science of medicine. At the close of the meeting the retiring president, Dr. Joseph D. Bryant, and the Committee of Arrangements, of which Dr. F. H. Wiggin was chairman, were congratulated and accorded votes of thanks for the manner in which it had been conducted, and a formal recommendation was made to the Council to hold next year's sessions in the same place. The new president, Dr. E. D. Ferguson, of Troy, was then installed in office amid applause, and in returning thanks for the honor conferred upon him, undertook to do his best to keep the Association up to the high standard it had attained under his distinguished predecessor. In passing he mentioned that he had been at every meeting of the Association since its establishment, and had done what he could to advance its interests, believing that in so doing he was advancing the interests of the profession and the good of the community.

The following is a continuation of the detailed report of the proceedings:

Second Day—Wednesday, October 25.

The necessity for State aid in the treatment of pulmonary tuberculosis, was the first subject taken up at this day's session. It was introduced by Dr. George W. Goler, of Monroe County, who based his arguments in favor of State aid for the purpose in question, on facts founded on estimates of the number of persons at the present time suffering from the disease in New York State, and also from the present expenditure of the State for the insane and epileptics. The deaths in the State from consumption, he said, had averaged 13,000 for some time, and assuming the average life of consumptives to be 4 years, it might be said that there were always about 50,000 consumptive patients going about or under treatment, a large proportion of them going about spreading the disease. At a comparatively small cost, a building could be provided by the State in which incipient cases of tuberculosis could be cured, thus not only effecting a great saving of human life in a direct way, but indirectly doing much to improve the hygienic condition of the community by removing the causes of infection. Such institutions offered hope for the future alike in preventive, curative, and educational work. In fact, he believed that 70% of all cases of incipient consumption could thus be cured. Even on economical grounds alone he showed the establishment of sanatoriums could be recommended as the wisest course for a State government to adopt.

Dr. S. A. Knopf, of New York County, followed with a paper on **Sanatorium treatment at home for patients suffering from pulmonary tuberculosis.** The author reviewed the essential features of the treatment as carried on in special institutions in this country and abroad, and described the modification which made this system applicable at the home of the pulmonary invalid. He also pointed out the impossibility of carrying out the precepts of modern phthisiotherapy, in the treatment of the consumptive poor, without special institutions supported by the State. Dr. DeLancey Rochester, in opening the discussion, alluded to the spread of infection by means of expectoration and promiscous kissing. Then as to the wearing of masks it was found difficult even in institutions to get patients to wear them; as often as not, if they were come upon suddenly by the doctor, they would be found to have their masks in their pockets or anywhere else except on their mouths and nostrils. The wearing of chest-protectors, he thought, could not be too strongly condemned; it was, however, a good thing to wear wool next the skin. The suggestion made by one of the speakers that consumptive patients should be encouraged to drink all the milk they could, was going too far. It might be construed to mean that they should drink milk as some people drank beer; the amount of milk to be drunk, and also the times at which it was to be taken, should be carefully regulated. The same thing applied to water, which was as important as anything else. Warm baths he considered as essential as cold baths. As to marriage, his experience was that consumptive patients would insist on marrying no matter what was said to them to the contrary. The matter of the care of chronic patients was a very serious one, for they were the people who spread the disease. He did not see what was to be done in such cases, but they were the dangerous people in the community.

On the motion of Dr. Wickes Washburn, of New York, a resolution was passed recommending the establishment of State institutions for the **treatment of incipient consumption,** and it was further agreed that a committee of the Association should be appointed to prepare a pamphlet for distribution among medical men, boards of health, etc., showing the precautions that should be taken for the prevention of the spread of infection, and also giving information as to treatment of incipient patients.

Morphinism Among Physicians.—Dr. T. D. Crothers, of Hartford, Conn., read a paper on this subject. Morphinism, he said, was the modern disease of physicians. The causes were complex, and came from conditions of living and surroundings, and neurotic defects, acquired or inherited. The defective teaching and textbooks concerning morphia were often contributory causes. The injury to the brain and nerve-centers was concealed, cumulative and very grave. Personal self-treatment was disastrous. There was present profound physical and psychic poisoning which was not cured by the removal of the drug alone. Often a final restoration demanded a withdrawal from the profession. The materials on which he based his conclusions were obtained through the investigations of a committee of which he was appointed chairman in 1890. The first set of 3,244 physicians residing in the Eastern and Middle States, with a few from Western cities, showed 21% as using spirits or drugs to excess, 6% permanently in the clutch of morphia or opium addiction, another 10% using opium or other drugs secretly, and fully 20% of the total, including the opium users, using spirits in what they call moderation. Another group of 170 physicians showed 7% using opium and morphia, and 6% secret drug-takers. "From my own knowledge," Dr. Crothers continued, "and from what I have learned from other physicians, I believe that from 6% to 10% of medical men are opium-inebriates. That this estimate is conservative may be assumed from the fact that all drug-takers, and medical men in particular, conceal this habit. Morphinism is increasing among physicians. Private insane asylums show a constantly growing percentage of medical men among the patients due to drug addictions. They are largely young or middle-aged men and are for the most part delusional therapeutists who must do everything by personal experience, or young men who have an exalted conception of the power of drugs and believe that through them will come the physical millennium. The strain and stress of existence are partly responsible, and I have known many cases in which morbid curiosity has driven physicians to the use of morphin. Certainly it is one of the most fascinating and serious of modern diseases. In conclusion, I would say to all physicians, never use morphia on yourself by the needle and never use it at all except by the advice of a brother physician. Never prescribe opium in any form for a neurotic physician unless you are entirely certain that it is so necessary that no other drug will serve the purpose."

Dr. Charles Alling Tuttle, of New Haven, Conn., read a paper entitled **Albuminuria: its prognostic value in chronic nephritis,** in which the following points were considered: (1) Bright's disease without urinary manifestation. (2) Albumin and casts in otherwise normal urine. (3) The amount or persistency of the albumin has little or no

prognostic significance. He showed that Bright's disease might begin and end without showing urinary symptoms. Nephritis did not, on the other hand, necessarily mean Bright's disease. Casts and albumin were often found in the urine of persons who were apparently in a healthy condition. There were many cases in which the life of a patient could be prolonged for many years—he knew of cases in which it had been prolonged as much as 15 years—by the use of proper medication and diet.

DR. WILLIAM P. SPRATLING, superintendent of the Craig Colony, Sonyea, N. Y., read a paper on **Curability of epilepsy and how it may be accomplished.** He impressed upon medical men the importance of attending to the disease in its earlier stages, and with the view particularly of distinguishing between true and false epilepsy. By a complete change of occupation, and plenty of outdoor exercise, as practised at the Craig Colony, he showed that a large percentage of patients could be cured, while in the case of other sufferers the symptoms could be much improved. He expressed his disbelief in the efficacy of drugs for this particular complaint, observing that, while potassium bromid stopped the fits temporarily, they were always worse after the administration of the drug was discontinued. He referred the members of the Association for further information to certain reports he had furnished to the PHILADELPHIA MEDICAL JOURNAL.

The afternoon discussion was devoted to the consideration of various phases of the subject of typhoid fever. It was introduced by DR. HERMAN M. BIGGS, of New York, who read a paper on **The advance of our knowledge of typhoid fever.** No apology, he observed, was necessary for asking the attention of the Association to this subject, for although no subject was more discussed—except, perhaps, tuberculosis—there was none that was more important, and the terrible devastation which had been produced among the troops during the recent war had revived popular interest in it in a very painful way, showing as it did the awful possibilities the disease still presented in spite of the efforts of medical science. In the face of all modern progress in the knowledge of typhoid and the way to treat it, and in spite of improved hygienic conditions, hundreds and thousands of American soldiers sickened and died of the disease, and many more returned home ill, carrying with them the infection and spreading it abroad in the towns and villages and rural districts, so that hundreds and thousands of others had since contracted the disease as the result of infection. Formerly typhoid fever prevailed principally in the cities and large towns, but now it was becoming more and more the disease of rural districts. This he attributed in large measure to the fact that most cities and towns had now good water-supplies and sewage systems. The improvement in towns, indeed, was even greater than it seemed, for an inquiry into the facts would show that in a majority of instances the patients who were enumerated as belonging to towns had caught the contagion on visits to the seaside or rural districts. The mortality rate from New York City, for example, was comparatively low. It seemed to him the solution of the problem lay in the sanitary education of medical men and the people. Hygiene ought to be taught in the schools, and medical men ought to be better remunerated for undertaking the position of medical officer of a board of health.

DR. W. H. PARK, of New York City, followed with a paper on the **Bacteriology of typhoid fever.** In referring to the use of serums for the cure of typhoid, and rendering soldiers and others immune, he said that, while no definite results had been obtained in this country, it had been apparently recognized as efficacious in the British army. There were good reasons for believing that it did not produce any symptoms, and that it produced a very fair degree of immunity.

DR. WM. OSLER, of Baltimore, contributed a paper on the **Clinical diagnosis of typhoid fever.** He acknowledged that there was much justification for the charges that had been brought against the medical profession on account of the terrible devastation caused by the disease among the troops during the war. But the blame should be placed where it belonged, not on the physician who had been attached to the army, but to their teachers—to the system in fact which permitted young medical men being sent out to practise without having been properly prepared for the duties they had to discharge. The speaker proceeded to point out the necessity of making more careful diagnosis of the disease in its early stages. They should in particular give up the habit of putting every fever down as malarial until it proved to be something else. They should drop the Anglo-American rule of supposing a fever innocent of the suspicion of being typhoid until it was convicted, and adopt instead the Gallic method of assuming that it was typhoid until it proved its innocence. Combined malarial and typhoid fever was exceeding rare, and it was indeed time when the term typhomalarial fever should be allowed to die a natural death.

DR. E. J. JANEWAY, of New York County, dwelt on the importance of making a careful watch at an early stage of symptoms that were in any way **suggestive of typhoid.**

DR. WM. H. THOMPSON presented **Statistics of typhoid fever at the Roosevelt Hospital for 10 years,** the general effect of which was to show that the chances of recovery from typhoid were not much greater now than they were 50 years ago.

DR. REGINALD H. FITZ, of Boston, gave some account of **Typhoid fever in the Massachusetts General Hospital during the last 50 years.**

DR. A. A. SMITH contributed **Some phases of typhoid fever as seen in Bellevue Hospital.**

DR. ABRAHAM JACOBI read a paper on **Typhoid fever in children.**

DR. ROCHESTER read a paper on **The local nonsurgical treatment of the intestinal tract in typhoid fever.** (See page 869.)

DR. W. W. KEEN, Philadelphia, a paper on **Treatment of perforation of the bowels in typhoid fever.** [On account of its value and interest, we give in our Original Article Department, page 875, our reporter's very full abstract of Dr. Keen's paper as read.—Editor PHILADELPHIA MEDICAL JOURNAL.]

DR. A. T. HUBBELL, a paper on **Eye complications in typhoid fever.**

In the evening a reception was given by the Association to Dr. William W. Keen, Philadelphia, president of the American Medical Association, to Professor Reginald H. Fitz, Boston, and Professor William Osler, Baltimore.

THIRD DAY—Thursday, October 26.

The committee appointed to cooperate with the committee of the American Medical Association, in regard to the creation of a bureau of health, in connection with the Government, gave in a report as to the proceedings that had been taken in Congress for this purpose. The committee was reappointed and requested to continue its labors.

On the motion of DR. FERGUSON, of Troy, it was agreed to cooperate with other medical organizations in efforts to bring about a uniformity in the regulations in different States for the admission of candidates to the medical profession.

DR. HENRY ORLANDO MARCY, of Boston, Mass., gave a description of two cases of large **retained hernia,** showing fatal results due to interference of respiration and heart's action, because of intraabdominal pressure.

DR. THOMAS L. BENNETT, of New York County, read a paper on the **administration of nitrous oxide gas** with air or with oxygen, in which he considered the indications and counter-indications, dangers and advantages over other anesthetics, disadvantage, technic, etc. He also showed apparatus for the administration of the gases.

DR. THOMAS H. MANLEY, of New York, contributed a paper, which was read by title, on **Surgical diagnosis and the time to operate in appendicitis.** The writer referred to the difficulties often encountered in diagnosticating the disease, and contended that it was the function of the surgeon, not only to operate, but to differentiate between the varieties of the disease, to state the probable progress of the disease, and to make the prognosis, and in order to do this the surgeon should have an opportunity to see the patient sufficiently early to be able to study the case carefully.

DR. WILLIAM STEVENSON M'LAREN, of Litchfield, Conn., read a paper on **The sphere of drainage in surgery of the appendix.**

DR. THOMAS B. SCULLY, of Oneida County, read a paper on **Appendicitis: its treatment from a medical and from a surgical point of view.**

DR. REGINALD H. SAYRE, of New York County, read a paper on **The differential diagnosis between chronic**

joint-disease and traumatic neurosis. (*a*) Neurosis apt to follow injury sooner than joint-disease; (*b*) temperature usually lowered in neurosis; elevated in inflammation of the joint; (*c*) local temperature usually much lower in case of a neurosis than in disease of a joint; (*d*) atrophy progresses more rapidly after injury to nerve; (*e*) true muscular not present except in joint disease; it may be simulated, however.

Dr. Merrill Ricketts, of Cincinnati, gave a report of two successful cases of **cholangiostomy,** showing cases in which the operation should be performed, the advantages of such an incision, and the ultimate results.

Dr. Leroy J. Brooks, of Chenango County, read a paper on **Subnormal temperature,** a continuation of a contribution which he made at a previous meeting of the Association. He gave the results of his observations to show the extent to which a subnormal temperature appeared as a prodrome of recurring waves of melancholia, epileptic attacks, dipsomania, nervous exhaustion, etc.; and discussed the relation of toxemia to the production of subnormal temperature.

Dr. A. A. Hubbell, of Erie County, read a paper on the **Etiological relation of autoinfection and autointoxication to diseases of the eye.**

Dr. Seymour Oppenheimer, of New York County, read a paper on the **Effects of Certain occupations on the pharynx.**

Papers on **Strictures of the esophagus** and other subjects were on the program, but in consequence of want of time they were simply read by title.

Hemoglobinuria.—L B. Brasher (*Denver Medical Times*, October 1899). A boy, 3 years old, had been passing bloody urine for 24 hours. There was a history that the boy's mother had given birth to a child 3 weeks previously that had passed bloody urine and died when 3 days old; the mother was similarly affected and died a few days later. The boy had gastrointestinal disturbances at the same time, for which calomel and betanaphthol were prescribed, and a short time afterward the coloring matter disappeared from the urine. On the fourth day convalescence set in and recovery was rapid. In a second case a newborn baby developed bronchitis and bronchopneumonia, from which rapid recovery followed, but on the seventeenth day the child became unusually drowsy and restless, the skin became bronzed and the urine a dark color; convulsions followed. The condition lasted for several days. [M.B.T.]

Abdominal Hysterectomy.—Archibald Watson (*Austral. Med. Gazette*, September 20, 1899) says that, knowing that the vaginal limits of a growth can be more accurately defined from below and that only the parametrium aud pelvic glands can be dissected from above, he opens the abdomen first and cuts off the blood-supply, doing all there is to do there, and leaving what he styles the trifling complementary vaginal part of the operation for another operation. If there is preliminary cureting, cauterizing, or closing the resulting cervical excavation, the surgeon might be tempted to misjudge the operative tolerance of the patient and finish the operation at one sitting, especially if the anesthesia is well borne. The cervical stump can be rendered innocuous as regards contact-contamination and vascular transference. The more the uterus is drawn upward out of the receding angle of the converging ureters the less liable are these to injury which so often is with difficulty avoided when the uterus is pulled down as in vaginal hysterectomy. All the bloodvessels concerned are more satisfactorily ligated if they have first been exposed than if tied with instalments of broad ligament. In operating for myoma of the uterus ether is preferable to chloroform because in stimulating the circulation it tends to fill the immense veins and thus render them prominent and easier of bloodless isolation. If the tumor weighs over 20 pounds, a small block and tackle with a big "meat-hook" is necessary to steady it during delivery and prevent it from causing irreparable damage through slipping. A sailmaker's hook for smaller tumors will cause less bleeding than the usual giant volsellum. When the tumor begins to "suck" in passing the abdominal strait the patient should be placed into the Trendelenburg position, both to prevent syncope from altered abdominal pressure and to displace the bowels out of the field of operation.

The Latest Literature.

British Medical Journal.

October 14, 1899. [No. 2024.]

1. A Discussion on the Treatment of Fever following Delivery (with Special Reference to Serumtherapy). Herbert R. Spencer, Arnold W. W. Lea, R. H. Anglin Whitelocke, Murdoch Cameron, J. A. Shaw-Mackenzie, C. E. Purslow, J. Inglis Parsons, T. More Madden, J. W. Byers, F. S. Peck, J. W. Draper, Edgar Barnes, and John W. Taylor.
2. Rupture of the Uterus at Full Term, Missed Labor, and Delivery Nine Weeks Later. Murdoch Cameron.
3. A Discussion on the Natural Menopause Compared with the Menopause Produced by Removal of the Uterine Appendages, and the Menopause Produced by the Removal of the Uterus without Removal of the Appendages. J. Bland Sutton, J. Stuart Nairne, John W. Taylor, J. Macpherson Lawrie, J. D. Malcolm, Chas. A. L. Reed, and the President.
4. Sixteen Cases of Procidentia and Two of Prolapse of the Uterus Treated by a New Method. J. Inglis Parsons.
5. Fifty Consecutive Celiotomies for Diseases of the Uterus and Appendages, with 48 Recoveries. J. Macpherson Lawrie.
6. On the Treatment of Uterine Cancer. Thomas More Madden.
7. The Causes which Render Difficult the Labors of Civilized Women. G. Archdall Reid.
8. The Syphilitic Factor in the Diseases of Women. John A. Shaw-Mackenzie.
9. Remarks on the Treatment of Puerperal Infection. A. A. Warden.
10. A Discussion on Chronic Suppuration of the Frontal Sinuses: Diagnosis and Treatment. Charters J. Symonds, E. J. Moure, Dr. Luc, Dr. Röpke, Herbert Tilley, Ernest Waggett, J. Sargent Snow, W. J. Chichele Nourse, Mayo Collier, J. H. Bryan, Dundas Grant, Wm. Hill, Scanes Spicer, P. Kipp, Dr. Rudloff, A. Logan Turner, G. Mink, St. Clair Thomson, and the President.
11. An Apparatus for Inhalations: its Application in the Treatment of Tuberculosis of the Larynx. P. Lacroix.
12. Laryngitis Secondary to Nasal Disease. Dundas Grant.
13. Notes of a Case of Exophthalmic Goiter; Operation Cure. J. Pollard and R. Lake.
14. The Local Use of Formalin in the Treatment of Atrophic Rhinitis (often called Ozena). Adolph Bronner.
15. Cerebellar Abscess Secondary to Suppurative Otitis Media; Evacuation; Recovery. Ernest Waggett.
16. Operative Treatment of Chronic Suppurations of the Attic. Aristide Malherbe.
17. The Diagnosis and Treatment of Epidural Abscess. Edward Bradford Dench.
18. Anomalies of the Auricle. F. Rohrer.
19. A Case of Parathyroid Tumor Causing Symptoms of Malignant Disease of the Larynx and Esophagus; Removal; Recovery. P. R. W. de Santi.
20. A Case of Glandular Thyreoidea Accessoria of the Base of the Tongue. W. Posthumus Meyjes.
21. Notes on the Use of Suprarenal Extract in Rhinology. Macleod Yearsley.
22. The Operative Treatment of Post-Influenzal Suppurative Mastoiditis. W. Milligan.
23. Syphilitic Ulcerations of the Trachea. Walker Downie.
24. Diagnosis and Endo-Nasal Treatment of Empyema of the Frontal Sinus. Gustav Spiess.
25. An Operation for Hammer-Toe. J. Jackson Clarke.
26. Quinin as an Antipyretic. Edward R. R. Cheesman.
27. Rheumatoid Arthritis, followed by Collitis, Pericarditis, Pleurisy, Broncho-Pneumonia; Death. G. A. Bannatyne.
28. Case of Acute Traumatic Tetanus; Rapid and Fatal Termination. L. Cane.

6.—Madden discusses the various **surgical procedures** that have been employed in the **treatment of uterine cancer,** and the present requisites of a satisfactory

thorough operation: (1) he urges that the whole uterus be removed, whether the primary disease be of the portio, cervix, or corpus; this is necessitated by the freedom with which the bloodvessels and lymphatics intercommunicate; (2) the union between the inferior uterine segment and the upper part of the vagina is so intimate that, in operations for the extirpation of cervical cancer, the upper part of the vagina should be removed as well; (3) the parametric tissues, especially those in the vicinity of the cervix and the upper part of the vagina, should be freely extirpated, as far as possible en masse, with the ablated uterovaginal canal, for this is a favorite locality for dissemination and recurrence; (4) removal of the tubes, ovaries, and broad ligament, is an essential requisite of every thorough operation; (5) although lymph-gland dissemination is rare early in the disease, yet later, if operation is performed, the localities where the morbid glands are likely to be found, should be investigated and their removal effected; (6) the great advantage of early operation—Leopold's data illustrate this: after early vaginal operations there was occurrence in only 23.7% of the cases; whereas in 68 similar advanced cases, recurrence took place in 66%. In conclusion, he asserts that abdominal section is the only method by which such indications as those mentioned may be satisfactorily carried out. [W.K.]

10.—Symonds says as to the treatment of **frontal empyema** that in simple cases, but where intranasal methods have failed, it will be sufficient to wipe out the pus, clean the walls, to insert iodoform and close the wound without enlarging the fronto-nasal aperture. If polypi are found the orifice to the nose should be enlarged, the external wound closed and the nose irrigated intranasally for a few days, or a silver canula may be introduced through into the nose. In the discussion which followed Symond's paper very general agreement was reached upon 3 points: (1) that free external opening was necessary in all bad cases; (2) that removal of the anterior part of the middle turbinate was a very useful measure; and (3) that attempts to open up the sinus from the nose were very dangerous. [G.B.W.]

11.—Lacroix has introduced an apparatus for the application of medicated air to the throat for the treatment of laryngeal tuberculosis. The substances used are formalin and bromoform in a watery solution. Experimentally he has shown that this medicated air is capable of destroying both the microbes of suppuration and the tubercle-bacillus. [G.B.W.]

12.—Grant calls attention to the resemblance which a laryngitis secondary to a purulent chronic rhinitis may sometimes hold to tuberculosis of the larynx. [G B.W.]

13.—Pollard reports a case of marked **exophthalmic goiter** which was treated by removal of the thyroid gland with success. The patient before the operation was excessively nervous, trembling at the slightest thing, with a pulse of 130 to 160 beats per minute. After the operation she was able to cycle freely and take active exercise. [G.B.W.]

14.—In the **treatment of atrophic rhinitis,** after thorough cleansing, Bronner recommends the use of formalin either as a douche (1:1,000 to 1:2,000), or as a course spray (1:500 to 1:1,000 with a little glycerin added). The discussion following Bronner's paper did not entirely support his claims for formalin in atrophic rhinitis. [G.B.W.]

15.—The patient, a young man 26 years of age, entered the hospital with suppurating disease of the middle ear. Following this there gradually developed the chain of symptoms of cerebellar abscess, in accordance therewith the skull was trephined. At the first operation no abscess was found, but a second trial some 4 days after the first was rewarded by the evacuation of a quantity of green fetid pus. Two decalcified bone tubes were inserted into the abscess-cavity, which was drained through these tubes for some 31 days after the operation. The patient made a complete recovery. [G.B.W.]

19.—This patient was 58 years of age and was sent to de Santi by another physician because of hoarseness. The laryngeal picture was, probably, that of intrinsic carcinoma, possibly syphilis, and was consequently put on large doses of potassium iodid, but without any improvement. Later on, however, he got better, but a small lump in the region of the right carotid never entirely disappeared. Some 5 years later he returned with difficult deglutition and loss of weight and with increase in the size of the lump in the neck. Operation was performed and a large encapsulated tumor removed with a good deal of difficulty from the inferior carotid triangle Microscopically the tumor was found to be innocent and parathyroid in character. It was not connected with the thyroid gland. [G.B.W.]

21.—Yearsely says that the result following intravenous injection of **extract of suprarenal medulla** are as follows: Peripheral contraction of the arteries, with consequent rise in the blood-pressure in spite of powerful cardiac inhibition. Central nerve stimulation and slight decrease in the respiratory curves. [G.B.W.]

22.—Influenza may cause a true otitis media hemorrhagica due to rupture of the overdistended tympanic vessels. A peculiar symptom of the otitis media of influenza is the persistence of pain even after the tension has been relieved by a free paracentesis of the drum. The virulency accompanying this form of otitis is manifest as strongly when the disease spreads to the mastoid. Here, because of the rapid destruction of bone which takes place place, unless early opening of the mastoid cells is undertaken intracranial involvement is more than likely. [G.B.W.]

23.—Downie reports in detail 3 cases of **syphilitic ulceration of the trachea,** and based on a careful study of these cases, he observes that the symptoms consequent on ulceration of the trachea may be very various, and the condition may readily be mistaken for some other disease. The most common mistakes are in diagnosing the case as either phthisis, aortic aneurysm or mediastinal tumor. A frequent and irritating cough with difficulties in respiration and with the expectoration of small clots of blood are the most common of the subjective symptoms. [G B.W.]

25.—Clarke suggests as treatment for **hammer-toe** to excise the head of the prominent second phalanx through a curved dorsal excision. The extensor tendons should be reunited with fine catgut, a portion of the thickened dorsal skin cut away and the wound sutured. [G.B.W.]

27.—Bannatyne had under his care a woman, aged 57 years, who had suffered from **rheumatoid arthritis** for 12 years. She presented all the typical signs of the disease. One month after she was first seen she developed acute colitis, the stools containing much mucus. She became very weak. The diarrhea was controled after 3 or 4 days. Just as this attack was subsiding she developed a severe pain in the region of the precordia, accompanied by a precordial friction murmur. During the first 24 hours of this attack her temperature was elevated to 100.2°, but for the 2 weeks following it remained normal. There was apparently some slight precordial effusion following this. Three weeks later she developed pain with pleural friction at the base of the right lung, which was followed by an effusion at the end of a few days. She developed a troublesome cough, and some coarse crepitations could be heard over the base of the left lung. After a week or 10 days the signs at the left base and the signs of pleurisy at the right base began to subside and her general condition improved. Four weeks later she gradually became wery much worse and developed a bronchopneumonia which resulted in her death after 3 days. The only portion of the body examined at the autopsy was one knee-joint. There was no outgrowth or thickening of either cartilage or bone. Everything pointed most forcibly to the fact that an acute destructive disease had been at work, and that there had been no attempt at reparation. Bannatyne considers acute rheumatoid disease a disorder of a very destructive nature, and believes that when death occurs in the acute stage no bony or cartilaginous enlargement will be found. He is inclined to believe that the colitis, pericarditis and pneumonia which occurred in this case owed their existence to an origin apart from the joint condition. [S.M.H.]

Lancet.

October 14, 1899. [No. 3972.]

1. The Progress of Medicine in the Nineteenth Century FREDERICK T. ROBERTS.
2. On the Present Condition of Medical Education. ALFRED W. HUGHES.
3. The Achievement of the Mens Medica. JOHN WILLIAM MOORE.
4. A Case of Typhoid Fever of Unusual Duration; Perforation of Cecum and Peritonitis; Operation; Recovery. HERBERT P. HAWKINS and E. O. THURSTON.

5 The Temperance Fallacy. G. Archdall Reid.
6. A Case of Tetanus Successfully Treated with Antitoxin. John D. Rice.
7. Pedal Malformation from an Evolutionary Standpoint. W. Ainslie Hollis.
8. A Case of Neglected Transverse Presentation; Delivery of a Living Child by Version. W. A. Potts.
9. The Surgical Treatment of Varicose Veins. John O'Conor.
10. Blood Dust or Blood Granules; A New Constituent of the Blood? Edward G. Horder.
11. A Case of Strangulated Inguinal Hernia in an Infant Aged Three Months; Radical Cure; Recovery. H. Cameron Kidd.
12. A Case of Congenital Ingrowing Toe-nails. T. Wilson Parry.
13. Note on a Case of Poisoning by Linimentum Opii, with Report of the Necropsy. Charles B. Rossiter.
14. A Case of Compound, Comminuted, Depressed, Impacted Fracture of the Vault of the Skull; Wound of the Dura Mater; Elevation by Primary Operation; Recovery. W. J. Collins.
15. A Case of Acute Paralytic Dilatation of the Stomach. W. H. Brown.
16. A Case in which a Small Silver Coin was Lodged in the Larynx for Four Weeks; Removal with Forceps under Cocain. Dr. Walker Downie.

4.—A girl 11 years old was taken on the 41st day of **typhoid fever** with pains in the abdomen which recurred and became more severe; up to this time the course of the disease had been favorable, with little delirium and moderate fever. After the abdominal pain, vomiting set in, the abdomen became rigid though not distended, and slight dulness appeared in the flanks. A diagnosis of **perforation** was made and **operation** was undertaken about 15 hours later. A median incision, 4 inches long, was made below the umbilicus and on opening the peritoneum a large amount of seropurulent fluid escaped; the perforation was at once found in the anterior cecal wall; the opening was ⅛ of an inch in diameter and was surrounded by indurated tissue. The margin was excised and a row of Lembert sutures, with a few reinforcing sutures were passed. The pelvis and lumbar hollows were carefully mopped out with marine sponges, the abdomen was thoroughly irrigated with sterile water and drainage tubes were inserted into the pelvis and the right loin with a gauze drain passing upward. The operation lasted 25 minutes. For the first few days there was abundant escape of seropurulent fluid, and some pain; on the fifth day after operation parotid bubo developed on the right side, and an abscess of the buttock formed at the site of an injection of saline fluid; on the 21st day a double middle-ear disease developed, and there was an effusion into the left knee joint. Antistreptococcic serum was injected and was followed by great improvement, as probably the trouble was of septic origin and not a typhoid arthritis. On the 60th day a relapse set in, which lasted 14 days; the Widal test gave a positive reaction, the spleen was enlarged, and the temperature reached 104° F. After this, convalescence began. The case is considered remarkable, not only from the operation and after severe complications, but because of its extremely long duration (114 days, including the relapse). The patient has now remained well over a year. [M.B.T.]

6.—Rice observed a severe case of **tetanus** in a boy aged 4½ years. He was in the habit of biting his tongue at night, and the pathologic lesion present in the case was a quite severe stomatitis. He was treated with tetanus antitoxin. Eleven doses of 10 cubic centimeters each were given in all. There were no abscesses at the point of injection, and no complications except an erythematous rash and an enlarged gland. The child made a complete recovery. [S.M.H.]

7.—Hollis considers the **deformities of the human foot** reversions to some ancestral type of foot from which the present shape was evolved. Arranging the recognized deformations of the foot in the following order: Talipes-calcaneovalgus; talipes-valgus; talipes-equinovalgus; talipes-equinus; talipes equinovarus, one perceives at once a certain sequence in these deformities whereby they apparently pass, almost imperceptibly, from one form to another. Furthermore, one recognizes in them certain anatomic resemblances to existing or extinct types of normal feet occurring elsewhere in the animal kingdom. The rarest deformities are those which usually represent a reversion to the oldest types of feet. [S.M.H.]

8.—A woman of 31, who had had 7 labors with but three living children, all labors more or less abnormal, was taken with pains on the morning of July 31. These passed away and did not recur for two days when the patient was found with very severe pains, and the fetus was discovered to be in a transverse position. The pains soon ceased and did not afterward recur, but the child was delivered by version, seemingly lifeless. Hot baths and the Schultz method of respiration were used, brandy applied over chest, and some mucus sucked up from the throat by means of a catheter. In 20 minutes the child had revived, and still lives. The mother made a rapid recovery, but some degree of pelvic contraction was found. [W.K.]

9.—The excision of the entire internal saphenous vein is recommended in the treatment of varicose veins. O'Conor mentions a case in which he made an incision 27 inches long and removed 43 inches of diseased vein and its appendages. The operation has given excellent results in his hands. [M B.T.]

10.—Horder, after studying the subject, concludes that **blood dust** is not a new constituent of the blood, but nothing more than the extrusion of the granules from the leukocytes, and he recommends the name, "blood granules" as more descriptive of their character. [S.M.H.]

11.—An **infant** had suffered from birth with a right inguinal **hernia** due to a tight phimosis. Circumcision was performed and a wool truss applied which kept the hernia well in place, but when 3 months old, after a sudden fit of crying, the truss slipped and the hernia became irreducible. All efforts at reduction failed and the child was becoming exhausted from pain and sickness. **The radical operation** for hernia was performed and a rapid and complete recovery followed. [M.B.T.]

12.—A case is reported in which a mother noticed **ingrowing toe nails** in her child about a **week after birth.** Toward the end of the third week the condition had grown to be so bad that operation was undertaken, which was followed by a satisfactory result. [M.B.T.]

13.—Rossiter was called to see a man, aged 56 years, who had taken about 2 ounces of **opium liniment.** He was found deeply comatose, very pale, with skin cool and moist; respirations regular, shallow, and 16 to the minute. His pupils were very contracted but equal. All his reflexes were abolished, his pulse was 60, somewhat feeble but regular. In spite of treatment his respirations became less frequent, the pulse quicker, more feeble and irregular—later on almost imperceptible, extremely irregular, and finally stopping entirely about 6 or 7 hours after the poison was supposed to have been taken. About a half-dozen respiratory efforts occurred after the heart ceased to beat. A necropsy was made and the only lesions discovered bearing any relation to the cause of death, were marked anemia of the brain and slight venous congestion of the pia mater, slightly enlarged and somewhat congested kidneys. [S.M.H.]

15.—Brown had under his care a man aged 55 years, who was thought to be suffering from intestinal obstruction. He had been in good health to within 48 hours of his admission to the hospital, when he was suddenly seized with intense pain in the body, accompanied by incessant vomiting. The vomiting continued until 3 hours before admission, when it ceased. The patient's hands were cold; his pulse small and thready, his face pinched and sunken. His abdomen was distended above the pubes, but flattened at the sides and epigastrium; it was resonant at all points save between the umbilicus and pubes, where it was dull and fluctuating; a succussion splash could be obtained. The patient's bowels had been moved slightly earlier in the day, but no urine had been voided since the onset of the illness. There was no abdominal tenderness, but the pain was agonizing. A catheter was passed and a dram of bloody urine withdrawn. The rectal examination disclosed a normal condition and the presence of some fecal matter. An exploring syringe was passed into the fluctuating swelling midway between the umbilicus and pubes, and withdrew about 2 drams of thick, greenish fluid with an odor resembling that of the contents of a pancreatic cyst. A definite diagnosis was not made, but as the pressure of the fluctuating swelling was evidently the cause of the patient's suffering the abdomen was opened.

The incision was made over the most prominent part of the swelling. A tense, thin-walled cyst was seen. It contained a dark liquid with some gas. The cyst was rounded. As no colon could be seen or felt, and as the tissue of the cyst-wall resembled peritoneum more than any viscus, it was drawn to the surface and opened. About 3 pints of dark green viscid fluid escaped. The walls were stitched to the skin and the wound closed. The patient rallied well from the operation and felt relieved, but died 5 hours later. The autopsy showed the cyst to be **a dilated stomach** with a capacity of about 5 pints. There was no pyloric obstruction. The kidneys showed marked signs of nephritis and were saccular. All other organs were healthy. [S.M.H.]

16.—While intoxicated a man swallowed a **three-penny piece** without knowing it, the next day he became hoarse, had severe pain **in the larynx,** and, believing himself to be suffering from a severe cold, used many domestic remedies without avail. When first seen **4 weeks** later, the coin was readily discovered by means of the laryngeal mirror, and was removed with rectangular laryngeal forceps under cocain-anesthesia. A slight erosion healed rapidly after removal. The case is considered remarkable for the long time which the foreign body was present in the larynx without giving rise to severe symptoms. [M.B.T.]

New York Medical Journal.

October 28, 1899. [Vol. lxx, No. 18.]

1. The Relation of Pathological Conditions of the Ethmoid Region of the Nose to Asthma. The Pathology. HENRY L. SWAIN.
2. The Cause of Death from Industrial Electric Currents. R. H. CUNNINGHAM.
3. A Case of Fibrolipoma of the Tonsil, with Microscopic Section. THOMAS AMORY DE BLOIS.
4. Dry Heat of High Degree as a Therapeutic Agent. C. E. SKINNER.
5. Alcoholism. CHARLES J. DOUGLAS.
6. Report of a Case of Abscess on the Anterior Surface of the Epiglottis. ALEXANDER C. HOWE.
7. Palatable Quinin Mixture for Children. W. J. GREANELLÉ.

1.—Swain relates the **pathology of nasal asthma** briefly as follows: First in the existence of a simple hypertrophy in a nervously hypersensitive individual, the vasomotor instability and the nerve irritability cause further development of the lesions in the turbinate region, and produce water-logging of the tissue. This becomes then an edematous hypertrophy, and this later may become a polyp. These lesions produce pressure over sensitive areas, which through irritation become more sensitive, so that reflexly there is produced a bronchial vasomotor disturbance. If once the reflex avenue has been opened it is easy to conceive that the disturbance which is felt first as a sort of oppression or weight in the chest becomes later a genuine obstruction to breathing, and there being added to this a spasm of the bronchial tubes, we have a full-fledged asthma. This explains the genesis of those cases of asthma which are essentially nasal in type. There are cases whose attacks are apparently not nasal, but who are, nevertheless, much benefited, sometimes entirely cured, by removing any existing nasal disease. These cases suffer only under peculiar conditions, such as overindulgence in food or drink, and at the onset of the menstrual period, etc. These cases apparently are dependent upon vasomotor disturbances. There are certain other cases in which our knowledge of the pathology is hazy for the reason that we do not develop the cause. As an illustration of this Swain describes a case in which the patient would awaken every morning with attacks of sneezing, and suffer from a violent coryza for two hours. Examination of the nose showed hypertrophy, of edematous type, on both middle turbinates and the usual pale swelling of the inferior turbinate. On the left side there was a spur from the septum, with septal hypertrophy anterior to it. The most irritable areas existed on the left side. The spur was removed, the edematous tissue first snared off as far as possible, and then the galvanocautery applied to it and the inferior turbinal hypertrophies. His irregular habits of living were corrected, and he was benefited for a time by each of the procedures. Later, his edematous tissue returned in part, and his attacks were not completely controled until he was advised to substitute a hair-pillow for a feather-pillow upon which he had been sleeping. From this period his attacks ceased, and it is of further interest to note that, being free from the irritation of the feather-pillow, his middle turbinates, without any treatment whatever, diminished in size. Evidently irritation of irritable nerve-fibers had something to do with the formation of edematous tissue, and hence with the asthma in this case. [S.M.H.]

2.—Cunningham concludes his exhaustive article on **"The Cause of Death from Electric Currents,"** with the following summary: "(1) Industrial electric currents, which traverse the whole body transversely or longitudinally in sufficient intensity, kill because fibrillar contraction of the heart is produced, and not, as has been hitherto surmised, by producing a total paralysis of that organ or by killing it outright. (2) Such currents neither kill the central nervous system ontright nor paralyze it instantaneously. Death of the nervous system from such currents is due to the total anemia following a sudden arrest of the circulation. (3) In rare instances, when an electric current traverses only the cerebrocervical portion of the nervous system in considerable intensity and for a considerable length of time, it may kill by asphyxia, consequent to a more or less complete inhibition of the respiratory movements, which occurs chiefly during the passage of the current. No existing facts warrant the conclusion that the medullary respiratory center is paralyzed or killed in such conditions. (4) Industrial currents are practically non-lethal to frogs and turtles, and the condition of fibrillation quickly and spontaneously disappears from their hearts after the current has ceased to pass. Such animals, of course, can be killed, by the very prolonged application of a current of moderate intensity, or by one of enormous voltage and large intensity. (5) Strong electrical currents applied to the surface of the skin affect the heart in the same manner as currents of less strength do when they are applied directly to the exposed heart. (6) It may be possible for an electric current of enormous intensity and electro-motive force to produce instantaneous death either by its disruptive action or by producing an instantaneous heat coagulation of the cellular constituents of the body. Industrial currents do not kill instantly, although as a result of their action death rapidly occurs. The experiences of individuals who have recovered from severe electric shock indicate that such a mode of death is not a painful one. (7) Spontaneous recovery of the dog's heart from fibrillation produced by strong currents is rare. Spontaneous recovery of the dog's heart from fibrillation and restoration of the arrested circulation after the external application of a strong current for two or three seconds appears not to exist. (8) Artificial recovery of the excised dog's heart from fibrillation induced by the external application of a strong electric current is possible. (9) Artificial recovery of the fibrillating heart of the dog, with restoration of the circulation and recovery of the nervous system can be accomplished by the method described in this paper, provided the duration of the shock is short and the procedure is begun immediately after the cessation of the current." [S.M.H.]

3.—A man, about 40 years old, came to the hospital complaining that a lump had been hanging down in his throat for some time. On examination a tumor about the size of a small peanut was seen attached by a thin pedicle which seemed to grow from a crypt in the **left tonsil;** it was removed by the electrocautery loop. Pathological examination showed the growth to be a **fibrolipoma.** [M.B.T.]

5.—Douglas considers **alcoholism a disease** of the nervous system. In its treatment alcohol should be gradually withdrawn, its place being temporarily taken by such remedies as hydrastis, capsicum, etc. The condition can only be successfully treated in properly constructed sanitaria. He recommends the use of apomorphia in doses of $\frac{1}{30}$ of a grain injected subcutaneously for the purpose of inducing sleep. In this condition, as well as in all conditions of acute mania, it has no peer as an hypnotic.

6.—A man, 24 years of age, had had pain and tenderness above the larynx with increasing dyspnea for about a week. Inspection showed the **epiglottis forced backward and downward,** nearly closing the larynx, an abscess about half an inch in diameter occupied the middle of the anterior surface, extending almost to the tip. There was considerable

swelling and redness of the surrounding parts; nearly a dram of foul-smelling pus escaped after incision, dyspnea was immediately relieved and 10 days later the epiglottis had returned to its normal position. [M.B.T.]

7.—Greanellé recommends the following quinin mixture as especially palatable, consequently useful in administering the drug to children. He first dissolves 5 to 10 grains of quinin in a dram of alcohol. He then mixes from 30 to 40 minims each of oil of cinnamon and oil of anise with a small quantity of magnesia and an ounce of water. After permitting this to stand for some hours it is filtered. The two mixtures are then combined and added to 3 ounces of simple sirup with 5 drops of carmin or cochineal solution. The dose should vary from 1 to 2 drams. [S.M.H.]

Medical Record.

October 28, 1899. [Vol. 56, No. 18.]

1. State Care of Consumptives, with an Account of the First State Hospital for Tuberculosis in this Country. Alfred Meyer.
2. The Sphere of Drainage in Surgery of the Appendix. William Stevenson MacLaren.
3. A Brief History of Five Cases of Mastoiditis. Robert Lewis.
4. Major and Minor Technic of Bassini's Operation as Performed by Himself. E. Wyllys Andrews.

1.—Meyer's article is a plea for the State care of consumptives in New York. The Massachusetts institution is described as a central administration building from which run the wards for patients as spokes from a wheel, the southern ends of the corridors having glass covers to provide sun for the patients. There is a brief description of the regulations for avoiding infection and of the general care and life of the patients, and the description is used as a basis of argument for the erection and maintenance of a similar institution in New York State. The necessity for it is evidenced by the fact that there are more than 13,000 deaths from consumption annually in New York State.

2.—MacLaren believes that **drainage is of limited value in the treatment of appendicitis.** When there is a localized abscess shut off from the general peritoneal cavity by adhesions, it should be treated as an abscess of any other region; drainage is proper though sometimes unnecessary. In case of general peritonitis real drainage is impossible for the reason that adhesions rapidly form about drainage tubes or gauze strips, thus making a small pocket while the drainage tube acts as a seton. As a substitute he urges filling the abdominal cavity with normal salt-solution and closing it. The salt-solution dilutes the germs and is absorbed slowly, thus vastly increasing the area of peritoneum called upon to resist the poison and giving it a longer time in which to accomplish its result. Two cases successfully treated by this method are reported. [M.B.T.]

4.—The details of the technic of Bassini's operation as he himself performs it are given at considerable length. [M.B.T.]

Medical News.

October 28, 1899. [Vol. lxxv, No. 18.]

1. Certain Aspects of Bone and Joint Disease of Interest to the General Practitioner. Virgil P. Gibney.
2. Typhoid Fever in Very Young Children, with a Report of Three Cases with Unusual Complications. E. B. Montgomery.
3. Therapeutics of Infectious Conjunctivitis. Dudley S. Reynolds.
4. A Case of Hernia of the Pregnant Uterus. W. V. Anderson.

1.—Gibney brings forward certain pathologic conditions of the bones which must be of especial interest to general practitioners. Children convalescing from the exanthemata, or other infectious disease, are apt to contract disease of the bone from a most trivial injury, and in the same way tubercular disease of the joints or bone may gain a starting point. Slight injuries in persons of a gouty diathesis may be the starting of rheumatism or a gouty deposit. Disease of the spine is a condition which needs the closest attention in order to detect it in its incipiency, and in every suspicious case a careful examination of the nude patient should be made. As regards hip-disease, persistent lameness in one leg should make the practitioner suspicious, and the discovery of atrophy, increased reflexes, spasm, and rigidity with possibly an exacerbation following trauma would be sufficient to make the diagnosis almost sure. In adults a great deal of care is sometimes required in making a diagnosis between tuberculosis of the knee-joint and beginning malignant disease, and the true condition may only be cleared up by an exploration. [G.B.W.]

2.—Montgomery reports 3 cases of **typhoid fever occurring in infancy.** The first, a female of 9 months, became fretful, restless, had considerable vomiting, and a remittent temperature, sometimes reaching 102°. Later, there was diarrhea, strabismus, and retraction of the head, and the temperature reached 105° in the evening. The cerebral symptoms became more severe, there was tâche cérébrale and convulsions. A diagnosis of tubercular meniningitis was made, but gradually the condition became less serious, and the child ultimately recovered. It is admitted that the diagnosis of this case is rather doubtful, as the Widal reaction was not tried, typhoid bacilli were not sought for in the stools, and there were apparently no spots. Montgomery calls attention to the frequency of which vomiting and severe cerebral symptoms occur in typhoid fever of infancy. The second patient, a girl of 3½ years, had gradual rise of temperature, headache, and vomiting. On the twenty-third day of the disease, a double parotitis appeared, both glands being subsequently incised and drained. Speech was lost for a period of 2 months. Again the diagnosis is somewhat doubtful. The third case occurred in a child of 3 years. On the seventeenth day of the disease, there was swelling of the right submaxillary gland, which ended in suppuration. The child subsequently died, but there is no record of any of the characteristic symptoms of the disease, nor of a postmortem examination. [J.S.]

3.—The most popular remedies at present for use in **infectious conjunctivitis** are: a solution made as follows: Sod. boras. ℥ij, sod. chlor. ℥ss, cryst. acid. carbol. gr. xv, aqua gal. j. M. Sig. Use as an irrigation. Formalin 1:2000 or 1:4000. Silver nitrate 1:2000 or 1:4000. Corrosive sublimate 1 to 1000 or 1 to 10,000. A saturated solution of boric acid. [G.B.W.]

4.—Anderson reports a case of **hernia of the pregnant uterus.** On examination during labor, it was found that the abdominal muscles had been separated to such an extent that the uterus had passed out between the recti, carrying the aponeurosis in front of it, and hung like a great pear suspended by its cervical attachments, the fundus reaching nearly to the knees. The uterine contractions were good, but the position of the uterus made them ineffective. An anesthetic was administered and forceps applied, delivering without difficulty a girl weighing 7 or 8 pounds. The woman made an uneventful recovery and has suffered no inconvenience since delivery. [W.K.]

Boston Medical and Surgical Journal.

October 26, 1899. [Vol. cxli, No. 17.]

1. Acute Abdominal Symptoms Demanding Immediate Surgical Intervention. Maurice H. Richardson.
2. Functional Disease of the Heart. Henry Jackson.
3. The Responsibility of the Attending Physician when a Will is made. Arthur C. Jelly.
4, A Study of 14 Hip Abscesses. Frank E. Peckham.
5. Examination of Digestive Cases. M. P. Smithwick.
6. A Case of Post-febrile Delirium. Robert W. Greenleaf.

1.—(Continued.) The pain of severe abdominal lesions is peculiar in that it produces upon the patient an effect of gravity, as shown by his face, which expresses suffering, anxiety, and shock. Shock is another most important symptom in making a diagnosis of severe abdominal disease, but early in the attack it may be scarcely perceivable. Shock is more marked when there is severe hemorrhage. In all the cases except those of hemorrhage the pulse will almost always fall accompanied with a rise in the temperature. There are, however, many exceptions to this general statement, *e. g.*, cases in which there is severe shock. [G.B.W.]

2.—Jackson attempts to answer the questions: What is a functional disease of the heart? What are the signs and symptoms? How may the diagnosis be made? and, How frequent are such disturbances? In 87 cases of organic disease, 55% gave no clinical evidence of valvular disease, and in the notes of 100 autopsies of cases with **heart disease,** in 60% no valvular lesions were found; that is, the clinical and pathological statistics were very similar. Jackson believes that, in speaking of a functional disease of the heart, we should be careful to exclude all organic cases in which valvular lesions are absent. In the majority of purely functional cases, that is, those without pathological lesion, the disturbance is probably in the mechanism of innervation. Among the symptoms of this condition are irregularity or disturbed rate of pulse, pain in the region of the heart, particularly when the patients are quiet, at night, and after meal times. In very rare cases there is bradycardia. The diagnosis is made, of course, partly from the symptoms, partly by exclusion. The disease is more frequent than organic cases; many of the classes of patients in which it occurs being boys at the age of puberty, especially those growing fast or working excessively at school. Stimulants, such as tobacco, tea, coffee, etc., if abused, may also cause cardiac derangement, and there are certain drugs, such as sulfonal, phenacetin, etc., whose action is injurious. The most difficult diagnosis is probably that between true and false angina. [J.S.]

3.—Jelly, having been requested to testify as to the competency of a man suffering from heart disease with delusions of persecution for **making a will,** had his attention attracted to the responsibility of physicians under these circumstances. It is desirable that an attestation be added to each will. The presumptive evidence is that the testator is sane, although under certain circumstances the burden of proof may rest upon the defense. The conditions giving rise to the greatest difficulty are senile dementia, aphasia, and paralysis of the right hand. Paroxysmal insanity, if the will itself be rational, is no proof of inability. Alcoholism may lead to intellectual deterioration. Epilepsy is a paroxysmal condition that may be associated with permanent mental deterioration, or, on the other hand, the patient may be perfectly sane during the intervals. Occasionally it has been held that a physician signing a will as witness, intimates that he believes the testator of sound mind. It is, therefore, perfectly proper for the attending physician to decline to act as witness. [J.S.]

4.—Peckham summarizes his 14 cases of **hip abscesses** as follows: Of the 14 operated, 2 of the abscesses refused to close at all, and 1 reopened one month after the operation, making 3 openings after the operation. In 2 more cases sinuses developed respectively 11 months and 1½ years after the operation; 3 more redeveloped abscesses from one year to 3½ years later. One case died 5 months after the operation. [G.B W.]

5.—Smith describes certain **cases of indigestion** in which the diagnosis was rather difficult. The first, a girl of 22, had had pains in the epigastrium for 6 years. Occasionally, there was vomiting, and sometimes the patient fainted. A week before admission to the hospital, she had considerable pain which was increased by food and pressure. There were several attacks of vomiting, in the last of which there was a considerable amount of blood. There was extreme anemia, and during her stay at the hospital, the vomiting of blood was repeated several times. The stomach-contents contained free hydrochloric acid, and a considerable amount of pepsin. The patient rapidly improved on milk diet, and was discharged. Two months later she returned complaining of similar but milder symptoms. The diagnosis was acute gastritis, not, as first suspected, gastric ulcer. Another patient had suffered for 10 years with pain in the epigastrium, coming on about 3 o'clock in the morning and lasting about 4 hours. He was a neurotic, all the physical signs, excepting the salol test, were negative. He was urged to avoid excitement and worry, and was told that his pain was imaginary. At the end of 2 weeks, he was much better and 2 weeks later was practically cured. The third patient, a man of 30, had had a chronic diarrhea lasting 8 months. Examination of the gastric contents showed the absence of free HCl, the presence of lactic acid, and very delayed digestion. He was given hydrochloric acid and pepsin, and put on careful diet with immediately marked improvement. Smith believes that in the examination of digestion cases, we should determine the motor power of the stomach, its size and position, the amount of acids and pepsin, the efficiency of the starch digestion and the constituents of the sediment. The gastric contents should be removed one hour after an Ewald test-meal of 300. cc. It is best to give the test-meal in the physician's office. Preliminary to this the stomach should be inflated and its position and size studied. When the test-meal is withdrawn, the stomach should be filled with water and the area of dulness then tested. A brief description of the methods employed in testing the gastric contents is given. As an illustration of their value, he cites the case of a man, 40 years of age, who had had dryness of the mouth, nausea and vertigo for some time. Physical examination was negative, but the chemical examination showed reduction in hydrochloric acid, with considerable quantities of latric acid. For inflation, pumping is to be preferred to the divided Seidlitz powder. [J S.]

6.—Greenleaf reports the case of a man, 69 years of age, who had had a brief attack of pneumonia, during which he was moderately delirious. At the crisis, he became practically insane, was furious, violent, refused to eat, and apparently had suicidal tendencies. When he found that resistance was useless however, he became quieter, and in the course of four days was practically well. This is apparently an instance of **postfebrile insanity,** although, properly speaking, it should be called postfebrile delirium. [J S]

Journal American Medical Association.

October 28, 1899. [Vol. xxxiii, No. 18.]

1. Osteotomy. DE FOREST WILLARD.
2. Detail in Cleft Palate Operations. STEWART L. MCCURDY.
3. Infective Sinus Thrombosis. FRED WHITING.
4. Diabetes Mellitus. J. M. ALLEN.
5. Clinical Notes on Digitoxin. JOHN P. SAWYER.
6. Therapeutics of Pneumonia. FRANK G. WHEATLEY.
7. Value of the Tuberculin Test in the Diagnosis of Tuberculosis. EDWARD O. OTIS.
8. Report of Cases of Pulmonary Tuberculosis, Treated with Intrapleural Injections of Nitrogen, with a Consideration of the Pathology of Compression of a Tuberculous Lung. A. F. LEMKE.

1.—Willard considers **osteotomy** as one of the most simple, safe and satisfactory of surgical procedures. The operation is indicated in many of the ankyloses of joints following rheumatic, inflammatory, or tubercular conditions, when forcible straightening is impossible. It is also of great service in the deformities following malunion of fracture, and in the bending of bones resulting from rickets, congenital deficiencies, etc. If aseptically performed, the injury to tirsues is less than in osteoclasis, and the resultant fracture becomes from the moment of closure of the wound, only a simple one. Wedge-shaped osteotomy is seldom necessary, even in exaggerated deformities, as a simple section is all that is necessary, the gap resulting from straightening being readily filled in with callus. Plaster-of-paris makes the best subsequent fixation splint. [M.B.T.]

2.—See this JOURNAL, Vol. III, p. 1332.
3. " " " " IV, p. 16.
4. " " " " " p. 19.

5.—Sawyer mentions the following advantages of **digitoxin** over digitalis: it is prompter in action, in sufficiently small doses no more irritating, efficient as a diuretic, and so frequently successful when digitalis and other allied preparations have failed, that it would seem no case should be despaired of until the efficiency of this active principle has been tried. This promptly efficient action is seen not only in a limited class of cases, but throughout nearly the whole range of the indications for digitalis in chronic disease.

6.—See this JOURNAL, Vol. IV, p. 18.
7. " " " " III, p. 1329.
8. " " " " " " "

Journal of Nervous and Mental Disease.

August, 1899. [Vol. xxvi, No. 8.]

1. American Neurologic Association Meeting. LLOYD.
2. Edema of the Paralyzed Limbs in Hemiplegia, with Report of an Unusual Case. CHARLES LEWIS ALLEN.

3. Tumor of the Oblongata presenting Ataxia and Astereognosis as the most Prominent Early Symptoms. F. X. Dercum.
4. Tumor of the Pituitary Body. Cheney and Walton.
5. Interesting Hysterical Phenomena—a Transfer of Tactile to Visual Sensations. Frank F. Fry.
6. Notes on the Arrangement and Function of the Cell Groups in the Sacral Region of the Spinal Cord. B. Onuf.

1.—Lloyd, in his presidential address before the American Neurologic Society, calls attention to the high class of scientific work being done by American neurologists, and the importance to American neurology of the American Association. He states that he believes didactic lecturing is of less importance than of clinical and pathologic teaching. He believes that the modern tendency in neurology, particularly the careful study of the anatomic features and pathologic changes in the cell body, will be productive of much valuable information, but, nevertheless, cannot teach us what the real changes in living matter may be. He calls attention to the tendency to overload papers with references to the literature, and urges that American writers should be more independent, although he accepts as necessary the doctrine that there can be no national school. [J.S.]

2.—Allen reports the case of a negro, 55 years of age, in whom complete **left hemiplegia** developed rather slowly without loss of consciousness. Three months later, he was admitted to the hospital; the limbs were still flaccid without return of power, and there was distinct swelling in both. Some months later, contractures had developed, but the swelling had become more intense, involving both the arm and leg; the subcutaneous tissues being edematous and pitting upon pressure. The difference in the circumference of the two limbs was sometimes as much as 10 cm. Death occurred as a result of chronic diarrhea. At the autopsy, the whole of the right hemisphere was found to be softened, and there were areas of yellow softening in the rolandic region. In addition, there was a large cyst that occupied all of the internal capsule, and had destroyed most of the lenticular nucleus. It extended as far forward as the frontal, and as far back as the occipital lobes. The examination of the nerves and vessels of the affected limbs was absolutely negative, there being no trace of neuritis or thrombosis. The author calls attention to the extreme rarity of the reports of such cases. [J.S.]

3.—Dercum records an exceedingly interesting case of **intracranial tumor.** The patient, a woman of 26, was married, and had had two miscarriages. Some years previous to the development of the symptoms in her last sickness, she had noticed stiffness of the neck, lasting for about a year, that was associated with severe pain. Later, a similar attack occurred, lasting six months, and not disappearing entirely. The first symptom of brain disease was a feeling of numbness and deadness in the right arm. It extended from the neck to the tips of the fingers. There was slight disturbance of station and slight awkwardness in the use of the right leg. Movements of the right arm were by no means perfect, and there was some loss of power. Examination of the sensory changes showed in the right arm slight diminution of pain-sense, loss of localization sense, of the muscular sense, and of the sense of position of the limbs. Complete astereognosis also existed; otherwise the sensations were normal. Later she developed pain in the left side of the neck and left shoulder, and there was slight ataxia in the movements of the left arm. The kneejerk became exaggerated, the station still more impaired, and the right leg weaker. She became bedridden, paretic in all four extremities, there was diminution of cutaneous sensibility over the arms and legs, and there was persistent rigidity of the neck. Finally paralysis of the respiratory muscles ensued, and the patient died. At the autopsy, a tumor was found springing from the occipital bone on the right side, at the junction of the pons and the medulla, and forming a slight depression in the right lobe of the cerebellum. The medulla was greatly distorted, and the right vertebral artery was occluded. There was degeneration shown by the Marchi method in the pyramidal column. Dercum believes that the cutaneous sensory disturbances were due to pressure upon the right posterior columns. The ataxia and loss of muscular sense to pressure upon the right direct cerebellar tract, and the motor symptoms to pressure upon the pyramids. He calls attention to the fact that astereognosis has never been observed before as a symptom of medullary tumor. He gives a brief analysis of the literature on this subject, and reaches the conclusion that the tactile localization sense is of importance in the recognition of objects. He mentions a few similar cases reported by other writers. [J.S.]

4.—Cheney and Walton report the case of a physician, 26 years of age, with large hands and feet, broad nose, thick lips, large tongue, and massive jaws. There was permanent temporal hemianopsia in the left eye. Later **homonymous hemianopsia** occurred, and the patient became somnolent. There was general physical weakness, and he ultimately died of exhaustion, At the autopsy a **perithelial angiosarcoma of the pituitary body** was found, that probably involved the right optic tract at its junction with the chiasm. The authors conclude that congenital peculiarities in growth resembling those of akromegaly may point to structure deformity of the pituitary gland, and that the occurrence of a pituitary tumor without the symptoms of akromegaly is no argument against its relation to that disease. When in addition to some of the symptoms, there are disturbances of the visual fields, particularly in the temporal halves, and optic atrophy, a diagnosis of pituitary tumor is almost certain. [J.S.]

5.—Fry reports a case of **hysteria** occurring in a girl of 14 years. She had had hemorrhage from the stomach, and was profoundly exhausted. She repeatedly had attacks of delirium and complete anesthesia, and paralysis of the whole right side. She also developed hemianopic hallucinations and monocular diplopia. When the patient was directed to look at a plain wall, and geometric or other figures were traced upon the skin of the paralyzed side, these figures or letters were seen distinctly by the patient upon the wall. Small objects placed in the anesthetic hand were also seen and recognized upon the screen. These results proved that while the patient could not recognize objects by the tactile sense, she was able to recognize them perfectly by translating them into visual impressions. The examinations were made with all the usual precautions. [J.S.]

6.—Onuf **classifies the cells of the sacral region** into those of the anterior horn groups, and those of the posterior horn type. He gives a diagram showing that from the fifth lumbar to the second sacral segment, the anterolateral and the posterolateral groups are large and prominent. In the second sacral segment, a group appears which he calls x that is characterized by small multipolar cells, densely packed. Of the other cells, he describes the vegetative cells column, which may be divided into a lateral and a central division. It is found at the junction of the anterior and posterior horns on the outer side. He concludes with a series of suggestions upon the functions of these different groups of cells. [J.S.]

The Practitioner.

August, 1899. [Vol. lxiii, No. 2.]

1. On Injuries to Peripheral Nerves. Victor Horsley.
2. Various Aspects of the Open-air Treatment of Phthisis. Alfred Hillier.
3. Improved Prostatic Catheter. John Ward Cousins.
4. Influenza of a Gastric Type; Its History, Symptoms, Diagnosis and Treatment. Robert J. Colenso.

1.—The peripheral nerves may be subjected to various kinds of injury. They may be simply cut as is very common in people falling while carrying some vessel or edged tool, they may be contused or compressed by inflammation in a callus, or they may be stretched. Stretching of nerves in the posterior triangle of the neck is common in people who are thrown out of vehicles; they land on the shoulder, and the head, touching the ground, is almost directly forced away, stretching the trunk of the fifth cervical nerve. The paralysis following is limited to Erb's group of muscles, deltoid biceps, and supinator longus. Anesthesia is usually slight, the chief sensory disturbances being pain. Motor paralysis makes the complete localization of the seat of the injury possible. In case of severe laceration of a nerve, vasomotor paralysis often is one of the chief symptoms. The evidence is twofold, first the hyperemia and then the swelling. This swelling may amount to the condition known as angioneur-

otic edema. It is a most important symptom, almost invariably accompanied by severe pain. In the treatment of division of a nerve suture is demanded, the suture passing only through the epineural sheath, a suture of horsehair or some such substance being used. In case a gap between the two ends has occurred, grafting with a spinal cord of a rabbit has given very satisfactory results. In freeing nerves from callus and scar-tissue, the nerve should first be well defined above the scar. Under no circumstances should an operation be done on the scar first; we must proceed from the known to the unknown. So far as possible the vascular supply must not be interfered with. In case of nerve-compression operation is very often undertaken too hastily; the nerve should be given a prolonged chance to recover before operating. In all cases of nerve-suturing recovery occurs within a reasonably short time, say 6 months or so. In case a nerve is divided in a fixed scar recovery is impossible until the scar is removed and the nerve sutured. [M B.T.]

2.—Hillier is a strong believer in the **open-air treatment of phthisis.** The harmfulness of overcrowding and confinement is, he thinks, largely in the accumulation of poisonous material exhaled from the breath. [It seems to us, however, that it has been quite conclusively shown that the expired air does not contain a toxic organic principle.] Patients should live in the open air, and a good part of their time should be spent in the recumbent posture. The clothing should be light, but sufficiently warm, preferably of wool, both in underclothing and dress. The head should be protected. The patient should guard carefully against wind, but otherwise the outdoor temperature is of but little moment. As the patient becomes gradually accustomed to the out-of-door life and is able to take short excursions, he need not desist because of a shower of rain; but the overcoat and the umbrella must not be despised, and the patient must see that he does not get cold as well as wet. While a man is walking, riding, or rowing, or taking any kind of exercise which serves to keep him warm, damp clothes do him no harm; if he sits down, however, in an open vehicle, in a cold railroad-car, or anywhere else until he is chilled, he is apt to suffer. A foggy atmosphere is not an insuperable objection, but is undesirable. The ventilation of the sleeping-room is of great importance. The best method of airing the room in winter is by means of a bright fire and an open window. If there is no fire the window should be open night and day. The author does not think much of **ocean voyages.** He says that they are a lottery; they may do good and they may do harm. **High altitudes** and **dry climate** are of less importance than pure air, which can be obtained almost anywhere; but they are favorable when combined with purity of atmosphere. They are better, at any rate, than a sea-voyage. Regarding **sanatoriums,** he thinks that nearly as good results are obtainable in Germany and England as in Davos, the Riviera, or Egypt. [D.R.]

3.—In case of **prostatic retention,** Cousins recommends a special metallic catheter with a tapering flexible beak and a bulbous point. Difficulty occasionally arises from some peculiar irregularity of the passage from injury caused by unsuccessful attempts to empty the bladder; in such case the patient should be placed under an anesthetic, the urethra injected with warm oil and the tapering catheter should be passed carefully down the urethra in the middle line until 6 or 7 inches have been passed, when the handle must be depressed and the point carried under the upper wall of the passage. Sometimes it is necessary to withdraw the instrument an inch or two and turn it on its end axis from side to side. [M.B.T.]

4.—Colenso discusses **influenza of the gastric type.** The disease sets in abruptly, with symptoms of irritation of the alimentary mucous membrane. There is injection and edema of the fauces and pharynx, very slight coryza and bronchial irritation, high fever, rapid pulse, coated tongue, anorexia, increasing to nausea and vomiting, a frequent slight dry cough, frontal headache, pain in the pit of the stomach. The bowels are usually at first constipated. There may be pain in the left hypochondrium; enlargement of the spleen and liver; muscular tremor, mental hebetude and insomnia are present, and icterus may also develop. Later, tormina occur and the constipation yields to more or less diarrhea, the stools being fetid, and in appearance a coffee-colored liquid, with powdery mustard-yellow sediment. In this stage, the disease somewhat resembles enteric fever, more rarely dysentery or cholera. Skin-eruptions are not rarely noticed. The **sequels** are generally of a gastroenteric type—atonic dyspepsia, and a slight, dry cough, due probably to a peripheral irritation of the gastric vagus. The author gives in tabular form the differentiated diagnosis of gastric influenza from enteric fever, typhus, dengue, remittent fever, and relapsing fever. The **treatment** consists in the use of alcohol, strychnin, and liquid food. Quinin is also useful, and in the later stages bitter tonics, and finally arsenic or the compound sirup of the phosphites for the lingering debility. [D.R.]

American Gynecological and Obstetrical Journal.

August, 1899. [Vol. xv, No. 2.]

1. Ureteral Anastomosis. GEORGE H. NOBLE.
2. Inversion of the Uterus, with a Review of the Various Operative Procedures for Its Treatment, and a Description of the Writer's Operation for Chronic Inversion. B. BERNARD BROWNE.
3. Rectal Irrigation in Gynecology. CLARENCE REGINALD HYDE.
4. Neoplasms Interfering with Pregnancy, with Report of Cases. E. E. TULL.
5. A Type of Paralysis in the Distribution of the Perineal Nerve Following Labor. CHARLES J. ALDRICH.
6. Interstitial Pregnancy, with Report of a Case Operated Upon 13 Months after Conception. ARCHIBALD MACLAREN.

1.—George H. Noble reviews the subject of **ureteral anastomosis,** and reports 3 cases, with 1 failure. To facilitate analysis, he divides the cases into 2 classes, viz., ureteral anastomosis and ureteral implantation. The first embraces all end-to-end and end-to-side union of the ureter; the second, transplantation of ureter and burying of its extremity into the bladder or other hollow viscera of the abdomen. Of the total number of operations (30), including Kuster's, there were 3 failures, or 10%, which is a remarkably good showing in such new work, especially of an organ that a decade ago was considered beyond the reach of the surgeon's skill. [W.K.]

2.—Browne reviews the various operative procedures for the relief of the **inversion of the uterus,** that have been employed from the time of Hippocrates until the present era. Estimates as to the frequency of this accident vary considerably. Dr. More Madden states that from the foundation of the Rotunda Hospital, in 1745, to 1868, a period of 123 years, 190,883 women were delivered, and only one case of acute inversion was observed. Braun also states that in the clinics, respectively under the care of Spaeth and himself, in 150,000 births not a single complete inversion had come under his notice. Browne has seen 6 cases of inversion; 2 acute, 1 chronic, and 3 caused by intrauterine fibroids. The operation which he has devised is described as follows: The inverted fundus was drawn outside the vulva with a strong volsella forceps, the openings of both fallopian tubes were brought plainly to view, and an incision one inch and a half in length was made through the posterior portion of the uterus (avoiding the fallopian tubes and larger vessels at the sides of the uterus). Through this incision Sims' large dilator was passed up into the cervix and expanded to the fullest extent; the rigid tissues of the cervix were felt to relax; then, upon withdrawing this dilator, Nos. 2 and 3 of Hank's hard-rubber dilators (three-fourths, and one inch in diameter) were passed through the cervix. The finger was also passed to feel that there were no adhesions. The incision in the uterus was then sewed up with carbolized silkworm-gut, and, with slight manipulation, the fundus was easily replaced through the now passable constriction. The whole operation was performed in less than 30 minutes. Conclusions: (1) This operation is not proposed to supersede ordinary taxis in the reduction of chronic inversion of the uterus. (2) It is not more dangerous, but much more certain, than prolonged or rapid taxis. (3) We avoid the danger of bruising the tissues and rupturing the vagina. (4) As an operation for inversion it is less dangerous than laparotomy. (5) Unless there be adhesions (which rarely exist) we can always feel certain of reducing the inversion at one operation. [W.K.]

3.—Hyde calls attention to the **value of rectal irrigation** in gynecologic practice, and he is thoroughly convinced of its reliability and usefulness. In vaginal douching, the introduction of the tube is necessarily limited by the vaginal vault, which allows the fluid to come in contact only with the vaginal walls and portio, and affords no such opportunity for it to be brought into almost immediate proximity to the adnexa and the whole posterior surface of the uterus, as in rectal irrigation. He asserts that in postoperative patients complaining of pelvic distress, rectal irrigation will produce a fuller sense of relief, and is more permanent in action than any known drug or form of enema. To epitomize, rectal irrigation has been found to have a distinct value in (1) leukorrheas; (2) as a **substitute for vaginal douching in young girls**; (3) acute and chronic ovarian lesions, with the possible exception of pyosalpinx; (4) intestinal paralysis following sepsis; (5) after major pelvic operations to relieve any abdominal discomfort or tympanites; (6) intestinal colic; (7) doubtful in constipation. [W.K.]

4.—Tull gives a brief resume of the clinical experience he has had with **neoplasms complicating pregnancy.** Cases of fibroid tumors of the uterus, pyosalpinx, ovarian cysts, etc., are reported. Dermoid cysts are of especial importance because of their tendency to suppurate during pregnancy, and, as a rule, they are very adherent, so that the growth of adjacent structures is apt to cause rupture with infection. In cases of impacted fibroids at the time of labor extending within the abdominal cavity, extirpation of the uterus gives the only hope of success. Malignant growths of ovaries and uterus may be a source of obstruction. If the child has not reached the seventh month and if the case is incurable, it is probable better to await the period of viability. If the malignant disease is confined to the uterus, ovaries, or to any part that could be extirpated, with the chance of cure, it would seem wise to operate at once, irrespective of the advantages or disadvantages to the fetus. [W.K.]

5.—Aldrich reports 3 cases of **paralysis in the distribution of the perineal nerve** following parturition. The occurrence of this particular type of paralysis following labor presupposes a common origin, and one intimately related to the physiological process of parturition. Its being a sequence to difficult labor causes us to suspect mechanical injury to some of the component or contributing parts of the sacral plexus within the pelvis, and a resulting descending neuritis of those nerve-fibers which ultimately emerge from the great sciatic to form the external popliteal or perineal nerve. These cases should be treated as any severe neuritis. [W.K.]

6.—McLaren reports a case of **interstitial pregnancy operated on 13 months after conception.** Celiotomy was performed, a gangrenous 12-pound male child quickly delivered, and the cord divided. The placenta was hard and leathery and so strongly adherent that it was considered dangerous to remove it, hence the cavity was packed with iodoform-gauze and the wound left open. After a few days bromid was applied, which softened the placenta so that after 3 applications it could be removed. The cavity was permitted to heal by granulation, and, though the convalescence was slow, the patient made a good recovery. [W.K.]

Münchener medicinische Wochenschrift.

July 4, 1899. [46. Jahrg., No. 27.]

1. Concerning the Poisonous Qualities of Heroin. (Diacetylmorphin.) Harnack.
2. Upon the Use of Regional Anesthesia in Major Operations of the Extremities. Berndt.
3. Angina and Acute Articular Rheumatism. Kronenberg.
4. Two Simple, Easily Transportable, Appliances, for Use in High Lithotomy, and for Elevating the Pelvis in Private Practice. Kurz.
5. A Further Contribution upon Cutaneous Neurotrophic Disturbances. Loewenfeld.
6. Hemorrhagic Cysts in Corpus Ciliare with Results of Spontaneous Restoration. Mayer.
7. The So-called "Tablet Question." Landau.
8. Roman Diuretics from the Vegetable Kingdom. After the Presentation of Caius Plinius Secundus. Schloth.

1.—Harnack, in a somewhat caustic article, points out the **toxic qualities of heroin.** It is depressing to the respiration, and is much more dangerous than morphin. The customary doses are too large. He states that the remedy is bein · used by members of Alpine clubs to lessen the respiratory distress of mountain climbing. This, he thinks, is dangerous practice, as it may lead to heroinism, analogous to morphinism. [D.R.]

2.—Berndt reports 2 cases of **cocain-anesthesia** of the extremity. The first was that of a man afflicted with gangrene of the foot, and who was too weak to take a general anesthetic. The limb was encircled with a broad elastic band, and two injections of cocain-solution made in the region of the main nerve-trunks. After waiting 30 minutes amputation at the knee was carried out almost painlessly, the only sensation experienced by the patient was some slight pain on the first skin incision on severing the nerve-trunks and pressure-pain from the elastic ligature. The second case was an abscess of the hand and middle finger. In this case no pain at all was experienced except at the seat of the ligature. [G.B.W.]

3.—A man, 32 years old, had been suffering for several years from dull hearing and obstruction of both nasal passages. Examination revealed nasal and pharyngeal catarrh and papillomatous hyperplasia of the lower turbinated bones. These hyperplasias were removed with a cold snare on October 6. On the 9th, a follicular tonsillitis set in which subsided gradually. November 10 the same operation was performed on the other side. On the 17th, both knees and ankles and the right elbow and shoulder became swollen and painful. There was no angina. Pericardial friction was heard and signs of pleurisy and of consolidation of the lungs also developed. The patient died with symptoms of heart-failure and pulmonary edema. The author thinks that the nasal operation was the cause of the man's death. Only a few cases of this kind are on record. He does not think that the antiseptic treatment of the wound is very important, but holds that free exposure of the field of operation, for the purpose of preventing accumulation and decomposition of secretions, is of more importance. [D.R.]

5.—Loewenfeld reports the following case as an example of a peculiar **cutaneous neurosis.** A married woman, 37 years of age, of neurotic ancestry, had suffered for several years with peculiar cutaneous disturbances, manifesting themselves under the influence of cold. The face became red, the lips and ears swollen, and there was burning and itching in the affected parts. The ears and lips became very thick and remained so for several hours. Even a cold draught in the summer could induce these phenomena. In addition, there was a tendency to spontaneous rupture of the skin and the formation of crusts on the palms of the hand. The patient also had morbid fear, especially during a stay in closed rooms. The urine passed after an attack contained albumin and hemoglobin. The affection of the hands was eventually cured by **electric hand-baths,** combined with gradual cooling of the water. The hand-baths were given in the following way: One pole (positive) was placed in the water; the other was split, *i.e.*, it was applied in the form of two large plates on the forearms. The patient's affection was evidently a vasomotor neurosis characterized by a preliminary reddening, and followed by an edematous infiltration of the skin limiting motion. In consequence of the frequently recurring infiltrations, the skin became thickened and tended to crack. Especially interesting is the hemoglobinuria which was observed. The presence of this latter symptoms throw a light on the diagnosis in that it points against the edema being hysteric in nature. [D.R.]

S.—A painstaking essay on the Roman vegetable diuretics, after the description of Caius Plinius Secundus. [D.R.]

July 11, 1899. [46. Jahrg., No. 28.]

1. Severe Ileus caused by a Cicatricial Cord following Ovariotomy; Operation; Recovery. G. Leopold.
2. Epilepsia Cursoria. Schuster and Mendel.
3. The Hygiene of the First Day of Life. Schönewald.
4. Concerning Infusion and its Usefulness in Medical Practice. Georgii.
5. Concerning Tumors as Hindrances to Labor in Childbirth. A. Benckiser.

6. The Continuance of Cholera and Typhus on the Hamburg-Altona Frontier. REINCKE.
7. Concerning the School-Physician Question. WEISS.

1.—Leopold reports a case of ileus caused by adhesions after an ovariotomy which had been performed 11 years before, upon which he operated successfully, the patient making a good recovery.

2.—Schuster and Mendel report the following cases of **procursive epilepsy:** The first patient was a girl of 16 with epileptic convulsions, usually at the menstrual period. In addition to typical epileptic seizures, the patient had attacks in which the fit was preceded by a movement of rotation in bed, consciousness being not always entirely lost. There were also attacks that were solely characterized by this rotation. During these seizures the patient uttered no cry and did not bite her tongue. Urine was not passed. At times there was froth at the mouth. Deep sleep, marked pallor, and stertorous breathing succeeded the attacks. The bromid treatment was without success. One morning the patient was found dead in bed. Evidently she had had an attack in the night, had got wrapped in the pillow, and had suffocated. The second patient was a woman of 35 years, in whom the attacks were as follows: Consciousness was lost; the patient jumped up, cried out loudly, and turned several times to the left. There was no aura, no twitching, no passage of urine, and no biting of the tongue. After large doses of bromid the attacks ceased. The third patient was a man of 25 years who, since his thirteenth year, had attacks of loss of consciousness occurring every two days, and lasting two minutes. During these he turned about completely, ran a few steps and fell into convulsions. The aura consisted of vertigo, which was at times present without convulsive attacks. The fourth case was more purely one of **procursive epilepsy,** the other three being really forms of **rotatory epilepsy.** The patient was a banker, 39 years of age. During the attacks he became pale, moaned out "Oh, God! Oh, God!" and ran from 8 to 20 seconds around the room, generally towards the door which he sometimes shook violently. There was no frothing at the mouth, no bitting of the tongue, and no passage of urine. Treatment was ununavailing. Some writers have looked upon the symptom-complex here described as due to organic brain-lesion, but the authors do not think that there need be an organic lesion, and hold, with justice, that procursive epilepsy is only a modification of the genuine falling sickness. [D.R.]

3.—Schönewald reports a series of experiments from which he shows that Gessner's theory that icterus neonatorum may be caused by a "forcible cleansing" is not true. Of one series 67.9% were icteric, although not cleansed immediately after birth and subsequently treated with the greatest care. In the other series 67.5% were icteric after being treated in the usual manner by the ordinary class of midwives. [W.K.]

5.—Benckiser reports 6 cases of confinement complicated by tumors which proved to be a hindrance to the mechanism of birth. Of these 6 cases 3 were tumors which could be pushed aside so as to permit delivery, the other three being stationary. Four of the children were living and all the mothers recovered. [W.K.]

6.—The author is an adherent of the **water-borne theory** of the spread of cholera and typhoid fever, and shows that the facts observed at the Hamburg-Altona boundary line during the cholera epidemic and during the epidemics of typhoid fever do not controvert this theory, as claimed by the Munich School. [D.R.]

Deutsche medicinische Wochenschrift.

August 24, 1899. [25. Jahrg., No. 34.]

1. Extirpation of a Cancerous Rectum and Sigmoid Flexure. K. SCHUCHARDT.
2. Meningitis Basilaris Traumatica. L. HUISMANS.
3. Dyspepsia in Motorial Insufficiency of the Urinary Organs (Urokinetic Dyspepsia). O. ROSENBACH.
4. Acute Rheumatic Mental Disturbances with Acute Rheumatic Chorea. M. JASTROWITZ.

1.—The method of **operating on cancer of the rectum,** as suggested by Schuchardt, is as follows: An incision is made from the posterior edge of the anus, along the middle line to ⅓ the way up the sacrum. The coccyx is laid bare and resected. The incision is then carried forward around both sides of the anus, and the opening of the anus securely occluded by a ligature passed around it. Sutures are then passed through the structures on each side of the rectum and tied, and the tissues divided between these sutures and the rectum. In this way all hemorrhage is easily controled. By dull desection the rectum now is easily loosened out of the hollow of the sacrum in such a way as to carry with it the parasacral tissue containing the lymph-glands connected with the rectum. The tissues in front are then divided and the rectum can be pulled down and resected at any desired point, limited only by the attachments of the mesocolon. [G.B.W.]

2.—The patient struck his head forcibly against a wagon, thereby suffering momentarily severe pain. He, however, kept on with his work for 10 days, but gradually became so stupefied and dull that he had to give it up. He then began to suffer from purulent rhinitis, with headache; this was followed by a gradually developing blindness, which finally became absolute. He was then put on potassium iodid and extract of belladonna, and he began to improve, finally getting entirely well. The case was undoubtedly one of **traumatic basilar meningitis.** [G.B.W.]

3.—In this number Rosenbach discusses the **mechanism of the production of dysuric disturbances,** and particularly muscular insufficiency. His main point is that the existence of a localized area of paralysis without any stenosis interferes with the progress of the wave of contraction along either the ureter or the urethra and thus acts very much as a stenosis would, since it excludes the propulsive effect of this wave and consequently causes some stagnation behind it. Such localized areas of paralysis may be due to very numerous causes, amongst which may be mentioned local adhesions, ulcerations, thickening of the walls, and similar conditions. [D.L.E.]

4.—A second case is reported which occurred in a girl of 21 who had a strongly neurotic family history. The girl herself was of extremely irritable temperament and had never menstruated. The uterus was infantile. About Christmas, 1898, she complained of pains in the arms which continued, and which later grew so severe as to interfere with exercise. The pains appeared first in one joint, then in another, were accompanied by tenderness and some swelling, and were improved after the use of salicylates. No member of her family had acute rheumatism, but there was a limited epidemic in the town in which she lived. In February she showed choreiform movements and a few days afterward had maniacal attacks with great excitement. The choreiform movements continued and became extremely severe. She had some fever and the pains in the joints continued; there was later a purpuric eruption, and a bedsore developed after she had been confined to bed for some time. The temperature continued marked until the middle of March, and **thrombosis of the femoral artery** appeared. From this time on there was a decrease in the severity of the symptoms, but the patient was apathetic and appeared septic. She would take little nourishment. The temperature soon reached normal, but the condition remained severe, and after repeated rises of temperature and the development of abscesses the symptoms continually improved, and by the end of spring she had become practically entirely well with the exception of a murmur over the mitral region which was believed to be organic. Jastrowitz attributes the psychoses to the direct action of the "rheumatic toxin" on the cortical cells. [While this is not improbable it does not seem justifiable to attribute the psychoses to the direct action of the rheumatic toxin upon the brain-cells, as the second case in especial showed marked neurotic family history, and it seems not improbable that any severe disease, infectious or other, might have caused the maniacal outbreak. D.L.E.]

August 31, 1899. [25. Jahrg., No. 35.]

1. Concerning the Effect of Carbonic Acid in Baths, Upon the Circulation. H. HENSEN.
2. Cases of Secondary Sense-impression. (Double Sensation.) KOEPPE.
3. Common Jaundice, Its Appearance in Berlin. H. NEUMANN.

4. Dyspepsia in Motorial Insufficiency of the Urinary Organs, (Urokinetic Dyspepsia.) O. Rosenbach.

1.—Hensen discusses the opinions that have been previously expressed concerning the effects of **carbonic acid baths** upon the circulation, particularly upon blood-pressure. He believes that the variation in the results obtained is to be attributed to the fact that unsatisfactory instruments were used. In his own work he used Riva-Rocci's instrument, which he considers entirely satisfactory. He thinks that it gives measurements accurate to within 1 to 2 mm. He measured the blood-pressure in 64 baths, the patients being examples of valvular disease of the heart, myocarditis, dilatation, and mere "weak heart." The strength of the baths was regulated as carefully as possible according to the directions given by Schott. . In most instances he found that the baths caused distinct increase of blood-pressure, the increase amounting to from 20 to 30 mg. The frequency of the pulse varied. Sometimes it was increased, sometimes slowed, and sometimes unchanged, most frequently it was slowed. The cardiac dulness varied. In one case of severe cardiac dilatation the dulness was very greatly decreased. The amount of urine was increased after the baths, and markedly increased in the three-hour period, which included the bath as compared with the previous three-hour period. The increase in blood-pressure is attributed to increased cardiac work. The fact that the blood-pressure is increased, of course, makes the use of these baths dangerous in cases of severe atheroma, in those in which aneurysm is suspected, and in similar conditions, but this effect can be controled to a considerable extent, and the good results are often so marked that it seems advisable to use the baths even in certain of these cases. [D.L.E.]

2.—The most frequent example of the question which Koeppe discusses is found in the observation that **certain sounds** are always associated in some individuals with **certain colors.** As an example similar to this, Koeppe mentions his own experience. While taking a walk about 10 years ago, and whistling a certain air, he noticed a sudden odor of resin, and was entirely unable to find the source of the odor. This was repeated each time that he whistled the air. He noticed also an odor of woodtar when he whistled another air. The latter odor he knew he could have actually smelled only when in the neighborhood of ships; and the only opportunity that had been offered him was 5 years before when he was on the seaboard. At that time, as a cure for homesickness, he had industriously worked at sawing, and had constantly whistled the same melody that awoke the sensation of this odor. Upon the basis of these observations he decides that these secondary sensations are not mere appearances of sensations, but are really sensations that are aroused by peculiar innate or acquired sensitiveness of the nervous mechanism connecting centers controling various senses. [D.L.E.]

3.—Neumann has studied the 215 cases of so-called **simple catarrhal icterus** which occurred in Senator's clinic between 1892 and 1896. The study of the age was very interesting, nearly 42% occurring within the first decade; in the second decade the number dropped to 10% of the whole; in the third decade it rose again and went to nearly 27%. It was therefore by far most frequent in the first decade, but it was notable that it practically never affected sucklings. As to the sex, females were somewhat more affected in the first 5 years of life, while in the third and fourth decade it affected men more commonly. These conditions are exactly similar to those that are observed in epidemic jaundice. Also in studying the time of the year at which the jaundice occurred he noticed at once that the frequency always rose pronouncedly in the first and fourth quarters of the year; in other words, in the winter months; it then dropped. This is exactly the same condition as is observed also in epidemic jaundice. Likewise it is often seen that simple jaundice improves and then there is a relapse. This is much more readily explained by attributing the jaundice to the infection and the relapse to a reinfection than by attributing the whole matter to a simple catarrhal gastroenteritis. The jaundice was distributed extremely irregularly throughout the city and showed no relation to the water-supply, but careful study showed that it sought out from year to year certain districts of the city, and this is believed to be further testimony that the cause is an infection and that the infectious agent remains active in certain regions when it once acquires a lodgment. [D.L.E.]

4.—Rosenbach describes the persons who are the subjets of **dyspepsia from motor insufficiency of the urinary apparatus** as usually men who are in the sixth decade of life. They have digestive disturbances at intervals. Marked symptoms are: dislike for animal food, unpleasant taste in the mouth, heartburn, belching, unpleasant feeling at the angles of the jaw, and a feeling of stupidity. They are likely to tire readily. They often feel chilly at irregular times, especially in the evening, but they have no fever. Oftentimes the temperature is subnormal, and they are likely to be obliged to pass urine many times during the night, and often have frequent and incomplete defecation. The physical examination shows nothing of special note excepting in the lower part of the abdomen. Upon careful examination one will observe a readily palpable bladder which is slightly irritable, and pressure upon which causes some desire to micturate. The examination of the urine usually shows no albumin or abnormal elements excepting, frequently, excess of mucus and a few pus-cells. It will also be found that the patients are unable to retain the urine long and that the bladder distends with extreme rapidity. These facts he considers sufficient tó establish the diagnosis. The treatment should be largely marked reduction of the fluids in order to reduce the demand upon the motor power and to exclude from the diet everything that is likely to irritate the kidneys. Patients should be given warm baths and should lie in bed as much as possible; they should also be given massage of the abdomen, particularly of the region about the bladder. Faradization is also to be recommended, and the application of an icebag together with the use of strychnia or nux vomica. If there is paradoxic ischuria careful catheterization should be undertaken. Cases that are not too far advanced will recover under this treatment and regain entire health, while if the condition has already become severe they are likely to acquire suppurative pyelitis and cystitis, the condition grows, and they finally die of uremia. Rosenbach, in closing, gives a brief note on cases of dyspepsia which are dependent upon poor motor function of the large bowel and which are cured entirely by curing the constipation and by disinfecting the intestine. The latter is done by regulating the bowel-movements. [The author presents some valuable suggestions, and it seems unquestionable that he is right in attributing the conditions in a certain number of cases of dyspepsia to noninflammatory renal conditions. The most of his statements, however, seem based upon speculation, and his unlimited multiplication of new terms for each minute alteration in function certainly cannot be considered other than harmful. D.L.E]

Centralblatt für Chirurgie.

September 30, 1899. [26. Jahrg., No. 39.]

1. A Contribution to the Technic of Gastroenterostomy. Max Rutkowski.
2. Amputation of Prolapsed Rectum. Th. v. Dembowski.

1.—Favorable results after the operation of **gastroenterostomy** are often hindered by the tendency of the edges of the stomach and intestinal fistula to swell, which hinders the outflow of the stomach-contents. To avoid this, after performing Wolfler's typical gastroenterostomy, Rutkowski makes an opening in the stomach a few centimeters above the fistula and inserts a drainage tube according to Witzel's method, leaving the tube in place for 10 days. The tube permits free drainage of the stomach-contents and in this way favors recovery. He has performed the operation of gastroenterostomy 3 times with this modification and has had very satisfactory results. [M.B T.]

2.—Dembowski recommends the following modification of amputation of the rectum for prolapse. A needle threaded with a strong ligature is passed through the rectum in the direction of the tuber ischii, the intestine is stretched and 2 iron rods are inserted in such a way as to distend the rectum, then after thorough cleansing the prolapsed portion is divided about 1 cm. below the iron rods, sutures are applied, the vessels are tied, the rods are removed, and further sutures inserted if found necessary. [M.B T.]

October 7, 1899. [26. Jahrg., No. 40.]

1. Drainage of the Gall Passages. TH. V. DEMBOWSKI.

1.—Dembowski advises **drainage from the common gallduct** after operations involving an incision into it. For this purpose he has devised the following apparatus: Two half cylinders are made in such a way that they can be closed into a tube by means of rings; at one end of each half cylinder is a transverse short cylinder to which a thin rubber tube can be fastened; small holes are made in the metallic tube for this purpose. The rubber tube on one of the half cylinders is inserted in the direction of the hepatic duct while the other one is passed in the direction of the duodenum. When it is desirable to remove the canula, each of the half cylinders can be drawn out separately with the rubber tube attached without giving rise to a bend in the gallduct. [M.B.T.]

October 14, 1899. [26. Jahrg., No. 41.]

1. A New Form of Removable Suture. DESIDER STAPLER.
2. Anesthesia by Cocainizing the Spinal Cord According to Bier's Method. J. B. SELDOWITSCH.

1.—A rather complicated form of removable suture is described and illustrated by 5 cuts. Without reproducing the cuts an adequate idea of the sutures seems impossible. [M.B.T.]

2.—See Editorial columns.

Sundry French Journal.

1. Forms of Carcinoma that Justify Arsenical Applications. S. CERNY and C. TRUNECEK. (*Sem. Méd.*, March 22, 1899. 19me Année, No. 13.)
2. Osteomalacia in Man. BERGER and ROBIN. (*Sem. Méd.*, March 22, 1899. 19me Année, No. 13.)
3. The Pathogenic Agent of Radies. PUSCARIU. (*Sem. Méd.*, March 22, 1899. 19me Année, No. 13.)
4. The Changes in the Blood in Werlhoff's Disease. LENOBLE. (*Sem. Méd.*, March 22, 1899. 19me Année, No. 13.)
5. The Action of the Pancreas on Toxins. CHARRIN. (*Sem. Méd.*, March 22, 1899. 19me Année, No. 13.)
6. Prolonged and Apyretic Forms of Influenza. NIL FILATOW. (*Annales de Méd. et Chirur. Infantiles*, April 1 and 15, 1899. 3me Année, Nos. 7 and 8.)

1.—Cerny and Trunecek recommend the use of the following solution in the **treatment of carcinoma:** Arsenious acid, 1 gr.; alcohol, 75 grs.; water 75 grs. The application is supposed to act in the following manner: The carcinoma cells are at first dehydrated by the alcohol, and then their protoplasm becomes coagulated by the action of the arsenic. The connective tissue-cells degenerate on account of the action of the arsenic upon them and a serous exudate is formed, that, in its turn, produces further degeneration in the coagulated cells. The remedy produces a limiting inflammation in the neighboring healthy tissue, following which the neoplasm is thrown off as a foreign body. The article contains photographs showing the condition before and after treatment of epithelioma of the lower lip. The treatment is recommended, particularly in cases of epithelioma of the lip, of the mouth, of the nose, and of the mammary gland. [J.M.S.]

2.—At a meeting of the Académie de Médecine, held March 21, 1899, Berger reported the case of a man, aged 20 years, who was admitted to the hospital for double genu valgum that interfered with his walking. Supracondyloid osteotomy was done on the left side, the knee was straightened, and, after some time, the femur united. At about this time, however, the patient began to complain of sharp, spontaneous pains in the right leg. These pains were first considered to be of a rheumatic nature, but 3 months later an abnormal mobility of the bones of both lower limbs was noticed. Later on, these members became the seat of the deformities of **osteomalacia,** that were more pronounced in the limb that had not been operated upon. At this time similar pains appeared in the upper extremities, that finally produced similar deformities to those observed in the lower extremities. The thorax and the head subsequently became the seat of characteristic distortion. The vertebral column, however, has shown no lesions, and the patient, furthermore, developed an attack of interstitial nephritis that has followed a rapid course, and from which he will probably die. The family and personal history does not cast any light upon the case. The different methods of treatment used in order to control the advancement of the condition have all been futile. In the discussion that followed the presentation of the case, Robin said that he had studied the organic changes in the patient, and that he had demonstrated a marked elevation of the respiratory quotient, an increased proportion of oxygen absorbed by the tissue, and a diminution in the assimilation of ternary materials. Without wishing to draw from these facts a conclusion relative to the pathogenesis of osteomalacia, the speaker wished to say that they were not reconcilable to any of the theories previously advanced to explain the development of this disease. As a result of the modifications of organic chemistry that have been noted, the treatment of osteomalacia ought to be directed towards lessening the production of ternary materials, towards stimulating the function of the organs supposed to be concerned in the digestion of these materials, towards favoring the oxidation and increasing the digestion of nitrogenous materials, towards fixing the salts of lime in the system, and at the same time toward diminishing their waste. [J.M.S.]

3.—In a series of experiments made by Puscariu and Popesco, upon the **lesions of the nervous system in rabies,** amyloid bodies were constantly found that appeared to be of a parasitic nature. The appearance is that of globules disposed in an irregular manner in the tissue and composed of homogeneous substances in which a large number of granulations, characterized by their intense color, may be seen. These granulations are composed partly of distinct bacilli that frequently show at one extremity a longitudinal, club-shaped swelling resembling the erosure of actinomyces. The colonies formed by this microorganism resemble quite closely those produced by the growth of actinomyces, although the mycelium cannot be distinguished in the center of the groups. The parasitic character of these formations, and their constant presence in the central nervous system, has led the author to believe that they are the pathogenic agent of rabies. [J.M.S.]

4.—Lenoble has made a note of the **changes in the blood** that he was able to demonstrate **in** a case of **chronic Werlhoff's disease.** At the beginning the anemia was of medium intensity, the clot was not retracted, the hematoblasts had fallen to 71,000, and there were 194 nucleated red corpuscles. Following an attack of erysipelas that the patient had contracted, the hematoblasts rose to 155,000, and the nucleated red blood-corpuscles fell to 70, and, later on, disappeared. This case the author thinks enables him to draw the conclusion that a kind of balance exists between normoblastic reaction of Ehrlich and the hematoblastic reaction. [J.M.S.]

5.—Charrin, conjointly with Levaditi, has shown that toxins introduced into the digestive tract are modified. They attribute this phenomenon to the secretions of the mucous membrane of diastasic substances that digest the toxins and to microorganisms that alter them. Following out these studies they have found that the pancreas plays a considerable role in these changes. If the products of the diphtheria-bacillus are injected into the pancreas, and an equal quantity into muscle, the first extract, after remaining in the incubator, will not kill an animal, while the second remains active. This activity, however, does not depend upon muscle poisons, for the muscular principles, isolated after a similar treatment, have no action. That the secretion of the pancreas acts upon the microorganisms is further proved by the fact that the pancreatic extract must be heated to 74° C. to overcome its effects. There is probably no antitoxic ower in the pancreatic extract, because if it and the toxin are injected separately, and in different regions, no protection is furnished to the animal. [J.M.S.]

6.—Filatow concludes that the existence of **chronic influenza** is incontestable. Two types may be distinguished: (1) a type characterized by permanent fever of a remittent or intermittent character, that is prolonged for several months, and followed by (2) a return of the disease for brief periods of time. Chronic influenza may also develop without the least elevation of temperature. [J.M.S.]

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.

Microcidine. — McKay (*Intercolonial Medical Journal*, March 20, 1899) confirms the opinion expressed by Tarnier, that microcidine is one of the most useful antiseptics and disinfectants that we possess. It is made by adding to a lye, composed of caustic soda 1 part and water 2 parts, naphthol β in the proportion of 2 of naphthol to 1 of soda. After bringing the mixture to a boil, the naphthol soon dissolves, making an almost colorless fluid, which, on being evaporated, forms sold microcidine. The latter is soluble in 3 parts of water, and the solution has an oily "feel." Its reaction is strongly alkaline, and it does not coagulate albumin. It is not poisonous. According to Tarnier and McKay, its action as a germicide is almost as powerful as corrosive sublimate, and has an advantage over the latter in not attacking metallic instruments, except those made of aluminium. Steel and nickel-plated instruments may be left in solutions of microcidine for 24 hours with impunity. It is the habit of the writer, after cureting a septic case, to wash his instruments in warm water and soap, and then leave them in microcidine (4 to 1000) for 24 hours. Silk and catgut are destroyed by strong solutions of microcidine; but, if a thick thread of silkworm-gut be placed in a warm (1 to 1000) solution of this agent for 10 minutes, it makes the gut as soft and as easy to work with as a piece of silk.

The Treatment of Erysipelas and Allied Diseases. —Maclachlan (*Edinburgh Medical Journal*, August, 1899) writes that in uncomplicated cases of cutaneous erysipelas no special treatment is required, beyond supporting the patient, favoring elimination, and using antiseptics locally. In surgical cellulitis and allied affections, he believes that there is no specific remedy, but that the best treatment is the one that conserves the vital processes. As to diet, he relies chiefly on brandy, eggs, and milk, with good beef-tea. He advises the use of 1 to 2 drams of brandy hourly in severe cases, with 1 ounce of milk, or egg and milk. He urges that it is of the greatest importance to regulate the quantity of food according to the powers of the stomach. To avoid its exhausting stimulating effects and imperfect assimilation, he recomends alcohol in small quanties, and in a diluted state. Little and often, is his rule, in regard to both food and drink. There are three drugs which he praises very highly; these are opium, digitalis, and quinin. He prefers them in pill-form, and generally gives the following every two, three, or four hours:

Opium	1 grain.
Quinin	1 grain.
Digitalis	¼ grain.

Acoin.—Randolph (*Ophthalmic Record*, August, 1899), gives the results of his experience with this new anesthetic in various operations on the eye. He finds that the stinging following the instillation of a drop of acoin is greater than that after cocain, and that it took quite as long to produce satisfactory anesthesia as it does with cocain, and longer than it does with holocain. His conclusions are as follows:

1. Acoin in solutions of 1 : 100 and 1 : 300 produces satisfactory anesthesia in an unirritated eye in about the same length of time as cocain.
2. In more than one case where the eye was congested repeated instillations of acoin were inadequate to produce anesthesia.
3. Inspection of the cornea with high-power lens failed to show any defects in the epithelium after its use.
4. Acoin has no effect on accommodation.
5. It does not increase intraocular tension.
6. Several experiments indicated that acoin was not only an inhibitor of the growth of the staphylococcus albus, but that it also killed this organism after a certain length of time.

Acoin is a derivative of guanin and appears as a white powder, soluble in water in the proportion of 4½ grains to the ounce. Trolldenier has shown that it is distinctly less toxic than cocaine. Darier (*Clinique Ophthalmique*, No. 12, 1899), believes that as a local application to the eye it has no advantage over cocain, but that it is superior for subconjunctival injections. For the latter purpose he recommends the addition of cocain to the solution to allay burning and to make the anesthesia complete from the very start. He suggests the following formula:

Acoin	1 grain
Cocain	2 grains
Solution of sodium chlorid (0.8%)	100 minims.

Colloidal Silver (Collargolum) in Gonorrheal Ophthalmia.—Schlossmann (*Therapeutische Monatshefte*, May, 1899), from an extensive experience with colloidal silver as a local application in gonorrheal ophthalmia, concludes that it is the best remedy at our disposal in the treatment of this obstinate affection. He recommends a 1% to 2% albuminous solution, to be applied to the conjunctiva by means of a camel's-hair brush. The instillations, he states, are entirely painless. Improvement usually began with the first application, and in some instances the children were discharged cured after 4 or 5 days. [Collargolum is the name given to an allotropic form of silver, which is said to be non-poisonous, and which is permanently soluble in water and albuminous fluids. It has been used somewhat extensively during the past year in the form of an ointment (unguentum Credé) as an inunction in various septic and inflammatory affections.]

The Rational Treatment of Syphilis.—Ward (*British Medical Journal*, October 21, 1899) lays down the following rules for the rational treatment of syphilis: Mercury should be used alone in primary and secondary syphilis, unless severe lesions are present. Treatment should be begun at the earliest possible moment. The drug should be given in a form easy to take, and not irritating to the stomach (Ward prefers gray powder, about 6 grains a day being the average dose). It should be carefully pushed to the toleration point, indicated by slight touching of the healthy gums, with constant weight. When the toleration point is reached, the mercury should be kept up to that point throughout the course, never higher, lest the patient be poisoned; never lower, lest sporing instead of destruction of the microbes occur. The course should continue for two years, that being the period of natural cure or real latency. Iodids should not be used as routine treatment in the primary and secondary stages, because by removing the toxin, the phagocytes will be no longer attracted to the microbes, and encapsulation and destruction will be hindered. Iodids together with mercury to be used in increasing doses in the gummatous stage, later a mild mercurial course is advisable. In intractable cases, with chronic blood-poisoning and severe lesions a large quantity of water taken daily facilitates the excretion of the toxin, and in the shape of Zittmann's decoction is undoubtedly very effectual. It is the author's conviction that the point of central importance in the treatment of syphilis is to push the mercury to the toleration point, and to keep it there throughout the case.

Articular Rheumatism.—According to the *Practitioner* the following salve containing iodoform and sodium salicylate is useful as an external application:

R.—Sodium salicylate	30 grams.
Iodoform	10 grams.
Vaselin	100 grams.
Extract of hyoscyamus	5 grams.

Nosophen.—Steele (*Merck's Archives*, September, 1899, and *Chicago Clinic*, XII, p. 196), states that he has used nosophen in over 100 cases of major and minor surgery as a substitute for iodoform with uniformly satisfactory results. He uses a 3% nosophen gauze after sterilization with steam, and believes it possesses distinct advantages over iodoform gauze. After the second dressing of ulcers marked improvement in the appearance is noted, rapid cicatrization follows, with complete healing in 2 or 3 weeks. Tuberculous ulcers yield as good results as with iodoform. In fresh wounds and in crushed fingers he found that nosophen promoted rapid cicatrization without suppuration or increased pain. In felons and abscesses prompt healing was secured after free incision, cleansing, and irrigation with 1 to 2000 bichlorid solution, when wounds were dusted and dressed with nosophen.

Urotropin for Disinfecting the Urine of Typhoid Patients.—Richardson (*Journal of the Massachusetts Association of Boards of Health*, July, 1899) concludes, from an investigation of 124 cases of typhoid fever, that typhoid organisms are present in the urine of 25% of the cases; that the number of bacilli is often enormous; that they may persist in the urine for weeks, months, or even years, after convalescence begins; and that the urines of typhoid patients should, therefore, not only be rigorously disinfected during the disease, but should also be supervised carefully during convalescence. The author believes that the administration of urotropin is the best method of destroying the bacilli in the urine. This drug was used in 9 cases, in a dosage of 10 grains three times daily, and with excellent, not to say, extraordinary, results. In every instance the organisms were removed. Moreover, this happy result was obtained oftentimes in 24 to 36 hours, and a urine, which had been cloudy with bacteria, would, in 2 days, become absolutely clear. To prevent the spread of the infection through contaminated urine, the author urges that the urine, as well as the feces, should be disinfected throughout the disease. If the urine, at the beginning of convalescence, shows typhoid bacilli, then urotropin should be given in 10 grain doses, three times daily for a week. A week after the administration of the urotropin has been stopped, the urine should be examined again. If there are at that time no bacilli present, the patient may be released from supervision.

Diarrhea Due to Fermentation and Indigestion.—According to the *Therapeutic Gazette* the following combination is useful in this condition:

℞.—Taka-diastase..... 15 grains.
Carboligin..... 15 grains.
Pancreatin..... 15 grains.
Make into 20 powders or capsules.

If fermentation is particularly marked, salol may be added for its antiseptic effect.

Hypodermic Feeding with Yolk of Egg in Anemic Children.—According to the *British Medical Journal* for September 30, 1899, Muggia, of Turin (*Revue Mens. des Mal. de l'Enfance*, May, 1899) has for some time treated children suffering from anemia and athrepsia by the hypodermic injection of a proparation of yolk of egg. Freshly-laid hen's eggs are taken and carefally washed before opening. The yolks are rsceived into a sterile glass vessel and are weighed and then mixed with a third of their weight of normal salt-solution. The mixture is then thoroughly stirred up with a glass rod, and filtered through aseptic absorbent gauze. The liquid thus obtained is of a bright yellow color and of homogeneous consistency, and can be used for hypodermic injection. It is well to begin with an injection of about 1 cc., made into the buttocks or the lumbar region, and provided asepsis is strictly observed throughout there is no local or general inflammatory reaction. The region of injection should be slightly massaged. The quantity of hypodermic injection is gradually increased till a limit of 10 cc. per injection is reached. The duration of treatment varies according to each case, but in any case not less than 100 cc. (20 injections of at least 5 cc. per dose) should be administered. According to Muggia's observations it appears that both the body-weight of the children and the percentage of hemoglobin in the blood increase in the case of athrepsic infants. The number of red corpuscles also rises, and this occurs much more readily than if lecithin were administered in the same way.

Parotid Gland in Ovarian Disease.—Mallett (*American Gynecological and Obstetrical Journal*, July, 1899) reports 20 cases, in which he has used parotid extract in ovarian disease, and concludes his paper as follows: (1) parotid extract has seemed to relieve the pain of dysmenorrhea in all cases, without regard to alleged causes and present conditions to a greater extent than any of the numerous so-called uterine sedatives which he has been able to obtain; (2) it relieves those dull, aching pains, referred to the back and ovarian regions; (3) menstruation, when deranged, becomes more regular as to periodicity, and less in amount and shorter in duration; (4) under its exhibition, pelvic exudate seems to soften, and become absorbed more rapidly under abdomino-pelvic massage; (5) the general health, strength, appetite and spirits seem to improve under its use, and those dull headaches which constitute such a persistent and annoying symptom in these cases, are almost invariably relieved, and in some instances disappear entirely; (6) the only counterindication that he has thus far met in its use has been in cases of the artificial climacteric, in which cases the flashes of heat and cold were distinctly made more frequent and severe.

Spartein Sulfate.—Chapman (*Birmingham Medical Review*, May, 1899), in discussing the use of this drug in heart disease, speaks as follows: "I am confident in certain selected cases, chiefly those characterized by a cardiac dilatation, arising as far as can be ascertained by the gradual accumulation of residual blood, we have in spartein sulfate a most valuable drug, which is worthy of far greater attention than it ordinarily receives. The dose of ½ a grain every 4 hours is usually sufficient, but 1 grain may be given as frequently, and I dare say even a larger dose, with perfect safety. In all cases I have noticed a slight purgative action, and in most an increase of urine, so that it may very properly be called a mild hydragog diuretic."

Digitalis in the Treatment of Heart Disease.—Washburn (*Merck's Archives*, October, 1899) urges that in whatever form digitalis is administered, it is absorbed slowly and is slowly eliminated. Clinically we are continually meeting with cases in which, the drug having been given continuously for a greater or less period, all the evidence of failing compensation deepens, and where death suddenly ensues upon some slight exertion. The writer believes that a dose that will prove tonic to the heart is a very moderate one, and that this dose must only be repeated after a sufficient interval. As a tonic dose for continued use 1 grain of the powdered leaves once in 12 hours, generally proves efficacious; and this is a dose that can be continued for months and years with nothing but increasing benefit, and without any of the dangers of inducing the evidences of saturation when it seems absolutely necessary to give the drug in larger doses (3 or 4 grains, every 6 or 8 hours). The patient should be carefully watched, for when 30 to 40 grains have been given such symptoms as abnormal slowing of the pulse, lessened diuresis, or nausea, and more rarely diarrhea, are to be looked for. Under these circumstances the remedy should be discontinued for a few days or the dose reduced, and thereafter continued in tonic doses.

Extract of Thymus Gland in Graves' Disease.—Boisvert (*Revue Medical*, of Montreal) reports a severe case of Graves' disease in which all the symptoms, except slight swelling of the thyroid gland, disappeared under the administration of extract of lamb thymus. The dose ranged between 15 and 25 grains a day. Notwithstanding the fact that mania was threatened, improvement was noted in a few days, and inside of 3 months recovery was effected.

Urticaria.—Gaucher (*Riforma Medica*) recommends the following solution to be used as a spray:

℞.—Alcohol, Chloroform, Sulfuric ether } of each.....3 parts.
Menthol.....1 part.

Itrol in Gonorrhea.—Schill (*Therapeutische Monatshefte*, April, 1899) reports 100 cases of gonorrhea treated with injections of itrol with results which confirm the favorable opinion previously expressed by Wesler after treating 50 cases with itrol. The writer directs that the solution first employed should not exceed 1 in 10,000, the strength, however, being gradually increased to 1 in 4,000. The solution should be lukewarm and injected into the urethra 4 or 5 times daily, 6 or 8 cc. being allowed to remain in the urethra after the latter has been cleansed by a less amount of the injection. As itrol is readily decomposed in the presence of organic matter, the syringe must be thoroughly washed out with hot water before being used, and the vessel containing the solution must be absolutely clean. No pain and no untoward effects followed the injections. The treatment should be instituted as early as possible in order to prevent the entrance of the gonococci into the deeper layers of the mucosa. [Itrol is the citrate of silver, and appears as a light, inodorous and tasteless powder, which is soluble in the proportion of 1 to 3800 parts of water.]

Original Articles.

THE LOCAL, NONSURGICAL TREATMENT OF THE INTESTINE IN TYPHOID FEVER.[1]

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In considering the matter of the local treatment of the intestine in typhoid fever two questions present themselves to us; namely, Is it desirable to treat the intestine locally, and is it possible to treat the intestine locally? Whether we consider typhoid fever a local disease of the intestine or a general constitutional infection with local expression usually most pronounced in the intestine—the view that in my opinion is the true one—the fact remains that the intestinal tract from the mouth to the anus is in a state of more or less pronounced catarrhal inflammation, and that there is infiltration and usually ulceration of the solitary follicles and of the agminated follicles of Peyer.

In other diseases presenting inflammation of the mucous membrane—catarrhal, ulcerative or fibrinous—such as the various forms of sore throat, some forms of gastritis and all forms of disease of the colon and rectum, we undoubtedly derive benefit from local treatment in the improvement of the anatomical condition of the part; and in the clinical fact that this anatomical improvement is usually accompanied by amelioration of symptoms.

Therefore reasoning from results in these other diseases, we are justified in concluding that local treatment of the digestive tract is desirable—if possible. When I say that such treatment is desirable, I mean only as an adjuvant to other methods of treatment—not by any means as a substitute for a plan of treatment which can reduce the death-rate from 27.8 to 8.2%, or from 15 to 7%, as has been done by the treatment of Brand.

But to return to our second question: Is it possible to treat the digestive tract locally in typhoid? It is plainly possible to treat the mouth, the rectum and the colon locally without disturbance of the patient. In some cases in which there is marked gastric disturbance, the tube may be introduced into the stomach and gastric lavage performed with advantage. Is it possible, however, to reach the small intestine, and especially the ileum—the seat of most marked anatomical lesion—with local applications of any value? To attempt to do so by the rectum is obvious folly. Can we do so by mouth? The attempt has been made with various drugs and by many observers. The drugs that have been used in this way, upon the use of which any reliable statistics have been published, are the mineral acids, iodin and potassium iodid, salol, salicin, sodium salicylate, chlorin-water, benzonaphthol, betanaphthol, mercuric and ferric chlorids in combination, turpentine, guaiacol, and olive-oil. There has also been used quite extensively a combination of podophyllin, calomel, guaiacol, eucalyptol, thymol, and menthol. In the cases reported as treated by this combination the diagnosis is so uncertain as to make the statistics of little, if any, value.

In the summer and autumn of 1898 I treated 8 cases of typhoid with benzoate of guaiacol in doses of 1 gram every 4 hours day and night, in addition to the regular Brand treatment. Of these cases, 2 died with perforation of the bowel, 1 suffered reinfection once, and 1 suffered reinfection twice while still taking the drug, and the other 4 ran an ordinary course of fever of about 4 weeks' duration. One interesting fact is that the two who died with perforation of the bowel were husband and wife, and that their daughter was under observation at the same time, sick with typhoid, and that the treatment given her differed from that given to her parents only in the fact that guaiacol benzoate was not given. She recovered. Of course, this is a small number of cases, but the results discouraged us from pushing the investigation further along that line.

From a careful review of the literature of the subject I am forced to the conclusion well expressed by Dr. H. A. West, of Galveston, "that there is no evidence to prove the potency of any medicine for the destruction of the pathogenic agent in the intestinal canal when given in doses which would not be toxic to the infected person." Before becoming enthusiastic over the value of any drug or combination of drugs in the treatment of typhoid fever, it is well to call to mind the report of Cotting, of Boston, quoted in Flint's "Practice," of 307 consecutive cases of typhoid, treated without drugs, with a death-rate of only 10%, as well as the remarkable results obtained by every one who uses a rational hydrotherapy according to the method of Brand.

Nevertheless, there is so much that can be done in the improvement of the condition of the patient by rational local treatment of the intestine as an adjuvant to the Brand method that it ought not to be neglected. First of all, remembering the diversified flora of the mouth in bacterial growths, our attention should be directed towards a proper cleansing of it.

In my student-days, and in the early years of my practice, before I had begun to think for myself, it was the common thing to see the tongue of a typhoid patient covered with a thick brown coating cracked and fissured, and the teeth and gums loaded with what was properly called "sordes"—filth. Now it is the rare exception to see the mouth turned into such an Augean stable. Why? Because we treat the mouth locally, cleansing it from 4 to 8 times in the 24 hours. For this purpose a swab is necessary, and a spray helps. One of the best mouth-washes, and one that is agree-

[1] Read before the New York State Medical Society, October 25, 1899.

able to the patient, consists of a combination of dilute phosphoric acid, lemon-juice, glycerin and water. Spraying of the nose once or twice daily with a simple cleansing wash, such as Dobell's solution, aids in keeping the mouth and pharynx in a cleanly condition. In most cases of typhoid, local treatment of the stomach is not necessary; but when there is vomiting, or when nausea is a marked symptom, the careful use of the stomach-tube, and persistent lavage, until the washings are clean and free from mucus and food, is of the greatest value.

Necessarily, I cannot refer to the local treatment of the intestinal tract without reference to the diet.

Since the publication of Dr. Shattuck's views on diet in typhoid in which he recommends other articles than milk during the activity of the fever, and the administration of solid food rather earlier than is usual, I have followed his suggesstions in a few cases, but with fear and trembling in each case, and every time I have been sorry that I have done so. My cases, however, have not been sufficiently numerous to let me speak with authority on the subject, and I am open to conviction. At present in my cases milk forms the only article of diet. I usually prescribe it peptonized, to be administered while the peptonization is in active process, but before it becomes bitter to the taste. If curds still appear in the stool, I order it completely peptonized before administration. The disagreeable bitter taste of the peptonized milk can be completely overcome by the addition of 15 to 30 cc. of strained orange-juice to 150 or 200 cc. of the milk. The milk should be administered every 2 hours from 4 A.M to 10 P.M. and 1 A.M. Occasionally the milk has to be diluted with water, and is sometimes rendered palatable by the addition of carbonated water at the time of administration. If the patient complains of fulness in the stomach after the milk, or if there is evident gastric distention, this is frequently relieved by the administration of dilute hydrochloric acid or nitro-hydrochloric acid, well diluted with water 20 minutes after each dose of milk. Lime-water in the milk may be tried, but in my experience has been of little value.

If after these various measures have been tried, nausea still persists or vomiting occurs, the stopping of food by the mouth for 12 or 24 hours is sometimes advisable. During such cessation of mouth-feeding I administer minute doses of calomel and cerium oxalate in combination every $\frac{1}{2}$ hour for 4 or 5 hours. This seems to have a sedative effect upon the gastric mucosa, and starts persistalsis in the proper downward direction. An abundance of pure water is an important part of the dietary of every fever-patient, and particularly of those suffering with typhoid fever.

Distilled water is best and can be rendered palatable by being aerated with sterilized air. Such water can be obtained in most of the large cities. As a substitute, water filtered through a properly kept Pasteur filter, or boiled water with a slight mixture of carbonated water, can be used. Boiled water may be rendered palatable by the addition of a little lemon juice or orange juice. It is better to administer the water in 100 or 150 cc. doses at regular intervals between the doses of milk rather than to let the patient take more frequent small sips.

Coming to the small intestine, if the above precautions as to mouth, stomach and food have been taken, it is relatively rare that great disturbance occurs here. Nevertheless there are cases in which marked intestinal tympanites does occur apparently from distention of the small intestine. At such time the administration of 0.25 to 0.50 gm. of calomel has usually proved efficacious in overcoming the condition. Sometimes it fails. Under such circumstances nitrohydrochloric acid and turpentine have been the two drugs that have given me the best results.

At this point I wish to put myself on record as advocating the regular use of calomel in laxative doses at intervals of from 4 to 6 days during the course of typhoid fever. My own observations differ from those of Graves and Osler, and coincide with those of Louis, West, Upshur, and Thistle, that a moderate degree of diarrhea—2 to 4 movements in 24 hours—is better for the patient than even a moderate constipation.

Of equal importance with the cleanliness of the mouth and nose and the care of the stomach and small intestine, and the selection and preparation of the diet, is the daily or twice daily washing of the colon.

The colon is in all cases of typhoid in a condition of catarrhal inflammation, and usually in the cecum and ascending colon there is infiltration and often ulceration of the follicles. The washings serve the purpose of removing excreta and other toxic materials, and of allaying local inflammatory conditions and tend to prevent colonic tympany.

For the purpose of the colon wash a soft rubber colon-tube is used, and 2,000 to 5,000 cc. of boiled water, plain or holding in solution either boric acid or borax or common salt, is allowed to moderately distend the colon and then flow out. If the temperature of the patient is very high this wash may be used ice cold with excellent results.

For the treatment of hemorrhage from the bowels absolute rest is necessary, and this is best procured by cessation from bathing and the administration of morphin hypodermically.

The ice-water coil or small bags of crushed ice applied to the abdomen, and if the hemorrhage is accompanied by hyperpyrexia, the packing of crushed ice into the rectum, are all procedures of value. The only drugs internally administered in this condition that have proved of value in my hands are turpentine and gallic acid. If there is much tympanites the turpentine is of greater value. If the tympanites is evidently colonic the injection of turpentine through the colon-

tube and the leaving of the tube in the colon to facilitate the escape of gas, have frequently been followed by marked improvement.

The use of subcutaneous injections of normal salt-solution in the collapse following hemorrhage does not properly belong to the local treatment of the intestine, but while speaking of hemorrhage I cannot refrain from mentioning the value of this procedure.

In perforation of the bowel the prognosis is most serious, and while some cases have recovered under the prompt and continuous administration of large doses of morphin, prompt surgery promises better results than any other therapeutic measure, and I cannot do better than leave the subject in the hands of Dr. Keen.

REPORT OF A CASE OF HYPERNEPHROMA OF THE KIDNEY, WITH DESCRIPTION OF THE CLINICAL SYMPTOMS, OPERATION, AND PATHOLOGY OF THIS CLASS OF TUMORS.*

By L. L. McARTHUR, M.D.,

AND

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Patient's History.—Frank S., aged 47, Bohemian, married, by occupation collection agent for a brewing company, complains of blood in the urine, and pain in the back. Previous history reveals little bearing on the case. His parents were of great longevity. He states that he has never been seriously ill, but had the usual illnesses of childhood. No history of venereal disease. Fine physique, 6 feet tall, average weight between 210 and 225 pounds.

Present Illness.—The patient states that he first noticed pain in right lumbar region 6 years ago, but that it was never sufficient to confine him to the house or bed; never of colicky character, and that it was regarded by him as a possible muscular rheumatism. In the early part of 1896 he noticed the presence of blood in the urine, for which he consulted Dr. Otto Schmidt and remained under his care and observation for some months, during which time the hematuria was intermittent and, according to the doctor's observations, was unaccompanied by evidences of renal disease. The pain seemed aggravated by his occupation, that of driving about the city, and the hemorrhages seemed more frequent on such exercise. In June, 1897, other causes for hemorrhage practically having been eliminated from the diagnosis, patient was referred to Dr. McArthur for probable renal stone. Was admitted to St. Luke's Hospital August 24, 1896. Pulse 88, temperature 97.8. Was submitted to an explorative laparotomy. Prior to operation the urine was normal in quantity (see urinanalysis chart) of normal specific gravity, more than average amount of urea, the urine apparently abnormal only by the presence of much bright red blood. The physical condition of the patient being excellent and no counterindications existing, exploration of right kidney was made by retroperitoneal route with transverse curved incision a finger's breadth below twelfth rib. On removal of the fatty capsule of kidney there was to be seen at one or two points on posterior aspect pigmented areas of a centimenter in diameter and offering greater resistance on touch than other portions of kidney. Incision of the capsule on the posterior aspect, half way between the pelvis and the outer portion of kidney, for purposes of exploration and the introduction of the finger into pelvis of kidney revealed after careful search no foreign body, but a slightly thickened kidney-wall. A fragment of the pigmented area in capsule was removed for diagnosis. The kidney was drained for 3 days, the tube, supplemented by gauze-packing around it, being removed on the third day. The wound closed, patient rallying from operation, making a good recovery with primary union, though with leakage of a small quantity of urine from the kidney for 3 weeks from the time of operation through the track left by the temporary tube. Hematuria ceased after leaving hospital at the end of 3 weeks, with occasional appearances of blood at intervals extending over one to three months at a time. Microscopic examination of the fragment removed caused a probable diagnosis of melanotic sarcoma to be made, but the preparation of the specimen was faulty and satisfactory diagnosis was in doubt.

The patient was seen 6 months after operation subsequent to such an appearance of blood in the urine and to the appearance of a tumefaction in the region of the appendix, of small size, sensitive to touch, unaccompanied by fever. On such discovery, the thought obtained of secondary metastasis in ureter or retroperitoneal tissues. He was seen again two months later, when another nodule was felt over the lower pole of the left kidney, deep seated, thought to be a secondary metastasis. The first nodule had not increased in size. During this time and the year following the patient had attended to his business, enjoying fair health, and, to the surprise of his physicians, not emaciating markedly.

February 25, 1899, patient again returned to Dr. McArthur, having been referred again by Dr. Schmidt, for a marked increase in size of right kidney and the presence of a growth at the posterior end of old cicatrix, apparently of hen's-egg size, somewhat sensitive to touch and pulsat ng slightly. Careful palpation of this revealed an induration extending beneath scar directly to the right kidney, now more than double the normal size, but the supposed former metastases were not now palpable. The patient reported having lost 10 or 20 pounds and having noticed again occasional blood in urine. So long a period of time having elapsed as to render the former diagnosis doubtful, and the patient beginning to show the wasting effect of the disease, it was deemed advisable to attempt the removal of the kidney. Careful examination of patient failed to reveal at this time the nodules felt as above mentioned. Estimate was made of the functional capacity of left kidney (the Harris segregator being used) and found more than normal. (See urinanalysis chart.) For the purpose of removal of kidney as well as new growth in scar, an oblique lumbar incision was used with the hope of making a retroperitoneal operation if possible, and at the same time removal of old cicatrix, including metastasis. It being found impossible to keep behind the peritoneum, the latter was opened and kidney with tumor removed by transperitoneal route. Much difficulty was encountered in loosening up adhesions of the capsule from the cicatrix posterior to the kidney, and it became necessary to stop the operation before the removal of the new growth in the old scar. The pedicle was ligated with catgut, the peritoneal openings sewed, the space occupied by kidney-growth packed with large Mikulicz drain, and the wound closed with heavy wax-silk tension-sutures. During the first 48 hours there was severe singultus and emesis with very scanty secretion of urine, 300 and 400 cc. respectively, each 24 hours. Deeming it advisable to force the kidney to work, 1,500 cc. normal salt-solution was transfused through the vein of the forearm on the fifth day. During the following 48 hours the quantity of urine rose to 2,500 cc. and 2,700 cc. respectively. The Mikulicz drain was removed on third day and small rubber drain substituted therefor. The convalescence of the patient was steady and uneventful, and he left the hospital the thirty-first day after operation, with a small rubber drain in situ, to return later for an attempt at removal of the metastasis in cicatrix.

The excuse for the presentation of this specimen for consideration lies far more in the pathologic histology than in the clinical or surgical aspect, hence there is but little to say apart therefrom. Since our study of the pathologic nature of these growths, however, is to enable us to become better clinicians, the careful reporting of single cases may in the aggregate furnish us data whereby we may differentiate clinically between such growths and other forms.

* Read before the Chicago Pathological Society, April 10, 1899.

Given then such a case of hematuria, how shall we determine its source and etiology? How decide on treatment? Analysis of the case was made along these lines:

Blood-stain examination failed to reveal plasmodium or other parasites.

Blood-count 4.5 mil. to cmm.; relation white to red normal; no excess of polynuclear leukocytes; hemaglobin not estimated.

Urinanalysis shows the urine in the intervals to have been normal except for an occasional blood-corpuscle (acid, 1018). There was no blood, pus, bile, or sugar; no pelvic epithelium; no aggregation of cellular elements suggesting neoplasm. During hemorrhages, examinations failed to reveal other than blood, and they were repeatedly made. Vesical examination both with sound and cystoscope was negative. There was no tumor to be felt; the right kidney was doubtfully palpable; and there was some hypersensitiveness over that side as compared with the left. The physical examination was otherwise negative.

URINANALYSIS CHART.

DATE.	COLOR.	REACTION.	SPECIFIC GRAVITY.	AMOUNT IN 30 MIN.	ALBUMIN.	SUGAR.	UREA.	SALINE ELEMENT.	CASTS.	CELLS.	REMARKS.
March 3, 1899	Amber.	Slightly alkaline.	1020	1100	Trace.	No.	2%	Urates.	No.	Epithelium. Pus.	
September 20, 1896 . .	Dark yellow.	Slightly alkaline.	1020	1200	Trace.	No.	1%	Urates.	. .	Pus. Few.	Bacteria.
March 6, 1899	Clear straw.	Quite acid.	1020	. . . .	No.	No.	2%	Acid urates.	No.	Few. Epithelium.	
					Nitric heat. Potassium ferrocyanid.						

FUNCTIONAL CAPACITY PRIOR TO OPERATION AS DETERMINED BY HARRIS' SEGREGATOR.

Right kidney . .	Translucent yellow.	Feebly acid.	20 cc. in 30 min.	. . .	Trace.	No.	1.49%	. . . . .	Few hyalin.	. . . . .
Left kidney . . .	. . . . .	Acid.	18.7 cc. in 30 min.	. . . .	1/10%	. . .	2.35%	. . . . .	. . .	. . . . .

In the absence of evidences in the blood-examination malarial hemorrhage was ruled out, as was that due to other *parasites.* The fact that there was no family history, no former history and no superficial purpura, eliminated *hemophilia.* That he was abstemious in his habits and had not been exposed to irritating chemicals, dismissed *alcoholic* or *chemical* factors. On careful inquiry trauma was repeatedly denied, as was all venereal history. The patient has healthy children. As there was not presented a single characteristic of tuberculosis, there seemed to remain either stone as the cause of hemorrhage, or neoplasm.

The man had pain of a dull character for six years; noticed blood in the urine for two years. The pain was increased and the amount of blood in the urine likewise by his driving over rough roads and railroad crossings, as his occupation required him to do. Hemorrhages were less frequent after prolonged rest, and there was even total cessation, with a normal urine. The family history was negative as to growths, and therefore the long duration and the fact that there was no cachexia, led to renal exploration for stone. None was found. The kidney was larger than average, but not markedly so. A peculiar capsular pigmentation and thickening led to removal of fragment for examination. Examination by faulty technic made the diagnosis doubtful, but it was thought to resemble melanosarcoma.

The more striking factors in the case then are:

1. The more prolonged history of dull pain (6 years).
2. The occasional appearance of blood in urine.
3. The mild cachexia of so extensive a growth.
4. The apparent line of least resistance to its growth in the cicatrix of the first incision.
5. The total and perfect compensation of the opposite kidney.
6. The causing of hemorrhage at a time when with kidney exposed and explored no tumor yet recognizable (unless with total section of the kidney, a practice I am loath to accept with an apparently normal kidney).
7. The enormous increase in urine after transfusion from 300 cc. to 2,500 cc. with cessation of vomiting.
8. The disappearance of casts and albumin from the left kidney-secretion after removal of the right.

Before describing the tumor which was extirpated by Dr. McArthur, a short review of our present knowledge of this form of neoplasm will assist in the comprehension of its peculiar structure. Prior to 1883, many forms of renal growths were grouped under the head of lipomata. Some authors, *e. g.*, Klebs,[1] Sturm,[2] Sabourin,[3] had previously, and others at about the same time, *e. g.*, Weichselbaum and Greenish,[4] described these neoplasms as adenomata arising from the renal tissue itself. Grawitz[5] was the first to bring order out of chaos when he maintained that these growths, formerly described as lipomata, in reality had their origin in the

iprarenal tissue misplaced within the kidney. "The ells," he wrote, "contained fat-globules, lay four to eight gether and formed columns, and were sharply de- arcated from the surrounding kidney-tissue by a ipsule." His reasons for believing these to be of drenal origin were: (1) The subcapsular situation here aberrant adrenal tissue is likely to occur; (2) ie cells were quite different in form from the renal ells and contained fat-globules in large drops like fatty ifiltrated liver-cells; (3) the capsule and the arrange- ient of the tumor-cells in rows, like the suprarenal ortex, the preponderance of cells over stroma; (4) myloid degeneration of bloodvessels present in his ase only in the adrenals. Others, like Chiari,[6] Lu- arsch,[7] and many others supported Grawitz' views and dded the following criteria: (1) The similarity be- veen tumors of the adrenal body itself and these rowths; (2) the presence of glycogen; (3) staining of uclei by Weigert fibrin and Russel fuchsin methods ommon to the cortex of suprarenal gland, but not enal epithelium or to renal adenomas. Sudeck,[18] De 'aoli,[16] and Driessen[17] maintained that these tumors ere true renal adenomata, and for a time a bitter dis- ussion arose.[30, 31] The views of Grawitz have prevailed nd have been confirmed by many writers [19–29] in recent ears. While Sudeck has claimed that they arise from he renal tubules, Hansemann[32] and Hildebrand[33] say hat they are perivascular growths and hence of endo- helial origin.

It will be impossible to go into detail in regard to hese opposing theories. The origin of the growths rom a misplaced adrenal is now generally accepted by he majority of pathologists. The frequency with which portions of the suprarenal tissue is found under the rue renal capsule and embedded in the renal cortex vas shown to be astonishingly great by Grawitz.[34] At imes an entire adrenal, at others only a portion which contains all three layers of the suprarenal cortex, the ona glomerulosa, fasciculata and reticularis. As a rule, he cortex only is represented in these accessory adre- nals, but May[35] found both cortex and medulla repre- ented in two cases. The accessory adrenals are found n all portions of the surface of the kidneys. Those leeper in the cortex are explained by the fact that when the lobules of the fetal kidney are united in early ife they are enclosed, and remain buried in one of the furrows, and thus in the renal cortex.

Accessory suprarenal capsules are found in many places besides the renal cortex, for instance, near the free edge of the broad ligament, between its layers,[36] between the solar and renal plexuses, in the ovary, testis, spleen, along the spermatic cord and veins. Ac- cording to Schmorl,[37] they are found in 92% of all bod- ies. According to Janosik and others the cortex of the suprarenal gland arises from peritoneal epithelium, and the medulla from ganglion-cells of the sympathetic solar plexus. The aberrant adrenals may develop into simple hyperplastic nonmalignant, or into malignant tumors. If the latter, the primary focus may be very small, as in a case of Strübing,[38] and the metastases enormous in proportion. Their growth is, as a rule, slow, and unless transmission along the veins has oc- curred, they give rise to but few clinical symptoms. Owing to the extreme vascularity of the tumor, exten- tensive hemorrhages may occur, and all that is found will be a large cyst containing blood. Lubarsch[39] and others believe that the presence of glycogen in these tumors is of the greatest diagnostic importance, and say that it can be found with the iodin, hematoxylin, and gentian violet methods. The fat contained in the cells represents a metabolic process, and such intracellular accumulations of fat are characteristic of normal adult adrenal tissue.

Beneke[40] found that in one case he could see a tran- sition of the tumor into a sarcoma by gradual changes in the form of the cells and the increase of chromatin in their nuclei. Askanazy observed a similar change. Horn[41] claimed that they undergo a gradual transition into carcinoma. Which of these views is to be accepted depends upon whether the adrenal cells are looked upon as epithelial or endothelial. The cysts at times ob- served, especially in the periphery of these tumors, are, according to the investigations of Ricker and Kelly, to be looked upon as the result of dilated uriniferous tubules in the kidney islets within the misplaced ad- renal tissue. The cells of the tumor are generally polyhedral, but may be elongated or flattened by mutual pressure, and contain fat. Besides the glycogen spoken of above (which does not occur in the normal adrenals, but in hyperplastic and malignant tumors of this or- gan), lecithin also occurs.

To sum up, aberrant adrenal tissue may be present in various places, but especially in the kidney itself. It gives rise to simple hyperplastic and malignant neo- plasms, which correspond in structure to adrenal cortex, especially the zona fasciculata, but with less regular trabeculæ. They are extremely vascular, and hemor- rhages into the tumor are common. They are dis- tinctly encapsulated, and may cause metastases in lungs, liver, bone, and so forth, by transmission through the veins.

Microscopic Appearance.

Extirpated kidney, size of a cocoanut, $5\frac{3}{8}'' \times 12\frac{1}{4} \times 7\frac{1}{4} \times 9$ cm.

The anterior surface shows only toward the hilum and upper and lower poles a resemblance to the normal external appearance of a kidney. The remainder is occupied by an irregular, nodular tumor, a portion of which is broken down and the capsule torn off. The nodules extend as much as one-half inch above the niveau of the external surface; on section, they are yellowish in color and are continuous with the main tumor mass to be described.

On the posterior surface the appearance resembles more nearly the external appearance of the kidney, the lower portion yellowish, the upper mottled red and yellow. There are only two such nodules visible as are described on the anterior surface, which are present along the convexity. One of these projects three-quarters of an inch beyond the

niveau, about the size of a walnut, and on section it seems to be continuous with the main tumor-mass. The other is about the size of a bean; on section it is seen to be distinctly encapsulated; it contains one small cyst and some yellowish pigmented masses, and is distinctly separated from the surrounding cortical tissue of the upper pole at which both are



FIG. 1.—*A*. Necrotic areas in center of tumor.
B. Small cyst in one of the nodules.
C. Capsule of tumor with atrophied renal tissue.
D. Hemorrhagic area.
E. More recent yellowish nodules.
F. Upper pole.
H. Lower pole.
K. Growth projecting towards ureter.
L. Septa of tumor, arising from capsule.

situated. About the middle of the posterior surface is a cyst in the cortex projecting slightly above the niveau. It was ruptured during the operation and looks like a simple retention-cyst. Section of the kidney in median line shows

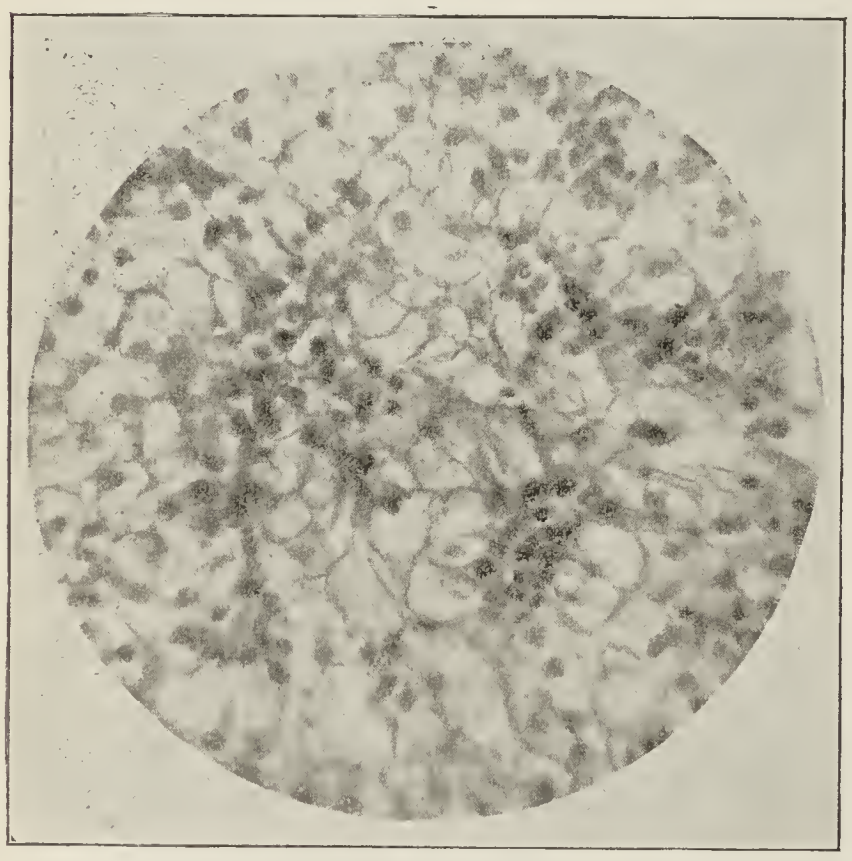


FIG. 2.—Tumor showing similarity to stratum fasciculare of normal adrenal cortex. Photomicrographs were kindly made by Professor M. Herzog, of the Chicago Polyclinic.

that a tumor more or less circular in form occupies the center of the kidney. The dimensions of the sections are 7½ cm. x 9 inches. The tumor is distinctly encapsulated; toward the posterior surface it has caused an atrophy of the renal tissue to such an extent that that which remains varies in width from a mere connective-tissue capsule over the middle of the convexity, about one-sixteenth of an inch in thickness, to one-fourth of an inch at the hilum.

In the anterior half there is no trace of kidney-tissue over the tumor.



FIG. 3.—Tumor showing fat in cells.

At the upper and lower poles, as will be seen from the accompanying Fig. 1, there remain portions of renal tissue; in these the relation of cortex to medulla appears normal, is extremely firm, with well-marked glomeruli.

The tumor itself is distinctly encapsulated, easily separated from upper and lower poles of renal tissue, shows toward

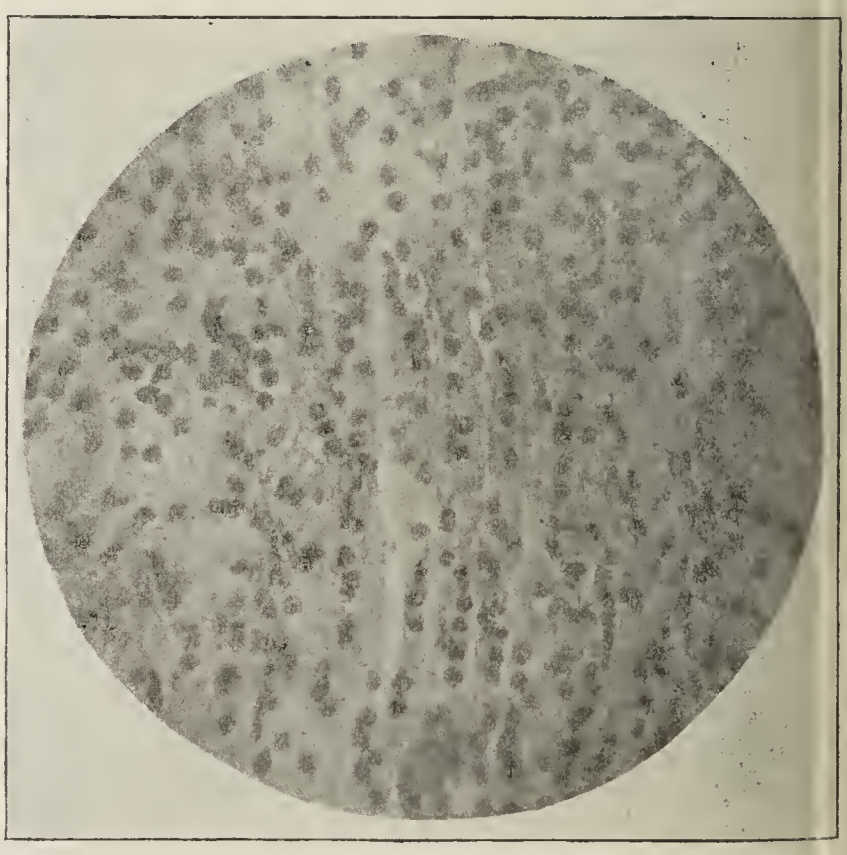


FIG. 4.—Tumor (on left) with capsule and compressed renal tissue (on right).

the periphery, in what are apparently recent areas, a yellowish, more or less homogeneous structure, the nodules varying in size from a pea to a walnut, each separated from the other by septa, which arise from the tumor capsule. In one of the older areas is seen a distinct cyst the size of a

an; others show a trabeculated appearance, in the meshes which is dark, clotted blood.

About the center of the tumor there is an area the size of half-dollar, pale yellowish in color, soft, broken down, idently necrotic. The tumor also occupies the entire pel- s of the kidney, the only portion remaining of the same eing a narrow channel at the upper and lower borders of ie kidney about the size of an ordinary ureter, which join ach other at the hilum, and which apparently collected the rine from the still intact upper and lower poles. The tumor oes not extend into the ureter, apparently having pushed ie pelvis before it in its growth.

The microscopic examination of sections stained with Dela- eld's hematoxylin and eosin shows (1) in the youngest, most apidly growing portions of the tumor (shown in Fig. No. 3), arge, clear, polyhedral cells; in many the protoplasm is eplaced by one or more large vacuoles which represent it (washed out by the alcohol in the fprocess of prepar- ng sections). Many of the nuclei have been pushed to ie edges of the cell by the fat contained therein. The ells are more or less regularly arranged in columns, which re separated from each other by delicate septa of con- ective tissue which passes between the individual cells, hus forming a fine reticulum in which they lie. In nany places, instead of the solid septa, one sees fine capil- aries separating the columns. There seems to be no egularity as to the distribution of the vessels. In some parts they are separated from each other by double layers of ells; in others by larger clusters. Along many of the epta, especially those which are formed by vessels, there is onsiderable free blood-pigment (hemosiderin).

This small growth, just described, is completely encap- ulated. The capsule at no place shows any openings hrough which renal tissue has grown into the tumor as de cribed by Ricker. The connective tissue of the capsule is directly continuous with that of the adjacent kidney stroma. The renal structures immediately around it show the effects of compression with consequent atrophy of glomeruli and ubules. Further away the parenchyma show a moderate legree of interstitial change. The intertubular connective issue and that of Bowman's capsule show a distinct in crease. The tumor itself bears a striking resemblance to the stratum fasciculatis of the normal adrenal.

In slightly older portions of the growth, *e. g.*, the yel- owish areas at the edge of the tumor, the cells show less vacuolation, the clusters of cells are much larger than in the portion just described. In places the cells are so closely packed together and irregularly placed with relation to each other and to the bloodvessels that the picture re- minds one greatly of a sarcoma. According to Beneke, such a change was observed by him in one case in this class of tumors. I do not believe that one could say that such a change had occurred in our tumor, but that rather through rapid growth there was no longer any resemblance to the structure of the adrenal cortex in such portions. Here and there one see cells with spindle-shaped nuclei which look like non striated muscle fibers.

A section, in which the hemorrhages can be seen with the naked eye, shows microscopically cavities which have no walls, but seem to be spaces between cells of the above de- scribed type and arrangement, and which have been pro- duced by mechanical separation of the cell-groups. In these older portions there are cross-sections of large bloodvessels, and the cells seem to rise from the vessel-wall.

Such pictures may have given rise to the description of some of these growths as perivascular sarcomas, if their origin from aberrant renal tissue is not followed from more distinct fields.

Tests for glycogen were made according to the iodin method, and resulted positively. The method was as follows: Lugol's solution, 5 to 10 minutes; dehydrate in one part tincture iodin and 3 to 4 parts absolute alcohol. Clear in oleum origanum cretici. Mount in oil. The glycogen is distinctly seen in the form of small granules and more amorphous larger bodies of a deep brownish color.

We have reported the clinical history and patho- logical description of this form of neoplasm on account of its rarity and its apparent non-malignancy,* al- though metastases are certain to appear more slowly than in the other varieties of malignant tumors of the kidney.

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THE SURGICAL TREATMENT OF PERFORATION OF THE BOWEL IN TYPHOID FEVER.†

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IN the brief limits allowed to this paper among so many others, it is impossible to discuss more than the treatment of perforation of the bowel in typhoid fever. The diagnosis of this serious complication, which is equally important, must, unfortunately, be omitted. What I have to say may, perhaps, be best stated in answer to four questions.

First.—Shall we operate at all? This question can now be answered absolutely in the affirmative. Thir- teen years ago, when Professor James C. Wilson and I first discussed the advisability of an operation in a case of apparent typhoid perforation, not a single case had been operated upon in America and only one in Europe, by Mikulicz, and of this we were ignorant. Then, the question was debatable; now, experience has given us a positive solution.

* September 15, 1899. As predicted at the time of the reading of above paper, the patient died a few days ago. An autopsy could not be obtained.

† Abstract of a paper read in the discussion on Typhoid Fever at the meeting of the New York State Medical Association, held in New York, October 25, 1899.

In my book on the *Surgical Complications and Sequels of Typhoid Fever*, published early in 1898, I collected 83 cases of operation, of which 67 died and 16 recovered, a recovery-rate of 19.3%. Appended to this present paper is a continuation of that table up to the present time, covering 67 additional cases, of which 49 died and 18 recovered, a recovery-rate of 26.9%, a gain over the rate of the first 83 cases of almost 40%. I count Dalton's case as an operative recovery. Possibly Woodward's patient, who survived 9 days, might be so classed, but to be on the safe side I classed this as a death. The recovery-rate of the entire 150 cases is 22.7%. The list includes cases operated on many hours and often many days after perforation presumably took place. If physicians were alive to the good results of operation, and especially that the healing process in operation during typhoid progressed just as well as if there were no typhoid, and if they called the surgeon promptly, I do not doubt in the least that the recovery-rate would be 30%, or possibly even one in three; 26.9% is within hailing distance. In somber contrast to this is the estimate of Murchison that the recovery-rate in unoperated cases is only 5%, and Fitz states that 83.4% die within the first week, 37.3% dying even within the first day.

The papers of Cushing and Finney and my book in America, and the papers of Platt, of Monod, and Van Werts, and of Gesselewitsch and Wanach in Great Britain, France, and Russia respectively, have, evidently, borne good fruit. From 1884, when the first operation was done, to January, 1898, 14 years, only 83 cases were reported. Eighteen months have added 67, or 150 in all. Of the whole number 90 are reported by American surgeons (including Canada), 21 by British, and 15 by Russian surgeons.

Secondly.—In what cases shall we operate? To this I would answer practically every case of perforation, unless the condition is such that recovery is evidently hopeless. The better the general condition, the better the prospect of cure, and perforation occurs quite as often in mild cases as in severe and possibly even more frequently. One case was operated on twice with a fatal result; one case three times and yet recovered.

The operation has been followed, as is possible after any abdominal section, by intestinal obstruction. Cushing's case (88) and Finney's (104) were operated on for such a postoperative obstruction and both recovered. C. B. Porter's case died of an unrelieved obstruction, in which a second operation might have averted death. Finney's remarkable case of seven later complications, yet happily resulting in recovery, encourages us never to despair.

No age is a barrier, yet, as may be judged from the entire series of 150 cases thus far reported, age, apparently, has considerable influence upon the recovery rate:

TABLE OF RECOVERIES AND DEATHS, WITH REFERENCE TO AGE.

Age.	Recovered.	Died.	Recovery Percent.
Under 15.....	6	6	50
15–25.....	5	34	8.1
26–35.....	10	29	26.5
Over 35.....	6	15	38.5

This shows that from 15 to 25 is the most unfavorable age to operate, while the most favorable periods are over 25, and especially under 15.

Again, sex seems to have considerable influence on the mortality-rate, so far as can be judged from 150 cases. In my table the sex is mentioned in 121 cases, of which 102 were males and 19 females (84% of males). This preponderance of males would be even greater were military and naval surgeons alive to the possibilities of saving life in this perilous condition. I have been informed of a considerable number of such cases resulting fatally without operation during our late war with Spain. Of the males 83 died and 19 recovered, a recovery-rate of 18.6%. Of the females 11 died and 8 recovered, a recovery-rate of 42.1%. In other words, while the number of operations in males has been over five times as many as in females, the recovery-rate of females has been over twice that of males.

Again, I have analyzed the recovery-rate in the various weeks of the disease. The third week gives, as is well known, the largest number of cases of perforation; the second week following close upon it. The mortality-rate of these two weeks is by far the worst, yet even these two weeks yielded a recovery-rate of over 16%; more than three times that of the unoperated cases, and in the fourth week this recovery-rate is doubled.

TABLE OF RECOVERIES AND DEATHS, WITH REFERENCE TO THE WEEK OF THE FEVER.

	Recovered.	Died.	Recovery Percent.	
1st	2	1		
2d	4	20	16.6	The numbers in the other weeks are too small to make the percentages of value.
3d	8	42	16	
4th	4	8	33.3	
5th	1	4		
6th	2	2		
7th	2	3		
9th		1		
11th	1			

Third.—When shall we operate? Next to the first question, which I regard as settled, this is the most important to be considered. As exception has been taken, especially by Cushing and Taylor, to my views as set forth in my book, I may be permitted to quote precisely what I wrote:

"First, the time of operation should be wisely chosen. The best time is not during the immediate shock which lasts during the first few hours. Happily, in fact, it is very rarely the case that operation can be done within several hours after perforation, since, the case being under the care of a physician, it requires time to obtain a consultation with the surgeon, and, when the diagnosis has been reached, still further time must elapse before suitable preparations for operation can be made. The table on page 227 shows that *the second twelve hours after perforation, all things considered, ha*

been the most favorable up to this time. Abbe well says that it is essential that the surgeon should never be so hasty in getting at his work that he enters upon it handicapped by poor assistants, poor light, poor arrangements for irrigation and sponging, or inadequate plans for restoration from shock. *The earliest moment at which the operation can be done after the immediate shock of the perforation, provided, of course, there has been any, as is sometimes not the case, the better it will be for the patient. Every hour counts, since the infection of the peritoneum becomes more diffuse and more intense.*"

I think that what I wrote may be fairly summarized in two rules: First, operation should be done as soon as possible after perforation; but, secondly, no prudent surgeon would operate in perforation any more than in any other condition during profound shock. I did not state that I "preferred the second twelve hours," but only that, "all things considered, this has been the most favorable up to this time."

Let us appeal again to the facts. In the subjoined table I have made a more minute analysis of the influence of the time of operation upon the rate of recovery than in my book, and on consulting it, we see that the recovery-rate in the first 4 hours is 14.3%; from 4 to 8 hours, 8.3%; and for all cases operated on within the first 8 hours, the average is 10.5%. In the third 4 hours, from 8 to 12, the recovery-rate rises to 26.6%, which is still below the recovery-rate of operations done from 8 to 24 hours, which is 30.1%, or in the second 12 hours, which is 31.4%; after 24 hours the recovery-rate falls to 10%.

	Died.	Recovered.	Percentage of Recoveries.			
Under 4 hours.....	6	1	14.3			
4–8 hours	11	1	0.83	17.6	10.5	24.06
8–12 "	11	4	26.6			
12–18 "	17	7	29.1	31.4	30.1	
18–25 "	7	4	31.4			
Over 24 hours	38	14	10.			
Not given	28	11	28.2			
Total.....	116	34	22.7			

These figures, as far as the number of cases justify us in drawing a conclusion, certainly carry out the statement which I first made. It should be modified, however, to read that during the first 8 hours the chances of recovery are but one-third of that which obtains during the rest of the first 24 hours.

It is to be remembered that the operations done under four hours must have been in hospitals, for in a private case it is practically impossible to summon the physician and then the surgeon, make preparations and do the operation in so short a period after the perforation has occurred. Moreover, the patients operated on in hospitals have not only facilities which do not exist in any private house, even the best, but they would have the service of men on the hospital staffs, on the whole, more skilled than any of those who operated on other cases, yet the mortality-rate is three times as great.

I am convinced that this is due to shock. If there be no shock or it is only slight, no surgeon would allow the contents of the intestine to flow into the abdominal cavity for a moment longer than is possible; but if there be no shock, especially grave shock, I believe it to be the duty of the surgeon to wait for a reasonable time for at least a partial recovery from the serious condition. I cannot agree with Taylor when he states that the shock is due to sepsis and not to the perforation. Thus Fitz states that of 80 cases, the onset of the symptoms was sudden in 56, while in 15 they were gradual or latent, and in 5 there were none. Finney says "where marked symptoms of shock and collapse were present at the time of operation, the prognosis was distinctly for the worse," and, again, "the signs upon which most dependence is to be placed are sudden pain in the abdomen with symptoms of collapse accompanied by an abrupt fall in the temperature, it may be even several degrees." All that we know of shock, it seems to me, corroborates this view. How many of us have seen the serious shock produced by a finger pinched in a door or other similar accident in which the element of sepsis cannot possibly enter. Look at the records of perforation in gastric ulcer and see in how many cases, similar to those of typhoid perforation, the patients fall down in collapse. It is the pain of the perforation and extravasation and not the sepsis which produces the initial shock. The first moment possible after this has subsided is the time to operate. Were it due to sepsis, then the initial shock should be slight and it should steadily increase with the increasing sepsis; but as a matter of fact the initial shock is the greatest and is followed by more or less subsidence of shock.

It is possible that larger statistics will change my views to some extent, but I still doubt if operations done during the presence of severe shock will ever prove as successful as those undertaken as quickly as possible after primary shock has passed away.

On the one side is the shock; on the other side the increasing infection of the peritoneum. He will be the first surgeon, as he is the sailor, who avoids both Scylla and Charybdis.

To avoid both of these dangers, if possible, Cushing has proposed to operate in what he terms the "preperforative" stage. Should it ever prove possible accurately to diagnose the preperforative stage, that, unquestionably, will be the most favorable time for operation. I quite agree with Finney in his belief that so far as operative technic is concerned (with the exception of one point to be alluded to in a moment) we have probably progressed nearly as far as we ever shall. Our future increased success will depend far more on our accuracy of early diagnosis and especially if it should prove possible accurately to diagnosticate an impending rather than an actual perforation. I would urge most strenuously, therefore, that, as in appendicitis, the surgeon should be called in at the earliest moment when any abdominal symptoms indicate possible perforation. Preparations can then be made, and, should the symptoms call for it, an exploratory operation should be

done after the fashion proposed by Finney. These, I think, are the two most distinct advances that we have made in the last two years in the treatment of typhoid perforation; namely—the possible diagnosis of an impending perforation followed by immediate operation, and exploratory operation under cocain.

Fourth.—How shall we operate? As already indicated, the most important advance in the technic is the use of cocain instead of a general anesthetic. This was first used by Cushing in two cases. In a personal letter to me he reinforces his suggestion and says, "I think local anesthesia is a great step in advance. I shall never give general narcosis again in typhoid." To this Finney adds the suggestion "that in any case in which diagnosis is obscure and there is reason to suspect the existence of a perforation, a small incision be made under cocain-anesthesia and cultures taken from the abdominal cavity.

"This exploratory incision would be followed by very little disturbance to the patient and very slight risk. If the presence of a septic peritonitis is determined, this incision can be enlarged and the operation for the relief of the perforation and peritonitis can at once be carried out." Still more, if we can diagnose the preperforative stage, and anticipate both shock and sepsis, we shall have made an important further step in advance.

A very brief summary will be sufficient to indicate the further technic. The incision would be best made in the right linea semilunaris or through the rectus muscle. If such a general peritonitis is present that this will not enable us thoroughly to cleanse the abdominal cavity, a second incision may be made in the left iliac fossa.

The perforation should be sought, first, in the ileum; secondly, in the adjacent cecum and appendix, and, third, in the sigmoid, where it occasionally occurs. One case of perforation in Meckel's diverticulum has been reported.

When found, the perforation should be sutured without paring the edges, which is a loss of time and tissue and involves also possible hemorrhage, to arrest which more time must be consumed. All of the thinned area should be included in the suture. The suture should not be continuous, but Halsted's mattress suture. If a second row of sutures is deemed necessary, this may be continuous, as this saves time. The amount of inversion of the bowel must not be such as to impair seriously the lumen of the gut. Should the perforation be very extensive, or should two or more adjacent perforations render it necessary, a resection of the bowel may be made. Of seven cases of resection, two recovered. Should there be found other points of impending perforation, these should be sutured as a preventive measure. Some cases have been lost of a later perforation, which, apparently, should have recovered. Two cases perished from subsequent hemorrhage. In five cases the appendix was removed without a recovery.

The cleansing of the peritoneal cavity is one of the most important steps in the operation. Unless this is thoroughly carried out the operation will certainly prove futile. Whether it shall be done by flushing or wiping or both, must be decided by each operator at the time.

Drainage in most cases will be necessary, but I quite agree with Finney that "many cases in which we have heretofore been accustomed to drain would recover more promptly without it. If the inflammatory process has not been of too long standing, and the peritoneal cavity can be at all satisfactorily cleansed, it will be better to fill the cavity with salt-solution and close the wound." Of seven cases not drained, two recovered.

Speed in operating is an important factor in recovery, as would naturally be supposed in cases which are so unfavorable in consequence of the existing fever and its concomitant exhaustion. Only one case in which the operation lasted an hour or over was followed by recovery. A number have been done in from 17 to 30 minutes. On the other hand, in our anxiety to complete the operation quickly, we must never sacrifice thoroughness, both of closure of the perforation and of cleansing the peritoneal cavity.

One criticism by Cushing of a statement in my book I feel is just. I said, "I can scarcely think that we would ever be justified in reopening the abdomen. Possibly a very exceptional case might justify such a procedure, but a typhoid patient rarely escapes with his life even after one operation, and could not be expected to survive a second. The same remark would apply to any new perforation which might occur. Such cases must, unfortunately, be left to their fate." The experience in Cushing's first case, in which 3 operations were done and yet recovery followed; and the extraordinary vitality exhibited in Finney's third case, "who, subsequent to the operation, suffered 2 relapses, one of great severity, a suppurating media, a left-sided pleurisy, a right-sided femoral phlebitis, a severe bronchitis of both lungs, and the painful toes so common after the cold-bath treatment;" and his fifth patient, "who, on the twenty-second day, was operated upon for relief from obstruction of the bowels," show that we ought never to despair of any case.

Conclusions.

My views on the operative treatment of typhoid perforation may be summarized, therefore, as follows:—

1. The surgeon should be called in consultation the moment that any abdominal symptoms indicative of possible perforation are observed.

2. If it be possible to determine the existence of the preperforative stage, exploratory operation should be done under cocain-anesthesia before perforation, shock, and sepsis have occurred.

3. After perforation has occurred, operation should be done at the earliest possible moment, provided,

4. That we wait till the primary shock, if any be present, has subsided.

5. In a case of suspected but doubtful perforation, a small exploratory opening should be made under cocain to determine the existence of a perforation, and if hospital facilities for a blood-count and for immediate bacteriological observation exist, their aid should be invoked.

6. The operation should be done quickly, but thoroughly, and in accordance with the technic already indicated.

7. The profcssion at large must be aroused to the possibility of a cure in nearly, if not quite, one-third of the cases of perforation, provided speedy surgical aid is invoked.

REPORT OF A CASE OF ACUTE CHOLECYSTITIS APPARENTLY FOLLOWING INFLUENZA.

By FREDERICK A. PACKARD, M.D.,
of Philadelphia.

At 4.30 A.M., on December 26, 1898, I was hurriedly sent for to see Mr. E. W., aged 58 years, because of a sudden attack of severe pain in the abdomen with vomiting.

Mr. W. had been previously attended by me for various minor ailments, but has usually been a robust and vigorous man. For three days prior to my being summoned he had suffered from symptoms attributed by him, probably correctly, to a mild attack of the widely prevailing epidemic of influenza. These symptoms consisted of pain in the back and down the sternum, with slight feverish feelings, some coryza, and watering of the eyes. In spite of this attack he had indulged in many rich dishes and had eaten mince-pie on several occasions. On the afternoon of Christmas-day, after eating a hearty dinner, he complained of some discomfort in the lower portion of the abdomen. He had had a constipated and insufficient bowel-movement on that morning, and described the pain as no more severe than constipation would explain. At 1 o'clock in the morning of the night after Christmas he was waked from sleep by a sudden attack of severe pain in the upper part of the abdomen. This grew more severe and seemed to be somewhat increased by two efforts at stool that with much straining produced two small, hard, fecal lumps. At 3 o'clock the pain was decidedly more severe, and vomiting with much retching began. The vomitus consisted of a little mucus with a slight greenish tint.

When I saw him he was half sitting up in bed, retching violently and complaining of intense pain, sharp and somewhat tearing, in the whole upper zone of the abdomen, but chiefly on the right side. His skin was moist, his pulse of good force and volume, but only reaching 48 to the minute. The tongue was furred somewhat. The temperature was normal. Examination of the chest was negative. The liver-area extended from the upper border of the sixth rib in the right nipple line above, but its lower boundary could not be accurately determined because of tenderness. The spleen was not enlarged. The whole abdomen was slightly sensitive to touch, but fairly deep pressure could be made over the whole lower half and to the left of the middle line. The slightest pressure over the right upper quadrant caused prompt contraction of the abdominal muscles, with complaint of exquisite pain so soon as the region of the gallbladder was approached. By careful palpation and the cooperation of the patient in bearing pain the fundus of the gallbladder could be readily felt as a round, elastic tumor, descending with inspiration and calculated as being of about the size of an English walnut (about 2.5 to 3 cm. in diameter). The edge of the right lobe of the liver could be felt just below the costal margin. The pain was not at all referred to the shoulder The patient was seen, of course, by artificial light, so that the presence or absence of jaundice could not be determined, but he said that he had not been sallow at any time lately, and his son corroborated his statement. Careful inquiry failed to discover any suggestion of a former attack of trouble with the biliary passages, the only occasion when abdominal pain was present having been two years ago, and then being but slight, not localized and not sufficiently severe or long-continued to cause him to seek advice. He said that he was sure that in the former attack there was no localization of the pain, but that it was general. He had never had jaundice or even any sallow color of the skin to his remembrance. He had never noticed that his stools were of light color, or his urine especially highly colored.

He was ordered mustard plasters over the right hypochondrium, to be repeated every four hours, milk diet, and 5 grains of calomel at one dose.

I saw him again at 11 A.M., and found his pain less, his retching having ceased, and no vomiting having occurred. The physical examination simply confirmed the previous findings. He was told to stay in bed, to continue the counter-irritation and milk-diet, and to take a half-ounce of Hunyadi Jaños water every hour until the bowels moved. On my visit that evening he was comfortably sleeping. On going to his house on the next morning I found that he had gone out in order to keep an engagement with some business associates, this involving a railroad journey.

I received a somewhat urgent, and I may say not unexpected, call to see him on the next morning (December 28). I found that during the preceding day he had suffered much abdominal pain, with nausea, but no vomiting. He had been relieved of the discomfort in the major part of the abdomen by a large bowel-movement on the preceding evening, but during the whole day had had continual distress in the right hypochondrium, with sharp pain on moving or jolting. When I saw him his expression was rather "anxious," the lower portion of the face had a pinched appearance, and he was quite pallid. He was lying with the knees drawn up and suffered decided increase of discomfort on extending them. The pulse was of rather poorer character than on the last examination, but was still of fair force and volume. The temperature (oral) was 99.5°. The epigastric and right hypochondriac regions were quite tender to the slightest touch with especial localization just to the left of the right vertical nipple line at the costal border. The rest of the abdomen could be palpated without tenderness, except when pressure was sufficiently deep to cause dragging upon the upper right quadrant.

The enlarged fundus of the gallbladder could still be felt, but seemed rather less clearly outlined than on the previous examinations. Forward pressure in the right flank caused quite acute pain, which was referred especially to exactly the position of the gallbladder tumor. The whole right side from the upper level of liver-dulness to the level of the crest of the ilium was decidedly tender. There had been no rigors or sweating. Fearing the possible eventual necessity for surgical interference, I asked Dr. W. J. Taylor to see him with me on the afternoon of the same day. We visited him at 5 P.M., and found that he had had a fairly comfortable day, but was still lying with the knees drawn up, and was very tender over the portions of the trunk mentioned above. The small doses of calomel which he had been taking through the day had not caused a movement. Dr. Taylor agreed with me as to the diagnosis, but we decided that surgical interference was not called for at that time, but might be necessary later.

On December 29, he was found to be more comfortable, with some diminution of tenderness, but still lying with the knees flexed and complaining of great tenderness in the region of the gallbladder upon direct palpation, or when either the liver was pushed forward by the hand in the right flank or a deep inspiration was taken. His expression was better, his pulse 72, his temperature 99.4°. The bowels had been freely moved earlier in the morning. For the first time he had experienced pain referred to the right shoulder during the preceding night.

On December 30, he was decidedly more comfortable and could lie easily with the knees extended. No tumor could be felt, although palpation could be more thoroughly prac-

tised, but the edge of the right lobe of the liver could be readily felt about 1 cm. below the costal margin. There was no appreciable increased upward extension of liver-dulness. From this date the tenderness over the gallbladder rapidly lessened, the temperature fell to the normal point, and all his accessory symptoms disappeared. By January 4, there was nothing to be found on physical examination except a slight degree of sensitiveness on quite deep pressure over the gallbladder, no swelling of which could be detected. The liver-edge could no longer be made out by palpation.

The patient's own diagnosis upon the onset of his attack was that of appendicitis, and in truth many of the features of his case somewhat mimicked that condition. That it was not appendicitis alone was proven by the distinct tumor in the region of the gallbladder, which I am convinced could not have been detected had it not been for the fortitude of the patient in bearing the pain produced by thorough palpation. Of course the seat of greatest pain was not that typical of a textbook-case of appendicitis, but it was the same as that sometimes noted at the bedside. That the symptoms and physical signs were produced by cholecystitis is, I think, proven by the mode of onset, by the associated gastric symptoms, by the palpable tumor of the gallbladder, by the diffuse tenderness in the region of the gallbladder, by the pain produced by motion of the gallbladder from pressure upon the liver by the hand in the right flank, or by deep inspiration, and by the gradual subsidence of tenderness, the region of the gallbladder being the most enduring point of pain on pressure.

No other explanation of the case is satisfactory. Hepatic colic was negatived by the character of the pain, the signs of localized peritonitis (of course a possible associate in some cases of gallstone-colic of greater duration), by the rapidly forming tumor of the gallbladder, and by the manner of convalescence. The absence of jaundice at any time would have no bearing in excluding impaction of a calculus in the cystic duct, but other features would rule out the existence of that condition, especially the subsidence of the cystic tumor without subsequent jaundice from entrance of the stone into the common duct, or delay of its expulsion at the ampulla.

Whether it is proper to look upon influenza as a causative factor, is open to doubt. From the patient's description he would seem to have suffered from the epidemic of that disease, which was at its height at that time; but the presence of the disease would not establish an etiological relation. The recovery of the patient prevented more certain evidence of such a connection, and the ability of influenza to cause this addition to its already long list of complications can only be demonstrated by the occurrence of a sufficient number of cases presenting this association to point to its being more than a coincidence.

Later Note.—On January 25, I was sent for because of return of pain in the right hypochondrium. This pain was sharply limited to the region of the gallbladder, and was increased by pressure, by deep breathing and by movement of gas within the bowel. No tumor could be felt. I looked upon this recurrence as a result of adhesions of the serosa of the gallbladder to neighboring tissues. After a few days of recumbent rest, with mild counterirritation, the pain ceased and has not returned in the six succeeding months.

ON THE PROPER CLOSURE OF ASEPTIC SURGICAL WOUNDS.

BY WILLARD BARTLETT, A.M., M.D.,

of St. Louis, Mo.

IS IT permissible to close without drainage all aseptic wounds, regardless of their extent or location? a point that must be decided before considering different methods of wound-closure.

Rydygier[1] answers this question in the affirmative, while Clark[2] demonstrated experimentally that drainage of the abdominal cavity, at least, is in most cases not only useless but absolutely harmful. He showed that the gauze exerts a traumatic influence, that drainage is much less in amount than commonly supposed, that germs enter the wound through the gauze, as *none* of the drains which he examined were free from bacteria, nor did any of them contain as many at the inner as at the outer extremity. The reliability of the Baltimore gynecologic clinic, where Clark experimented on 1,700 cases, is unquestioned; if, then, the surgeon accepts the above conclusions for other than laparotomy wounds, he is in duty bound to renounce all forms of drainage in aseptic surgery.

Silk, catgut, silkworm-gut, wire, and living tissue strands are the media which have known the widest use in the closure of wounds. The three latter can only be used in certain situations, absorb no antiseptics, and present limited possibilities when a continued suture is desired. I shall therefore dismiss them with a mere mention, and in the selection of a universal suture medium consider the relative merits of silk and catgut only. Viewed from the purely technical standpoint these two substances present perhaps equally useful qualities; the former is easier of manipulation, while the latter, from the fact that it is absorbed, possesses in many cases an advantage. However, neither of the above considerations is sufficiently weighty to affect the choice of a universal suture material, if, on the other hand, it can be shown that either medium exerts the more beneficent influence upon the reparative process. This I purpose to show.

Catgut has been much discussed with regard to surgical cleanliness. Hofmeister[3] could make no cultures from it after formol hardening and cooking. It was demonstrated to be free from germs by Kofenel[4] after treatment with green soap, ether, alcohol, dry heat and corrosive sublimate. While claiming that he could

make catgut sterile, Bloch[5] showed that it, of all the suture media, was most easily contaminated by the hands during an operation.

Alcohol has figured largely in most of the methods advanced for the preparation of catgut, and the reader may form his own opinion as to the merits of such methods when he considers the actual germicidal value of alcohol as proven by experiment. Miniverni[6] found it only slightly bactericidal at best; at the ordinary temperatures it did not kill spore-bearers at all. In dilution of 50% to 70% it proved most useful, the absolute having on the other hand almost no effect. Sterilization by boiling in alcohol was the surer the more water it contained, while antiseptics dissolved in alcohol were much less potent than in aqueous solution of corresponding strength. If, in consideration of the above, alcohol is to be depended upon, we must agree with Heidenhain,[7] who, after numerous trials, flatly refused to believe catgut possible of sterilization.

Thus conflicting opinions with regard to catgut continued to be advanced till Poppert[8] solved the problem. After experiencing repeated "stitch-abscesses" with catgut, from which cultures were neither obtainable before using it nor after removing it from its diseased tissue-bed, Poppert concluded that the phenomenon observed could be due to nothing but the *chemotactic action of irritating substances contained within the catgut*, the same being the *result* perhaps of partial decomposition in the raw material, and unaffected at all events by the process of sterilization. Orlandi[9] claims to have made and published the same observation as Professor Poppert, and two years earlier than the latter. Utterly disgusted, Hahn,[10] following the example of Kocher, discarded catgut after stitch-abscesses had developed around numerous strands which he found to be entirely free from bacteria.

No such arguments as the above can be adduced to the discredit of *aseptic* silk. One is therefore almost in duty bound to use it in preference to catgut. Still, Rydygier[1] teaches that, while in theory asepsis is ideal, a mixture of aseptic and antiseptic methods is alone capable of meeting actual clinical requirements, and especially is this true of threads, exposed as they are to frequent and continued handling. To prove it, one has but to quote the experiments of Haegler,[11] made in 1898, at the surgical clinic of Basel. He found swarms of bacteria in silk threads which, in spite of carefnl boiling, had caused deep stitch-abscesses. Furthermore, boiled threads were in no instance found to be sterile after simply passing through an operator's hands, except when the hands had just come out of a bichlorid solution. Bacteriologic examination of silk impregnated with bichlorid gave, however, negative results, even after being drawn through hands previously unwashed. Acting on the above, bichlorid silk exclusively was used for four months with complete absence of stitch-abscesses as a result.

The great Kocher,[12] too, insists upon an antiseptic ligature and suture material, using silk exclusively as the best one. Iodoform silk is advised by Adebrecht,[13] and used by him in preference to the plain sterilized. A further argument for the use of antiseptic silk in suturing is apparent in the experiments of Troller,[14] who found the exposed part of the thread to contain bacteria in many cases, the infection being from the skin. What could be easier than the passage of infectious material into deeper tissues, along the strand which offers no chemical impediment?

To the antiseptics mentioned, as well as to many others, can be urged the objections that they are irritants and exert a toxic influence. Credé[15] claims that silver citrate is an antiseptic four or five times as powerful as bichlorid, without toxic or irritative properties. In fact, no case of eczema has been observed by Credé,[16] although he has used his silver salts on 1,900 patients in the various forms of wound-treatment.

After a most extensive investigation of the subject, Meyer[17] comes to the conclusion that silver citrate in an albuminous solution is about equal to bichlorid in its effect on bacteria; certainly powerful enough, although not as claimed by Credé, and able on account of its solubility in albuminous solutions to destroy germs situated deep in the tissues, thus possessing a great advantage over bichlorid and many other chemicals. This last mentioned property makes it especially valuable for threads, as they have to pass through the skin, the deep layers of which are absolutely impossible of sterilization.

I feel compelled, then, in view of recent teachings, to give silk the preference over catgut, to use antiseptic, instead of aseptic silk, and to impregnate my silk with silver citrate as the germicide offering the best warrant of results which may properly be termed ideal.

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A NEW SOLUTION OF IODIN FOR LOCAL APPLICATION.

BY CHARLES A. ELSBERG, M.D.,
of New York.
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AMONG the editorial comments of the PHILADELPHIA MEDICAL JOURNAL of March 25, 1899, there is one on "the abuse of the tincture of iodin," which deals with the uselessness and possible harmfulness of the indiscriminate use of the tincture of iodin in acute inflammatory conditions. While I agree with the statements made in that editorial, it has seemed to me that the value of this agent in some pathological conditions has not been sufficiently emphasized by recent writers.

Iodin has been used as a counterirritant since many years, and its virtues were highly spoken of in the past. When locally applied to a part of the skin, it acts not merely as a local irritant, but probably also directly upon the deeper tissues; for it has been proved that a definite portion of the iodin is absorbed through the skin. Iodin, locally applied, has been recommended in a number of chronic affections of the serous and mucous membranes, and in some other chronic inflammatory conditions. The efficacy of this substance, when locally applied, has, however, been frequently denied. A few years ago, Koenig again called attention to this agent; he declared that the failures were often due to faulty methods in its use. Koenig emphasized the importance of painting on the part at least six coats at each sitting; each to be applied only after the preceding coat had dried.

As a counterirritant the tincture of iodin is usually preferred. The official tincture is only of 7% strength, although iodin is soluble in alcohol up to 10%. Many practitioners have applied only one coat of the tincture to the part, and have expressed surprise that they have not obtained good results therefrom. If the tincture be applied in the proper manner, as described by Koenig, we have in it a valuable topical remedy.

Everyone, however, has observed, that on account of the alcohol in the tincture, the iodin is spread over a larger area of skin than necessary, and that it is usually impossible to prevent drops of it from running down the part for some distance and staining it. Some time is lost, also, in waiting for successive coats to dry. The ideal iodin solution for topical application would be one in which the drying occurred rapidly, in which no spreading occurred, and one that was of such a strength as to necessitate only one coat to be painted on the part. The solution, of which I have made use for some time past, and which, I believe, fulfils all these requirements, consists of

Iodin		20.0
Alcohol, Ether	āā	40.0

that is, it is a 20% solution of iodin in equal parts of alcohol and ether. This solution dries as rapidly as it is painted on the skin, and is of such a strength that but one coat, or at the most two coats, need be applied. Moreover, because of the rapid evaporation of the alcohol and ether mixture, it has no tendency to spread. The application of one coat of this solution is followed in a few minutes by a slight burning and tingling sensation in the skin, which disappears in a short time.

If the area of skin that has been painted with the solution be left to itself, or if it be covered with a piece of gauze, a blister will develop. This blistering can be prevented in the majority of the cases, however, by covering the part with a thick layer of any bland ointment spread on gauze,—plain vaseline or zinc-oxid ointment for example.

In a large number of chronic exudative conditions applications of this solution of iodin have given very satisfactory results. Subacute and chronic synovitis of the knee and other joints will often yield very rapidly to treatment when iodin applications, plus a simple compression-bandage, are made 3 or 4 times a week. In a number of cases the fluid was absorbed much more rapidly when this method of treatment was followed than when the limb was immobilized by a plaster-of-paris splint. The iodin applications are also very efficient in removing the exudation and infiltration in chronic inflammatory conditions in and around joints, bursae, and tendon-sheaths. Especially in the beginning of the treatment, when massage is very painful, will the iodin applications combined with passive movements yield very good results. After old injuries to the shoulder, when considerable pain and stiffness persist for a long time, this method of treatment gives satisfactory results. If, as can always be done, the blistering be judiciously prevented, the skin can be kept in a condition that will allow of massage being performed when desired. For one to two days following the iodin application the patients will regularly experience considerable relief from the pain. The use of a tightly applied bandage must not be omitted, in order to compress and, in a limited sense, immobilize the affected part.

The hydroceles which occur in infants and young boys will often disappear after these iodin applications. The resorption of the exudate is often rapid and usually complete. It is unnecessary to state that in these little patients only a very small area should be painted with the solution.

Equally striking are the results to be obtained with this agent in simple chronic enlargements of the lymphatic glands, especially those that occur in the submaxillary and cervical regions. I have seen glands of considerable size in these regions, which had resisted all other methods of treatment, and were considered cases for operative interference, yield to the local use of iodin. Internal treatment should never be omitted. Specific affections will yield to mercury and the

iodids. Lympho-sarcoma will improve under arsenic. The scalp, the mouth, and the teeth, the nose, throat, pharynx, tonsils, etc., should be carefully examined and treated. A dry scalp should be treated, tonsils or adenoid vegetations removed, the teeth attended to. Nor should it be forgotten that enlargement of the cervical lymph-glands may be due to carcinoma of the stomach or liver, as well as to malignant disease of the head and neck. It is often difficult, if not impossible, to distinguish between tubercular and simple chronic inflammations of the cervical glands. In these cases I make iodin applications and give arsenic internally. If the glands decrease in size, they are not tuberculous. If no improvement is noted in two weeks, the enlargement is considered to be due to tubercular disease, and the glands are removed with the knife. When suppuration of the gland has taken place and sinuses persist even after operation, the combination of local applications and injections of tincture of iodin into the sinuses has given some good results.

Although I have applied the iodin-solution over large areas of skin, in many cases, I have never seen a case of iodin-poisoning from its use. Only in one case did I succeed in obtaining a well-marked iodin reaction from the urine.

In conclusion, although the local use of iodin in the above-mentioned conditions is well-known, it has seemed to me that the very good results I have obtained would justify this renewed recommendation of the agent. After a careful observation of a considerable number of cases, it has seemed to me that with this 20%-solution of iodin distinct therapeutic results can be obtained, which cannot be obtained with the much weaker officinal tincture of iodin which is generally recommended and used.

A CASE OF TETANUS TREATED WITH TETANUS ANTITOXIN AND CARBOLIC ACID.

By G. W. WAGONER, M.D.,
of Johnstown, Pa.

A. R., male, aged 20, American, while at work in a foundry, May 3, 1899, was injured by a flask, weighing between 600 and 700 pounds, falling from a crane a distance of 5 feet, and striking the border of his left foot at the base of the little toe. The soft tissues from the dorsal to the plantar surfaces were crushed or gouged out; but neither the bones of the little toe nor any of its joints were injured. The wound was not a severe one. Dr. J. S. Koontz, of Johnstown, was called to attend him, and after applying the usual dressings advised that he remain in bed. The wound progressed favorably, and after remaining in bed for several days the patient began to hobble about on crutches. On one occasion he spent some little time out of doors in the back-yard. Dr. Koontz made several visits to the patient, each time finding the wound in good condition. The family had some ideas of their own as to the proper treatment of the wound, and so applied a "healing balsam" in which they had great faith, and wrapped up the foot in an old shawl. May 16, 13 days after receiving the injury, the muscles of the patient's jaws became rigid and remained so. On the 20th the muscles of the chest began to stiffen, followed soon by stiffness in the muscles of the abdomen, back, and left leg. The stiffness gradually increased during a week, until the evening of May 27, while attempting to eat, he was seized with a severe general convulsion, which was declared to have lasted 5 minutes. After short intervals he had a second and third convulsion. Dr. Koontz was immediately called, and arrived during the progress of the third convulsion. Morphin, ¼ grain, was given hypodermically, and the drug was repeated by the mouth during the night. Although very tremulous during the night, there was no return of the convulsions.

The next day, May 28, I was asked to see the patient with Dr. Koontz. Upon arriving in the house it needed only a glance at the surroundings of the patient to cause us to decide that he must be removed to more favorable quarters. Within an hour he was lodged in a private room in the Memorial Hospital, Johnstown, and active treatment commenced. The foot and wound were soiled with the "healing-balsam," and by dirt and discharges that adhered to the sticky substance. He was given a hot bath, and for the purpose of softening and removing the accumulations on the foot, a hot carbolized flaxseed-meal poultice was ordered. After 5 hours the foot was thoroughly cleansed, and a bichlorid dressing applied. At 4 P.M. his temperature was 100°, respiration 30, pulse 100. His jaws and the trunk-muscles were stiff and rigid; the muscles of the left leg were rigid while the leg was at rest, but at the least movement they were thrown into rapid clonic convulsions. Six ounces of milk every 3 hours was ordered, and morphin, ¼ grain hypodermically as often as required to keep the patient relaxed. Having just read an article by Prof. H. C. Wood, in the May number of *Merck's Archives*, on the use of "Carbolic Acid in Tetanus," we determined to use the remedy. A solution was ordered containing 12 grains of carbolic acid (crystals) in 1 ounce of glycerin. Fifteen minims of this solution was injected hypodermically every 3 hours, so that he received 3 grains of the acid in 24 hours. The injection was given in the scapular region, and each time the patient was turned on his side to receive it he had convulsive movements of the entire body. Unless moved he rested quietly without pain. Early on the morning of May 30 he had a convulsion which was controlled by inhalations of chloroform and a quarter-grain dose of morphin. When the patient entered the hospital we sent for a supply of tetanus antitoxin, and received it May 30. The carbolic injections were stopped, and the first portion of the antitoxin given at 10 45 A.M., the second portion at 5 P.M., and the third at 11 P.M. The 3 doses contained the full amount of antitoxin (1 ounce) recommended as curative in an average case of tetanus. There was no change produced in his condition by the antitoxin, except that the pulse-rate increased to 120 for a short time. Two hours after taking the last dose he had convulsive movements, which were relieved by the morphin. The day following the injection of the antitoxin, May 31, he had more twitching of the muscles than usual, which required 4 quarter-grain hypodermic doses of morphin to relieve. At noon of May 31 we resumed the carbolic-acid injections, gradually increasing the dose, until at noon of June 1 he was getting 30 minims every 3 hours. The twitching of the muscles continued, and also the convulsive movements when the patient was moved in bed. During this day, and several succeeding days, he had profuse sweats and some pain in the stomach, due to flatulence. The latter was relieved by the following mixture:

℞.—Sol. cocain, 4%..... } of each..... 2 drams.
Ar. spts. ammonia, }
Chlorodyne..... 1 dram.
Sirup, add sufficient quantity to make 2 ounces.
Sig:—Teaspoonful in hot water every hour, if needed.

The carbolic-acid injections were continued until June 9, 12 days after admission into the hospital. During this time he received 2,115 minims of the solution containing 53 grains of carbolic acid. For 6 days in succession he received 6 grains daily in divided doses. After June 2, the second day of the maximum doses of the carbolic acid, his improvement was quite perceptible from day to day, and from that time until the injections were stopped he only required two doses of morphin to control the twitching. June 5 the pulse, respiration and temperature became normal. June 7, he was allowed light diet, and June 9 he was up in a wheel-

chair for 2 hours. After June 9 the history of the case is unimportant, the progress toward recovery being rapid.

No attempt was made to open up the wound, but a dressing of wet bichlorid gauze was kept constantly applied. It slowly cicatrized without suppuration. The urine was carefully examined each day while he was taking the carbolic acid, but nothing abnormal was discovered. He was given all the nourishment he could take, his bowels kept open, and a hot bath given each day during the first part of his illness. June 28 he left the hospital perfectly recovered.

This case may be classed as one of chronic tetanus for the reason that the symptoms of the disease were not developed until 13 days after the injury. The prognosis is very much better in chronic than in acute cases. But a hopeful case may continue so long and cause so much suffering in spite of the usual remedies, that this case seems deserving of record because of the prompt relief and rapid recovery under the use of carbolic-acid injections, intelligent nursing and the resources of a modern hospital.

A CASE OF FUNNEL-CHEST.

BY F. W. LARRABEE, A.B., M.D.,
of South Paris, Me.

SINCE reading Arneill's report of 6 cases of this deformity in the PHILADELPHIA MEDICAL JOURNAL of March 11, 1899, I have seen a similar case which I wish to report.

R. M., age 16; height, 5 feet 5¾ inches; weight, 121½ pounds; rugged and otherwise well formed except a slight stoop; muscles firm and well developed; and otherwise than the deformity is the picture of good physical development.

The right half of the thorax is full and rounded, but the left half is somewhat flattened. The depression here is near the middle line including the lower two-thirds of the sternum, and a little more than half of the concavity is to right side of the median line. It begins at the junction of the manubrium and gladiolus and reaches its greatest depth at the junction of the gladiolus and ensiform cartilage, the latter being somewhat bent forward. The greatest width of the depression is opposite the fifth interspace. The circumferences are as follows: axillary, 32¼ inches; nipple, 31 inches; depression, 30 inches. The diameters are: antero-posterior, right nipple, 7½ inches; left, 7¼; depression, 6¼ inches. Transverse diameter at the level of the depression, 9½ inches. The length of the sternum is 7¼ inches. The greatest depth of the depression is 1¼ inches. The chest expansion at the nipple line is 2¼ inches. The length of the depression is 5½ inches and the width 3½ inches.

The lower lung borders are normal and nothing abnormal is found on physical exploration of the lungs themselves. The heart is slightly elevated, and the apex-beat is best heard 1 inch internal and ½ inch below the nipple.

This boy has always lived on a farm and has engaged in all the labors and sports incident to such a life. He has never had any serious sickness until this last winter when he had an attack of pneumonia. During this sickness the heart was markedly weakened, but at present writing the patient is as well as ever.

No such deformity exists in either parent, nor can it be referred to any pre-natal or post-natal injury. There are no bony deformities in any other part of the body.

Early Diagnosis of Uterine Carcinoma.—T. A. Ashby (*Maryland Medical Journal*, September 23, 1899) emphasizes the fact that carcinoma of the uterus is a very insidious disease and may reach an advanced stage before its symptoms are recognized. The early symptoms simulate functional disturbances of menstruation. Any hemorrhage during or subsequent to the climacteric or foul discharge should be promptly investigated, and all uterine troubles not responding to judicious local treatment, or lesions about the cervix should arouse suspicion. Physical signs alone cannot be relied upon in the early stages, and, when in doubt, it is important to make microscopic examination of curetings or of sections excised from the uterus. [M.B.T.]

Sarcoma Treated by Injection of Erysipelas and Prodigiosus Toxins.—C. M. Nicholson (*American Journal of Surgery and Gynecology*, July, 1889) has treated 3 cases of inoperable sarcoma in which the diagnosis was confirmed by skilled pathologists by the injection of erysipelas and prodigiosus toxins with good results. A woman of 47, who had a spindle-celled sarcoma of the outer and upper third of the thigh, which was twice recurrent, was treated by the injection of the toxins for 3 months, at which time the swelling had entirely disappeared. A man, 54 years old, had recurrence following removal of spindle-celled sarcoma of the testicle. There was entire disappearance of the growth after 3½ months' treatment. A woman, 58 years of age, had the entire breast removed for a tumor which proved to be spindle-celled sarcoma; the wound healed, but within 6 weeks there was a recurrent growth at the lower angle the size of a pigeon's egg. This growth disappeared after 8 weeks treatment by injection of the toxins. In other cases he has used the treatment without success. [M.B.T.]

Eight Cases of Aneurysm.—C. H. Mayo (*St. Paul Medical Journal*, October, 1899) reports eight cases of aneurysm occurring in various regions of the body. A man, aged 44, had had exophthalmos, impaired movement of the lids, congestion of the eyes, and rushing and roaring noises in his head for some time. On auscultation aneurysmal bruit was heard on the temple, and there was distinct pulsation of the eyeball with each heart-beat. The diagnosis of intraorbital aneurysm was made. The left common carotid artery was tied and the symptoms subsided. In another case an exploratory operation was undertaken for an abdominal tumor; aneurysm of the aorta just above its bifurcation was found and the wound was closed without any attempt at intervention. In another case, a woman of 23 came to the hospital with a tumor in the right pharynx crowding towards the middle line; pulsation and bruit were present in the region of the carotid. A diagnosis of aneurysm of the internal carotid was made, ligation of the common carotid was performed and recovery followed. Successful operations are also reported for aneurysm of the left popliteal artery, the brachial artery, the anterior tibial artery, and cirsoid aneurysm of the foot. [M.B.T.]

Hemoglobinuric Fever.—H. Ishikawa (*Sei I-Kwai Medical Journal*, August 31, 1899) In his service as medical physician of the navy in Formosa, Ishikawa has met comparatively few cases of pernicious malarial fever, the percentage being about 2.02% of all cases of malaria. The hemoglobinuric form or black-water fever usually attacks those who have lived in the region a long time, and suffered from frequent attacks of malaria. The general symptoms are high fever, attended by severe rigor, thoracic distress, constant nausea, and frequent vomiting, great thirst, hemoglobinuria, usually copious, together with great enlargement of the spleen and liver. Microscopically few and irregular forms of red corpuscles are seen, together with mononuclear and polynuclear lymph-cells, and eosinophile cells. Blackish brown pigment is seen, either free or inclosed in leukocytes. Of the malarial parasite, only crescentic bodies were seen. The mortality of this form of fever is about 10%. In the prophylaxis of this, as well as all forms of pernicious malaria, it is important to make good drainage, and clear the soil near dwelling places. The planting of eucalyptus trees is of advantage, houses must be built on high and dry places, the ground covered with asphalt, cement, or pebbles; there must be a free supply of sunlight and air, and the doors and windows must be closed after sunset. Large doses of quinin are recommended, with eliminative and prophylactic treatment. (M B T.)

The Philadelphia Medical Journal

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The Philadelphia Medical Journal for 1900.—For the same reason that at one time the Monthly Medical Journal supplanted the Annual and the Quarterly, so the Weekly is destined largely to replace the Monthly, as a popular record of medical progress and news. The fact is well illustrated in England where the *British Medical Journal*, and *Lancet*, even despite the conservatism of the people, have become the exponents of English medicine. In a general way it is in obedience to the same law that the weekly lay newspaper has given way to the daily. The monthly medical journal has its peculiar and honorable place and a great sphere of professional usefulness, but to a progressive and alert-minded people it cannot, under the conditions of American life, serve as purveyor of news and recorder of active progress. Our country has already a large number of exceptionally fine monthly medical journals. We have therefore determined to merge the monthly edition of our JOURNAL into the weekly. To do this without increasing the subscription price of the weekly was a problem, but our subscription lists have been growing with such great rapidity that we have been encouraged to dare the offer and rely upon the continued goodwill of the profession. Although the number of pages of our JOURNAL is now far above our original promises, and although we are giving two or three times the amount of matter supplied by our rivals owned by laymen, we shall, during the year 1900, increase the number of pages once a month, and in great part devote this enlarged number to some special and important subject of medical discovery and progress.

We therefore beg our friends to remember:—

1. With the December number, now partly in type, we shall discontinue the monthly edition.

2. We shall issue a special edition of the weekly once a month with an increased number of pages.

3. The first special number will be that of January 6, 1900; it will be at least of 72 pages, and will be upon a subject of novel and general medical interest.

4. The subscription price of the PHILADELPHIA MEDICAL JOURNAL will remain at $3.00 a year.

Forty-two Victims of Christian Science.—The Philadelphia *Times*, of November 4, publishes a list, giving full names and dates, of those who have died without medical attendance under the ministration of "Divine Healers," or who have been made insane by the craze, and have been sent to asylums. The list is of course very incomplete, the difficulties of securing information on the subject being necessarily great. There are few things more disheartening to the believer in the progress of civilization and the evolution of intellect than this and many similar instances in which a large number of people presumably civilized revert to states of mind preceding even barbarism. Even the savage has a medicine-man who generally does something more than pray. How long will it take the people to get disgusted with such criminal nonsense?

"Commission on Case 1392."—We have received from Dr. A. Jacobi, of New York, a note reading as follows:

> I send you a specimen of Philadelphia "ethics" and tradesmanship.

Accompanying the note is a check for $2 signed by W. H. Horn and Bro., and also a pay-envelope, addressed to Dr. Jacobi, on which are written the words, *Commission on Case 1392, $2. Please receipt.*

We do not know the address of W. H. Horn and Bro., and consequently are compelled to ask for it, in order to return the check, which, strangely enough, Dr. Jacobi does not appear to wish to keep!

British Infectious-Diseases Notification-Act: Compulsory Extension.—In a few weeks the Act under which it is provided that heads of households or medical men should notify the medical officer of health of the district of the occurrence of any case within the district of certain infectious diseases, will come into universal force in England. The story of this piece of legislation is interesting, for it originated with medical men in provincial towns and not in Parliament upon the initiative of any great scientist or bureaucrat. In different parts of England towns were found to be applying for local Acts of Parliament to regulate the spread of infection, and as the Acts that were granted were not always quite similar in their provisions, a general Act was brought in to supersede those in existence and import a uniform system into the legislation. It was to be left a voluntary matter for other communities to avail themselves of this Act, but year by year for nine years the feeling in favor of the Act grew until at the end of 1898 the system of compulsory notifica-

tion of infectious diseases had been applied to more than 28,000,000 out of 29,000,000 of the population. It was then felt that the universal application of the system should not be delayed because less than one million of the public had not adopted it voluntarily, and the system will come into general working throughout England and Wales at the end of the year under the working of a new Act entitled Infectious-Diseases-Notification-Extension Act of 1899. When we say general working, we should mention that for some reason or other Huddersfield, a big manufacturing town in Yorkshire, is excepted. It is probable some extreme respect for the *rem judicatam* that warrants this droll exemption.

Measures for the Restriction and Prevention of Tuberculosis.—There has never been a time when the professional and lay press has given more space to the consideration of measures for the restriction of tuberculosis than now. The subject has indeed been stormed in recent months with a fury of assertion and an equal fury of denial in regard to all the points that for years have been undergoing investigation and study. It is, therefore, quite evident that the time is approaching when a portion of the population of all civilized communities will believe that the time for talk has passed and the time for action arrived.

It is necessary to call a halt; the enthusiastic volunteers who have become the vanguard of this movement must not be permitted by too hasty and ill-advised action to imperil the success of a scientific advance in practical sanitation, which, if successfully accomplished, will be more far-reaching in its results than any other in this century. As an example of the ill-advised statements that have served no good purpose, but have rather served to accentuate the prejudices of the ignorant and to strengthen in advance the opposition of the pugnacious, the recent publications in regard to quarantine measures in the State of California may be cited. So far as can be determined the action taken by the California State Board of Health was nothing more radical than to set a date for the discussion of the propriety or advisability of certain proposed quarantine measures. This setting a date for a hearing has been heralded far and wide both in the medical and secular press as though it were an already determined upon and ordered quarantine by the State of California against each and every person infected with tuberculosis.

Let it be distinctly understood that California has not instituted such a quarantine and that in reality no sanitarian of repute has ever proposed or urged such radical action.

Tuberculosis must be recognized as an ever-present infection in practically all parts of the known world. To carry on an educational propaganda that will, before the passing of another generation, inculcate the knowledge of this infectiousness and of well-recognized measures for destroying or rendering inert the infective secretions and excretions is the admitted duty of medical men. To see that these measures are as far as possible adopted by communities and the individuals who are infected is already believed by many to be the duty of the public-health authorities. To attempt more than this will be but the rash action of enthusiasts who for the notoriety of leading a forlorn hope are willing to sacrifice all that has already been gained. Opposition to the well-recognized doctrines of infection will eventually die out as increasing education makes a new generation of men and women who from childhood have learned the actual facts of the case. But let attempted legal coercion unify and embitter the opponents of the truth and there will be a battle royal in which one can foresee nothing better than disaster for the advocates of the quarantine of tuberculosis and a consequent setback of those who, while desiring rational preventive measures, fail to recognize the propriety or practicability of measures that will class the unhappy tuberculous patient in the same category with the smallpox or diphtheria-infection bearer. While all sanitarians recognize that tuberculosis is a scourge that causes more unnecessary deaths every year than smallpox and diphtheria combined, yet there are well-defined reasons why the measures that are applicable to the one class of infections are not applicable to the other.

1. The number of persons now infected with tuberculosis in any community is so great that it would be an utter impossibility to enforce for even 25% of them measures as rigid as for the other two diseases named.

2. The actual number of persons in any community who are infected with tuberculosis can never be ascertained with any degree of certainty. Most consumptives are infected and ill for months or years before the nature of their infection is recognized; during this stage of the disease the sputum is just as dangerous and infective as at any other time, but there does not exist on earth a health-board capable of finding and isolating even a respectable portion of such cases. For instance, in Denver alone it is safe to say that there are 25,000 recognized cases of consumption, half of which are ambulant; besides there are probably not less than 25,000 additional unrecognized cases, all of which are in the ambulatory stages. No authority need be envied the task of attempting to enforce legal restrictions upon such a large percentage of our population.

3. It is safe to say that the average length of infection in a fatal case of tuberculosis is not less than three years; in many instances it is prolonged over a period of ten or even twenty years. What reasonable measure of legal surveillance or restriction of individual freedom of action could be proposed to cover such periods of time? What man or set of men would be brave enough to attempt the enforcement of such laws? What tenth

part of any community would submit either to the inauguration or carrying-out of such measures? If, for example, the very moderate measure of placarding the house in which a tuberculous person lives should be adopted in Denver, half of the houses in the city would bear the placard.

4. Last and most important of all, measures of quarantine or restriction of individual liberty are not necessary for tuberculosis as they are for smallpox and diphtheria, for the very good reason that the infection of tuberculosis may be destroyed by certain simple, safe, and absolutely effective measures, while at the same time the infected person need not have his personal liberty invaded nor be subjected to the ignominy of being officially tabbed "suspect." The educated and conscientious consumptive is not a source of greater danger to his fellowmen than is the sufferer from many other diseases. But the ignorant and careless consumptive is a certain and ever present source of danger. Therefore the measures for the prevention of tuberculosis at this time must be almost wholly educational, and but slightly if at all restrictive.

The measures which are already approved by sanitarians throughout the world are all based upon the educational lines here advocated. In almost every State of the Union there has been issued by the State Board of Health a pamphlet or circular setting forth briefly, and in language easily understood, the principal facts known in regard to consumption and the methods by which it is propagated; to this is added a short statement of the ordinarily necessary preventive measures. If local boards of health would earnestly cooperate with State boards of health in disseminating among the people this necessary knowledge, the campaign of education would gain great momentum. If all of the newspapers would publish from time to time the full and authoritative statements of the State Board of Health, the common people would have the necessary facts brought continually before them. In this way sentiment can be educated at the same time that extreme views may be combated and needless alarm soothed.

When every sufferer from tuberculosis becomes convinced that his own expectoration is the medium through which infection can be conveyed, and that he must so dispose of his spittle that it cannot dry and be blown about to be inhaled by others, the first grand victory will be won. The public intelligence that will fully comprehend and act upon that knowledge will also realize that the consumptive who is careful to dispose properly of his expectoration, is no longer a source of great danger to his fellowmen. And the public intelligence that has reached that point will also be ready to insist upon the proper inspection of milk, meat and dairy cattle, in order to prevent the communication of tuberculosis through infected food.

The ends to be attained are thus succinctly set forth. The methods that should be followed are simple. The results of a successful propaganda by these methods will be of immeasurable advantage to the world in lessening and finally eradicating the one disease which causes more deaths than any other.

But it is essential to realize that one simple statement of facts will not be sufficient; only by iteration and reiteration can humanity be brought to the practical acceptance of the proved facts of pathology; and even when 99% of the people believe and act upon their belief, there will remain 1% of pugnacious and unconvertible individuals, who, for conscience sake, or through that sheer obstinacy which may be better designated "general cussedness," will continue to oppose the march of progress. Some of them will ultimately be converted by the logic of events; some will never cease to hold to old and unreasonable views. It will be a satisfaction to realize, however, that such an infinitesimal minority cannot change the eternal verities by mere vaporing, nor can their opposition or protests defer the ultimate benefits to the whole human race to be attained by the most beneficent agitation for hygienic reforms based upon the clear and definite knowledge of scientific facts. And science, in this instance at least, does not require the aid of a policeman. Acute moral, physical, and infective outbreaks need to be overcome by the strong arm of the administrator of law, but a chronic state of infection due to ignorance can best be benefited by the soothing and ennobling methods of the physician and sanitarian acting as the schoolmaster of the people.

Can there be a lower depth of professional catering than is exhibited in the following:—

> Dr. —— —— —— announces to the medical profession that his practice is limited to the injuries and disfigurements of the spectacle and eye glass habit. The purpose is to relieve young and middle-aged people from the necessity of wearing glasses, etc., etc.

In other words, here is a man able to distribute an expensive engraved announcement that as a physician his conception of professional duty consists in opposing the work of all reputable ophthalmologists, and of encouraging the delusions and prejudices of the people as to the nonexistence of eye-strain. By a long and painful educational process the general profession has been convinced of the subtle, but powerful and far-reaching morbid results of eyestrain, and the public is also fast learning the lesson. For a few dollars a supposed professional specialist turns deserter, and in the name of medicine seeks to make medicine ridiculous. It is inexplainable that any human being would not prefer to shovel gravel.

Finger-prints as a Measure of Identity.—The *fiasco* of Bertillon in the recent Dreyfus trial at Rennes, gives some additional interest to the discussion on finger-prints that took place at the latest meeting of the British Association for the Advancement of Science.

Galton read a paper on the finger-prints of young children, in which he maintained that these prints, if properly taken, would suffice for after-identification by an expert. The grave defect in the Bertillon system is its reliance upon a system of measurements—a defect that does not exist, it is claimed, in the more accurate system of taking prints. At the same meeting, Mr. E. R. Henry, inspector-general of police in Bengal, gave a demonstration with a magnifying lantern of this same method. He claimed that the "personal equation," which vitiates results in the Bertillon system of anthropometry, is entirely eliminated in the printing method. Finger-prints, being absolute impressions taken from the body, are not so uncertain as a set of measurements usually are. The method described by Inspector-General Henry is as follows: A thin film of printers' ink is spread over a piece of tin, and each finger in turn is pressed on the film and then pressed on paper, by which means a clear impression is secured. Mr. Henry gave some remarkable illustrations of cases in which criminals had been identified by their finger-prints; one by finger-marks on the soft paint of a window sill, and another by bloodmarks made by the fingers on the covers of a book. In consequence of these remarkable facts the legislature in India had amended the law of evidence.

With such respectable authority to vouch for it, this method may yet rise in esteem in American courts of justice. English prison officials are not, as a class, likely to become enamored of any mere theoretical scheme—a reproach to which the French will possibly be exposed by the extravagant demonstration made by Bertillon. At any rate, this system of identification by means of finger-prints seems worthy of further experimental trial, and would be a good field for some of our prison officials to utilize in order to demonstrate that they take an interest in the science of criminology.

Man as a Meat-eating Animal.—A correspondent asks us in all simplicity to give him our opinion of man (capital M) as a meat-eating animal; also of the necessity of meat as a food for the human race; also whether or not longevity depends upon the quantity, quality, and kind of meat taken as a food; and, finally, whether, if one took no meat, he would not have less ills and live longer? The significance of these questions is not so great to our mind as is the significance of our correspondent's childlike faith, that they admit of a categorical answer from any one. Vegetarianism, to which we suspect our friend is tending, generally begins in this state of mind. The fact is assumed that positive knowledge can be readily attained on these obscure questions, and then the conclusion is too hastily jumped to that man is poisoning himself by his carnivorous habits. The whole subject is one, in our opinion, that does not admit of dogmatic conclusions; it is, therefore, one upon which natural-born faddists are likely to take an extreme stand. We are not familiar with any trustworthy scientific data upon which meat can be unqualifiedly condemned as a food, or by which a meat diet can be shown either to prevent or to promote longevity. Certainly almost all the evidence, such, for instance, as is derived from the structure of the teeth and stomach, as well as from the universal history of the human race throughout all stages of its evolution, goes to prove that meat is a natural and wholesome food for man. We cannot conceive, in fact, in our present state of knowledge, of any one summoning trustworthy evidence to the contrary. Such evidence would require a resort to vital chemistry, as well as to statistics, that is quite out of our own range, and, certainly, out of the range of the ordinary vegetarian as we know him. We advise our correspondent to stick to a mixed diet, and to keep his patients on it, too.

Suggestions to Writers, No. 45. Strabismic Construction.—By this term we mean the fact that words are so misplaced in a sentence or so badly chosen that they either fail to convey the meaning intended, or positively mean the reverse of that desired. They do not tell the story exactly. The Associated Press despatches from Europe should be properly worded, because of the gravity of the news transmitted so far and by such an expensive method as the cable, and yet in the report of the Dreyfus trial the prisoner was asked if at one time he was possessed of certain information. The reply was thus translated: *I only had incomplete information.* By these words we are undoubtedly to understand that it was only incomplete information that he had, whereas the words themselves tell us that the speaker was the only person who had incomplete information. This word, *only*, and another, *alone*, are frequently out of place, and, according to the license of some writers, may walk about in a sentence quite unrestrained, or sit down wheresoever the whim may dictate, and often in the most incongruous place. But the exact writer may exclaim, "Me this unchartered freedom tires." Sometimes the two words are interchangeable, but as a rule, each has its appropriate function and position. There is often a lurking contempt in expressions with *only*, especially if this word is misplaced. "He is only fitted for this," has a different meaning from "He only is fitted for this" (or "He alone is fitted for this"). It is a good plan to look at these words closely when we use them, and in general to keep them in contact with the words to which they refer. There are other and innumerable ways in which writers fail in accuracy through this *construction louche*, as the French call it. A frequent method is such indefiniteness in the use of *he*, *her*, *him*, *it*, *they*, etc., that the reader is unable to know to what the squinting pronouns refer. This has been caricatured a hundred times—the following examples not being much more ridiculous than many

occurring in otherwise good medical essays. This is said to have been the wording of a sign placed in the field of a much-pestered person: "If any mans or womans cow or ox gets into this here corn his or her tail will be cut off as the case may be." And this is the copy of a genuine note: "Mr. A. presents his compliments to Mr. B. I have got a hat which is not his; if he have got a hat which is not yours, no doubt they are the missing one." Here is an instance in medical writing: "No one as yet had exhibited the structure of the human kidneys, Vesalius having only examined them in dogs." (To what does *them* refer?) *Which* is a word, too frequently used in any sense, but especially when it is popped down too far from the word to which it points—a result which has been called "the sin of whichcraft."

To those Doing Original Work with X-Rays.—We wish to correspond with investigators, and beg that personal addresses be sent to us.

Correspondence.

SARCASM AND PRECONCEIVED PREJUDICE IN THE LITERATURE REVIEWS OF THE PHILADELPHIA MEDICAL JOURNAL.

By JOHN C. HEMMETER, M.D.,
of Baltimore, Md.

To the Editor of The Philadelphia Medical Journal:—

In the Philadelphia Medical Journal for October 28, 1899 (Vol. iv, No. 18, p. 804), an anonymous savant reviews and criticises the publications of the writer in the New York *Medical Record* for October 21, 1899 (Vol. 56, No. 17).

In criticising the method of obtaining minute fragments of the gastric mucosa by passing an ordinary soft stomach-tube back and forth over the stomach walls, he volunteers the bit of candid sarcasm, "*We must congratulate him that he has escaped causing death by this procedure.*"

In addition to this uncalled-for remark, "D. L. E." intentionally misrepresents the method quoted, asserting it to be "*his unique method*," and that it is carried out with a "*sharp-edged* tube."

I have never claimed the method to be original or even "unique." It is probably original with Boas, at least it has been carried out in his clinics on a very large clinical material. The method has been employed by most gastroenterologists of note and can be executed without even the suggestion of harm to the patient (see Ewald, *Klinik d. Verdauungskrankh.*, p. 9 and 191). This procedure has been utilized on 40 cases by Cohnheim (*Archiv f. Verdauungskrankh.*, B. I, S. 274), affording a greater aid to diagnosis than any other method hitherto employed and in most cases the patients were not even conscious of the attempts to secure fragments of mucosa, being under the impression that simple lavage was being carried out.

When lavage is undertaken for the first time the retching and vomiting while the tube is within the stomach will inevitably scrape the gastric walls over the end of the tube, and whenever a test-meal is drawn the same thing happens and small elevations of the mucosa are scraped off. This, according to Conheim, will occur even if the tube is closed and blunt-ended. It is ridiculously absurd to speak of "causing death of patients" by a procedure which does not inconvenience them, and of which they are not even aware, during lavage or test-meal drawing. The critic, "D. L. E.," has simply never seen the method; he is ignorant of its execution, and without attempting to familiarize himself with it, proceeds at once to condemn it—a pernicious way to review publications.

Concerning the second misrepresentation "that a *sharp-edged tube*" is used by me for this purpose, I will only refer the unbiased and interested reader to my article in the New York *Medical Record*, October 21, 1899; on page 581, 14th line from the bottom in the 1st column I distinctly emphasize that a soft tube is used for this method; on page 581, 2d column, 19th line from the top I repeat that a soft stomach-tube suffices.

There can be no lack of evidences of the "fearful" (?) danger of the method in question if "D. L. E." chooses to distort the text of my report and draw upon his own imagination to justify his "congratulations."

As far as the instruction of the general medical public is concerned, reviews undertaken with such preconceived prejudice and criticising for the sake of criticism, are absolutely worthless.

[We regret that Dr. Hemmeter should have implied that the Philadelphia Medical Journal is governed by sarcasm and prejudice (we cannot bring ourselves to write the tautologic nonsense "preconceived prejudice") in all its reviews, while the offered proof refers to but a single instance. Our correspondent's case is also not bettered by speaking of our collaborator as an "anonymous savant." Dr. Edsall's name appears at the head of our editorial pages every week, and the initials, D. L. E., serve all purposes of identification. We cannot excuse Dr. Hemmeter for charging Dr. Edsall with "wilful misrepresentation" as regards the use of the words "sharp-edged tube," and for repeatedly denying that such a tube is used. What, then, signify the words "curet" and "curettage" often repeated in the *Record* article? and what can the words, "provided with a sharp chisel-like edge," "the edges of which scrape away," mean? words taken direct from Dr. Hemmeter's article and textbook! This is plain disingenuousness. We append Dr. Edsall's reply.—Editor Philadelphia Medical Journal.]

From Dr. D. L. Edsall.

My criticism was not based upon "preconceived prejudice" (I have never used that as a basis of criticism), but upon reflection which began nearly two years ago, after the appearance of Dr. Hemmeter's book on the "Diseases of the Stomach," in which he recommends the criticised procedure. I have always felt convinced that it is a very dangerous thing to do, and that if done "deliberately" is worthy of condemnation only. Hence my very frank criticism. In the same connection I am accused of being entirely ignorant of the method in question. I gladly admit that I have never practised it and that I never shall. I have seen one case of gastric carcinoma end by profuse hemorrhage during the introduction of an ordinary stomach-tube with rounded edges. This is a rare occurrence, but one can never tell whether a gun is loaded except by examining it, and pushing a sharp-edged stomach-tube backward and forward over an ulcerating carcinoma is certainly conducive to hemorrhage or perforation. As to my being ignorant of the fact that the method is generally practised by "gastroenterologists," I would say that I am wholly aware that Ewald, Boas, and others—most others—accept every opportunity to examine fragments of gastric mucosa *accidentally* dislodged, but I did not know and am not now cognizant of the fact stated by Dr. Hemmeter that they counsel the *forcible* dis-

lodgment of such particles. I am, however, sure that Fleiner, Riegel, and others, well skilled in the management of gastric diseases, consider it deplorable if fragments of gastric mucosa are accidentally torn from the stomach by the tube, even in healthy persons, and I have had personal conversation with several men whose names carry weight, and whom I can mention if desirable, who consider the method suggested by Dr. Hemmeter highly dangerous. As to misrepresentation concerning the kind of tube to be used, I quote from the *Medical Record* of October 21, 1899, page 581, article of Dr. Hemmeter:

"There are only two structural elements in the stomach-contents that have a possible diagnostic importance (1) tissue fragments, minute portions of the neoplasm; (2) the so-called Oppler-Boas bacilli. The tissue fragments are of undoubted diagnostic value if they contain structure of the neoplasm. Do they occur early enough in the disease to make a timely diagnosis probable. It is possible that fragments are only detached from ulcerating tumor-masses in the stomach, such as have already developed metastases, but I shall describe a methed of cureting the walls of the stomach with a soft tube, and thereby loosening the superficial epithelium at a time when the neoplasm is not yet ulcerating. . . . . Sooner or later a fragment will be obtained which will give the typical structure of carcinoma. For this kind of cureting a soft stomach-tube suffices, provided it has a lower and a lateral aperture the edges of which scrape away the tiny elevations of gastric mucosa when the tube is moved in and out of the mouth."

I also quote from p. 526 of Dr. Hemmeter's "Diseases of the stomach":

For this purpose we are in the habit of using a stomach-tube which, though quite soft, is *provided with a sharp chisel-like edge* (italics mine) around the lower opening. This tube in being moved about in the stomach is more likely to dislodge surface particles of the neoplasm than the tubes ordinarily used. There is every reason why we should intentionally attempt to secure cancer particles from the stomach just as they are secured by cureting from the uterus."

I thus gained the strong impression, reasonable, I think, that Dr. Hemmeter advised a form of curettage—the words curet and curettage are used five times in the *Medical Record* article concerning the procedure—of cancer of the stomach. I consider this extremely dangerous advice, and as a critical abstractor for the JOURNAL I desired to place my views against those expressed in Dr. Hemmeter's paper, as I consider that the function of a critical review is to offer honest criticism when it is thought to be deserved—favorable or unfavorable.

I trust this may be sufficient to convince Dr. Hemmeter that I was not acting from "preconceived prejudice" and do not speak from the depths of ignorance.

HOW STIMULANTS ACT, WITH SPECIAL REFERENCE TO GLONOIN, ALCOHOL, STRYCHNIN AND DIGITALIS.

BY PROFESSOR ROBERTS BARTHOLOW, M.D., LL.D.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

IN a recent issue of the JOURNAL, Dr. Thomas J. Mays, in the course of a discussion on the action of stimulants, makes some interesting observations on several representatives of this group of remedial agents. Permit me a few words in continuation of this topic, moved thereto by the interest of a teacher of therapeutics of many years' experience.

To constitute a stimulant, the remedy must of necessity increase action. No fact in physics is better established than that to produce force, some destruction of material is necessary. A remedy, therefore, which increases the functional performance of any organ or tissue, must do so at the expense of some substance capable of oxidation. That is a stimulant, therefore, which, like alcohol, by its own oxidation furnishes the material for the evolution of force, or like nitroglycerin dilates the vessels, and energizes the cardiac movements, the increased blood-supply setting up more active oxidation. Such stimulants may be entitled general stimulants. Other stimulants may be classified according to the part on which they act. Those increasing the evolution of force in the vascular system may be entitled cardiac stimulants. Those inducing greater activity of the nerves and muscles of animal life, may be called tetanizers, of which strychnin furnishes a good example. Again, on the other hand, strychnin might be classed as an oxidizing stimulant restricted to a particular part. Since the time of Van der Kolb it has been known that strychnin acts on the medulla oblongata—the "spasm center"—setting up an acute congestion, whereby the organic nervous system and the nervous system of animal life evolve a greater amount of force.

Digitalis is constantly cited as an example of a cardiac stimulant. This conception has passed into common usage, and it is often designated—a "heart tonic." Now, I hold that this view of its action is fallacious, and the practice based on it, mischievous if not dangerous. Digitalis, it is true, energizes the systole, lengthens the interval somewhat, but it raises the vascular tension by inducing contraction of the peripheral vessels. The increased pressure thus induced compels the heart to put forth greater effort to overcome the resistance. It is an apparent increase of power, which digitalis thus occasions, and is not a real addition to the resources of the organ. Furthermore, the disposition of digitalis to excite nausea and vomiting and the inhibition of cardiac movements thereby induced, render its use perilous, especially when the action of the heart is handicapped by obstructive lesions at the aortic orifice. It is a common observation that when full medicinal doses of digitalis are administered, the action of the heart is apt to become "weak and irregular." The slowness with which it moves to affect the cardiac mechanism, is another element of uncertainty in its administration. Two of the most carefully reported and authentic cases of death by digitalis, illustrate this exceeding slowness of operation. One proved fatal on the fifth day; the other on the thirteenth day after the toxic dose had been administered.

I would not be understood as holding that digitalis has no proper place in the treatment of cardiac affections. The special conditions justifying its use are mitral lesions, low vascular tension, the absence of obstructive disease of the aortic orifice, general dropsy, and such a state of tolerance of the digestive apparatus that appropriate food can be taken and assimilated. When these conditions coincide, nothing can be more satisfactory than the action of digitalis. What appears to me to be reprehensible, is the cultivation of that conception of its powers which assigns to it the first place as a remedy in heart disease, and its indiscriminate use as a "heart tonic," whereby weak heart being diagnosticated digitalis follows as the appropriate remedy.

It is, also, a law in physics that "to every action, there is an exact and equal reaction." Applying this law to the action of stimulants, we have—for every degree in which the functional performance of organs is carried above the normal, there ensues a corresponding depression. To make the results of the action of stimulants permanent, an actual increase of the sources of energy becomes necessary. It is the failure to do this, oftentimes, that results so disastrously. For example, the heart becomes weak and irregular when the cardiac ganglia, and the centers of the respiratory and circulatory systems in the medulla oblongata, are rendered unequal to further sustained efforts, because the sources of power are exhausted by overstimulation. Therefore, he who would use stimulants, wisely and well, will prepare against depression by the timely administration of those sustained organizers of force—appropriate foods, the chalybeates, oxygen, and the oxidizers.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending November 18, 1899:

Monday, November 13—College of Physicians, Section on General Medicine.

Wednesday, November 15—College of Physicians, Section on Otology and Laryngology.

Thursday, November 16—College of Physicians, Section on Gynecology.

The Philadelphia Branch of the Alumni Society of the Medical Department of the University of Pennsylvania will hold the first reunion of the season at the Bourse Building, Saturday evening, November 18. The evening will be known as "Faculty Night," and Professors Tyson, White, Flexner, Musser, Stengel, and Clark have accepted invitations to speak of the newer methods of instruction that have been adopted at the University during recent years. There will probably also be other speakers, and each alumnus is cordially invited to attend.

Smallpox, etc., in Pennsylvania.—Since the last report (September 26, 1899), of Secretary Benjamin Lee to the State Board of Health, smallpox has been reported in Pennsylvania, as follows:

Philadelphia County:	Philadelphia, 8 cases, 0 deaths.
Allegheny County:	Pittsburg, 1 case.
Indiana County:	Blairsville, 1 case.
Fulton County:	Burnt Cabins, 3 cases.
	Sheepskin Hollow, 3 cases.
	Fort Littleton, 4 cases.
Cambria County:	Chest Springs, 1 case.
Jefferson County:	Big Soldier, 1 case.
	Bell Township, 2 cases.
Westmorcland County:	Harold, 6 cases.
	Murryville, 1 case.
	Donegal Township, 16 cases.
	Jeannette, 1 case.
	Delmont, 1 case.

For the six weeks ended November 4, 1899, cerebrospinal meningitis has been reported as follows:

Philadelphia, 8 cases, 0 deaths.
Typhoid fever, Philadelphia, 274 cases, 36 deaths.

Vital Statistics of Philadelphia for the week ended November 4, 1899:—

Diseases.	Cases.	Deaths.
Total mortality		381
Pulmonary tuberculosis		49
Marasmus 15, inanition 10, debility 12		37
Nephritis 23, uremia 7		30
Pneumonia 24, congestion of the lungs 6		30
Apoplexy 24, paralysis 3, softening of the brain 1		28
Diphtheria 24, membranous croup 3	115	27
Heart-disease 20, fatty degeneration of the heart 2		22
Inflammation of the brain 10, congestion of the brain 5		15
Pericarditis		12
Casualties 11, burns and scalds 1		12
Convulsions		10
Typhoid fever	45	7
Scarlet fever	77	2
Cerebrospinal meningitis		1
Carcinoma 7, hemorrhage 6, senility 6, gastroenteritis 5, suicide 5, pertussis 4, alcoholism 3, cholera infantum 3, cirrhosis of the liver 3, dropsy 3, bronchitis 3, phlebitis 3, atheroma 2, asthma 2, cyanosis 2, liver disease 2, drowned 2, cystitis 2, spondylitis 2, neuralgia of the heart 2, intestinal obstruction 2, pyemia 2, septicemia 2, anemia 2, diabetes 1, parturition 1, malarial fever 1, hernia 1, laryngitis 1, hepatitis 1, peritonitis 1, metritis 1, malformation 1, mania-a-potu 1, sclerosis 1, unknown 9.		

Jefferson Medical College.—Dr. Lawrence Turnbull, for many years professor of otology, has recently transmitted his resignation to the Board of Trustees.

Medico-Legal Society.—The regular meeting was held October 31. President E. B. Wheeler in the chair. Nominations for the ensuing year were as follows: Dr. A. M. Eaton, president; Dr. L. H. Adler, Jr., first vice-president; Dr. S. Wolfe, second vice-president; Dr. T. W. D. Peltz, treasurer; Dr. C. H. Clewell, secretary. Censors and auditing committee were appointed. Dr. L. H. Adler read a paper entitled: "Some Practical Notes on Diseases of the Rectum." The meeting was very largely attended, and a fine collation followed.

Pittsburg (Pa.) Academy of Medicine.—At a meeting held October 23 Dr. J. C. Thompson reported a case of **impacted cerumen,** remarkable for the large size of the mass removed.

Dr. E. W. Day reported a case of **congenital occlusion of the posterior nares by a web,** in a girl of 16. Posterior to the turbinates there appeared to be a bony ring to which was attached a strong fibrous membrane completely filling up the ring. The patient presented the facies characteristic of mouth-breathers. In attempting the removal of the obstruction by means of a cautery-knife considerable difficulty was encountered from the osseous tissue at the borders of the web. A small opening was made, however, but acute otitis media developed in both ears a few days later. Further operative procedures are to be tried.

Dr. Williamson reported a case of **gangrene of the leg** due to embolism and thrombosis in a woman with endocarditis. The leg was amputated and the vessels found plugged for 6 to 8 inches. Death followed 17 days later, after a hemiplegia caused no doubt by a cerebral embolism.

Dr. F. F. Simpson reported a case illustrating the **effects of anesthetic and other toxic agents on the kidneys** in operative cases. The patient was 18 years old, 5 months married, with a ruptured ectopic pregnancy. Operation by Dr. X. O. Werder under ether-anesthesia was simple and easy, about one pint of blood being removed from the abdominal cavity. After operation the pulse gradually rose to 146, but there was no distention, no pain, and flatus passed voluntarily. The urine taken at 6-hour intervals showed the following diminution, first 11 oz., second 6 oz., third 3½ oz., fourth ½ oz. There was no albumin and no casts 18 hours after operation. Twenty-eight hours after operation there was a small amount of albumin and about 20 hyaline, granular and epithelial casts on a single slide. There seemed to be a sapremia with faulty elimination by kidneys. Diuretics were resorted to and just as the urine increased the symptoms abated. In 20% of the cases albumin and casts are found, in 3% there are decided symptoms and in 1% the symptoms are serious. Kelly says that this condition never causes death, but if the classical symptoms of uremia are relied upon for a diagnosis, the diagnosis will hardly be made. In none of our cases were the ordinary symptoms of uremia present, yet they responded promptly to energetic diuretic treatment. Faulty elimination by the kidneys after operation undoubtedly may give rise to serious symptoms and may even cause death. Repeated large enemas of normal saline solution were used with large quantities of water by mouth containing potassium citrate. He had no knowledge of the effect of uric acid upon the healing of wounds.

Dr. Mayer reported an obscure nervous case in which he believed there was a **lesion in the internal capsule.**

Dr. E. B. Heckel reported a case of **double glaucoma** in a woman with vision totally destroyed. He did a double iridectomy and extracted the lens from each eye. Owing to the patient coughing at an inopportune moment (local anesthesia with suprarenal extract and cocain) a large amount of vitreous was lost from the first eye. In 48 hours the cornea had regained its normal contour, and in 72 hours the tension was much improved. The ultimate result of the

case was very satisfactory. In the treatment of these cases excision of the superior cervical ganglion of the sympathetic has been advised and good results claimed for it. The advisability of such a procedure is very questionable in the light of our lack of knowledge of the condition. If it has any effect it is to be looked for in the subacute or chronic cases. DR. WILLETTS said that there was practically nothing known regarding it. He was opposed to the excision of the sympathetic ganglion. DR. CURRY had noted the report of several cases in which the operation had been performed and good results claimed, but he had had no personal experience with it. DR. J. C. THOMPSON said that Jonnesco says that he has performed the operation 9 times with a successful result. DR. HECKEL said that the loss of vitreous is generally considered a very grave matter. Most authors state that the vitreous is never restored, but it is difficult to believe that this is true. In support of restoration of vitreous he cited an additional case in which at least one-fourth of the vitreous was found protruding from an accidental wound of the eyeball. The vitreous was washed away, the wound cleansed and prompt healing took place. When he last saw the patient he had good vision and normal tension. DR. WILLETTS remarked that the vitreous is as much of a structural body as the retina. It can be dissected under a lens and its protoplasm is contained in compartments much after the structure of an orange. The aqueous may take the place of the vitreous, but the vitreous proper is never restored.

DR. CURRY reported a case of **enucleation for glaucoma,** 6 or 8 years ago. The same trouble developed in the other eye a short time since, for which he did an iridectomy with cocain. Just after section the lens came out and the eye filled with blood, resulting in the loss of the eye.

NEW YORK.

St. Luke's Hospital.—At the annual meeting of the Board of Managers of St. Luke's Hospital, on October 30, the following officers were elected: President, George M. Miller; vice-presidents, Samuel D. Babcock and William Alexander (the latter succeeding the late Cornelius Vanderbilt); treasurer, Gordon Norrie; secretary, Hoffman Miller.

Death of Dr. Purdee.—Dr. Charles Inslee Purdee, for 25 years the Dean of the old University Medical College, died unexpectedly of heart-disease, at his residence in New York City, November 3, aged 61. He graduated from the University in 1860. He was a member of the Academy of Medicine, the Ophthalmic Society, the Union League and Lotos Clubs.

Fire in the Hospital of Sing Sing Prison.—A fire broke out early on the morning of October 31 in the kitchen of the State Prison at Sing Sing. The chief damage done was in the new three-story administration building, which had been erected about a year ago at a cost of $300,000. The top floor of this building was used as a hospital, and at the time of the fire there were 29 patients in it. They were removed without difficulty. Nearly 6 hours elapsed before the fire was extinguished.

Less Blindness in New York City.—According to the report of the New York Institution for the Blind, there has been a steady decrease in the number of blind children in this city for the past 12 years, or since active steps have been taken to prevent the indiscriminate use of towels and wash-basins in our custodial institutions, and to secure periodical medical inspection. Notwithstanding the density of our population the statistics regarding blindness are far more favorable in the city than in the rural districts. According to the last census, there was, in the counties of New York and Kings, one blind person to every 2,500 of the population, while in the 5 rural counties of Allegany, Clinton, Oswego, Madison, and Schuyler there is 1 blind person for each 650 of the population.

Loomis Sanitarium Fire.—Although the administration building of the Loomis Sanitorium was totally destroyed by fire on October 14, the work of the Institution has gone on uninterruptedly, the Casino Building having been temporarily adapted to the purposes of administration. It is expected that a new administration building will be completed within a few months. None of the patients' cottages were at all injured by the fire.

A Coroner Sues for Salary.—When the new borough coroners took office on January 1, 1898, the county coroners were all ousted. Dr. Theodore N. Tuthill, who had been elected in 1896 for 3 years, sued the city for salary for January and February, 1898. Justice Beekman has just dismissed the plaintiff's complaint, holding that, under the decision of the Court of Appeals, the terms of office of all the county coroners had expired on January 1, 1898.

Aid for Poor Cripples.—There has just been organized a woman's auxiliary to the Interdenominational Guild for the Aid of Crippled Children of the Poor. The founders are the Rev. Dr. Hegeman, of Christ Church, Riverdale, and Miss May Darrach, and the membership already reaches 50. The officers are: President, Mrs. Arthur Elliot Fish; vice-presidents, Mrs. Howard McNutt, Mrs. Madeline Rogers, and Mrs. William Tod Hellmuth; recording secretary, Mrs. Samuel Duncan Miller; corresponding secretary, Miss Florence Guernsey; treasurer, Mrs. Edward Davis Jones.

Charities that are Really Needed.—Those who have kept in touch with the hospital and dispensary work in this city will feel like saying "Amen" to the recent utterance of Mr. Edward T. Devine, secretary of the Charity Organization Society, to the effect that there was a crying need for homes for convalescent hospital patients. The same gentleman also points out that there is an immediate want: (1) for more homes for the aged, which would admit applicants on the payment of a moderate life fee; (2) more day nurseries; (3) more persons to make friendly visits to the poor, and (4) for the betterment of hygienic conditions in the tenements.

New York State Association of Railway Surgeons.—The following is the program of the ninth annual meeting to be held in New York City, November 16:

Special Topic—"Physical Fitness of Railway Employes." (*a*) As Viewed from the Operating Department, R. R. Richards, Esq., Chicago; (*b*) As Viewed from the Surgical Department, Dr. G. P. Conn, Concord, N. H.; (*c*) As Viewed by the Oculist and Aurist, Dr. Joseph White, Richmond, Va.; (*d*) Medico-Legal Features of Physical Fitness, L. L. Gilbert, Esq., Pittsburg, Pa. Discussion opened by Edgar J. Rich, Esq., Boston, Mass.; Dr. Wm. D. Middleton, Davenport, Iowa; Clark Bell, Esq., New York City; Dr. J. F. Valentine, Richmond Hill, L. I.; George Marsden. President's Address. Where Hydrogen Dioxid is Harmful, Robert T. Morris; Dislocation of the Shoulder, with Fracture of the Neck of the Humerus, (three cases treated by operation), B. F. Curtis; Emergent Surgery, John L. Eddy; Report of a Case of Traumatic Aneurysm of the Ulnar Artery, Chas. E. Townsend.

The following are the officers: President, Theo. D. Mills, Middletown; vice-presidents, J. L. Eddy, Olean, G. N. Hall, Binghamton; secretary, C. B. Herrick, Troy; treasurer, H. P. Jack, Canisteo.

Alive in the Morgue.—About 9 o'clock the other morning the gloomy silence of the city morgue was suddenly broken by a feeble wail that made the keeper and his assistants pause in their work and look around for the morgue cat. As the cat was comfortably curled up asleep in a chair in the office, and the plaintive sound continued, and apparently came from the rotunda where slept many of the unknown dead, those within earshot became uneasy and began to look inquiringly and half-fearfully at one another. The

uncanny sound was finally traced to the "babies' refrigerator," and there, in a paper-wrapped macaroni-box, was found a wriggling, premature infant. Although the little waif had been exposed for 3 hours to a temperature of 25°, it was able to kick and cry, and after having been thawed out it lived 10 hours. Investigation by the police showed that it was one of twins that had been born to an Italian woman 2 months ahead of time. She had been attended by a licensed midwife, who certified that they had been stillborn.

A Ship's Surgeon Blamed.—Formal complaint has been made to Dr. John Griffin, chairman of the nautical school committee of the Board of Education, regarding alleged negligence on the part of Dr. Robert Smart, surgeon of the schoolship *St. Mary's*. It seems that one of the boys on the ship, John Church Cruger, went home on Sunday, having been given shore-leave, and on reaching his people was found to be so ill that they at once summoned a physician, who stated that the boy had typhoid fever, and had apparently been ill with it about a week. The boy stated that he had been so ill on the day of the Dewey parade, that, in the afternoon, he had asked and obtained permission from the surgeon to go off duty. Dr. Smart says that the boy did not appear at 9 o'clock sick-call on the morning of the naval parade, but had complained of headache and weakness in the afternoon, and while the boy had not appeared to be feverish at that time, he had given him the benefit of the doubt, and excused him from duty. He added that the next day, when all the boys had been given shore-leave, young Cruger had come to him, and he had seen nothing further of him, and had had no fair opportunity to make a diagnosis.

A Husband and Wife Insane.—Some little interest has been aroused by the visit to New York of Frederick Goler, and his wife, of Bridgeport, to be examined as to their sanity. As a result of the examination, which was made by Dr. George W. Jacoby, they have been committed to the Connecticut State Asylum at Middletown. The interest in their case hinges upon the fact that the husband did not develop symptoms of mental unsoundness, so it is said, until after the wife. Both were found to be paranoiacs. The popular belief was that the husband had "caught" insanity from his wife. Dr. Jacoby said that it was quite probable that similarity of tastes and thought had brought them together while as yet the symptoms of mental unsoundness were latent. Another factor to be considered in this connection was, that during a long married life both husband and wife became molded physically and mentally by the same surroundings—in other words, each one forms a part of the other's environment. It was conceivable, then, that if the paranoia in the wife was long in declaring itself, it would be possible for the husband to acquire the same mental trouble by reason of long and intimate association with her.

Emmanuel Hospital Not Needed.—A second attempt was made on November 1 to have hearing before the State Board of Charities in the matter of the application for a license for a new hospital on the East Side, to be known as Emmanuel Hospital. Mention was made last week of the strong opposition to it that had arisen. At this second hearing President Isaac Wallach, of Mount Sinai Hospital, and Isaac Stern, of the executive committee of the same hospital, were on hand to prevent a license being granted. They stated that the Jews were opposed to the policy of duplicating charities, because, if the new institution did not have genuine and adequate resources, the inevitable result was to draw support from those already in existence. No evidence had been adduced that the new hospital had such adequate support, and what was particularly suspicious, it was professedly backed by only a few physicians, and they positively refused to make known the names of any of those who had helped to contribute to the sum of $40,000 which the proposers of the new hospital claimed to have on hand. Besides, they had refused to adopt the suggestion of the chairman of the State Board, Dr. Stephen Smith, that they join their forces with the already existing hospital in their part of the city—the Beth Israel. Decision was reserved.

NEW ENGLAND.

The new building of the Cambridge Home for Aged People was dedicated recently with addresses by President Eliot, of Harvard, and others.

Dr. J. Collins Warren has resigned the presidency of the Board of Managers of the Massachusetts Charitable Eye and Ear Infirmary at the recent annual meeting, and Dr. John Homans 2d was chosen to fill the vacancy.

There is an epidemic of diphtheria in Cambridge, Mass., which threatens to make it necessary to close some of the schools, while in Chelsea, three deaths from smallpox, and a dozen cases, have made free enforced vaccination a necessity.

Association of Boards of Health of Massachusetts.—At the last meeting, held at Leominster, Dr. H. W. Hill, bacteriologist for the Boston Board of Health, read a paper on "Rapid Diagnosis in Diphtheria by Swab Examinations." Dr. F. L. Morse, of Worcester, on "Infection of Milk and other Articles of Food by the Typhoid Bacillus."

Thurber Medical Association, Milford, Mass.—At a regular meeting held November 2 the following was the program: "Alkaloidal (Dosimetric) Medication; What it is; What it is not; and some of its advantages," by Dr. J. M. French, of Milford. "A Few Alkaloids and How I Use Them," by Dr. N. W. Sanborn, of Wellesly Hills. "The Dosimetric Treatment of Typhoid Fever," by Dr. William L. Johnson, of Uxbridge. The discussion was animated and showed much interest in the general subject.

The Free Hospital for Women, Boston, treated 236 patients last year, and graduated 7 nurses from its training school. Dr. F. H. Davenport, connected with the hospital almost from the beginning, has retired from the active work of the hospital, and has been appointed consulting surgeon. Dr. J. B. Swift has been made senior assistant surgeon, and Dr. Geo. H. Washburn and Dr. Geo. W. Kaan, junior assistant surgeons. The new appointments to the out-patient staff are Dr. E. A. Pease and Dr. W. H. Grant. Dr. W. H. Baker, the founder of the hospital, is still surgeon-in-chief.

CHICAGO AND WESTERN STATES.

Dr. John T. Thoren, who has for 6 years been the medical registrar of Cook County Hospital, has tendered his resignation formally to the County Board.

Scarlet fever has become more malignant during the last fortnight in Chicago, and the mortality from it and from diphtheria is a little in excess of that of October, 1898.

Medical Inspectors.—The Board of Education of Chicago is considering the plan of Dr. W. S. Christopher to appoint 50 school medical inspectors at a salary of $50 a month.

New Laboratory. — Commissioner Hoffman recommends a well equipped laboratory in a separate building in connection with the County Hospital. The present laboratory is too small and too poorly equipped to meet the needs of so large a hospital. It is to be hoped that the county's finances will admit of its construction.

Vital Statistics.—A total of 101 less deaths were recorded by the Chicago Bureau of Vital Statistics last week than the week previous, but the 394 recorded are 51 in excess of the corresponding week of 1898. The reduction, as compared with the previous week, is chiefly in the deaths from consumption, cancer, pneumonia, and violence, which together showed 84 less, and in deaths among those over 60 years of age, which are 28 fewer.

Physicians' Club of Chicago.—At a meeting, held October 30, the drainage canal, as a deep waterway and as a sanitary measure, was discussed. Mr. Randolph illustrated the construction of the channel by means of stereopticon views. Commissioner Reynolds mentioned the fact that an analysis of water in the Illinois River has established that there will be no pollution of the river following the opening of the channel. The club adopted a resolution commending the plan for medical inspection of school children.

Epileptics of Illinois.—It is claimed that there are 3,000 of these unfortunates in this State. Dr. W. R. Spratling, Superintendent of the Craig Colony for Epileptics at Sonyea, N. Y., illustrated the life of these patients and their treatment at the recent meeting of the State Conference of Charities. He advises that Illinois secure a large acreage and available soil for the purpose of establishing an epileptic colony and providing employment for these patients. The State Board of Charities will appear before the next Legislature and request an appropriation to purchase 1,000 acres of land for the purpose of a colony.

Medical Control of Marriages in Wisconsin.—That part of the Health Commissioner's (Dr. Schulz) report in which he advocates making the issuance of marriage licenses subject to medical control, has caused much comment, favorable and unfavorable. That the impracticability and injustice of such a radical measure may be argued by laymen is easily understood, but that there should be physicians who cannot see that such a law would to a large extent do away with the slaughter of innocents, is hardly conceivable. If ever a restraint upon individual liberty is justified, such justification exists in the desire to prevent any person suffering from tuberculosis, gonorrhea, syphilis (active or insufficiently treated), or chronic alcoholism, from knowingly, wilfully, and maliciously imperiling the health and life of another.

Chicago Medical Society.—At a meeting, held November 1, DR. A. M. HANDSHAW read a paper on **Vaccination.** Reference was made to Welcker's glycerinated bovine virus and sterilized needle, introduced in 1894. The Chicago Health Department adopted this system in July of 1895, the claim being immunity from sepsis and smallpox. The speaker notes that vaccination in the negro is more difficult; the epidermis is thicker and harder to scarify, less frequently resulting in a typical vaccination, necessitating a repetition of the operation more frequently. The course of revaccination in her experience has been very irregular, especially in the adolescent. As to immunity to vaccinia, she has found a few persistently resistant to a successful operation. The greatest number of times that the operation has been performed upon one patient to her knowledge was 9 times, 4 by the family physician, and 5 by herself, the ninth operation resulting in a typical cicatrix.

DR. FRANK ALLPORT read a paper on **The eyes and ears of employes of transportation companies.** Color blindness was defined as an abnormal condition of the visual apparatus, causing inability to accurately, invariably, and properly distinguish the colors of the solar spectrum; the most frequent variety causing difficulty or impossibility to distinguish between red and green. His brother (Dr. W. H. Allport), in examinations of over 2,000 colored men, failed to find a single case of incomplete color-blindness. This has been observed by others, so that the observation is well authenticated. Speaking of color amblyopia, he said it may be congenital or acquired. Color-ignorance, which he thinks can be cured by education, should not be confounded with color amblyopia, as no abnormal condition exists, but lack of chromatic exactness and nomenclature frequently causes suspicious indications in persons unfamiliar with colors. Corporations, unions, etc., frequently profess skepticism with regard to accidents traceable to color amblyopia, thus wilfully disregarding several authenticated historical contrary instances, to say nothing of the ill-defined records of transportation accidents, where under the etiologic headings of "carelessness," and "undetermined causes," is found ample opportunity for the occurrence of calamities justly attributable to color amblyopia, poor vision, and hearing. Those who test for color amblyopia should be sure of their own color-sense. Examinations should be universally made once in 3 years, once a year in those who use tobacco or liquor excessively, and immediately after accidents, severe illnesses, and when inattention to signals or other occurrences tend to cast suspicion on the responsibility, vision, hearing, or color-perception of an employe.

Cleveland (Ohio) Medical Society.—At a meeting held October 13, DR. U. S. L. SHIRKEY presented a case of a child, 2½ years old, affected with **dermatitis gangrenosa.** The disease was of 8 weeks' duration, quite general over the surface of the body and began from a small papule on the calf of the leg.

DR. HUNTER ROBB read a paper upon the **Normal position of the uterus in the pelvis considered in relation to its physiologic mobility.** DR. C. F. HOOVER, in discussing the paper, asked as to the variation in the normal relative length of the vagina. He quoted a case in which he had made a diagnosis of prolapse only to be told by a gynecologist, to whom he referred the case, that the condition was simply an anatomic variation. DR. ROBB in closing said the condition reported by Dr. Hoover was quite rare, unless accompanied by a retrodisplacement. Anatomists state that the uterus deviates usually a little to the right, but when it is markedly displaced there commonly are dense adhesions.

DR. W. F. BROKAW read a paper entitled **The treatment of catarrhal conditions with the sinusoidal and other electric currents.** The author related his experience of over 2 years and the treatment of something over 250 cases, particularly in nasopharyngeal catarrh, nasal hyperesthesia, etc. By using the apparatus so that the current can be properly controled, with pure copper electrodes, and with the technic of the applications carefully carried out, results were obtained greatly superior to any known methods. Without seeking to eliminate operative or harsh measures, cautery, etc., the results have demonstrated that about 90% of such measures can be obviated. DR. J. H. LOWMAN expressed surprise at the statement that atrophic rhinitis yielded as readily as the hypertrophic form to treatment with the galvanic current. DR. J. M. INGERSOLL had had no experience in the use of the electric current in these cases, but thought that, as occlusion of the nares was frequently caused by exostoses on the septum, it would not yield readily to this treatment. In hypertrophic rhinitis he thought the current would be beneficial. He wished to know the length of time the essayist treated adenoids before pronouncing them cured. Dr. BROKAW said that the conclusions from his work in this line were as much of a surprise to himself as they could be to anyone else. In regard to the method being beneficial in both the atrophic and the hypertrophic forms of rhinitis, he explained that fact by the supposition that the current restored the normal tone to the vasomotor supply of the nose in each case; that is, increased the circulation in the

atrophic form, and decreased it in the hypertrophic form. He said it usually required from 3 to 6 months' treatment to clear up adenoids. He admitted that there were some cases that could not be cured by this method. He said the method was very simple and open to everyone to give it a trial.

Dr. John H. Lowman read a paper upon **Whooping-cough and rickets.**—Dr. W. E. Wirt noted that rickets was much more frequent in the eastern cities of this country than elsewhere, for the reason, no doubt, that the poor are huddled together in much smaller dwellings in those cities. He had not seen so many nor so great deformities resulting from rickets in Cleveland as he had in New York. He spoke of several cases that he had seen of very marked deformity of the chest due to rickets. At present he had in hand a man, 66 years of age, upon whom he intended to operate for knock-knee. This had occurred in youth and remained stationary during adult life, but had begun to increase excessively following a stroke of apoplexy 6 years previously. Dr. C. J. Aldrich described the curious phenomenon of "head-banging," which English authors have pointed out as at times occurring in rickety children. He had seen one such case in Cleveland in which there were well-marked evidences of rickets, such as an enlargement of the wrist and a dorsal pad on the foot. These children, unless restrained, are constantly endeavoring to throw their heads against any hard substance, with the result that their heads are covered with bruises, and it is necessary to completely pad the beds in which the children are kept. He spoke also of the peculiar rolling motion or nodding spasm of the head that also occurs in these cases and which is, as a rule, associated with lateral nystagmus. He disagreed with the essayist's statement as to preventing deformities by keeping these children off their feet, and had seen cases with greatly curved limbs in children that had never attempted to walk. He noted the persistent asthma and cough of rickets along with other disturbances of the respiratory tract and also the frequent combined fatness and paleness of these children. Dr. O. T. Maynard, of Illyria, said that the classing of rickets among the sequels of whooping-cough appeared to him as being a valuable thought and one explaining a number of cases in his own experience. The want of pure air undoubtedly is one of the causes of rickets, and this cause is practically effective in whooping-cough, as the children suffering from this disease are too frequently, through a mistaken motive of their parents, confined too closely to the house. Dr. B. E. Sager noted that he had been told by a surgeon at the Hospital for Children at Great Ormsby Street, London, that rickets in England was more prevalent in the country than in London, and gave as a reason that nearly all the best milk was sold in the city. Dr. Wirt asked Dr. Maynard if the milk from Elyria was all sent to Cleveland. He also noted the fact that the deformities, which occur in rickets before the child has walked, are due simply to contraction of the muscles upon the soft bones. Dr. I. Friedmann inquired if mixed races of people were more liable to rickets than the white race. Dr. G. W. Crile had observed in Cuba, Porto Rico, and Mexico, where the people live in extreme poverty, that rickets is the rule among the children, rather than the exception. Dr. L. Reich had observed that many cases of gastrointestinal disease dated their origin from an attack of whooping-cough. Dr. N. Rosewater asked if the essayist had noted the frequent association of urticaria with rickets. Dr. C. F. Hoover asked the essayist what he thought of Kassowitz's method of treating rickets with phosphorus and practically nothing else. Dr. Lowman said that the discussion had illustrated the prevalent lack of exact knowledge as to the underlying changes that constitute rickets, but the disease certainly would appear to be entirely dependent upon the quality of the food that is furnished the child. He thought that phosphorus should be used in grave cases, but he had not used it in the ones he reported because they had yielded promptly to fresh air, pure milk and plenty of sunshine. The feeding of children on artificial and farinaceous foods, to the exclusion of cow's milk, is beyond question responsible for a proportion of the cases of rickets; even sterilized milk is not as desirable a food as is raw milk. Rickets is very rare in Japan, where children are nursed up to the third or fourth year, and where the houses afford little or no prevention to the free circulation of the atmosphere. He said the point that he chiefly wished to make in his paper was the fact that rickets may develop in 5 or 6 weeks in a child sick of any general disease, especially if there is intestinal disturbance that necessitates considerable limitation of food. Such cases in convalescence must be treated entirely differently from those in which there is a simple weakness following acute disease. Therefore it is very important to make a correct diagnosis of the condition.

Dr. W. H. Humiston reported a case of **hysterectomy for multiple uterine myomas,** and presented a specimen. The specimen showed a subperitoneal pedunculated tumor, a submucous tumor and also one of the interstitial form. In this case it was perfectly clear that the operation of myomectomy would have proved utterly impossible. The operation was done bloodlessly by clamping and tying the ovarian and uterine arteries before they were cut.

Dr. G. W. Crile reported a **resection of the intestine** in a case of fecal fistula of the ileum. He performed a circular enterorrhaphy, using a continuous suture of silk for the mucous surface and another for the peritoneal surface of the intestine. Five months later he had operated on the same boy for strangulated hernia and had incidentally noted that there had been no contraction of the intestine at the original point of suture, and that the only remaining evidence of the operation was a white circular line around the gut.

Dr. J. H. Lowman presented a **gallstone more than an inch long** and three-quarters of an inch in diameter, consisting of pure cholesterin that had for five days caused grave symptoms of intestinal obstruction in a woman 65 years old. There had been fecal vomiting, but no elevation of temperature. Because the stone consisted of pure cholesterin it must have been formed in the gallbladder, but at the same time it must have passed through the common bile-duct without pain or jaundice, as there was positively no history of either. He did not think it could have ulcerated through because the woman had enjoyed perfect health for many years. Dr. Robb, in discussing the case, was inclined to think that the calculus passed through the common bile-duct during the five days when there were signs of intestinal obstruction. Dr. R. J. Wenner remarked that the absence of fever would indicate that the obstruction was in reality a reflex ileus.

Dr. C. J. Aldrich reported a case of **traumatic rupture of the head of the peroneus longus muscle** along with the trunk of the external popliteal nerve. At the time of the injury the man was entirely disabled, and remained so for 3 weeks, during which time the leg was flexed upon the thigh by the contraction of the hamstring muscle. Following this there was found to be paralysis of the extensor muscles of the foot and toes, with great pain over the dorsum of the foot and external aspect of the leg, which were also anesthetic. The areas of anesthesia were absolute, as hot-water bags used for the relief of pain blistered him severely throughout the anesthetic areas. No injury to the bone could be made out.

SOUTHERN STATES.

Investigating the Mosquitos of Newport News.—It is reported that Dr. W. R. Thayer, of Baltimore, Md., is conducting some investigations of the mosquitos of Newport News with a view of elucidating the mosquito theory of the propagation of malaria.

It is reported that the **Maryland Medical Journal** will shortly be converted into a monthly, instead of a weekly, periodical. A plan of reorganization is now being developed, and at the last meeting of the trustees, Dr. John S. Fulton, Secretary of the State Board of Health, was elected editor of the journal, vice Dr. W. B. Canfield, resigned.

Clinical Society of Maryland.—At the meeting November 3, Dr. Thayer gave a very interesting talk on the manner of infection in malarial fever. He reviewed at some length the recent work of Ross, Grassi, McCallum, Koch, and others, and seems to consider it pretty definitely settled that the bite of the mosquito is one means, if not the most important means, of conveying the infection.

The **Johns Hopkins Hospital Medical Society** held its first meeting of the season Monday evening, November 5, and elected Dr. Henry M. Thomas president, and Dr. Thos. S. Cullen secretary for the ensuing year. DR. HOWARD A. KELLY gave an informal talk on **the thanatophidia of North America, and how to recognize them.** He exhibited a collection of snakes which included all the American varieties, from the innocent garter snake to the deadly copperhead, and described the distinctive features of each. The exhibition was both interesting and instructive, and after Dr. Kelley's clear explanation one could hardly fail to distinguish in any given case whether or not the bite of the reptile was dangerous. DR. T. R. BROWNE read a paper in which he reviewed the recent attempts to secure a **curative serum for snake-bites,** the outlook for which seems to be very promising.

An **interesting medico-legal** case has just been decided in favor of the profession, in the Baltimore City Court. On July 10, 1894, a workman named Alonzo Squires fell from the roof of the Woman's College, a distance of 40 feet. He was insured in the Standard Life and Accident Insurance Company, and the company's surgeon, Dr. H. H. Biedler was sent for. He found a Pott's fracture of the ankle, a transverse fracture of the upper end of the radius and a fracture of the lower end of the humerus running longitudinally between the condyles. The man could give no reason for his fall; was not giddy and there was nothing wrong with the scaffolding. He made a good recovery, returned to his work and continued with the same employer for a year and a half longer. About that time he was discharged, and then, nearly 2 years after the accident, instituted a suit for $25,000 damages against his employer, the insurance company and the surgeon alleging that a slight stiffness of his arm was due to improper treatment. The case has been postponed repeatedly by the plaintiff for 3 years, but finally reached trial last week. Dr. J. M. T. Finney, of the Johns Hopkins Hospital, and Dr. Theodore Cook were produced to sustain the plaintiff's claim, but neither found anything wrong with Dr. Biedler's treatment and on the contrary expressed their thorough approval of it. The man was able to walk as well as anyone, and could use his arm freely except that he could not attain full extension; pronation and supination were perfect. No evidence was required of the defendants, for at the conclusion of the plaintiff's testimony Judge Phelps took the case from the jury, instructing them to render a verdict in favor of the defendants upon the ground that no evidence had been offered showing any negligence upon the part of any of the defendants or any lack of skill or duty on the part of the surgeon.

CANADA.

Research Fellowships in Pathology of McGill University.—The first holders of this fellowship are W. W. Ford, B.A., M.D., Johns Hopkins, and John McCrae, B.A., M.D., late fellow in Biology of Toronto University.

Dr. Hamilton Wright, a graduate of McGill University, and late Registrar of the Royal Victoria Hospital, Montreal, after having gained a John Lucas Walker scholarship at Cambridge, England, being pathologist to the Clayburg Asylum, said to be the largest institution of its kind in the world, has been commissioned by the British Government to spend the next three years in the Straits Settlements investigating beriberi and other tropical diseases.

Medical Faculty of McGill University.—The winter session opened September 22 with a lecture by Professor W. Osler, M.D., of Baltimorre. The term promises to be very successful, there being about 450 students registered, including a very large freshman class. Several promotions have been made in the staff. Dr. C. F. Martin is now assistant professor of clinical medicine, and Drs. W. F. Hamilton and G. G. Campbell have been made lecturers. Dr. D. J. Evans becomes lecturer in obstetrics, and Drs. Church, Reilly, Bazin, and Westley, assistant demonstrators of anatomy.

By the death of Dr. J. E. Graham, professor of medicine in Toronto University, the profession in Canada has sustained a great loss. He was of the highest type of physician, a constant student and loving his profession for its own sake. He was the first to report cases of akromegaly in America and has made a mark in diseases of the liver. His wide interests and his special knowledge in certain lines are evidenced by the fact that he was president of the American Dermatological Association in 1887. He was also one of the original Canadian members of the Association of American Physicians. He was an able and voluminous writer, having published 57 articles or monographs.

Montreal Medico-Chirurgical Society.—At a meeting held October 23 DR. A. G. NICHOLS showed the specimens from a case of **lienomedullary leukemia** in a boy of 11. The disease was of two years' standing. It began with great weakness, pain over the heart and epistaxis. Swelling of the abdomen occurred and rapidly increased. The blood was characteristic of lienomedullary leukemia, containing abundant nucleated red-cells, and myelocytes. The enlargement of the abdomen was due to a greatly enlarged spleen, which reached from the left hypochondrium to the pubes and to the right nipple line. It weighed 2212 grams, was very firm and presented several infarcts. The liver was also much enlarged, but did not weigh quite so much as the spleen. The heart was enlarged, fatty, and the left ventricle dilated. The intestines were crowded into the right lower quadrant of the abdomen.

Dr. W. F. HAMILTON read a case report upon an **aortic aneurysm.** The patient was a comparatively young man, with a marked venereal history. There was a harsh cough, with some inequality of the pupils. The most marked complaint was an increasing difficulty in swallowing. Tracheal tugging was marked. Melena developed at the last. Dr. A. G. Nicholls showed the specimen of the above case. The aneurysm sprang directly from the first part of the aorta, involving the ascending portion and transverse arch. It was in the main fusiform with a small diverticulum backward. This pressed upon the esophagus, which was gangrenous at that point. There was a small opening admitting a match, through which rupture had taken place from the sac into the esophagus. The heart itself was relatively small, contrary to the general rule, and it was pointed out that this was due to the fact that the valves were free from disease, even the aortic ring having escaped. The large intestine was full of blood, but the stomach and small intestine were empty. Death had taken place 27 hours after the first rupture. The reason for the delay in the lethal termination was not clear.

DR. GEORGE ARMSTRONG read a paper on the **Surgical treatment of gastric ulcer.** He reported a case in which he found a large ulcer with indurated base. This he excised. He also opened into the duodenum, as he was not certain whether he had to deal with a duodenal ulcer or not. He did a Heincke-Mikulicz pyloroplasty, as it was generally recommended. On the whole, when practicable, cureting of the ulcer and cauterization gave very good results. He thought that when hemorrhage was continuous early operation was indicated. The paper was discussed by Drs. SHEPHERD, ELDER and MARTIN.

DR. J. J. ROSS showed a specimen of **monstrosity.** It presented exencephalus, harelip, hypoplasia of the right arm, and clubfoot. It also illustrated the influence of amniotic bands in producing deformities. In this case no amniotic fluid had been present.

MISCELLANY.

A fine new sign in Indianapolis reads "Medical Gymnast." We have not yet fathomed its true inwardness, but suppose it means one of those Admirable Crichtons with genius enough to "practise both 'schools' at once."—[*Med. Debates.*]

Dr. Ashmead, the Medical Record, and Janus.—We have received the following communication from Dr. Albert S. Ashmead, of New York:

To the Editor of The Philadelphia Medical Journal:—

As both the *Medical Record* and *Janus* have failed to favor me with a *correction*, as I requested, I am compelled to ask another journal to father my complaint. Will you therefore kindly insert the enclosed letter in your next issue, and oblige,

Yours truly,

Albert S. Ashmead.

"Le influence de la race et du climat en cas de lèpre et de tuberculose en Japon (*Medical Record*, 11 Fevrier 1899)."

Editor of Janus, Amsterdam, Holland.

Sir:—The extract under the above title, which you published (in French) on page 366 of the July and August number of your Journal, was taken bodily, and *without ceremony*, from my article "Descent and Variation of the Bacillus." (Mittheilungen und Verhandlungen der Internationalen wissenschaftlichen Lepra-Conferenz zu Berlin in October, 1897. See pages 10 to 13, volume first.)

Your "Collègue Japonais," therefore, is *not* the author of it.

Albert S. Ashmead.

New York, October 31, 1899.

Faith Healing.—It is well known that Dr. P. S. Henson, of Chicago, has a defective eye. A good man and his wife, members of the Henson household of faith, have felt for some time that their pastor would be much improved if the lame eye could be made like unto the other. These persons are firm believers in the faith-cure theory. They went to see him about it.

"We have been praying for you that you may have two perfect eyes," they said to the doctor, "and have now come to pray with you. Will you not ask the Lord right here and now to give you a new eye?"

Dr. Henson's reply was startling.

"What kind of teeth have you?" he suddenly asked the brother.

"Why—why, that's a strange question," he stammered, "but I don't mind telling you that my teeth are mostly false."

"What kind of teeth do you use, sister?" he asked of the other.

"Same kind," she frankly admitted.

"Well, good friends," rejoined the doctor, "you go and ask God to grow some new teeth in your mouths. According to your theory He will do it without delay. When you get your teeth, come around and we will see what can be done about that new eye!"

This happened some time ago, but the good people are still grinding on artificial molars, and Dr. Henson still looks down on his great congregation with one eye.—[*Epworth Herald.*]

Obituary.—Dr. Thomas L. Jenks, foremost among the physicians of Boston in the value of his public services, died October 31, in his 70th year. He graduated from the Harvard Medical School 45 years ago and served through the war of the rebellion in the navy as hospital steward. He served in the Boston City Council and in the Massachusetts Legislature, several terms. He served as a trustee of the Boston City Hospital, as chairman of the Boston Police Commission, and chairman of the Board of Commissioners of Public Institutions. He had been president of the College of Pharmacy, and at his death was president of North End Savings Bank of Boston.—Dr. S. S. Todd, one of the founders of the Kansas City Medical College, and of the College of Physicians and Surgeons, Kansas City, October 19, aged 73 years.—Dr. Dilwyn P. Pancoast, Camden, N. J., November 4, aged 63 years.—Dr. Thomas J. Jackson, Baltimore, Md., October 26, aged 50 years.—Dr. C. R. Jakes, Wilmington, Del., October 25, aged 45 years.—Dr. W. R. Maddox, Washington, D. C., October 26, aged 86 years.—Dr. J. J. Seward, Erie, Pa., October 22, aged 43 years.—Dr. Alfred Thomas Drury, Brooklyn, N. Y., November 1, aged 69 years.—Dr. Luther Dana Woodbridge, professor of anatomy and physiology in Williams College, November 3.—Dr. Edward Bleecker, president of the Whitestone Board of Education, and one of the promoters of the Flushing Hospital at Flushing, L. I., at Whitestone, L. I., November 5, aged 55 years.—Dr. Charles H. Holzhausen, one of the physicians to the Outdoor Department of the Bellevue Hospital, New York, November 5, aged 29 years.—Dr. John Dale, Princess Anne, Somerset County, Md., November 6, aged 48 years.

Health-Reports.—The following cases of smallpox, yellow fever and plague have been reported to the Surgeon-General of the U. S. Marine-Hospital Service, during the week ended November 3, 1899:

Smallpox.—United States.

			Cases.	Deaths.
Arkansas:	Batesville	Oct. 26	1	
"	Little Rock	Oct. 26	10	
"	Mananna	Oct. 26	1	
"	Newport	Oct. 26	2	
"	Russellville	Oct. 26	1	
"	Tuckerman	Oct. 26	2	
Dist. of Columbia:	Washington	Oct. 21-26	2	
Georgia:	Lumpkin	Oct. 22	Present.	
"	Richland	Oct. 22	"	
Illinois:	Chicago	Oct. 21-28	1	
Louisiana:	Concordia Parish	Oct. 11	1	
"	New Orleans	Oct. 14-20	1	
Massachusetts:	Chelsea	Oct. 21-28	2	3
Michigan:	Benton Harbor	Oct. 28	10	
"	Grand Rapids	Oct. 21-28	1	
New York:	New York	Oct. 21-28	4	
Ohio:	Cincinnati	Oct. 21-28	3	
"	Cleveland	Oct. 21-28	7	
Tennessee:	Bristol	Oct. 1-13	30	
Virginia:	Portsmouth	Oct. 21-28	9	1

Yellow Fever.—United States.

Florida:	Key West	Oct. 26-Nov. 1	9	2
"	Miami	Oct. 26-31	14	
Louisiana:	New Orleans	Oct. 14-28	12	4
Mississippi:	Jackson	Nov. 1	6	1

Smallpox—Foreign.

Argentina:	Buenos Ayres	Aug. 1-31	1	1
Austria:	Prague	Oct. 7-14	1	
Straits Settlements:	Singapore	Sept. 16-23		1
Turkey:	Erzeroum	Sept. 23-30	3	

Yellow Fever.—Foreign.

Argentina:	Buenos Ayres	Aug. 1-31	1	1
West Indies:	Caracoa	Oct. 7-21	2	1
Mexico:	Vera Cruz	Oct. 13-26	6	2

Plague.

China:	Hongkong	Sept. 9-16	18	20
"	Nuichwang	Sept. 30	Present in epidemic form.	
Portugal:	Oporto	Aug. 16-Oct. 15	160	55

Changes in the Medical Corps of the U. S. Navy for the week ended November 3, 1899:

Spear, R., assistant surgeon, detached from the "New York," ordered home and granted sick leave for two months.

McClanahan, R. K., assistant surgeon, detached from the Naval Hospital, Key West, Fla., and ordered home and granted sick leave for two months.

Paraform for Warts.—Mense (*Derm. Centralblatt*, No. 7, 1899) states that paraform (paraform-aldehyd, triformal) is an excellent caustic for warts. He prescribes:

Paraform ..... 3 parts.
Collodion .....27 parts.

Sig.—To be applied thrice daily.

Foreign News and Notes.

GREAT BRITAIN.

Mr. Philip Burnard Chenery Ayres, C.M.G., whose death is announced in the English medical papers as having recently taken place, was for upwards of a quarter of a century inspector of hospitals at Hong Kong. The sanitary condition of the colony was enormously indebted to his labors, while the splendid City Hospital was also the outcome of his pertinacious representations.

University of Glasgow.—Commendable progress is being made in improving the facilities for practical and laboratory instruction. A new botanical laboratory is being erected, ground is about to be broken for a new engineering laboratory, and it is announced that the trustees of the late Mr. James B. Thompson intend giving $50,000 for the construction of a new anatomic department.

Open-air treatment of phthisis as proved at Nordrach, will be tried in Scotland. Sir William Gairdner, Sir Grainger Stewart, Dr. William Russell, Dr. Byrom Bramwell and Dr. G. A. Gibson—to mention the names of a few well-known consultants—are stated to approve of a scheme for the erection of a sanatorium some 20 miles south of Aberdeen upon the banks of the Dee. We are apt to associate a harsh and cold environment with all sites in "Caledonia, stern and wild," but as a matter of fact the Deeside enjoys a mean temperature nearly as high as the southwest of England.

The Popularity of Cambridge University Medical School has again been shown among British students. The entry of new students is larger than at any other school at the beginning of the medical year 1899–1900. This is undoubtedly due to the very thorough attention which Cambridge has given ever since the influence of Sir George Humphrey was felt to the teaching of biology, physiology, and anatomy; while in more recent times Sir Michael Foster's genial personality and enormous scientific prestige have, no doubt, counted for many recruits to this successful school.

The Holidays of the Irish Dispensary Medical Officers.—The Irish dispensary medical officers are a very hardly-worked and poorly paid set of men. They are on duty night and day and Sundays and weekdays alike. They are also under the jurisdiction of laymen, viz., the guardians of the dispensary districts, who might be expected to do their best for public servants from whom so much is required. As a matter of fact in more than one district the guardians have been trying by verbal quibbles to cheat the medical officers out of proper holidays. The wording of the Act under which the medical officers take their holidays defined the length of those holidays as "not exceeding a month," and during that time an approved substitute had to be paid by the public. Some of the guardians, notably in Ulster, jumped at a brilliant idea of saving the ratepayers' money. "Not exceeding a month," they argued, might mean a fortnight or any less time, and then proceeded to cut down the medical officers' holidays by one-half. The Local Government Board, however, interfered in behalf of the medical officers, and when a question was asked in the House of Commons as to the legality of the Board's action—asked by a member of Parliament taking the guardians' side of the dispute—Mr. Gerald Balfour, the Secretary of State for Ireland, upheld the Board warmly. The Irish guardians have a most singular way of showing their regard for economy to desire to take away from their hard-worked servants all chance of proper rest and recuperation.

The Annual Report, or calendar, as it is termed, **of the Royal College of Surgeons of England** has just appeared, and the figures contained in it show that although the Council of the College continue to treat their members with scant consideration, the diplomas of the college are eagerly sought by the British medical profession. There are now 1,215 Fellows of the college and 17,384 members; while over 600 candidates presented themselves during 1899 for the intermediate examination in anatomy and physiology, and over 800 for the final examination in surgery. The fees during the year of the successful and unsuccessful candidates for the diplomas of the college amounted to £17,000, this sum not including the payments made to the examiners. In fact the fees of the candidates furnish so enormous a proportion of the college's income that captious parents have been heard to say that examiners interested in the financial welfare of the college may exercise undue severity for fiscal reasons. The suggestion may be absurd, but it has been made seriously. The report gives some interesting figures concerning the issue of antitoxic serum undertaken at the laboratory of the Conjoint Board of the Royal Colleges of Physicians of London and Surgeons of England. For the year ending June 4, 1899, 15,322 doses, each containing 4,000 units, and 11,886 doses, each containing 2,000 units, have been supplied to the fever hospitals of London, *i. e.*, to the institutions of the Metropolitan Asylums Board. The large grant of money recently made to the college by the richest of the rich city companies, viz., the Goldsmiths' Company, has been expended this year chiefly in supplying antitoxic serum to various general and children's hospitals. In this manner 341 doses of 4,000 units, each, and 1,958 doses of 2,000 units each, have been distributed.

Sir William MacCormac and the Transvaal War.—Sir William MacCormac, the president of the Royal College of Surgeons of England, has consented to join Sir Redvers Buller's force and give the assistance of his great experience to the wounded in the South African war. And inasmuch as the English official accounts own to some 600 disabled men in the first fortnight of fighting, it would seem that he will not lack patients. The announcement of Sir William MacCormac's intention was received with great applause in the House of Commons, and the approval there has been endorsed by the country at large, but whether it will be endorsed by the Royal Army Medical Corps is, we should say, doubtful. Not that anything but praise can accrue to Sir William. The Director-General of the Army Medical Department is reported to have pressed on the Government the advisability of obtaining the help of a great civil surgeon, and the president of the Royal College of Surgeons acceded to the joint request of the Department and the Government that he would give his services to his country. But was it wise of the Director-General of the Army Medical Department—at a time when that Department should be particularly on its mettle and anxious to prove itself second to no military corps in completeness and efficiency—to look outside its own ranks for sound surgical advice? Sir William MacCormac is a great surgeon, but his experience of bullet-wounds was gained in the Franco-German War some 30 years ago, and practically the treatment of bullet-wounds will sum up the surgery of the campaign in South Africa. During his 30 years' rest from practical experience projectiles have altered in character, small arms have been revolutionized and the x-rays

have been discovered. Also during the 30 years' rest, in fact, less than 5 years ago, Great Britain has had at least one war where a very large number of her soldiers—upward of 1,500, we believe—were wounded by bullets and treated with great success by the officers of the Royal Army Medical Corps and Indian Medical Service. The military medical men who made such an excellent job of the numerous cases of bullet-wounds supplied to them by the Tirah expedition in North India have had a practical experience of modern warfare that has been denied to Sir William MacCormac, who has been earning laurels in other fields. Will those men like having a civilian placed over their heads? Of course they will not. The truth of the matter probably is that the military medical men most fitted by knowledge and experience to take the advisory post that is to be filled by Sir William MacCormac are somewhat junior in rank. To place one of them over his senior would be to violate the rule of *seniores priores*, and so a civilian was invited to fill the post. And, let it be conceded, a better civilian could not be found, but the step of asking his assistance is unfortunate for the Army Medical Department even though it has been taken by the head of that Department.

CONTINENTAL EUROPE.

University of Rostock.—The new clinic for diseases of the ear, nose and throat has been finished and will be inaugurated this winter under the direction of Professor Koerner.

Mercury and Its Nonexcretion with the Milk.—Dr. Ettore Somma has established by experimental evidence that mercury administered by inunction, hypodermic injections, or by the mouth, is *never* excreted in the milk. Syphilitic mothers and nurses of syphilitic children cannot medicate the child by absorbing any of the preparations of mercury.

In celebrating the 100th anniversary of the discovery of the electric battery by Volta, Prof. Mascart read an interesting communication before the Académie des Sciences des Paris, upon Volta's visit to Paris in 1802 and the recognition he received. Napoleon I created "a prize fund of 60,000 f. to be paid to the experimenter or discoverer who made the greatest advancement in electricity during the year." Volta was the first and Franklin the second to receive this prize.

Drs. Toulouse and Vaschide, after a long series of experiments, are reported to have discovered that the sense of smell is more highly developed in the left side of the nose than in the right, this difference appears to be due to the preponderance of mental action of the left side of the brain. The olfactory nerves do not decussate. Touch, vision, audition, etc., are better developed on the right side of the body, but owing to the decussation of the nerves, are presided over by the left side of the brain.

The Bacteriological Laboratory of Constantinople, recently established by Professor Chantemesse (Paris), under the personal patronage of the Sultan, has the following faculty: Director, Dr. Nicolle, formerly of the Pasteur Institute (Paris); first assistant, Dr. Adil Bey, formerly chief preparator at l'École d'Alfort; sub-director, Dr. Marie (Paris); first assistant, Dr. Zia Bey; chief of the antidiphtheric service, Dr. Refik Bey; chief of the antiseptic service, Dr. Rifat Bey; preparator, Dr. Haim Effendi; veterinaries, Moustafa Effendi and Osman Effendi; chief laboratory assistant, Youssouf Bey Chilha.

University of Vienna.—A new physiological institute was opened on October 16, in the presence of the Minister of Public Instruction, the Rector of the University, and nearly the whole body of the professors of the Medical Faculty. Professor Exner delivered a discourse, taking as his text the words *Doctrina artis fundamentum*, which form the inscription over the main entrance of the institute. The new institute, which is attached to the chair of histology, is spacious, and all the installations are on a scale adapted to the requirements of modern scientific teaching.

The Wakambi Arrow Poison.—According to the *British Medical Journal*, Professor Robert Koch brought home from East Africa poisoned arrows used in warfare by the Wakamba, a tribe whose domicile is near the Kilimandsharo. Professor Brieger undertook the examination of the poison, and succeeded in isolating its active principle, a crystalline body, of which the small quantity of 0.00005 gram sufficed to kill a guineapig, 300 grams in weight, in 20 minutes. Brieger's investigations showed the Wakamba poison to be a cardiac poison, which in warm-blooded animals produced convulsions, dyspnea, and other serious symptoms in about 10 to 15 minutes, and death shortly after. Possibly, nearer acquaintance may convert this new arrow-poison into a valuable cardiac remedy.

MISCELLANY.

Obituary.—Dr. L. Defalle, medical officer of the Civil Hospitals of Liege, France.—Dr. Schrevens, president of the Tournai Medical Commission.

University Appointments.—Prof. Frosch has been appointed director of the scientific department of the Institute for Infectious Diseases, to succeed Prof. Pfeiffer, who has gone to Königsberg.

The Treatment of Snake-bite in India.—According to the *Lancet*, arrangements for the more extended treatment throughout India of snake-bite by means of antivenomous serum will probably be made on the recommendation of Major R. M. S. Lyons, I.M.S., who was deputed by the Secretary of State for India to visit the Pasteur Institute and to report on the experiments made there. The method of applying the treatment is as follows: The member bitten is first bound tightly by means of a string or handkerchief as close as possible to the bite and on the proximal side of the wound. The wound is then to be washed with a fresh solution of hypochlorite of lime diluted to about 1 part in 60 parts by boiling water. A dose of the antivenomous serum is next injected into the subcutaneous cellular tissue of the flank. In addition, an injection of the hypochlorite of lime should be made in the track of the bite and around it in three or four places with the object of destroying any venom which may not have been absorbed. The ligature can then be removed, and it is recommended that the sick person be rubbed, given tea or coffee to drink, and covered up warmly so as to cause sweating. It is pointed out that cauterizing the bite is useless, and that ammonia or alcohol would be injurious with the above treatment. At present the serum is very expensive, as 20 cc., the dose for an adult, cost about $1.00. The efficacy of this form of treatment is now fairly well established, so that every important station and hospital throughout India ought to be provided with the serum. The total returns for the whole of India show 21,901 deaths from snake-bite last year.

Insanitary Conditions and Consequent Disease aboard a Russian Transport.—According to the *New York Evening Post* accounts are published of a terrible voyage of the *Petersburg*, one of the vessels of the so-called volunteer Russian fleet, which recently conveyed 1,600 immigrants to Vladivostok, although she only had accommodations on board for 1,000. The passengers were either emigrants of the agricultural class bound for eastern Siberia in quest of a new home, or Cossack soldiers under orders for service in localities in the East in the occupation of Russia. The extra 600 were

quartered wherever convenient, the great majority being huddled together in the forward hold, where there was little or no light and but the poorest apology for ventilation. Under such miserable conditions of semi-darkness, suffocation, and stench, the miserable travelers passed the greater part of the voyage through the tropics. The natural consequence of this defiance of all the laws of sanitation was the appearance of all kinds of contagious diseases. Out of the 600 excess passengers 55 were buried at sea. But these 55 deaths by no means represented the total sacrifice of human life. On the arrival of the vessel at Vladivostok dozens of victims, reduced to mere skeletons, had to be transferred to the local barrack hospitals in a state of prostration from dysentery, measles, skin diseases, and the like, and 9 more deaths occurred in hospital during the 4 days following the transfer of the sufferers. The horrors experienced during the voyage may be imagined from the fact that between Aden and Colombo the vessel pitched heavily in a severe storm, which necessitated the battening down of hatches. Several of the unhappy victims were drawn up out of the hold in a state of utter collapse, and in spite of efforts to revive them, died soon after they reached the deck.

International Association of Academies.—The final steps for the foundation of an International Association of Academies were taken at a meeting held at Wiesbaden on October 10 and 11. The bodies represented at this meeting were the Royal Academy of Sciences of Berlin by Messrs. Auwers, Virchow, and Diels; the Royal Society of Science in Göttingen by Messrs. Ehlers and Leo; the Royal Saxon Society of Science at Leipzig by Messrs. Windisch and Wislicenus; the Royal Bavarian Academy of Munich by Messrs. von Zittel Dyck and von Sicherer; the Imperial Academy of Sciences in Vienna by Messrs. Mussafia, von Lang, Lieben, and Gomperz; the Royal Society of London by Messrs. Rücker, Armstrong, and Schuster; the French Academy by Messrs. Darboux and Moissan; the Imperial Academy of Sciences in St. Petersburg by Messrs. Famintzine and Salemann; and the Smithsonian Institution of Washington by Messrs. Newcomb, Remsen, and Bowditch. The meeting was presided over by Professor Auwers, of Berlin, and according to the report in the *Times* his knowledge of German, French, and English did much to facilitate discussion, while all the delegates appeared anxious to bring about cooperation. It is proposed to hold general meetings of delegates at intervals of 3 years, and on the proposal of the Royal Society of London it was determined that the first general meeting should be held in Paris in 1900. At this meeting two sections will be constituted, one dealing with mathematics and the natural sciences, the other with arts and philosophy. A council is to be constituted to carry on the business in the intervals between the meetings, and a number of scientific bodies in addition to those represented at Wiesbaden are to be invited to join the organization. It is already joined by the Reale Accademia dei Lincei of Rome. The scheme originated some years ago with the learned societies in Munich, Vienna, Göttingen, and Leipzig, and representatives of the Royal Society of London were present at joint meetings of these bodies held in 1897 in Leipzig, and in 1898 in Göttingen. One outcome of these meetings was a scheme for an international catalog of scientific literature which the Royal Society has already taken in hand. One of the main objects which the promoters of the Association have in view is the initiation or promotion of scientific enterprises of general interest recommended by one or more of the associated bodies, and it is intended to appoint committees of experts to advise on such projects.—[*British Medical Journal.*]

Union of Fractures Hastened by Thyroid Extract.—Lambert (*Echo Medical du Nord*, June 11, 1899) reports a case which suggests that the administration of thyroid extract may be of value in lessening the time usually required for the union of fractures. The good results obtained by Gauthier with thyroid medication in delayed union of bones prompted Lambert to try the effect of the remedy on callous formation in a case of recent fracture. A man who had sustained a fracture of both bones of the leg was given three grains of thyroid gland three times a day. Complete union was effected in 17 days.

Society Report.

[From our Special Correspondent.]

AMERICAN PUBLIC HEALTH ASSOCIATION.

Twenty-seventh Annual Meeting, Held at Minneapolis, Minn., October 31, and November 1, 2, and 3.

DR. HENRY MITCHELL, of Asbury Park, N. J., presided and there were 110 new members elected to membership.

DR. HENRY B. HORLBECK, of Charleston, S. C., presented the report of the committee on the **etiology of yellow fever,** and quoted the conclusions arrived at by the commission sent to Havana, in 1897 and 1898, under the auspices of the Marine-Hospital Service. The committee urged the appointment of a commisson of bacteriologists, fully equipped and provided with ample means, which shall be permanently located in one of the yellow fever infected cities.

DR. E. LICÉAGA, of Mexico City, presented a report on the cases of **yellow fever observed in the Mexican Republic** from September 12, 1898, to September 15, 1899. He also gave a description of the sanitary stations about to be established to prevent the spread of yellow fever.

PROF. WM. H. WELCH, of Baltimore, addressed the association on the **relations of laboratories to public health.**

DR. WYATT JOHNSTON, of Montreal, related the results o his experience during the last 3 years with **formaldehyd** as a disinfectant. He believes that this is one of the best disinfectants that has ever been presented to the profession.

PRESIDENT MITCHELL in his annual address gave a review of the **sanitary progress during the year.** Referring to milk, he stated that the hygienic control of milk-supplies has assumed a better working basis in numerous cities, and the popular demand for clean and pure milk is beginning to meet with response from a few of the more progressive dairymen. He dwelt upon the necessity of establishing in the United States a **national department of public health,** saying that its importance has been strengthened by the acquirement of new territory by the Government, thus requiring investigations as to the distribution and character of preventable diseases which occur throughout the entire territory occupied by the nation.

DR. PETER H. BRICE, of Toronto, read an interesting report of the committee on the **cause and prevention of infectious diseases.** He referred to the role played by flies in the causation of disease.

DR. FRANK W. WRIGHT, of New Haven, followed with a paper on the **prevention of contagious diseases.** To prevent the spread of such diseases we must first destroy the poison given out from the sick person by disinfection, and second to prevent any poison that has escaped disinfection from coming in contact with susceptible persons. This is done by isolation.

DR. ERNEST WENDE, of Buffalo, presented a lengthy and instructive report on the **cause and prevention of infant mortality.**

DR. JOHN L. LEAL, of Paterson, N. J., described an epidemic of typhoid fever in that city which was traced to an **infected public water-supply.**

A resolution was adopted, that steps be taken to secure advanced teaching and the giving of diplomas in hygiene, urging that recognition of such diplomas be made by sanitary authorities.

DR. BENJAMIN LEE, of Philadelphia, read a paper in which he dwelt upon the **treatment of garbage and excreta in military camps.** He spoke of flies as factors in the causation of disease.

DR. C. H. JONES, Health Commissioner of Baltimore, related his experience in the **treatment of diphtheria** with antitoxin and formaldehyd, which showed a great decrease in mortality by the use of these agents. The health department has not lost a case of diphtheria which was treated with antitoxin within the first two days of the disease.

The following officers were elected for the ensuing year: President, Dr. Peter H. Bryce, Toronto, Ont.; first vice-president, Dr. H. M. Bracken, Minneapolis, Minn.; second vice-president, Dr. Juan Brena, Zacatecas, Mexico; secretary, Dr. Chas. O. Probst, Columbus, Ohio; treasurer, Dr. Henry D. Holton, Brattleboro, Vt. Indianapolis, Ind., was selected as the place for holding the next meeting.

The Latest Literature.

British Medical Journal.

October 21, 1899. [No. 2025.]

1. A Discussion on the Diagnosis and Treatment of Gunshot Wounds of the Abdomen. Colonel STEVENSON, J. WARD COUSINS, ARTHUR BARRY BLACKER, Major BEEVOR, DAMER HARRISON, R. CLEMENT LUCAS, JAMES MURPHY, J. PAUL BUSH, and Surgeon-General O'DWYER.
2. Localization of Bullets by X-Rays. R. CLEMENT LUCAS.
3. Two Cases of Primary Sarcoma of the Tongue: One Pedunculated, the other Interstitial. WALKER DOWNIE.
4. A Plea for More Extensive Operations in the Treatment of Malignant Disease of the Jaw. J. PAUL BUSH.
5. Four Cases of Bullet Wounds of the Chest, with Remarks. A. R. J. DOUGLAS.
6. A Case of Gunshot Wound of the Leg Severing the Anterior Tibial Nerve; Secondary Suture Two Months Later; Restoration of Function. PHILIP DE SANTI.
7. A Discussion on the Prevention and Treatment of Syphilis in the Navy and Army. E. B. MAHON, W. DICK, C. R. DRYSDALE, Major LAMBKIN, Major NIVEN, GEORGE OGILVIE, J. A. SHAW-MACKENZIE, F. H. WELCH, H. GRIER, THEODORE MAXWELL, and Surgeon-General O'DWYER.
8. On the Rational Treatment of Syphilis. A. B. WARD.
9. Notes on Two Recent Operations upon the Gasserian Ganglion and the Second and Third Divisions of the Fifth Nerve for Neuralgia by the Hartley-Krause Method. J. LYNN THOMAS.
0. A Reliable Washing Tap for Operation Rooms. J. LYNN THOMAS.
1. A Method of Attaching the Mucous Membrane to the Skin after Perineal Excision of the Rectum. LEONARD A. BIDWELL.
2. A Successful Case of Resection of Three-Quarters of the Stomach for Malignant Disease. CHARLES A. MORSON.
3. Two Cases of Fatal Venereal Phagedena. WALKER G. SPENSER.
4. Notes of a Case of Extensive Transsacral Excision of the Rectum for Cancer, followed by Perfect Sphincteric Control. CHARLES RYALL.
5. The Surgical Treatment of Uterine Cancer. W. ROGER WILLIAMS.
6. The Wisdom of Surgical Interference in Hematemesis and Melæna from Gastric and Duodenal Ulcer. G. E. ARMSTRONG.
7. On the Vermiform Appendix in Relation to External Hernia. J. HUTCHINSON.
8. Enterorrhaphy without Mechanical Aids. JAMES H. NICOLL.
9. The Treatment of Urethral Stricture. JAMES H. NICOLL.
0. Periostitis Albuminosa. GEORGE HENRY EDINGTON.
1. Three Cases of Removal of the Suprarenal Capsule. MAYO ROBSON.
2. An Analysis of 100 Cases of Abnormal Curvature and other Affections of the Spine. J. JACKSON CLARKE.
3. A Case of Secondary Thyroid Growth. A. WILLIAM SHEEN.
4. The Harveian Oration. GEORGE VIVIAN POORE.
5. Dupuytren's Contraction of the Palmar Fascia. E. ARCHER BROWN.
6. Ankylostomiasis in Dogs. ROBERT W. GRAY.
7. Suppression of Urine for Five Days. P. CLENNELL FENWICK.
8. Encysted Vesical Calculus. FREDERICK PAGE.

1.—Stevenson says that all penetrating **gunshot-wounds of the abdomen** should be treated by immediate laparotomy, because hemorrhages or extravasation of the intestinal contents, when not interfered with, are almost sure to bring the case to a fatal issue. In cases of contusion of the abdomen without injury to its walls, a most careful examination is required to determine whether there is injury to the viscera or not, and the primary symptoms, shock, vomiting and pain should have a controling weight in the diagnosis. It is not the severity of these symptoms which indicates internal injury, but rather a persistency in an equal or increasing degree. The treatment should be expectant as long as the 3 primary symptoms continue to improve, but if, after say 6 hours, there is no amelioration, intestinal rupture, or other serious lesions, should be suspected, and laparotomy be undertaken for their relief. As to the method of treating the injured intestine, we may either suture simply, or resect. Resections are necessary (*a*) when the loss of substance in the tube will cause a diminution of its caliber by one-third; (*b*) when several perforations are found close together, and (*c*) when the mesenteric edge is implicated. [G.B W.]

3.—Downie reports 2 cases of **sarcoma of the tongue,** one was of the rare pedunculated variety, and the other an interstitial growth. The former occurred in a man, 34 years old, who had 5 weeks previously complained of sore throat, which was the first symptom of the tumor. The growth was about the size of a walnut and sprung from the center of the left half of the first circumvallate area of the tongue by a pedicle about ½ its own diameter. On removal a small portion of the tongue where the pedicle was attached, was excised along with the growth. The other case was a man, 23 years old, who dated his trouble from the lodging of a fishbone. In this case there was a great deal of edema and inflammatory infiltration of the organs. The details of the second case will be reported later by Dr. Macewen. [G.B.W.]

4.—Bush reports a case of spindle-cell sarcoma of the superior maxilla, in which the growth together with the whole of the **upper jaw** was **removed.** The patient was afterwards fitted with an artificial jaw, which, when in place, held the lip and nose in such good position that it was scarcely possible to tell there was anything the matter with her. In another case, one of extensive epithelioma of the tongue, Bush removed the whole tongue from its attachments down to the hyoid bone. The patient made a complete recovery, and was able to talk quite distinctly. [G B.W.]

5.—Douglas reports 4 cases of **bullet-wounds of the chest,** all of which recovered. In none was there any exit-wound, and in 2 the bullet was found within the chest-cavity. All the cases recovered, the presence of the bullets not apparently giving them any trouble. [G B.W.]

8.—The **rational treatment of syphilis** may be described briefly as follows: Mercury should be used alone in primary and secondary syphilis, unless severe lesions are present, and the treatment should be begun as early as possible. It should be pushed to slight touching of the healthy gums and kept at this point; never higher lest the patient be poisoned, and never lower lest sporation instead of destruction of the microbes occur. The course of treatment should continue two years. Iodids should not be used as routine treatment in the primary and secondary stages, because by removing the toxin, the phagocytes will no longer be attracted to the microbes and incapsulation and destruction will be hindered. Iodids combined with mercury should be used in increasing doses in the gummatous stage, later a mild mercurial course is advisable. In intractable cases, with chronic poisoning and severe lesions, a large quantity of water taken daily facilitates the excretions of the toxin. But the main point is to push mercury to the toleration stage, and keep it there. [G B.W.]

9.—In the 2 cases of **trigeminal neuralgia** operated upon by Thomas there was no return of the pain up to the present time; for one that would be something over a year, and the other ½ a year. In the first case the Gasserian ganglion was not removed, but the nerves severed close to their origin from it and their foramina blocked with Horsley's wax. In the other case the outer portion of the ganglion was removed. [G.B.W.]

11.—Bidwell suggests that after **excision of the rectum** much is to be gained by making on each side of the original racket-shaped incision 2 more incisions about 2 inches in length, and about 1 inch apart, thus making two flaps which can be dissected up and sutured to the cut end of the bowel, generally without much tension. [G.B W.]

12.—F. A., a man, 39 years of age, had been suffering for the past 8 months from a gradually growing abdominal tumor, which on operation was found to be a cancer of the stomach involving the greater portion of that organ. It was found also that a small part of the mesocolon was involved and this portion at the operation was consequently removed. The stomach was severed at its distal portion by cutting

through the duodenum. The gastrohepatic omentum was divided between pressure forceps and the stomach cut through just above the growth. The cut edges of the stomach were firmly united by sutures except a small end left to unite to the duodenum, which union was accomplished with a Murphy button. Drainage tubes were inserted and the abdominal wound closed. The patient began taking peptonized milk in small quantities on the fourth day after operation, and the food was gradually increased in quantity and character until he was growing fat on a normal diet. [G.B W.]

14.—A married woman, 40 years of age, presented herself with an extensive **carcinoma of the rectum.** As the growth, however, still remained movable and no glandular enlargement could be made out, radical operation was undertaken. The coccyx and last two segments of the sacrum were resected and access gained to the abdomen through Douglas' pouch. The mesorectum and mesosigmoid were ligated in sections until 12 inches of diseased gut could be brought down through the wound. The lower point of division was 3 inches above the anus. The gut was left attached hanging out of the wound and was removed at a level with the skin a week later. The remaining fecal fistula was closed and a junction between anus and gut effected at two subsequent operations. The final result was most satisfactory. [G.B.W.]

16.—Armstrong says that in cases of **gastric and duodenal ulcers** it is the business of the surgeon to interfere in two classes of cases: (1) Those of frequently repeated small hemorrhages, which persist in spite of medical and dietetic treatment, and which threaten to destroy the life of the patient; and (2) in every case of large hemorrhage which in spite of medical and dietetic treatment recurs. [G B W.]

17.—Hutchinson says that it is entirely possible for that inflammation of an **appendix** which is **an inmate of a hernia** to occur and the symptoms thus arising may lead one to the diagnosis of strangulation. Also it is possible that an attack of appendicitis may lead to the first protrusion of the gut. Sometimes in a thin-walled sac the appendix may be palpated through it from the outside, but the appendix may be mistaken for an inflamed spermatic cord or a Meckel's diverticulum. As to the treatment of the appendix in a hernia, when not inflamed, it may be restored to the abdomen, but generally when the base is accessible the vermiform process should be resected. In cases of an inflamed appendix, if the infection is confined to the distal end, the organ may be rightly removed through the hernial wound, but when the disease is in close proximity to the bowel, it would be best to open the abdomen above Poupart's ligament and do a formal appendicitis operation. Congenitally the appendix may be an inmate of the hernial tract and may possibly be mistaken for an undescended testicle. Also in this same category of rarities the appendix has been found in a hernia of the left side. [G.B.W.]

18.—Nicoll says that, in ordinary circular **enterorrhaphy,** deliberate and accurate suturing will give the best results, though in exceptional cases some mechanical contrivance, as the Murphy button, will constitute a less risky course. [G B.W.]

20.—Edington reports a case of a woman who had a swelling around the matrix of the finger-nail, which when open was found to contain a clear, gelatinous material. The case seemed to correspond with the class of cases called by Garre **periostitis albuminosa.** [G.B.W]

21.—Robson reports **3 cases of removal of the suprarenal capsule,** 2 for sarcoma, and 1 for a condition termed by Virchow as "struma lipomatosa suprarenalis." The 2 sarcoma cases died, one 3 hours after the operation, and the other about a month. The remaining case made a good recovery. The symptoms which help in the diagnosis of suprarenal tumors are: (1) pain in the shoulder-tip; (2) pain radiating from the tumor across the abdomen and to the back, not along the genitocrural nerve; (3) marked loss of flesh; (4) nervous depression with loss of strength; (5) digestive disturbance, flatulence and vomiting; (6) presence of a tumor beneath costal margin, right or left, at first movable with respiration, but later fixed; it can be felt in the costovertebral angle posteriorly, and can be pushed forward into the hollow of the palpating hand in front of the abdomen; and (7) absence of urinary and of gallbladder symptoms. [G.B.W.]

26.—Gray has found the **ankylostoma duodenale** in the intestines of dogs in 3 autopsies which he has made. This parasite is very common among the tea-garden coolies of Assam. Pigs and cows eat of the fecal matter, and it is likely that they become infected through this medium. [S.M.H.]

27.—Fenwick reports a case of **suppression of urine lasting over a period of 5 days.** On examination of the patient at the end of this time the abdomen was extremely distended. A catheter was passed and the bladder was found to be empty. The cystoscope showed the left ureter blocked with a plug of grayish mucus, and from the right ureter there extruded a flattened clot. The patient was operated upon. The left kidney was found hard and enveloped in a stony mass of growth. The right was soft, but its ureter was apparently compressed by a mass of hard nodules in the mesentery. This pressure was relieved, and for the next 7 days the patient passed an average of 100 ounces of urine daily. The quantity then decreased rapidly, and he died on the eleventh day. The autopsy showed the mesentery converted into a hard mass of carcinomatous growth. The intestines were not involved; the left kidney was completely destroyed and could hardly be separated from the surrounding mass of cancer. The ureter was a mere fibrous cord which could be dissected out from the general mass. The right kidney was involved at the commencement of the ureter and in a small portion of the pelvis. The ureter was patulous, but had been apparently squeezed by the hard carcinomatous mass of mesentery. A persisting umbilical vein was discovered which was filled with a clot. [S.M.H.]

28.—Page reports a case of encysted calculus shaped almost like an ordinary tin tack. [G.B.W.]

Lancet.

October 21, 1899. [No. 3973.]

1. Searching Out the Secrets of Nature. GEORGE VIVIAN POORE.
2. The Effects of Influenza upon the Heart and Circulation: Their Clinical Manifestations and their Treatment. A. ERNEST SANSOM.
3. On Acc̈in as a Local Anesthetic in Subconjunctival Injections. ROBERT BRUDENELL CARTER.
4. Two Hundred Consecutive Cases of Diphtheria Treated with Antidiphtheritic Serum. A. J. TONKIN.
5. A Case of Multiple Skin Fibromata. T. FREDERICK PEARSE.
6. Preliminary Account of the Influence of Fatigue on the Structure of the Nerve-cells. GUIDO GUERRINI.
7. The Clinical Characters of the Plague Epidemic in India HAROLD W. BRUCE.
8. Cesarean Section in a Cottage. FRANCIS WM. JOSHUA.
9. Summer Diarrhea: Its Probable Cause. H. POOLE BERRY
10. The Craving for Stimulants. HARRY CAMPBELL.
11. A Second Case in which Ligature of the Uterine Arteries was Followed by Arrest of Excessive Hemorrhage and Shrinking of a Fibroid. G. E. HERMAN.
12. A Case of Perforated Gastric Ulcer and a Case o Strangulated Hernia. DR. R. MACLAREN.

2.—Sansom accepts as proved that the special micro organism of **influenza** is the bacillus described by R Pfeiffer. The influenza poison belongs to the group o the bacterial proteins. The toxin of influenza acts on th central nervous system powerfully; locally the effects ar exerted mostly on the respiratory system. The microb of Pfeiffer is very frequently associated with other micro organisms, the commonest being the pyogenic cocci and th pneumococci. These mixed infections explain the variation of symptoms so commonly observed. Influenza tends t modify perverted metabolism in the goutily disposed, an imparts grave dangers in cases of acute rheumatism. Whil influenza may, and often does, aggravate the dangers of preexisting rheumatic heart-disease it probably never pro duces any disease of the heart even remotely resembling th rheumatic. The arthritis which in some cases accompanie and in others follows influenza is a simulated and not a rea rheumatism. It is of the nature of osteoarthritis and ha not the associations of true rheumatism. The heart affec tions associated with true rheumatism differ from thos associated with osteoarthritis in that in the former there i

well-defined organic disease, in the latter disturbance of the nervous mechanism. Osteoarthritis is probably primarily a disease of the nervous system causing violent perturbations in the nutritive processes of the joints. The effects of influenza upon the nervous system are numerous. They are due to the toxin of influenza. The most frequent sequel of influenza is tachycardia. It may be persistent for long periods, or intermittent and accompanied by other symptoms of palpitation. It sometimes occurs early in the attack, again, some weeks or months after it. There is no evidence that there exists in these cases any association with structural disease of the heart other than dilatation of its muscular walls, and such dilatation is comparatively rare. There is no relation whatever between the rate of acceleration and the evidence of such dilatation. In some cases the dilatation is temporary and primarily due to an affection of the nervous mechanism, probably a special involvement of some part of the vagus roots. In a very small minority of cases a permanent enfeeblement of the myocardium may ensue and dilatation be more lasting. The eyelid and globe signs, some of which are observed in the majority of cases of post-influenzal tachycardia are: (1) Dalrymple's sign; (2) a well-marked tremor of both upper and lower eyelids; when the patient endeavors to close these gently; (3) von Graefe's sign; (4) Dixon Mann's sign; (5) exophthalmus. The most useful treatment is the use of weak continuous galvanic currents through the course of the pneumogastric nerve. In the minority of cases with decided enlargement of the thyroid gland the application of icebags over the swollen gland, and of frequent sponging with cold sea-salt water, prove very beneficial. In the treatment of cases of paroxysmal tachycardia and of palpitations occurring with vagus storms one should train the patient into conditions of comfort. When accompanied by dyspepsia the alkaline carbonates are useful. Irregularity of the action of the heart is observed very frequently after attacks of influenza, and there is no sort of proportion between the degree of cardiac irregularity and the subjective suffering of the patient. These patients may even complain of feelings of heart-failure when the heart is manifesting a perfectly normal action. These sensations are explained by a disturbance of the nerves which have to do with the sense of well-being of the heart. There is in a considerable number of cases an association with symptoms of Graves' disease just as obtains in cases of rapid heart. In certain cases the conditions of irregularity and of rapidity of the heart are interchanged. In some cases of the former there occcurs disturbance of hearing or auditory vertigo. The most important association of the postinfluenzal irregularities of the heart is with gout and goutiness. In some cases repeated attacks of acute nephritis have occurred; paroxysmal dyspepsia has been more violent; there have been attacks of abundant excretion of uric acid in the urine; and in many the heart symptoms, pain, distress and heart-failure have been very severe and sometimes fatal. The treatment is much the same as that for the rapid heart of influenza; massage, muscular exercises, baths, etc., are useful. Bradycardia may be a sequel of influenza. It is either paroxysmal or continuous. The danger to life is relatively greater than in tachycardia or arrhythmia. The chief danger is from syncope. The treatment in these cases is less satisfactory; sometimes the administration of belladonna has had a favorable effect. Cardiac pain following influenza is fairly common; it is sometimes paroxysmal and closely resembles angina pectoris. In some cases it radiates down the left arm to the neck and the back, and may be accompanied by a feeling of impending death. None of these cases in Sansom's experience were fatal. They are due to a disorder of the nerves alone, a form of neuritis or of visceral neuralgia, and are not true angina pectoris. In a minority of cases organic disease of the heart is set up by influenza. A series of cases offering, both from the clinical side and that of morbid anatomy, evidence of aortitis has been observed by Sansom. According to the clinical evidence these differ from the cases of simulated angina pectoris, in (1) that the severe pain is brought about or aggravated by very slight movements or exercise; (2) that there is a peculiar dead-leaf hue of the countenance, and a more marked facies Hippocratica at all times, and (3) though there may not be a persistent high arterial tension, if the case is observed during the heart attack, the radial artery is found to become contracted and narrow. At the postmortem, in the lining membrane of the aorta, elevated patches are usually observed just above the aortic cusps, and these swellings may be found to encroach upon the lumen of the coronary artery. In the more chronic cases there are patches showing the softening and transformation of ordinary atheroma. Any degenerative change in the heart-fiber is secondary to acute, subacute, or chronic aortitis. The first changes are not in the aorta, but in the terminal branches of the nutrient arteries of the aortic wall at certain parts. In the adjacent deeper layers of the internal coat may be found round-cell infiltration, and in the more superficial layers of the intima the fibers are separated by an edematous infiltration. Sometimes these morbid changes of aortitis may be limited, and there may be a return to good average health. No plan of treatment is of much avail to avert the fatal tendency, but in the subacute forms protracted administration of iodid is helpful. [S.M.H.]

3.—Carter has used **acoin** solution 1 to 100 by **subconjunctival injection** to produce local anesthesia in ophthalmic practice, and finds it a nonpoisonous local anesthetic of very prolonged action. It is also strongly antiseptic and keeps well in the dark. It is believed that its use will greatly facilitate the treatment of some of the more intractable inflammatory infections of the eye. [M.B.T.]

4.—Tonkin concludes a review of **200 consecutive cases of diphtheria** treated **with antidiphtheric serum,** as follows: (1) The general mortality-rate is reduced. The mortality of cases treated during the first three days of illness is reduced to about 3%, and that for all other cases to about 12%. (2) Laryngeal cases treated early are markedly benefited, the death-rate being very considerably reduced. (3) The tracheotomy mortality is very much lessened. (4) There is less need for tracheotomy if treatment be begun early. (5) All ages and both sexes are equally affected. (6) The chances of nephritis are lessened. (7) When the treatment is begun early albuminuria may not appear, will probably not be severe, and will soon disappear. (8) Paralysis is lessened for cases treated on the first and second days of the disease. The paralysis mortality is much reduced. (9) Extension of the disease to the larynx and parts below was not noted after injection of the antitoxin. (10) The only disadvantage noted after its use was a slight discomfort for a few days from urticarial rashes and pains in the joints in a small percentage of the cases. [S.M.H.]

5.—A cut is given showing the appearance of a patient affected with **multiple skin fibromas** covering the greater part of the body. The patient is a male, 40 years old, a native of India, and has had the tumors since he was 10 years of age. [M.B.T.]

6.—Guerrini, in studying the **influence of fatigue on the structure of the nerve-cells,** devoted himself only to fatigue due to a physiologic cause. Twelve dogs were made to run in an apparatus until they evinced symptoms of very evident fatigue. They were then killed, with numerous special precautions. The alterations found in the nerve-cells were: (1) An increase of the pericellular lymphatic space. (2) The presence of leukocytes upon the cell in the pericellular lymphatic space. (3) Disorder of the rete achromaticum. (4) Decomposition of the pigment masses, which were sometimes reduced to an accumulation of small fragments. (5) The presence of vacuoles in the protoplasmic mass. (6) Irregularities of the margins of the nucleus. (7) The presence of vacuoles in the nucleus. The more the dog had been fatigued the more profoundly altered the nerve-cells were found to be. The two modifications which were first to show themselves were (1) The increase of the pericellular lymphatic space; (2) decomposition of the pigment masses. This process sometimes began at the circumference, sometimes at the center of the protoplasmic mass, and sometimes immediately on the nucleus. [S.M.H.]

7.—Bruce contributes an article on the clinical characters of the plague epidemic in India, describing the bubonic form, its varieties and complications, and also the pneumonic form, to the enormous fatality of which he attracts special attention. [S.M.H.]

8.—Joshua reports a successful **cesarean operation** performed in a cottage of one room and that extremely dirty and unsanitary. The indication for the operation was spondylolisthesis, and the estimated conjugate was about two inches. [W.K.]

9.—Berry considers summer diarrhea of microbic origin, the germ having its habitat in the soil contaminated with organic refuse. The presence of diarrhea in the summer is accounted for by the probability that an elevated soil temperature is essential for the full development of the microorganisms. He suggests the possibility of winged insects being instrumental in the conveyance of this disease. [S M.H.]

10.—Campbell, in explaining **the craving for stimulants,** adopts the general thesis that the blood normally contains stimulants; that these stimulants exercise a favoring influence on function and conduce to and may even be a necessary factor in the production of the feeling of well-being. This explains the widespread liking in man and beast for stimulating substances. This liking, amounting even to a craving, is the expression of a great physiologic principle. When there is perfect health, when the blood is well provided with its proper stimulants and not overcharged with depressants there is no craving for extraneous stimulants; but when it is defective in the one or surcharged with the other then extraneous stimulants are desired. In order to obviate this desire one should seek to keep the body at the highest level of health. [S.M H.]

11.—A woman, 34 years old, had suffered from **excessive menstrual hemorrhage** for 3 years, she was anemic, had hard enlargements of the uterus, reaching three-quarters of the distance to the umbilicus and had not been benefited by a course of ergot. As the patient desired to marry it was wished to avoid a mutilating operation. A transverse incision was made in the anterior vaginal fornix, a ligature passed around each uterine artery from above downward; menstruation since the operation has been regular and very scanty. A tumor reaches only $3\frac{1}{2}$ inches above the pubes and the patient feels perfectly well. [W.K.]

12.—A woman, 20 years old, had suffered from indigestion for about a year, but had never vomited or had real inconvenience; she was suddenly seized with an attack of violent abdominal pain, chiefly in the left hypochondrium, and vomited a large quantity of greenish material. The pain and vomiting continued, but a physician was not called in until 2 days later. **Perforation of the stomach** was diagnosed and operation recommended. When admitted to the hospital the temperature was 101.8° F., pulse 120, small and hard, respiration 36 per minute, almost entirely thoracic; the abdomen was slightly distended, very rigid, resonant, and there was generally diffused tenderness, hepatic dulness was diminished. A curved incision 4 inches long was made parallel to the left costal margin and a finger's breadth below it; after prolonged and difficult search the perforation was located high up on the posterior wall near the fundus, it was about the size of a goose-quill, and was surrounded by a layer of lymph, the gastrocolic omentum was freely divided and the perforation closed by means of a fine curved needle held in a pair of long artery forceps, and guided chiefly by touch. The peritoneal cavity was freely and systematically irrigated with boiled water, special attention being paid to the under surface of the liver, lumbar and pelvic region, and the folds of the mesentery. The extravasated gastric contents with flaky lymph were entirely removed, and the peritoneum cleansed by sponging; the external wound was closed after inserting a glass drainage-tube. The patient bore the operation well, she was fed entirely by the rectum for the first 48 hours. Recovery was uninterrupted and the patient has been quite well since the operation. In a second case a male child, 24 days old, was admitted to the hospital with strangulated hernia, he had been born with a partially descended testicle, and small rounded swelling in the inguinal canal. Operation was performed relieving the constriction and removing the testicle, and the child was discharged well 2 weeks after the operation. [M.B.T.]

New York Medical Journal.

November 4, 1899. [Vol. lxx, No. 19.]

1. How to Preserve as Permanent Specimens Casts Found in Urine. L. NAPOLEON BOSTON.
2. The Medical History of Sir Walter Scott. ROBERTS BARTHOLOW.
3. The Pathology and Therapy of Cancer, with Special Reference to Cancer of the Stomach. AUGUSTUS C. BERNAYS.
4. Home Modification of Cow's Milk for Infant Feeding. HENRY DWIGHT CHAPIN.
5. Notes on Ureteral Catheterism, Catheters, and Bougies. J. W. S. GOULEY.
6. The Sheldon Murder Trial. A Review of the Medical Evidence Relating to Pistol-shot Wounds of the Head. CHARLES PHELPS.
7. The Diagnosis of Typhoid Fever. WILLIAM OSLER.

1.—Boston has found the following mixture for the **preservation of casts found in the urine** very useful: Liquid acidii arseniosi (U. S. P.), 1 fluidounce; salicylic acid, $\frac{1}{2}$ grain; glycerin, 2 fluidrams. This is slightly warmed until solution is effected, when "whole tears" of acacia are added to saturation. After subsidence the supernatant liquid is decanted. A drop of 40% formalin may be added to this mixture; the urinary deposit obtained by standing is collected with a pipet and placed on the center of a slide. It is then viewed by a low power, and if casts are present evaporated nearly to dryness, after which a drop of the above solution is added to the center of the drop of urine. In order to complete the mixing of the two, and to distribute the casts throughout the field, the mixture is stirred gently with a fine needle. A cover-glass is applied, and the salt put in a cool place for a few hours until hardening is complete. A permanent ring of zinc white makes the preservation of the specimen complete. [S.M.H]

5.—An interesting account of the history of the nature, names, uses, and character of some **instruments employed for catheterism** is given. The first authentic account of the use of curved hollow cylinders with which to draw urine was given by Celsus, but catheters were in common use long before his time; they were not mentioned by Hippocrates; several have been unearthed from Pompeii. At the beginning of the eleventh century several catheters, made of the skins of animals, coated with varnish, were used and afterwards bands of linen, coated with wax. Metallic catheters should not be employed. In most cases the silk-web and rubber catheters are very much safer for ordinary use, and, if properly made, may be thoroughly disinfected. A good catheter should be thoroughly but not too thickly coated with varnish, inside as well as out, and highly polished. The coating on the inside makes the instrument easier to keep clean, and, if retained in the bladder or urethra, it resists the action of the urine longer without scaling. The best American silk-web catheter is the cheapest, although its cost is nearly double that of lisle-thread, the linen instrument. A high-grade catheter may be used 300 times and its surface found as smooth as at the beginning. Catheters are much injured by fats of all kinds and more are destroyed by the use of fatty substances than by any of the many other abuses. A lubricant composed of an ounce of powdered castile soap to 3 ounces of water with 3 ounces of mucilage of chondrus crispus and 10 minims of a 40% preparation of formalin is recommended. The catheters are often sterilized by formol vapor and may be momentarily immersed in warm Thiersch solution. Catheters may be carried in hollow walking-sticks, but never in the pockets of patients. The rubber catheter is probably the safest instrument for the patient to use. [M.B.T.]

7.—Osler discusses the **diagnosis of typhoid fever** under the following headings: (1) Variations in the intensity of the infection; (2) the early and pronounced localization of the infection; (3) peculiarities in the symptoms; (4) certain diseases which simulate typhoid fever. The first heading includes (*a*) cases showing a mild febrile course of from 5 to 10 days, accompanied by some gastrointestinal disturbances and perhaps a palpable spleen. In many instances the question arises, Is this a simple continued fever or a mild typhoid infection? In these cases the application of the Widal test is useful. The method should be employed in widespread epidemics to help in the diagnosis of milder forms. Such procedure will greatly lessen the number of so-called simple continued fever. (*b*) Acute typhoid septicemia in which there is evidence of acute severe infection without any localizing symptoms. Death may occur before a diagnosis is made, even the Widal reaction being absent. In some cases even the postmortem diagnosis is negative and only bacteriologic study will show the nature of the disease. In certain cases there is an **early and pronounced localization of the infection;** of these the cerebro-

spinal, pulmonary and renal are the most deceptive. In the first, death may occur before a positive diagnosis is reached and the postmortem alone clear up the case. Widespread bronchitis, acute pleurisy with friction and subsequent effusion and early consolidation of the lobe of one lung may mask the true nature of the disease. Early renal localization is almost sure to be called acute nephritis. There may be no single feature of this condition lacking; enteric symptoms may not occur for 10 days or more. There may be **marked peculiarities in the symptoms.** Although very rare, fever may be absent, the onset may be abrupt; there may be no rose spots, no intestinal symptoms; the diazo-reaction may be absent; the Widal test may be absent at the height of the disease; there may be leukocytosis, and in these cases the Widal reaction and the blood-count may give the only positive data. Of the positive symptoms which may lead to error, chills are the most important. They frequently occur, are commonly interpreted as indicating the presence of malarial infection, and are most exceptionally due to this cause. In the **diagnosis of typhoid fever from certain other diseases,** the consideration of malaria is most important. The confusion of these diseases is extremely common. The cause of this lies in the system of teaching at the various institutions which permits young men to go out into practice without a thorough knowledge of the clinical features of typhoid fever. On the other hand, in spite of the numerous confirmations of Laveran's work which have been made in this country, it seems little appreciated that we are able under all circumstances to determine the presence or absence of malarial infection. Two rules should guide practitioners above Mason and Dixon's line: (1) An intermittent fever which resists quinin, is not of malarial origin; (2) in these localities (in which the estivoautumnal organism and the graver forms of the disease caused by it are very rare), a continued fever is not due to malarial infection. So exceptional are cases of continuous fever with tertian infection that they need not be considered, but the estivoautumnal fever may simulate typhoid very closely. There are two points in the differentiation of these conditions which are important, namely: the fever in malaria, from the outset, is marked by remissions of a grade rarely seen in typhoid until the late stages. Once the fastigium is reached the fever in the latter presents a remarkable steadiness. The early anemia with sallow complexion often suggests the diagnosis even when other symptoms are like those of typhoid fever. It is in these cases that the enormous diagnostic value of Laveran's discovery is appreciated. Unfortunately the parasite of the estivoautumnal fevers is less easily recognized in the acute stages than the larger tertian form, and, moreover, it may be very scanty in the circulating blood. The recognition of an estivoautumnal infection of a week or 10 days' duration is an easy matter from the presence of ovoids and crescents. Malarial continued fever is more resistant to quinin than the simple intermittent and the organisms do not disappear from the blood so promptly. Combined infection with the typhoid and malaria germs is very rare; when it does occur quinin quickly dispels the malarial infection while the typhoid fever pursues its usual course. The term "typhomalarial fever" should be banished from our nomenclature. The hardworked practitioners of the smaller towns and country districts, who have difficulty in utilizing the modern scientific methods of diagnosis, should learn to suspect typhoid fever and not malaria in every case of fever of 6 or 7 days' duration, particularly if it resists the action of quinin. [S.M.H.]

Medical Record.

November 4, 1899. [Vol. 56, No. 19.]

1. The Fourth Hitherto Undescribed Disease of the Ovary; Colloid Degeneration. Mary A. Dixon Jones.
2. Congenital Hernia of the Umbilical Cord. W. B. Coley.
3. Headaches Due to Eye-Strain. James Cole Hancock.
4. Lip-Reading—An Aid for the Incurable Deaf. Mrs. Cora D. Gorton.
5. Antiseptic Gauze. G. W. Tyrell.
6. Volvulus of the Cecum. G. H. Coombs.

1.—Mary Dixon Jones, in an illustrated article, discusses **colloid degeneration of the ovary.** She is convinced that this form of degeneration plays a large part in the pathologic condition of many ovaries. [W.K.]

2.—Coley reports 2 cases of **congenital hernia of the umbilical cord,** a condition due to defective development during fetal life. The size of the hernia varies from a small bulging at the base of the cord to a complete eventration in which nearly all the abdominal organs are found in the hernial sac. In this form of hernia there is no true sac, the protruding viscera being coated with the myxomatous tissue of the cord, and covered by its amniotic layer, the latter being continuous with the skin and the peritoneum. The prognosis is very grave, no matter what form of treatment is adopted. [W.K.]

3.—Hancock describes the defects in the eye which produce myopia, hypermetropia, and astigmatism, and refers most eye-headaches to these causes or to muscular insufficiency. He thinks the headaches are produced by excessive stimulation of nerve-centers supplying the eye-muscles which causes a reflex action of the vasomotors which is referred to the meninges and produces congestion. [D L.E.]

5.—Tyrell recommends an **antiseptic dressing** prepared in the following manner: To a sufficient quantity of cottonseed oil some antiseptic is added and the solution is brought to a very high temperature over a water bath. Aseptic gauze is immersed in this hot mixture, then squeezed under about 300 pounds' pressure until nearly dry. All the fibers of the gauze are left sufficiently greasy to prevent the dressing sticking to any surface, however. The dressing is particularly valuable in the treatment of large granulating surfaces. [M.B.T.]

6.—A woman, 36 years old, who had a neurotic history and was subject to epilepsy, was suddenly taken with severe pain beneath and to the left of the umbilicus. When first seen, 48 hours after the onset of the attack, the right side of the abdomen was flattened, not sensitive, but on the left it was prominent, tympanitic, and quite sensitive; a high rectal injection was followed by the evacuation of a large amount of feces, and the patient was temporarily more comfortable, the condition became gradually worse, however, and operation was undertaken 70 hours after the onset of the symptoms. On opening the abdomen the appendix was found normal, but the **cecum** had undergone complete **rotation on its long axis;** reversal of this rotation did not result in emptying the cecum, so an incision was made into it and nearly 3 pounds of liquid feces removed; the intestinal incision was closed, the abdominal cavity was thoroughly irrigated and the external wound was closed. The patient's condition was bad after the operation, but eventually perfect recovery followed. [M.B.T.]

Medical News.

November 4, 1899. [Vol. lxxv, No. 19.]

1. Mountain Fever. E. Stuver.
2. Yellow Fever as a Scourge in the United States. G. Heustis Fonde.
3. Congenital Tumors of the Fingers. Charles E. Fairman.
4. Tubal Pregnancy and Dermoid Cysts; Report of a Case. L. B. Perkins.

1.—Stuver contends, as do most who have carefully investigated the subject, that **mountain fever** is merely an atypical form of typhoid fever. The disease is characterized by malaise, headache, chill, and pains in the muscles and back. The tongue is coated, there is loss of appetite, and constipation. The characteristic roseolar eruption is frequently present, and there is often gurgling in the right iliac fossa. The temperature is that characteristic of typhoid fever, but occasionally there are irregularities during the convalescent stage. The pulse is usually rapid, dicrotic, and occasionally intermittent. Intestinal hemorrhage is exceedingly rare. One case that he treated, that terminated fatally as a result of indiscretion in diet, convinced him that this factor was of great importance. The prophylactic measures commonly employed to control the spread of typhoid fever are, of course, applicable. As to treatment, the most important is, perhaps, calomel, followed after several days by intestinal antiseptics, such as salol, copper, arsenite, etc. Cold baths are perhaps valuable, but have too great a tendency to drive the blood to the center of the body. Another valuable form of hydrotherapy is the rectal injection of ice-

water. Stimulants should be given as required, and the diet limited to milk or buttermilk. [J.S.]

2.—Fonde, in view of the fact that **yellow fever** is such a serious disease in the United States, endeavors to suggest a method by which it can be rendered less virulent. Thorough disinfection of the clothing and premises of the sick person has a tendency to check the epidemic, and under favorable circumstances can stamp it out. As long as the foci in which the disease is situated are known they are not dangerous, for it is only the concealed cases that tend to spread the infection. It is possible that owing to the lax quarantine regulations in regard to the disease in the North, it may gain entrance at these points, and it is, therefore, desirable to make the measures equally severe throughout the United States. [J.S.]

3.—Fairman reports two cases of **congenital dermoid tumors** of the fingers. In one case the tumor was situated on the outside of the little finger and in the other on the thumb. These tumors, though fairly uncommon, have been reported in a number of instances. [G.B.W.]

4.—Perkins reports a case of **extrauterine pregnancy** occurring in a woman with an ovarian dermoid. A successful operation was performed after rupture of the gestation sac. [W.K.]

Boston Medical and Surgical Journal.

November 2, 1899. [Vol. cxli, No. 18.]

1. Acute Abdominal Symptoms Demanding Immediate Surgical Intervention. MAURICE H. RICHARDSON.
2. Carcinoma Under the Age of Thirty. CHARLES GREENE CUMSTON.
3. A Case of Adenocarcinoma of the Body of the Uterus, Simulating Submucous Fibromyoma. W. L. BURRAGE.
4. A Case of Tetany. FRANKLIN WARREN WHITE.
5. A Case of Gastric Tetany. RALPH C. LARRABEE.
6. A Case of Ataxic Paraplegia Developing under Circumstances of Unusual Interest. J. W. COURTNEY.
7. Further Observations on the Treatment of the Abdominal Viscera Through the Colon. FENTON B. TURCK.

1.—Richardson says that abdominal hemorrhage, sepsis, and obstruction suddenly occurring in the apparently well, indicate exploration as soon as positive symptoms are plain, and that at this early period intervention promises success. Acute symptoms occurring in the course of well-recognized diseases likewise demand immediate operation. Acute symptoms observed for the first time when the lesion which causes them is well advanced often require intervention, though the outlook may be almost helpless. [G.B.W.]

2.—Cumstone reports 3 cases of **carcinoma** occurring under the age of 30. One was carcinoma of the liver, another of the uterus, and the third was of the ascending colon. The ages were respectively 19, 28, and 24. [G.B.W.]

3.—Burrage reports an operation for **adenocarcinoma** of the body of the uterus which simulated a submucous fibromyoma. The patient was unmarried, aged 48 years, and suffered for 2 years with pain and hemorrhage. A vaginal operation was first performed, but after a microscopic examination of the tissues, abdominal hysterectomy was done and the patient made a good recovery. [W.K.]

4.—White reports a case of tetany occurring in an Italian boy, 3½ years of age, born in this country, without neuropathic heredity or any predisposition to the disease. The patient was not able to walk until 2½ years of age, owing to a deformity of the hip. The disease commenced suddenly with paroxysmal spasm of the lower limbs, apparently not painful. Involuntary motion was almost impossible. The muscles of the trunk, head, and arms were not involved. There were no degenerative disturbances. Chvostek's symptom was not obtained. Trousseau's symptom was present both during and after the attack, and could be obtained in the arms. Erb's symptom was present during and after the attack. The reflexes were somewhat exaggerated. The patient was treated by rest and mild sedatives. The probable cause was rachitis. The case is remarkable on account of the peculiar distribution of the spasms. Hoffman's sign was apparently not tested. [J.S.]

5.—Larrabee reports a case that he calls **tetany,** occurring in a woman 26 years of age, who seemed to be particularly prone to indiscretions in diet. After a series of particularly abnormal meals, she developed headache, fainted, and began to have spasmodic contractures of the arms associated with slight paresthesia. Altogether, this series of spasms lasted about 20 minutes. She was encouraged to vomit, and soon felt relieved. Trousseau's symptom was present, Chvostek's was absent. Three days later, Trousseau's sign had also disappeared. [J.S.]

6.—Courtney reports the case of an Irish woman, 36 years of age, whose disease commenced at the age of 31, at which time she was living in the same house as a woman crippled by rheumatism. She became similarly affected, and a year later noticed that her lower extremities were becoming weaker and felt heavy. She then began to have a tendency to fall down, and had uncontrollable fits of laughing and crying. She soon developed marked **ataxia of the lower extremities,** and was obliged to use a cane. The gait was spasmodic ataxic. She was able to stand alone with both eyes shut, although she swayed considerably. The pupils were unequal and reacted normally to light and accommodation. The visual fields were normal, there were no paralyses of the muscles supplied by the cranial nerves nor of the arms. The left leg was weaker than the right. The tendon reflexes were greatly increased, but the cutaneous reflexes were not altered. There was slight hyperalgesia, but no true anesthesia of the lower legs. The author regards the existence of ankle clonus as probably a conclusive indication of the organic nature of the case, and he therefore makes a diagnosis of ataxic paraplegia. [The possibility of disseminated sclerosis does not appear to have been entertained. J.S.]

7.—The objects in the treatment of the colon, as suggested by Turck, are: "(1) when atony exists, to secure heat; (2) distention; (3) contraction, and peristalsis producing gymnastic exercise. For these purposes, air often answers the purpose better than water." When heat is desired, the injected air may be heated by previously passing it through water. The treatment does good in atony of the colon, with or without obstruction or impaction. [G.B.W.]

Journal American Medical Association.

November 4, 1899. [Vol. xxxiii, No. 19.]

1. Outlines of Urethroscopic Diagnosis with Special Reference to Chronic Gonorrhea, FERD. C. VALENTINE.
2. Report on the Schleich Solution. ROBERT MARSENA STONE.
3. Excessive Myopia; When may we Operate and what may we Expect? ANDREW TIMBERMAN.
4. Enteric Fever; Its Infection, Pathology and Present Treatment. FRANKLIN STAPLES.
5. The Revision of the Pharmacopeia. A. L. BENEDICT.
6. A Plea for the Aged. J. W. BELL.
7. Sputum Analysis and the Early Diagnosis of Pulmonary Tuberculosis. S. EDWIN SOLLY.
8. Convulsions in Infants and Young Children. C. G. SLAGLE.
9. Concerning the Complications of Acute Otitis Media Purulenta. E. S. ALLEN.
10. Enzymes in the Treatment of Nasal Polypi, Angioma of the Nose, and Otitis. TALBOT R. CHAMBERS.
11. Therapeutics of Kola. C. YARBROUGH.
12. Floating Kidney Simulating Diseases of the Genital Organs in Women. A. LAPTHORN SMITH.

1.—See this JOURNAL, Vol. III, p. 1333.
2. " " " " III, p. 1333.
5. " " " " IV, p. 18.
6. " " " " III, p. 1329.

7.—Commenting on the **neglect of early diagnosis and treatment of pulmonary tuberculosis,** Solly finds, in 100 cases presenting for analysis, that diagnosis was delayed in 45%, the average period of delay being 9½ months. Comparing 100 examinations made in 1892, an improvement in methods of diagnosis was shown from the fact that, while in that year in 65% sputum examination had been neglected, in the year ending June, 1899, in 55% sputum examination was made. In 55 cases of the 1892 series, in which there was no delay through imperfect methods of diagnosis, 36 arrived in Colorado in the first stage, 7 in the second stage, 3 in the third stage; that is, there were 65.5% in the first stage in those

whom there was no delay; in those in whom there was delay arrived in the first stage, 20 in the second, and 17 in the ird; thus 18% were in the first stage. Since the average ercent of cures in the first stage is 65%, and the second nd third combined but 15%, this means that 37% of tuberulous patients coming to Colorado were, in consequence of elays in diagnosis, given a 15% chance of recovery, instead f the 65% they should have. Solly says, such unnecessary estruction of life is criminal, although this delay in treatent is often caused by the patient's own delay in placing imself in the hands of a physician. He objects to the usual essimistic attitude upon a diagnosis of tuberculosis and akes the strong statement that if a suit for malpractice is ver justifiable against an educated and honest physician, it ertainly is in the many instances of neglect of the early iagnosis of pulmonary tuberculosis.

8.—See this JOURNAL, Vol. IV, p. 12.
9.— " " " " " p. 17.
10.— " " " " " p. 16.
11.— " " " " " p. 18.

12.—Among symptoms to be noted in the **diagnosis of oating kidney,** particularly when the disorder simulates iseases of the genital organs in women, Lapthorn Smith numerates: (1) Disorders of digestion accompanied by ain, not only in the right side, but more especially in the ft. These pains may be characterized as a cardialgia or astrodynia. (2) General nervousness, the transforming of naturally sweet temper to irritability, with loss of sleep.) Palpitation of the heart, coupled with pain over the cariac end of the stomach. (4) The usual symptoms directly ue to the displacement of the kidney, together with the arked emaciation of so strong an etiologic factor of floating idney. Smith advocates the invariable use of the semiect posture in the patient in examining for floating idney. The patient should stand, leaning slightly forard with her hands on the back of a chair, so as to lax the abdominal muscles, while the examiner sits the right and a little behind. The Weir-Mitchell eatment of rest and forced feeding has been followed by eat benefit, and in fact any means giving improvement nutrition will be more or less successful. The support of e kidney by means of some form of bandage or pad is often tisfactory, and sometimes a well-fitting corset, which pushes everything above the waist-line, will sufficiently support e kidney. A cushion made of chamois leather, filled ith curled hair, covered by a movable cotton cover to be equently changed, gives the best results. It should be put while the patient is lying on her back and should be held mly in place by a broad flannel bandage so as to keep it mly pushed up into the abdomen. When these methods e impracticable or unsuccessful, nephrorrhaphy gives very tisfactory results. The kidney should be fixed by not less an 5 silkwormgut sutures passing through the conjoined scia and entering one-quarter of an inch into the kidneybstance; these, if well sterilized and not tied too tightly, ppurate only in about 5% of cases and often can be easily oked up and removed. There is no objection to a little itation of the cellular tissue, as inflammation causes the dney to adhere more firmly.

American Journal of the Medical Sciences.

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The Relation of Idiopathic Dilatation of the Colon to Phantom Tumor, and the Appropriate Treatment of Suitable Cases of these Affections by Resection of the Sigmoid Flexure. REGINALD H. FITZ.
Cases of Typhoid Cholecystitis Ending in Recovery. J. M. DA COSTA.
The Influence of Various Diets upon the Elimination of the Urinary Nitrogen, Urea, Uric Acid and the Purin Bases. ALONZO ENGELBERT TAYLOR.
Pyocyaneus Bacillemia. N. E. BRILL and E. LIBMAN.
Case of Primary Hemorrhagic Effusions Into the Pleurae and Peritoneum. WILLIAM S. CHEESMAN and WILLIAM S. ELY.
Gastric Ulcer at the Massachusetts General Hospital, 1888–1898. ROBERT B. GREENOUGH and ELLIOTT P. JOSLIN.
A Case of two Distinct Fractures Occurring in the Same Patella at an Interval of Eight Months. JOHN NORMAN HENRY.
Bronchial Obstruction by Suppurating Bronchial Glands. J. N. HALL.
A Critical Summary of Recent Literature on Concussion of the Spinal Cord, with Some Original Observations. WILLIAM G. SPILLER.

1.—Medical literature in former days contained frequent references to **phantom tumor,** a condition characterized by partial contraction of the abdominal walls, particularly of the recti muscles, with tympanitic distention of either the stomach or intestines. On reviewing the cases so far reported, Fitz finds that tympanitic tumors are by no means of a uniform significance. They vary in extent, duration, severity of symptoms, and results. Although usually found in adult women, they have been observed in young girls and men. Chronic constipation generally exists, but at times the symptoms may be those of acute intestinal obstruction. The tumors generally disappear under anesthesia. In late years but little has been said concerning these tumors, and, instead, there has occurred in the literature a multiplication of cases, closely simulating in their characteristics phantom tumor, in which the tumor proved to be a **permanent enlargement of the colon.** Such an enlargement can come on without any obvious organic or mechanical cause other than fecal accumulation. Its most constant symptom is constipation and the most positive sign abdominal distention. It may be the immediate cause of death. Two types of the affection are recognized, in one of which the disturbance begins early in life, while in the other it becomes manifest only at more advanced age. Fitz reports a case of such enlargement in a girl 14 years old. The dilatation of the colon in infancy appears also to be of two varieties; the one is due to a defect of development (hence is truly congenital), the other makes its appearance weeks or months after birth, gives no evidence of arrest of development of the bowel, and may be called idiopathic. In a case of colonic distention in a man of 40, symptoms of intestinal obstruction set in, demanding an operation. At a median laparotomy the dilated sigmoid flexure was found to extend from the pubes nearly to the ensiform cartilage. After tapping, which gave vent to enormous quantities of gas and fecal matter, this part of the colon was resected. The patient lived for a week and then died of septic peritonitis. In another patient, a single woman of 37, with marked abdominal enlargement from dilatation of the colon, the sigmoid flexure was resected by Richardson, and the patient made a good recovery. The similarity in the histories of chronic phantom tumor and of idiopathic dilatation of the colon is so striking that Fitz is forced to the conclusion that the conditions are practically identical, and that **phantom tumor is gaseous distention of the colon.** He recommends resection of the affected part of the bowel, preceded, if necessary, by a colotomy. [D.R.]

2.—Cholecystitis is a grave complication in typhoid fever. Da Costa, in a paper, published last year, based upon a study of 58 cases of typhoid cholecystitis, gives the recoveries as 15, the deaths as 39, and the results uncertain in 4. In those that got well recovery in fully one-half of the cases was the direct result of operative intervention. Da Costa thinks, however, that the more carefully the subject is studied and the more readily the complication is recognized, the more frequent will recoveries be found to be. In the present paper he reports three recoveries from undoubted cholecystitis, two in soldiers and one in a young girl. In two of the cases jaundice was slight and in one it was very marked. The **treatment** consists in the administration of fractional doses of calomel for vomiting and nausea, and in the local use of ice or of poultices. Counterirritation with turpentine-stupes or with iodin may also be used. For the relief of pain morphin may be necessary, and the circulation may have to be supported by strychnin and digitalis. [D.R.]

3.—In order to study the physiologic relationship of the urinary nitrogen, urea, uric acid and the purin-bases under the influence of various types of diet, Taylor made an exhaustive series of experiments **in corpore villi.** After the specific diet had been entered upon, a collection of the entire daily urine was begun on the third day of the diet and was continued for six successive days. The total nitrogen was

estimated by the Kjeldahl method, the urea by the Moerner-Sjöqvist method, the uric acid by the Salkowski-Ludwig method, and the purin-bases by the new Salkowski method. During the first period the normal mixed diet was consumed, with the avoidance of sweetbreads, liver and brains. During the second period the only animal proteid eaten was sweetbread. On the third day of this period diarrhea set in and continued for three days, accompanied by anorexia, nausea, headache, malaise, and some abdominal pain. Upon the sweetbread diet the urine could not hold its uric acid in solution. A heavily proteid diet was used during the third period; during the fourth a purely vegetable diet; during the fifth a milk diet; and during the sixth a nitrogen-free diet composed of sago, sugar and butter was consumed. In all the experiments except the last the total urinary elimination of nitrogen corresponded with the intake. This nitrogen represents the common proteid metabolism. The nucleinic metabolism is a highly specialized process which produces a small output of uric acid and purin-bases, entirely independent of the nitrogen metabolism which gives rise to urea and ammonia. The **uric acid elimination** in Taylor's studies was lowest during the periods of natural diet and of milk-diet. Upon a purely vegetable diet it was higher even than upon a heavily proteid diet, an anomaly that is readily understood when it is remembered that the articles consumed (peas, beans, and nuts) are very rich in nuclein, the parent-substance, of uric acid. On a sweetbread diet the average output of uric acid was 1.260 grams, the excess being due to the large quantity of nucleins contained in sweetbreads, which are eliminated as uric acid. When coffee and beer were added to a normal diet the uric acid increased, probably because the nuclein in coffee and beer are eliminated in part as uric acid. It is very likely that in ordinary life more than half of the uric acid may come, not from the food, not from the tissues, but from the beverages, especially coffee. That fact alone does not imply in the least that these beverages are bad; it must first be shown that uric acid which results from them is harmful. The heavy meat diet did not exaggerate the elimination of uric acid, contrary to the general belief in the uric-acid forming properties of meat. Since meat contains but little nuclein, it cannot be expected that a meat diet shall give rise to large quantities of uric acid. The results of the studies also show the worthlessness of the time-honored "sacred ratio," as Taylor calls it, of U + : U — (urea and uric acid.) Upon the normal diet it was 112 : 1; on a sweetbread diet, 43.6 : 1; upon a heavily proteid diet, 129.3 : 1; upon a vegetable diet 50.7 : 1; upon a milk diet, 127.5 : 1; upon a nitrogen-free diet 28.3 : 1. Taylor found that the more proteid he ate the further he was from Haig's gout-ratio. When no proteid was eaten the gout-ratio was attained. A contemplation of the elimination of the purin-bases leads him to coincide with Krüger and Salomon in the opinion that only a portion, perhaps one-third, of the purin-bases comes from metabolism, while two-thirds belong to an homologous series and are derived from xanthins ingested with the food. The ratio between the bases and the uric acid furnishes but little information of value. The relation of the total nitrogen to the purin-nitrogen is subject to about the same considerations as the U + : U — ratio. The total nitrogen depends upon one set of conditions, the purin-nitrogen upon another distinct set of conditions, and a comparison of the two gives little information. In conclusion Taylor emphasizes the importance of the distinction between the common nitrogenous and the nucleinic metabolisms. The two aspects of metabolism must be studied separately. When relations between them have been established it may be possible to use the U + : U — ratio in a proper and scientific manner. [D.R.]

4.—A man, 23 years old, after a two weeks' illness entered Mt. Sinai Hospital with jaundice, irregular fever, and prostration, and presented the picture of an **infectious icterus.** Blood-culture revealed the staphylococcus aureus. After two weeks the jaundice disappeared, and the man improved so much as to be able to leave the bed. At this time he presented the clinical picture of pernicious anemia, and the blood-examination corroborated this. (Red cells 900,000, white cells 5,625, hemoglobin 20%.) A metastatic abscess developed in the vastus externus muscle, and the temperature rose. Later the jaundice and other symptoms returned, the temperature became very high, and the patient died with marked nervous symptoms. Culture from the blood during life yielded the **bacillus pyocyaneus,** and the organism was found in enormous numbers after death in all the organs, and was readily cultivated from them. The muscle-abscess contained the staphylococcus pyocyaneus. The portal of entry of the bacteria was not discovered. The case was then one of staphylococcemia combined with pyocyaneus bacteremia. As the patient had a chronic nephritis, it may be assumed that this predisposed him to the bacterial invasion. Microscopic examination showed in the liver and spleen marked degenerative changes in the neighborhood of the bacilli, and this precludes the possibility of an agonal invasion. Another interesting feature in the case was a peculiar blackish-brown pigmentation of the skin in the form of small patches. The authors are inclined to ascribe this, not to the bacillus pyocyaneus *per se*, but to the effects of its toxins (and those of the staphylococcus) in causing degenerative atrophy of the adrenal bodies. The question whether systemic pyocyaneus infections are ever primary is one difficult of solution. The cases of pyocyaneus infection hitherto recorded, range themselves into three classes: (*a*) Those in which the bacillus was found during life or postmortem in the gastrointestinal canal, or in abscesses or exudates having a direct or indirect communication with the open air. (*b*) Those in which it was found during life in abscesses or exudates not in direct communication with the open air. (*c*) Those in which the occurrence of a general invasion, a pyocyaneus bacillemia was claimed. The cases belonging to the different classes are cited. [D.R.]

5.—The history of the truly remarkable case reported by the authors is briefly as follows: A woman, of 47 years, was seized, in 1890, with pleural effusion, dyspnea being the only subjective symptom. On tapping a large amount of bloody fluid was removed, but the chest soon filled up again, necessitating another tapping. The result was the same—the chest filled up again. From July 10, 1891, until January 13, 1892, the right side was aspirated 19 times, a bloody, noncoagulable fluid being obtained in every instance. The loss of blood sustained in this way, together with a menorrhagia—there was a large fibroid tumor of the uterus—led to a considerable degree of anemia. The effort was therefore made to secure obliteration of the right pleural sac by means of an induced inflammation. The cavity was washed out and an iodin solution introduced, and then withdrawn. The result was a failure, but a repetition succeeded. Strange to say, after the healing of the right side, the effusion appeared on the left and aspiration had to be done 7 times in 3 months. Iodin injection was then tried, and yielded a satisfactory result. The peritoneum now became the seat of **hemorrhagic effusion,** for which the abdomen was tapped 43 times during the years from 1892 to 1897, from 3 to 17 pints of bloody fluid being removed at each tapping. Soon after the climacteric arrest of menstruation, the fluid ceased to accumulate, and the patient recovered completely. No explanation of the nature of the case is offered by the authors—the history excludes malignant disease and tuberculosis. They class it with the **primary hemorrhagic effusions** of French writers. [Of course, such a disposal of the case amounts, as the authors themselves admit, to a begging of the question, to a confession of ignorance. There is one point in the case that suggests some reflections on the pathogenesis of the hemorrhagic effusions, and that is the fibroid tumor. So large were the tumors that the uterus reached nearly to the umbilicus. The reviewer has elsewhere called attention to the possibility that tumors may have a toxic internal secretion, the product of their own cells, and referred particularly to fibroid tumors which seem at times to produce symptoms at a distance that are scarcely accounted for on any other hypothesis. It is possible that in Cheesman and Ely's case the hemorrhagic tendency was due to a secretory product of the large uterine growths. With the occurrence of the menopause, the tumors presumably diminished in size (no statement with reference to this point is made) and coincidently there was a reduction or cessation in the elaboration of the poison. [D.R.]

6.—From a study of 187 cases of **gastric ulcer** occurring at the Massachusetts General Hospital, 1888 1898, the following conclusions are drawn: (1) Gastric ulcer is more frequent in Boston than in Chicago, Baltimore, Denver, or San Francisco; it is five times as common in women as in men; (3) the average age in men is 37 years, in women 27. (4) Hemorrhage was present in 81% of the cases. It caused

the death of 17% of the male patients, but only of 1.27% of the female patients. No woman under 30 died of hemorrhage from gastric ulcer during this period; (5) the blood was that of a chlorotic type of anemia; (6) perforation occurred in 3.2% of the cases, and none of the patients with perforation left the hospital alive; (7) of 114 patients 80% were discharged cured or relieved, but at he end of an average period of 5 years only 40% remained well. The mortality at the same time (due to gastric disease) was 20%. Among the men it was 30%, among the women 9%. (8) The excessive mortality of ulcer among men, its occurrence in life a decade later than in women, and the absence of fatal hemorrhage in women point to a difference of the ulcers in the two sexes; (9) the mortality of 8%, and the failure of medical treatment to effect a lasting cure in 60% of the patients indicate the need of surgical intervention in other than emergency cases of this disease. [D.R.]

7.—The patient claimed damages for a **fracture of the patella** sustained through a fall over an obstruction. The records at the hospital showed that he had had a fracture of the same patella 8 months before. He insisted it was at another point, but no evidence of the former fracture could be found. The defense tried to make capital out of this, contending that the second fracture had occurred in the same place as the first owing to a weakness of the patella at this point. The x-ray, however, promptly corroborated the patient's assertion by revealing the two separate fractures, and damages were awarded to the plaintiff. The remarkable feature of the case is that the first fracture had healed so completely that no trace of it could be discovered by touch. [D.R.]

8.—A physician, aged 47 years, of good family history, had suffered for 5 years from winter-cough; on one occasion tubercle-bacilli had been found in the sputum. In October, 1898, he noticed an apparent obstruction to breathing in the left chest, and the physical examination revealed diminished vesicular murmur over the upper and central portions of the left chest, numerous rales, and diminution in fremitus. The expectoration was at first scanty, then, after several weeks, became profuse and purulent, as much as from 1 to 2 pints of almost pure pus being expectorated daily. On one occasion he coughed up a fleshy mass, which was not preserved for examination. After this the spasms of cough subsided, and the patient gradually recovered. The author believes that the obstruction of the bronchus was caused by suppurating bronchial lymph-glands, which eventually ruptured into the bronchus. The existence of large bronchial glands may readily be conceded in view of the prolonged winter-cough and the discovery of tubercle-bacilli at one time. [It is difficult to see how suppurating bronchial glands, not large enough to be detected by physical examination, could give rise to such huge quantities of pus—1 to 2 pints. Yet on the whole the author's explanation is probably the most tenable one. The article is accompanied by a brief reference to the literature. D.R.]

9.—Spiller is of the opinion that paraplegia of the lower limbs following trauma is not always purely functional, although in the majority of cases it is of that nature. Yet the proof that concussion of the spinal cord, characterized by intramedullary hemorrhages and degeneration of nerve-fibers and nerve-cells, occurs in man, is still wanting. Animal experiments have yielded positive results, having shown degenerate changes, principally in the nerve-fibers. In a paraplegic cat—the animal became paralyzed in its hind limbs by being caught and squeezed by a heavy swinging door—the author found distinct degenerative changes in the white matter of the cord with Marchi's method; the cells were practically normal. This shows that degeneration of its axis-cylinder does not always lead to alterations in the controling cell. [D.R.]

Annals of Surgery.

September, 1899. [Vol. xxx, No. 3.]

1. Gastroplication for Dilated Stomach. W. H. Horrocks.
2. The Intestinal Treatment of Tuberculous Peritonitis. Henry T. Byford.
3. Interscapulo-Thoracic Amputation. Robert G. Le Conte.
4. Report of a Case of Resection of the Liver for the Removal of a Neoplasm, with a Table of 76 Cases of Resection of the Liver for Hepatic Tumors. William Williams Keen.
5. The Surgical Treatment of Neoplasms of the Liver. James E. Thompson.
6. Results and Methods of Treatment of Compound Fractures at the J. Hood Wright Memorial Hospital. William G. Le Boutillier.
7. Sarcoma of Kidney in an Infant; Recovery After Nephrectomy. Robert Abbe.
8. Splenectomy for Floating Spleen, with Twisted Pedicle. Isaac Scott Stone.

1.—A servant girl, 35 years old, had been incapable of work from weakness and emaciation due to constant vomiting. Two years before, she began to suffer severe pain in the right side, which increased in severity and was accompanied by vomiting. The vomiting usually came on about an hour after eating, and no blood had been noticed until a short time before her admission. On examination the stomach was found to extend below the umbilicus and into the left hypochondriac region and a distinct splash could be elicited at all times. No thickening or tumor could be felt in the pyloric region. Under dieting and lavage she improved somewhat, but it was evident that cure could not result without operation. A median incision, 4½ inches long, was made above the umbilicus, a depressed ulcer was found near the pylorus in the posterior wall of the stomach, and this part of the organ was fixed by scar tissue. The pylorus was not constricted, the greater curvature of the stomach was lifted and folded on the anterior wall, and fixed in position by two rows of continuous catgut sutures. The patient did well after the operation, but about a month afterward the old trouble returned. A second **operation** was considered necessary. The abdomen was opened to the left of the first scar, the **stomach** was found **dilated** toward its cardiac end and the pyloric part was adherent to the abdominal wall. The dilated part was drawn forward and 6 silk sutures put in and out vertically through the muscular and peritoneal coats. The patient did well after the operation and is now able to take any food without pain and has no attacks of vomiting. The failure of the first operation was due to the use of catgut sutures which were too quickly absorbed. [M.B.T.]

2.—The improvement which often occurs after abdominal incision in cases of **tuberculous peritonitis** leads many to look upon the procedure as curative, but Byford believes that this is not the case, temporary benefit usually follows abdominal section in hysteria, epilepsy, etc. He approves of internal treatment, especially directed to the alimentary canal. Three liquid stools daily are produced by salines and 10 grains of salol or some other intestinal antiseptic is administered. The further treatment should be supporting and antiphlogistic, diet should be entirely liquid to produce a minimum of gas or solid residuum, and rest in bed is necessary. [M.B.T.]

3.—A laboring man, 49 years old, who frequently carried heavy weights on his shoulder, noticed sharp pains 3 years ago on placing a box on his left shoulder. Examination revealed a bluish lump the size of a 5-cent piece on the upper edge of the scapula. In 6 months it had grown to the size of a hen's egg, and was frequently tender to touch. The growth was excised at a hospital, but almost immediately returned and at the end of a year was the size of an orange. It was again excised together with the outer fifth of the clavicle and the acromion process. The growth again returned with periodic attacks of severe pain, and the entire upper extremity was removed by the following operation: An incision was carried from the sternal end of the clavicle to its middle, then curved downward to the anterior axillary fold, skin and fascia were dissected by exposing the inner two-thirds of the clavicle, the muscular attachments were separated, the clavicle was pulled upward and outward, the pectoralis minor was exposed and divided and the concoid portion reflected upward in the clavicle, the sheath of the vessels was opened and the vein and artery were separately ligated, severing at the same time the brachial plexus of nerves and the costal portion of the pectoralis major. The postertor incision was then carried from the antcrior incision outward and backward to the inferior angle of the scapula and again up to the posterior axillary fold. The skin and superficial fascia were dissected up, the trapezius was severed, the posterior scapu-

lar and subscapular arteries were secured and the muscles attached to the inner border of the scapula were divided close to the bone. Then the serratus magnus and latissimus dorsi were cut. The arm then hung by skin alone and the anterior and posterior incisions were joined leaving a flap to cover the exposed surfaces. The time of operation was 1 hour and 6 minutes. The patient was out of bed on the ninth day, and recovery was uneventful. [M.B.T.]

4.—Keen reports his case of **resection of the liver** for the removal of hepatic tumor. The patient was a man 50 years old, whose previous and family history was good; syphilitic infection was denied. He had been in good health until within three months, when a dull pain was noticed just below the umbilicus. Later the pain was felt in the epigastrium, and for six weeks it had been almost constant, of a dull, grinding character, increasing after meals. There was loss of appetite, but no nausea or vomiting. He had lost 30 pounds in weight, felt weak, and had not worked for 10 weeks. On palpation, a hard, firm, movable mass was felt, entirely filling the epigastrium and extending to a level of the umbilicus. Dulness on percussion was continuous with that of the liver. Physical examination of the other organs and the urine report showed a normal condition. The gastrodiaphanoscope was introduced into the stomach and showed an opaque epigastrium. HCl was found normal after a test-meal. He had never had any hepatic disturbance, jaundice nor disturbance with the bowels. An incision was made in the middle line of the abdomen and a number of large nodules were found occupying the entire left lobe of the liver. On examination, the rest of the liver showed no other nodules nor was there involvement of the lymphatic glands. Extirpation of the left lobe of the liver was undertaken by means of the Paquelin cautery. Hemorrhage was not very severe, excepting when the larger veins were burnt; these were instantly closed by the finger, a catgut ligature was passed under each by means of a needle and tied slowly but firmly. Five ligatures were thus applied. Hemorrhage, except from these large veins, was arrested by the cautery and temporary packing with gauze. The amount of blood lost is estimated at 8 to 10 ounces. Intravenous infusion of saline solution was given during the operation. When the tumor was removed it was possible to obliterate part of the raw surface by folding the edges which had been cut obliquely like the flaps of an amputation. These flaps were sutured by catgut sutures, and iodoform gauze was packed against the remaining exposed surfaces and brought out of the abdominal wound. The abdominal cavity was then flushed with salt-solution and the wound closed. Recovery was uneventful. When the gauze packing was removed there was discharge of bile from the opening, which gradually diminished, leaving a small shallow sinus. The tumor was 14 cm. long, 11 cm. broad, and 7½ cm. thick; it weighed 525 grams. Microscopic examination showed it to be a cylindrical-celled carcinoma. A table of 17 cases is appended, which, with the tabulations which Keen has previously made, brings the number of cases thus far reported up to 76. The mortality of the operation is about 14.9%. A discussion of the literature is given. [M.B.T.]

5.—A colored woman, 30 years old, had suffered 3 years from dizziness, headache, fullness and heaviness in the cardiac region, and from chills, fever, and repeated attacks of vomiting; emaciation had been progressive; she had a pronounced syphilitic history. On examination, a hard, tender mass was found in the pyloric region of the stomach. This mass moved somewhat with respiration, and appeared nodular. Liver-dulness and the liver outline seemed to be normal. HCl was absent after a test-meal. A median incision was made from the ensiform to the umbilicus, when a **tumor** at once presented itself, which was attached to the **liver.** The tumor was about the size of a tangerine orange, occupied contiguous parts of the right and left lobes, was slightly nodulated, very hard, not pedunculated, and appeared to infiltrate the liver-substance. No other nodule was felt. Two hatpins were stuck through healthy liver-tissue back of the nodule at right angles to each other; rubber tubing was fastened on the proximal side to restrain hemorrhage, and the tumor was removed with curved scissors. Two processes were dissected out of the liver-substance. The peduncle was sutured to the abdominal wound and dressed with iodoform gauze. There was little shock, but severe pain for some days. Convalescence was uneventful until the tubing and hatpins were removed. The peduncle was gangrenous, became infected, and suppuration resulted, which prolonged convalescence about 6 weeks. Healing was eventually satisfactory, with a wide separation of the recti-muscles and incipient abdominal hernia. Microscopic examination showed a typical gumma with a few giant-cells scattered through it. [M.B.T.]

6.—Fifty-five cases of compound fracture of the long bones are reported, which were treated in various ways: with irrigation and drainage or suture, as seemed needed, or by incision or amputations. As a result of the experience in treatment of these cases, LeBoutillier believes in the least operative interference possible. Excision of the tissues may be called for if they are badly damaged; bone or muscle should be sutured in clean wounds only; as little as possible of fragmented bone should be removed, and there should be ample drainage. He finds sterile gauze and irrigation, with normal salt-solution, more efficient than antiseptic solutions and dressings. [M.B.T.]

7.—A female child was found at birth to have a tumor in the right side of the abdomen which proved to be a **sarcoma of the kidney.** The parents were exceptionally healthy and 2 perfectly healthy children had been born before this child. The tumor continued to grow as the child grew until it filled ¾ of the distended abdomen, extending from the left loin and crowding the colon past the median line. Operation was undertaken after special precautions; warming the room, padding and warming the operating board, wrapping the extremities in cotton and flannel and keeping the exposed parts constantly warm during the operation by warm towels. By special care it is estimated that not more than an ounce of blood was lost. A median incision above the umbilicus was joined with a cross cut to the left, extending into the lumbar muscles. The growth was separated from the abdominal walls by blunt dissection. Much care was taken to preserve the nutrient vessels of the colon, when it was dissected away from the growth. The vascular pedicle and ureter was separately tied and cut. The postoperative course was one of uninterrupted convalescence. The tumor was irregular and lobulated, weighing 4 pounds. The child weighed 15 pounds before the operation. Throughout out the tumor were many large and small cysts filled with thin straw-colored fluid. Microscopic examination showed it to be spindle-celled sarcoma. [M.B.T.]

8.—A woman, 35 years of age, suffered from acute pain over the left side and lower half of the abdomen. After a careful study of the case an operation was performed. The abdomen was opened in the middle line and a dark tumor at once presented. It was adherent to the abdominal walls. This was the **spleen,** which had become twisted on its pedicle, giving rise to great distention of the bloodvessels. It was **removed** with considerable difficulty. The patient recovered without unusual symptoms. [M.B.T.]

Journal of Nervous and Mental Disease.

September, 1899. [Vol. 26, No. 9.]

1. Isolated Finger Paralysis. WILLIAM BROWNING.
2. Asthenic Bulbar Paralysis. WHARTON SINKLER.
3. Asthenic Bulbar Palsy, with Report of a Case. JOHN PUNTON.
4. Report of a Case of Trigeminal Paralysis. SANGER BROWN, and Ocular Condition. HENRY GRADLE.

1.—Browning reports a remarkable and apparently unique case. The patient, at the age of 72 years, while trout fishing, suddenly felt something snap in the back of his right hand, and immediately discovered complete **extensor paralysis of the middle finger.** Passive motion was not disturbed, and flexion was not impaired. There was for a few hours subsequently intense pain in the back of the hand extending up the forearm, but this soon disappeared. The patient learned to compensate his defect, but a year and a half later, while lifting a small box, the ring finger was similarly affected. The symptoms, with the exception of a slightly more severe pain, were similar to those of the previous attack. At the age of 78, he died of senile exhaustion. At the autopsy, the extensor tendons of the two fingers that had been affected, were interrupted for a distance of about four inches, beginning on the back of the hand and extending to the forearm. There was some thickening of the sheaths,

and a single strand perhaps represented the remnants of the tendonous tissue. The muscles were converted into a grayish-yellow fatty mass, and microscopically the fibers were shrunken, irregular, and in part replaced by fat cells. Here and there were areas of round-cell infiltration. Browning believes that the lesion was of the form of a senile degeneration of the tendons, that lead to rupture upon slight exertion. He was unable to find an analogous case in the literature. [J.S.]

2.—Sinkler, after a brief description of the symptomatology of **asthenic bulbar paralysis,** with reference to the cases recorded in the literature, reports the case of a woman, 37 years of age, who, at the age of 30, had a slight attack of typhoid fever. Subsequently she gradually developed ptosis, first in the left and then in the right eye. This gradually disappeared and was followed by a similar attack three years later. Two years after this she had progressive diplopia with weakness of both internal recti and contraction of the visual field. A year later, there was only slight occasional drooping of the lid of the left eye. After the birth of the sixth and last child, she noticed that her sight was failing rapidly, there was difficulty in deglutition, and some feebleness of the limbs. There is occasionally slight distress in the lumbar region. During the menstrual periods all her symptoms are more severe. When examined, it was noted that the eyebrows were raised; the eyelids slightly opened, the face mask-like, and speech nasal and whining. Aphonia rapidly developed if the effort to talk was prolonged. Prolonged mastication or prolonged effort at swallowing also produced considerable weakness or exhaustion. There were no disturbances of sensation in any form. All the muscles responded to faradic current and the reaction did not become exhausted. The eyegrounds were normal. The family history of this patient is exceedingly interesting. Her father died of apoplexy; her maternal grandmother was blind for many years; one brother has nystagmus and rotary tremor of the head; another brother, that died at the age of 30, had the same symptoms; her oldest child, a boy of 15, has defective physical development, and also nystagmus and rotary tremor, and the same symptom is present in her youngest child, 5 months of age. The other 4 children are normal. [J.S.]

3.—Punton reports the case of a woman, 25 years of age, who had suffered from time to time from pain in the joints without swelling. At the age of 22, shortly after the birth of her first and only child, she noticed occasional diplopia with dimness of vision. Later there was ptosis of the left eye. Her general condition became worse and the slightest exertion exhausted her. Mastication, swallowing, and articulation were all imperfect, and readily fatigued. The voice became nasal; the tongue somewhat numb. Mentally, she was apparently perfectly normal. At the end of 2 years, ptosis developed in the right eye, and the feebleness extended to the muscles of the face. The lips also became weak. There was strabismus and continuous lacrimation. She lost nearly 50 pounds in weight. When examined, there was found a complete ophthalmoplegia, mask-like expression, inability to whistle or to produce labial sounds. The tongue was thick and flabby, capable of being protruded as far as the lip, but not of being moved laterally. Paralysis of the palate, and paresis of the constrictor muscles of the pharynx occurred; there was also paralysis of the left vocal cord. There is no atrophy of the muscles, and the power of all the extremities appears normal. There are no disturbances of sensation. There is slight exaggeration of the knee-jerks, but no ankle clonus. The electric reactions of the muscles are normal. Punton calls attention to the exclusively motor character of the symptoms, and diagnoses the case asthenic bulbar paralysis. He admits that the diagnosis from pseudo and true bulbar paralysis is very difficult, although in pseudobulbar paralysis, without atrophy of the muscles, the symptoms usually develop in advanced age, and in cases suffering from general atheroma. [J.S.]

4.—Brown reports the case of a man, 57 years, of good personal and family history, who had been worried by business and family troubles for some time. The first symptom consisted of numbness of the gums of the upper maxilla of the left side. When examined 2 weeks later, there was diminished sensation in the first and second branches of the left fifth nerve. Later, this extended to the third branch, and finally to the right side. He also developed paresthesia on the cheek; diplopia, and dimness of vision. Mastication was performed entirely on the right side as a result of his inability to control the tongue and lips of the left. The diplopia was apparently due to paresis of the external rectus, and was improved by an operation. Subsequently he developed ptosis of the left side. Brown believes the case to be one of **paralysis of the trigeminal nerve.** He suggests that a lesion at the side of the pons might press upon the nerve-trunk and account for the symptoms. He also calls attention to the possibility of a lesion similar to that which occurs in progressive bulbar paralysis, but in this case involving the sensory portion of the fifth. Gradle, in discussing the eye-symptoms, mentioned the paresis of the external rectus and described a peculiar form of ptosis in which the eyelid is not raised as rapidly as the eyeball, apparently the exact reverse of v. Graefe's sign. [J.S.]

Practitioner.

September, 1899. [Vol. lxiii, No. 3.]

1. Notes from the Electrical Department, St. Bartholomew's Hospital. H. Lewis Jones.
2. On Achondroplasia. William Turner.
3. On the Occurrence of Rheumatic Fever without Arthritis. C. O. Hawthorne.

2.—Achondroplasia is the name which has been suggested for a condition which has the peculiarities of both fetal rickets and cretinism. Turner reports a case in a female child now 10 years old. The growth of the child is stunted, mainly from shortening of the legs; the articular portions of the limbs are irregular in size and shape and the diaphyses are extremely short, the arms are also short, the hands spade-like and the fingers taper so that their extremities cannot be opposed. The face is small and the features coarse as those of a cretin. The child is well nourished and apparently otherwise in good health. [M B.T.]

3.—Hawthorne believes in the occurrence of **rheumatic fever without arthritis,** and considers the following a case in point: A patient, 18 years of age, complained of headache, pain in the back, thirst, want of appetite, and sore throat. Her temperature was 103.6° F. The fauces were slightly congested and there was some tenderness on pressure over the knees and shins, but no redness or swelling. On the ninth day the temperature fell to subnormal and continued in this way for 2 weeks. At that time the right knee became painful and swollen. Under rest the swelling promptly subsided and the patient left the hospital quite well. The author looks upon the disease of the knee-joint as a rheumatic inflammation. While he admits that the rheumatic nature of the fever is not proved, yet the diagnosis of rheumatism completely covers the entire ground, the pyrexia, the early symptoms, and the later synovitis. [The readiness with which certain acute febrile affections, attended by sore throat, muscular and joint-pains, yield to salicylates, is suggestive of their close relation to rheumatism. D.R.]

Edinburgh Medical Journal.

August, 1899. [N. S. Vol. vi, No. 2.]

1. Observations on a Case of Intermittent Fever. J. O. Affleck and D. A. Welsh.
2. Dr. John Mayow—The Harveian Oration for 1899. A. Crum Brown.
3. Erysipelas and Allied Diseases. John T. Maclachlan.
4. Pyloroplasty. Rutherford Morison.
5. Some Recent Applications of Bacteriology to Clinical Medicine. Edward J. Cave.
6. Acute Rheumatoid Arthritis. R. A. Bayliss.

1.—Affleck and Welsh give a detailed description of the clinical manifestations and the blood examination in a case of ordinary intermittent fever. [S.M.H.]

3.—According to Maclachlan in cases of so-called **medical erysipelas** the more frequent the attacks the less virulent does each succeeding attack become. In two epidemics studied by the author the disease began in the cutaneous form, and cases of cellulitis developed afterwards. While this would suggest that the two diseases were identical in origin it is more likely that the different forms of erysipelas are due to different species of germs, which flourish under

similar conditions of environment; consequently, where cutaneous erysipelas exists the other forms are apt to appear. One of the two epidemics began with a cutaneous case of erysipelas affecting the face. The patient was engaged in opening up the ground for the laying of water-pipes in the town. This work had been going on for months, when one day some human bones were exhumed. The patient considered them the cause of his illness, and it was not until this period that the disease developed. It spread and assumed a great variety of forms. Two cases occurred in a family in which there had been a patient ill with diffuse cellulitis which were rather unusual in character. One patient was the mother, and the other a brother of the patient suffering from cellulitis. The mother sickened suddenly one evening with violent pain in the pit of the stomach. Her pulse became rapid and hard, and she died within 48 hours without any discoverable lesion of any kind. The brother, fell sick with most agonizing pain in the stomach, bilious vomiting, quick pulse, and a rise of temperature. He died in less than 4 days without any evidences of erysipelas. There was no autopsy made in either of the cases, but Maclachlan is inclined to consider them due to the same organism which caused the cellulitis in the first case. He believes that pelvic cellulitis is closely related to surgical cellulitis, which again has affinities with ordinary erysipelas. In the treatment of erysipelas he has not had the good results that other authors have had from the use of the tincture of iron chlorid. The drugs which he uses to most advantage are opium, digitalis and quinin. The diet should consist of brandy, eggs and milk, alternating with beef tea. In the surgical form of the disease fomentations and poultices impregnated with some antiseptic are beneficial. [S.M.H.]

4.—The diagnosis of the condition indicating the operation of **pyloroplasty** is based upon the history of the illness and the physical signs. There is usually a history of long standing dyspeptic symptoms frequently beginning with those characteristic of gastric ulcer, and later on almost certainly with conclusive evidence of dilated stomach. When the abdomen is exposed and inspected the contractions of the stomach can often be seen through the thin abdominal walls. In case they are not observed the epigastric region should be rubbed to bring out peristalsis. If these methods fail, the half of a Seidlitz powder may be administered separately and the gas generated will distend the stomach and make its outline visible. The same result may be obtained by blowing up the stomach with a bicycle pump through the stomach tube. Additional evidence may be obtained from careful percussion. Unless dilatation be present the case is not a surgical one. Pyloric stricture, usually the cause of dilatation, can not be cured by medicine, diet or lavage. Morison believes that the gravity of pyloroplasty has been overestimated, he has operated personally in 21 consecutive cases without a death. Before operating the patient's colon should be thoroughly emptied for two or three days before the operation by large enemas administered through a tube and funnel with the patient in the knee-chest position; washing out the stomach is also useful. It is important to keep the patient exposed on the operating table as short a time as possible. The room in which the operation is to be performed, should be well warmed and the patient protected by bandaging with small blankets and should be surrounded by hot bottles. The abdomen is opened between the ensiform cartilage and the umbilicus. There is usually no difficulty in locating the pylorus, which is recognized by bands of constriction over it and the thickened ring-like feeling when grasped between the fingers and thumb. The pylorus is drawn forward into the abdominal opening, and gauze is packed about it until it is completely isolated. The stomach is opened 1½ inches above it and a blunt director is passed through it into the duodenum. The stomach-wall, pylorus and duodenum may then be slit up with scissors and a threaded catgut suture is passed through each divided surface and by traction on the sutures the longitudinal wound is converted into a transverse one and is sutured in that position. A continuous suture of catgut going through all coats of the stomach is advocated and afterward this line of suture is buried by interrupted Lembert sutures of fine silk. The dilatation usually seen gets well when its cause, the stricture, is removed. [M.B.T.]

5.—Cave, in carrying out the **Widal test,** usually applies dilutions of from 1 to 10, 1 to 30, and often of 1 to 50. In the case of a single dilution he uses 1 to 30. In 32 cases of typhoid fever he has never failed to get the reaction, usually early in the second week; sometimes at the end of the first week; again, not until the third week. In relapses he has found it intensely developed on the second day. He has never obtained the reaction except in actual or recent typhoid fever, and he therefore considers it of great diagnostic value. On account of the absence of leukocytosis in typhoid fever, when he fails to get the Widal reaction in the presence of a leukocytosis, he excludes uncomplicated typhoid fever. In examination of the blood for living parasites he advises the following measures: An ordinary serum or hypodermic syringe of 10 cc. capacity, with an asbestos piston, is thoroughly sterilized by boiling. The skin of the patient is sterilized near the bend of the elbow. One of the veins is then made prominent by compression, and the needle of the syringe plunged into it. The piston is gently withdrawn until 7 or 8 cc. of blood is obtained. This is immediately distributed over the surface of tubes of ordinary meat peptone agar. The latter are then incubated at 37° C. By this means the presence of bacteria in the blood can be shown in a number of infections. It is of special value in septic conditions, even after death. By isolating and ligating the length of a vein, and removing it to the laboratory, satisfactory examinations can be made. Cave records a fatal case in which virulent staphylococci were discovered at the autopsy by this method. He had under his care also 5 cases of acute infective endocarditis, in all of which the infecting organism was demonstrated by cultivation, either during life or immediately after death. Cave recommends a more extensive use of Quincke's lumbar puncture. It is of most avail in cases of meningitis, but has also given positive results in acute anterior poliomyelitis. In purulent meningitis it affords most valuable information. A negative result must bear no weight whatever as to the absence of disease. A positive result on the other hand, demonstrating the presence of pyogenic organisms in the fluid, is conclusive of meningitis, though the inflammation may be of slight extent, and to the naked eye entirely confined to the cerebral meninges. As a therapeutic agent for reducing pressure, the method is of little permanent value. The organisms ordinarily found by lumbar puncture are streptococci or staphylococci, but more commonly either the pneumococcus proper or streptococcus closely akin, or the diplococcus intracellularis of Weichselbaum. In tuberculous meningitis, on account of the difficulty of cultivating the organism, it is better to centrifugate the fluid and make a direct examination of the deposit. [S.M.H.]

6.—Bayliss gives a description of **acute rheumatoid arthritis,** pointing out the ordinarily recognized symptoms and lesions. In speaking of treatment, he recommends residence in a dry climate, and constant use of woolen underwear. Of the various drugs employed, guaiacol carbonate has given him the best results. Irregularities of the digestive organs should be corrected, and thermal baths, mineral water, hot and cold douches for all parts of the body. Air-massage, vapor baths, and hot-air baths are useful for restoring to the joints some of their lost mobility. Of the local applications, guaiacol oil, and salicylate of methyl are recommended. They are both used diluted with one or more parts of olive-oil painted on the skin over the infected joint. Guttapercha tissue is then employed, and around this a layer of cotton-wool, the whole being held in place by a bandage. As a local anodyne methyl salicylate has no superior, but its results are not so far-reaching as those obtained by the use of guaiacol. In acutely inflamed joints hot boric acid solution dressings frequently applied prove very comforting. Aspiration of a joint considerably distended with fluid, pressure being applied afterwards, is sometimes a useful procedure. The opening should be made under antiseptic precautions. [S.M.H.]

Deutsche medicinische Wochenschrift.

September 7, 1899. [25. Jahrg., No. 36.]

1. Concerning Granular Degeneration of the Red Blood-cells. E. GRAWITZ.
2. Spleen-extirpation because of Subcutaneous Rupture of the Organ. KRABBEL.
3. Surgical Interference in Hysteria. M. SANDER.

1.—The **alteration of the red cells** which Grawitz describes is one that was seen best after using Ziemann's eosin-methylene-blue mixture. With this, many red cells showed numerous basophile granules in their interior. The number so affected was much greater than the number of cells involved in malaria. The appearance was that of bright-blue granules disseminated throughout the cell, and practically filling the cell. The red cells were usually normal in size and color. The triacid mixture did not show the granules, nor did the very brief staining with eosin-hematoxylin or eosin-methylene-blue. These changes were seen first in a case of tertian intermittent fever. They were afterward looked for in a number of other instances, and were found most markedly in a case of cancer of the pylorus, and also in other cases of carcinoma. They were seen in large numbers in cases of Biermer's anemia, in a number of cases of sepsis, and in 2 cases of leukemia. Negative results were obtained in examining the blood of 5 healthy persons, of 2 cases of tuberculosis, 1 of chlorosis, 1 of diabetes mellitus, 1 of measles, and 1 of so-called anemia pseudoleukemia. These granules are not considered identical with those found by Plehn in the anemia of the tropics, which were considered parasitic inclusions; nor are they considered to be the "hemoglobinemic inclusions" which have been described by Heintz and Ehrlich. They are also not considered to be polychromatophile degeneration, because the change here described appears as a pure, distinct bright-blue color. This granular change in the cells was found only in cases which showed outspoken degeneration of the red cells, and the first consideration is the possibility of its being related to karyolytic processes. But nucleated red cells were, as a rule, not found at all in the blood, and the freshly fixed particles of the bone-marrow were obtained in several cases, and in none of these preparations were any changes seen which corresponded in the least to those found in the circulating blood. The granulation, therefore, does not seem to be attributable to regenerative processes, but is to be attributed to degenerative changes in the hemoglobin. It is believed that this change may prove to be an important sign in certain cases in indicating the existence of a destructive agent acting upon the blood rather than of abnormal regenerative agencies. [D.L.E.]

2.—Krabbel reports a case of **extirpation of the spleen.** The patient was a boy 9½ years of age. He had fallen half a story, striking his abdomen against a stair step. Vomiting followed but was not bloody, also he had severe pain in the right side of the body. Signs of severe internal hemorrhage were present and as his pulse was growing weaker, laparotomy was performed. The liver and kidneys were found intact, but the spleen was torn into 3 pieces, 2 of which were loose and easily removed. The other was still fastened by the hilus, but as the bleeding from the torn surface was terrific, the hilus was ligated and the piece removed. The hole made by the removal of the spleen was tamponed and the abdominal wound closed. When the patient was dismissed from the hospital a month later, he was strong and healthy, hemoglobin 80%. There was, however, some enlargement of the lymphatic glands, but without alteration in the thyroid. [G.B W.]

3.—Sander says that **operations,** especially gynecological ones, undertaken for the relief of a possible exciting cause of **hysteria,** will in the cases of short standing be very apt to bring improvement, but in cases of long standing are very unlikely to be followed by any success, and, indeed, the irritation of the scar may give ground for fresh complaint. He reports 2 cases. One a man on whom laparotomy was twice performed for an assimilated appendicitis and intestinal obstruction. There was some improvement. The other was a woman on whom 4 laparotomies had been done, and at the last one a congested appendix was removed. Marked improvement followed after a period of time. [G.B.W.]

September 14, 1899. [25. Jahrg., No. 37.]

1. First Report of the Achievements of the Malaria Expedition. R. Koch.
2. Concerning the Diagnostic and Therapeutic Importance of the X-ray for Internal Medicine and Surgery. E. Grunmach.
3. Total Excision of the Stomach, with Bowel Resection Combination. Th. Kocher.
4. Contributions Upon Organo-Therapy. Burghart.
5. Suggestive Therapy in the Internal Medicine. A. Hoffmann.
6. Concerning the Treatment of Rachitis with Kidney Substance. W. Stoeltzer.

1.—The **report of Koch** concerning the **malaria expedition** is interesting, but does not contain anything especially new excepting an observation in relation to public hygiene. He found that apparently all those cases that appeared in the early spring were instances of reappearance of the disease in persons who had had it previously. Considering this fact in relation to our knowledge that so far as is known the plasmodium can, exclusive of man, live only in the mosquito, and that it cannot live in the mosquito during winter, Koch insists that these cases that last over from year to year are the chief sources of the continuance of malarial fever, and that all cases should be observed with extreme care and actively treated until, if possible, the disease is absolutely cured and no relapse will occur. He states that the attention should be given to this in entirely the same spirit with which cholera and other epidemic diseases are now kept under control. Quartan fever was met with most rarely. Tertian was most common, and most frequently it was double tertian; but the estivoautumnal form was almost as frequent as the tertian. The opinion is once more expressed that estivoautumnal fever is not a special fever, but merely one variety of malaria. All the cases began with the tertian type, and finally, when some immunity had been given by the quinin, they assumed the irregular form. The medical treatment of the cases was administration of quinin in the period of intermission, or, with the tropical form, only when the large ring-shaped parasites appeared. Not one of the 281 cases at the hospital died. The dose in the tertian fever was 1 gm. twice given, while the same dose or double the quantity was given in the tropical form, and recurrences were prevented by giving repeatedly every 2 or 3 days 1 gm. of quinin for some time afterward, and then for a considerable period 1 gm. of quinin was ordered to be taken every 10 days. One case of hemoglobinuria was seen. This man had repeatedly taken small doses of quinin without any effect, and finally took one large dose. Two hours afterwards he had a chill, vomiting, and hemoglobinuria associated with slight icterus. The hemoglobin became reduced to 50%, but the attack was mild and the patient soon recovered. A similar attack of hemoglobinuria had been seen after a dose of quinin when this patient was 4 years old. In investigating the relation of various mosquitos to malaria, Koch states that they found in the malarial region the Culex nemorosus, the Culex pipiens, the Anopheles maculipennis and a form of phlebotomus. They decide that the second and third of these mentioned were both active in carrying the disease, for they found coccidia-like parasites in both. The criticism that the mosquito is probably not a carrier of malaria, because it may be found at all times of the year while malaria occurs only at certain periods, is answered completely by the fact that it was found in the analogous work with proteosoma that a certain degree of warmth was necessary for the development of the parasite in the mosquito, and about this degree of warmth is found in houses at the time that the malaria breaks out, allowing for the incubation period as well. Therefore this criticism becomes proof of the mosquito theory when considered in this way. [D.L E]

3.—The patient, a woman 44 years of age, was emaciated and anemic. Vomited frequently small quantities of watery gastric contents, containing no free hydrochloric acid, and without blood or bile, and with little mucus. The finding of a tumor in the epigastrium rendered likely the diagnosis of cancer of the stomach, probably situated on the lesser curvature and without involvement of the pylorus. At the operation an extensive carcinoma of the stomach was found firmly grown fast to the transverse colon, so that the **removal** of the **stomach** necessitated the resection of 12 cm. of large intestine. The **duodenum and esophagus** were **brought together and sutured end to end,** likewise the ends of the colon. The operation lasted 3 hours, but the patient did not seem much collapsed. For 1 or 2 days the patient did fairly well, but then her condition got rapidly bad, and she died on the fourth day after the operation. At the postmortem a slight necrosis of the wound of operation was found; also necrosis of the mucous membrane

of the ileum, peritonitis, anemia, and atrophy of the heart were present. The junction between esophagus and duodenum was tight and firm, also no perforation could be found at the suture point of the colon. [G B.W.]

4.—Burghart mentions in this number of his paper the results that have been obtained with several **organic extracts.** Suprarenal tablets were given in two cases of Addison's disease. Both died; one being unaffected by the treatment, while in the other case the results were decidedly bad, as fever, loss of appetite, and prostration followed. Cerebrin and preparations of spinal cord were given in a number of nervous diseases without effect. Spermin injections were given to a number of cases of tabes, neurasthenia and male hysteria without effect. Spleen and thymus were given respectively in pernicious anemia and in chlorosis and other anemias seen in girls. One of the cases of secondary anemia showed increase of the red cells and hemoglobin, while no effect was seen in the others. Ovarian tablets were given in one case which was of interest. The patient was a girl of 20 who had never menstruated, and who was so excessively fat that any muscular effort was carried out with difficulty. She was habitually constipated, and gynecologic examination showed infantile internal genital organs. The use of the ovarian tablets caused a marked decrease in the body-weight with increase in muscular power, improvement of the intelligence and regulation of the intestinal action, but no change in the condition of the genital organs and functions. The girl, however, from a helpless semi-imbecile had become able to make her own livelihood. Thyroid tablets or iodothyrin were used in a number of cases, most effectively in one of operative myxedema in which the condition of the skin improved strikingly, the intelligence became far better, and the general condition was much benefited. The treatment, however, had to be continued constantly or at any rate repeated every few weeks. In one case of multiple sclerosis with marked trophic lesions the use of .3 gm. of iodothyrin daily caused most pronounced improvement particularly in the trophic lesions, but also in the tremor and in the stupor, and the albuminuria which was present was much improved. Similar good effects upon trophic changes are recited from the literature, and Burghart also mentions a case of alcoholic neuritis which improved upon the same preparation and one of psoriasis which was much benefited. [D L E.]

5.—The paper is largely given to consideration of the changes in the **use of suggestion** since the earliest times that this was employed. Hofmann then states that he has compared the effects obtained by using the method of the Salpetrière and that of the school of Nancy and finds that in order to produce hypnosis the method of verbal suggestion is much more quickly and permanently active than is suggestion by mere fixation of an object without verbal suggestion. The paper will be continued. [D.L E.]

6.—Stoeltzer records his results from the use of tablets of **suprarenal capsule** with **76 rachitic children.** A complete report will appear later. Here he states that the general condition, the restlessness and irritability, the sweating and vasomotor changes, and particularly the craniotabes were strikingly improved. The teeth appeared earlier, the children learned more rapidly to sit erect, to stand and to walk, and the thorax soon lost its abnormal softness. The changes in the long bones were less strikingly influenced. Spasm of the glottis was not improved. The change for the better was usually rapid in the first few weeks, and was then followed by much slower improvement. Stopping of the treatment was usually followed by cessation in improvement or by return of bad symptoms. Even cases that were severely complicated as by syphilis, intestinal catarrh, pneumonia, etc., showed improvement as a rule. One child died of capillary bronchitis after having been under treatment for a month. The examination of its bones showed but slight amounts of rachitic tissue, even the periostal osteophytes showing in almost all instances reaction for bone-substance. [D.L.E.]

Berliner klinische Wochenschrift.

June 26, 1899. [36. Jahrg., No. 26.]

1. Tabetic Crisis in High Fever. P. K. PEL.
2. Examination of Fixed Acid Bacteria. A. PETTERSON.
3. Concerning Acute Miliary Tuberculosis. C. BENDA.
4. Upon Constipation and Diarrhea. R. SCHÜTZ.

1.—Pel calls attention to the occurrence of **febrile crises during the course of locomotor ataxia** and reports the case of a man, 41 years old, a glass polisher, who had 4 attacks of excruciating pain, in the extremities, accompanied by high fever, vomiting, sweat, and labial herpes, and preceded by chilliness. During the attacks the patient also had pain in the eyes and intense photophobia, lacrimation, and congestion of the head. The temperature rose to 40.2° C., the pulse to 150. There was no splenic enlargement and no other abnormalities of the viscera. There was also an arthropathy of the fourth right metacarpal phalangeal joint. Pel believes that the attacks were tabetic crises. [D.R]

2.—During the last few years a number of bacilli have been discovered which, like the tubercle-bacillus, have the **power of resisting decolorization by acids** when stained ("säurefeste" bacteria). The author has made a careful study of the following six varieties: the butter-bacillus of Rabinowitsch, the butter-bacillus of Petri, the grass-bacillus of Moeller, the timothy-bacillus of Moeller, the manure-bacillus of Moeller, and the slowworm bacillus, and gives in a tabular form the cultural characteristics of these organisms. Morphologically as well as culturally, these microorganisms are closely related, and also resemble the tubercle-bacillus. The timothy-bacillus and the manure bacillus bear a close analogy to the butter-bacilli of Rabinowitsch and Petri. It is possible that the bacteria described can be grouped under three heads: (1) the timothy-bacillus, identical with the manure-bacillus; (2) the Petri bacillus, identical with Moeller's grass-butter bacillus, and (3) Rabinowitsch's bacillus. Guineapigs were not very sensitive to intraperitoneal injections of any of these. Some of the animals died after several months, a few showing miliary and submiliary nodules. The knowledge of these organisms is important, as it may give rise to some uncertainty in the diagnosis with respect to the tubercle-bacillus; but these uncertainties may be removed by a study of the cultures. The most important point, however, is that these organisms throw light upon the development of the tubercle-bacillus. The **säurefeste** bacilli have the property of forming nodules, which differ histologically somewhat from those produced by the tubercle-bacillus; but the difference is not great enough to prohibit the grouping together of the different lesions. Botanically all these bacilli, including the tubercle-bacillus, are closely related to the actinomyces. A contemplation of the various organisms reveals a series or passing from a simple saprophytism to obligated parasitism. First, the *säurefeste* bacteria of Moeller and others chiefly saprophytic, becoming parasitic under special conditions—saprophytes or facultative parasites. Second, actinomyces, including parasitic as well as pure saprophytic forms, the former growing readily as saprophytes on artificial media—partially *säurefeste* and facultative parasites. Third, the tubercle-bacillus; up to the present found living only as a parasite, saprophytic growth obtained easily by culture—*säurefest* and facultative saprophyte. Fourth, the lepra-bacillus: living only parasitically, saprophytic growth as yet never observed—*säurefest* and obligated parasite. All of these possess the power of forming nodules and possess the ability of producing peculiar morphologic forms—bulbous swellings and stellate masses. This seems to show that all these species belong to the fungi and that only their parasitic forms appear like bacteria. [D.R.]

Münchener medicinische Wochenschrift.

July 18, 1899. [46. Jahrg., No. 29.]

1. The Role of Iron in Blood-building—Contributing to the Nature of Chlorosis. HOFMANN.
2. Therapeutic Experiments with Röntgen-rays in Infectious Processes. RIEDER.
3. A Case of Occlusion of the Subclavian Artery and its Branches. KÖNIGE.
4. Concerning Bacteriuria. WARBURG.
5. Upon Cream-mixtures as a Nutriment for Nursing Infants. REINACH.
6. Tannopin, a New Remedy for Diarrhea. CARL FROHLICH.
7. Concerning Infusion and its Usefulness in Medical Practice. GEORGII.
8. Who is a Medical Person, in the Sense of Sec. 174, No. 3, of the Penal Code? BIBERFELD.

1.—All iron, no matter in what way it may be adminis-red, is absorbed from the duodenum and then circulates in e blood in transport-cells combined with an albuminous dy. In this form it is nontoxic and can be demonstrated various depots—the spleen, the liver and, especially, the ne-marrow. The restitution of the red corpuscles in ani-als is more rapid in those fed on iron than when iron is t given; at the same time, the iron-content of the bone-arrow is greater in the former case, while the spleen and mph-glands show no difference. The metal possesses no wer of **stimulating the physiologic activity of the one-marrow,** and hastening the maturation of the young rms into the anuclear erythrocytes that are ready to enter e blood. Further study has shown that the iron of the odern therapeutic preparations is fixed by the cells of the gans, the amount of iron fixed being greater, the greater e iron-content of the preparation used. The stimulating tivity of iron on the bone marow gives some insight into e nature of **chlorosis.** This disease consists in a dimin-ished capacity, or a hypoplasia of the blood-forming organ, e bone-marrow, which may in severe cases be combined ith hypoplasia of the cardiovascular system, and even of e sexual organs. This weakness in the blood-forming appa-tus manifests itself in the production of erythrocytes de-ctive as regards form and hemoglobin-content. [D.R.]

2.—Rieder has made some experiments on the **effect of ie x-ray upon tuberculous animals.** Without going to details, his results may be summed up by saying that ey were **negative** and that the x-ray does not have any rative influence on tuberculosis in animals. The local sease and at times also the general infection were some-hat retarded. The animals died, nevertheless, some even oner than the controls. Rieder believes that the expecta-on that the x-ray would prove of value in chronic pul-onary tuberculosis in man will not be fulfilled. The reason r the failure is probably that the x-ray can not be used in rength sufficient to kill the bacteria without, at the same me, damaging the cells of the body. [D R]

3.—Könige reports a case of **occlusion of the sub-avian artery and its branches.** This patient was a an, 35 years old, who in 1888 first noticed a gradually de-eloping weakness and sticking pain in left arm which was ale and cool. This condition lasted about a year, then adually disappeared. On examination the left arm was ightly atrophied but entirely free in its movements. There as an entire absence of pulse over the subclavian, axillary, achial, ulnar and radial arteries. Besides this condition e patient suffered from mitral insufficiency and a paren-ymatous goiter. [G.B.W.]

4.—Warburg reports the following case of **bacteriuria:** man of 54 years, who never had any venereal affection or sease of the genitourinary tract, was seized with a chill d fever. Physical signs were negative and the acid urine, eviously always normal, was uniformly turbid. The rbidity did not disappear during heating nor on the addi-on of acids or alkalies, and was found to be due to the esence in large numbers of a small bacillus. Casts and ukocytes were not present. On the second day the patient mplained of severe headache and slight burning on urina-on. By the fourth day the fever had entirely subsided, but e bacterial turbidity of the urine remained. Salol was ven without result, but on the administration of **urotropin** e urine cleared up immediately. The bacterium was und to be the bacillus lactis aërogenes. There are three ay in which the organism might have entered the urine: rough the urethra, from the bowel into the bladder, and y way of the blood. Although there is no definite proof, e author considers the blood the most likely portal of try. [D.R.]

5.—Ass' milk resembles mothers' milk most closely, but somewhat deficient in fats and very costly. Artificial eding must therefore be based upon cow's milk or perhaps at's milk. In order to reduce the proteid content of cow's ilk to that of the mother, it must be diluted. This dilution ads, however, to the reduction of the fats, the most nutri-ve factor for the infant. In order **to increase the fats,** iedert has recommended the addition of **cream** to the luted cow's milk. He has constructed 5 formulas for the odification of the milk. In the first, the casein is 1%, and e mixture, all the accessory factors being properly at-nded to, has none of the disadvantages of cow's milk. The formulae are as follows: I. 130 c.c. cream, 390 cc. water, 18 grams milk-sugar (1% casein, 2.5% fat, 5% milk sugar). II. 210 cc. cream, 200 cc. skim-milk, 590 cc. water, and 30 grams milk-sugar (1 4% casein, 2.6% fat, 5% milk sugar). III. 220 cc. cream, 300 cc. skim-milk, 480 cc. water, and 24 grams milk-sugar (1.8% casein, 2 8% fat and 5% milk-sugar). IV. 230 cc. cream, 350 cc. skim-milk, 420 cc. water, and 21 grams milk-sugar (2% casein, 3 3 fat, 5% milk-sugar). V. 250 cc. cream, 500 cc. skim-milk, 250 cc. water, 13 grams milk-sugar (2.6 % casein, 3.3% fat, and 5% milk-sugar). The value of the foregoing consists in that the physician is able in the case of diseased infants to deter-mine accurately the amount of albumin and fat him-self. Regarding the application of the mixtures the fol-lowing statements are made: In light forms of acute dys-pepsia in which the stools are normal but offensive, and increased in frequency, flatulence, restlessness, belching, anorexia, and pallor being present, good results can be ob-tained with a dilution of the milk, reducing the daily quan-tity of milk, or eventually omitting the use of milk entirely for from 8 to 10 hours. The cream-mixtures are generally not necessary. Subacute and chronic dyspepsias, especially with constipation, and chronic enteritis with mucous stools offer the best chances for the cream-mixtures if the stools are alkaline or feebly acid. In very young children even a greater dilution than the first formula may be necessary. At times, while the fat is properly digested, there is evidence of insufficient assimilation of the proteids. The alkaline stools then contain abundant proteid residue which can be demonstrated microscopically and with Millon's reagent. A very good effect may be obtained in such cases with pan-creatin. The normal stool should be yellow and feebly alka-line or feebly acid. Microscopically, it contains granular masses with very few fat-droplets, isolated epithelial and round cells, cocci and bacilli. A contraindication to the use of the cream-mixtures is intestinal diseases with watery stools. Sometimes the success of the cream-mixtures is followed gradually by copious, fatty, glistening, strongly acid stools, a standstill in the weight, and progressive change for the worse in the general condition. Such cases may lead to atrophy, and to grave disturbance in the fat-absorption. It is wise, there-fore, in beginning the cream feeding, to examine the stools for a long time, not only macroscopically, but microscopically and even chemically. The chemical examination gives the more exact results. The **fat content of normal stools** varies from 3% to 25% ; anything above that must be con-sidered steatorrhea. Demme has described an acute form of fatty diarrhea associated with fatty degeneration of the liver and inflammation of the pancreas, while Biedert has found in such cases marked swelling of the mouth of the biliary and pancreatic ducts. In the latter condi-tion milk must be entirely excluded, while in the first, in which the stools are copious, fatty, and strongly acid, milk must be given very much diluted; the addition of pan-creatin is of value. Peptonized milk and Mellin's food may also prove useful. The author gives a summary of a num-ber of illustrative cases. [D. R.]

6.—**Tannopin,** enjoying the chemical name of hexa-methylentetramintannin, contains 81% tannin and 13% urotropin. It is not changed by the gastric juice, but is dis-solved slowly by the juices of the intestines. It is useful in acute and chronic diarrheas, the doses for children being 0 25 to 0.5 gram ($3\frac{3}{4}$ to $7\frac{1}{2}$ grains) 3 to 5 times a day, for adults 0.5 to 1 gram, 3 to 4 times a day. [D.R]

7.—**Saline infusions** are indicated in acute anemias, after extensive losses of fluid, as from profuse acute or chronic diarrhea, for purposes of "washing" the blood after poisoning, in the so-called "pedatrophy," the result of chronic intestinal disturbances. In the last the author has used a 3% solution of sugar in normal salt-solution. Less severe cases of chronic enteritis associated with marked loss of water, especially in children, are treated by the author with repeated rectal infusions. Von Mering has recom-mended rectal infusions for contraction of the pylorus and marked motor insufficiency of the stomach such as occurs in dilatation of the stomach; then, also in cases where the stomach needs rest, as in carcinoma, ulcer, catarrh, and neurosis of the stomach. They are also useful in patients suffering from excessive thirst, as in diabetes and the sweats of phthisis. Lenhartz has suggested saline infusions in acute diseases like typhoid fever, pneu-

monia, dysentery, peritonitis, and ileus. In acute poisoning the infusions are very useful—in poisoning by gas, strychnin, arsenic, chloroform, phosphorus, iodoform, carbolic acid, etc. To this group belong also uremia and puerperal eclampsia. The author describes the method of giving saline infusions; it is so well known that it need not be quoted here. We may state, however, that he employs chiefly intramuscular injections, running the needle into the nates or thigh to a depth of from 6 to 7 cm. He also resorts to massage with oiled fingers to aid in the absorption of the fluid. [D.R.]

Centralblatt für Gynäkologie.

September 2, 1899. [23. Jahrg., No. 35.]

1. Healing of a Vesico-vaginal Fistula by the High Section. MAISS.
2. A Double Separate Uterus. MAX OKER-BLOM.
3. Pregnancy with Diadelphous Uterus and Double Vagina. LORENZ.
4. The Question of the Implantation of Ureters. J. KALABIN.
5. Total Extirpation of the Uterus, Indicated by Pain following Atmokausis. H. A. v. GUERARD.

1.—Maiss reports a case of **vesico-vaginal fistula** in a woman 60 years of age, the fistula being caused by a ring-pessary, which, having been worn for 15 years, had become so imbedded in the vagina that it led to a fistula, permitting the urine to escape through the vagina. After the removal of the pessary, various palliative and minor surgical measures were resorted to, but proving ineffectual, an abdominal section was made, the edges of the fistula properly sutured and the trouble finally remedied. [W.K.]

2.—The history is given by Oker-Blom of a woman with **two separate uteruses** opening into one vagina, the right uterus being of normal size with well-developed right tube and ovary, while the left was smaller, hard and round, with a left tube and ovary. The woman, who was married at 26, had been 8 times pregnant. Three pregnancies were in the left uterus and resulted in abortion at from 6 to 8 weeks. Five were on the right side, and of these 3 living children were born, two of which were still living at the time of the report, being 7 and 9 years of age. [W.K.]

3.—Lorenz reports a case of a 28-year-old woman whom he treated for chlorosis and who on examination was found to possess a **duplex vagina with two entirely distinct uterine cavities.** After restoration to health, the woman became pregnant in the left uterine cavity, had a normal labor and delivery, giving birth to a vigorous infant. [W.K]

4.—The results of repeated attempts to **implant ureters in the rectum** are reported by Kalabin. His experiments were made on 24 dogs, in 10 of which both ureters were sewed into the rectum, but the dogs died in a few days, generally of peritonitis. In the other 14, the ureter was sutured on one side of the intestine with little better result, so that the author concludes that the implantation of both ureters is never admissible, and of one only to be attempted in the most extreme cases. [W.K]

5.—Guerard relates in detail the history of a woman, aged 31, who had, some time after the third confinement, suffered so intensely that she sought relief of Professor Bardenhauer, who performed a ventrofixation, with an apparent recovery of health. The next pregnancy, however, was accompanied with torturing pains, and an abortion occurred in the fifth month. This was followed by profuse and continuous hemorrhages, which refused to yield to any therapeutic measures, and recourse was had to **atmokausis,** the patient remaining in bed 5 or 6 weeks. As the result of this treatment, menstruation entirely ceased, but at the menstrual period the woman was afflicted with such unendurable pain in the pelvis that she consented to a vaginal extirpation of the uterus. This organ, which was greatly enlarged, and about 11 cm. long, was so firmly held by a thick, strong cord, that celiotomy was necessary, in order to loosen it and permit its removal per vaginam. To this abnormal, firm ventrofixation of the uterus was ascribed the suffering and premature ending of the last pregnancy. The uterine cavity was almost entirely obliterated, this condition being due to the atmokausis. In the opinion of Guerard, an intensive burning of the interior of the uterus generally causes the obliteration of the cavity, and brings the climax in the midst of the woman's sexual life. The woman's recovery from the last operation was satisfactory, and she now finds herself restored to health.

September 9, 1899. [23. Jahrg., No. 36.]

1. Ten Cases of Cesarean Section with Sagittal Fundal Incision. EMIL WEBER.
2. The Avoidance of Labor Disturbance after Vaginofixation. H. DUHRSSEN.

1.—Of the 10 cases of **cesarean section** described by Weber only one resulted fatally. The uterine hemorrhage was, except in Case 7, readily controled by the sutures which took wide and firm hold of the endometrium; and in Case 7 it was finally checked by ergotin injections. Of the 10 children only 2 died, one from asphyxiation, the other from premature birth. The operation was always performed in the horizontal dorsal position. The published cases show equally favorable results from the fundal incision, whether transverse or sagittal. [W.K.]

2.—The much discussed subject of **vaginofixation** is treated at length by Duhrssen, who claims that while other forms of vaginofixation may have disastrous effects upon the course of pregnancy and labor, his method with opening of the plica and the higher fixation of the anterior uterine wall as practised since 1890, remedies retroflexion of the uterus with absolute certainty, without danger of a relapse, and yet leaves the uterus in an almost normal position, permitting spontaneous delivery. He has reported at least a dozen cases of spontaneous parturition after vaginofixation. He mentions one in which conception was rendered impossible during 3 years by a ring treatment; but 5 months after vaginofixation conception occurred, and the passionate desire for an heir was gratified through this operation. It is stated that Mackinrodt has adopted Duhrssen's method of opening the plica and suturing with catgut the uterine body with the vagina about 1.5 cm. above the inner os uteri. Olshausen and Martin employ an analogous method. [W.K.]

September 16, 1899. [23. Jahrg., No. 37.]

1. Lever-forceps for Hemostasis by Pressure. By P. ZWEIFEL.
2. A Simply Constructed Angiotribe. By R. KOSSMAN.
3. Upon Angiotripsy. By C. D. VAN ROSSEM.

1.—The crushing of vessels as a means of **permanent hemostasis** began with the hemostatic forceps introduced by Koeberle, by which, according to the purpose of the inventors, a definite hemostasis was reached through an "excessive" crushing. Among the advantages of this method of controling hemorrhage, Zweifel mentions the fact that no foreign body is left in the abdominal cavity, and that the metal instrument used is much more readily sterilized than are catgut sutures. On the contrary, one disadvantage is that the hemorrhage is not always perfectly controled, that sometimes the crushed tissues will bleed when cut through, and in other cases the arteries are lacerated in the process, or the venous circulation is not cut off. Zweifel also objects to the "Excenterhebel" of Thumim, that it requires two persons to manage it; that it acts, not gradually, but with a sudden shock; and it must remain upon the tissue from 3 to 5 minutes. He seems to prefer the "Kniehebelklemmer" or the "Gefassklemme" made by Schadel of Leipzig, and describes these in detail with illustrations. [W.K.]

2.—Kossman claims that his "Angiothryptor," because of its simple construction, is less expensive; that it can be used by the operator alone; and that the amount of pressure exerted may be varied according to the thickness or character of the tissue concerned. The last he considers a decided advantage, as in his opinion no construction by which the instrument must always be closed at the same point, is reliable in practice. [W.K.]

3.—Rossem, in discussing the general subject of **angiotripsy,** states that the advantage of no foreign material in the abdominal cavity must be offset by the uncertainty of complete hemostasis through the crushing process; for Thumim states that in 5% of the cases his instrument was inefficient; and while it may be true that the crushed tissue, thin as paper, is more readily absorbed than the ligature would be, yet it is possible that this tissue, deadened by the pressure, may be infected by microorganisms, as well as the silk or catgut ligatures. Rossem used the angiotribe of Hoefftcke in a series of experiments upon rabbits, with a subsequent

microscopic examination of the crushed tissues and vessels; and he reached the conclusion that its use upon isolated vessels of considerable size, such as the femoral artery, etc., was not successful, and that angiotripsy produced better results when confined to connective and muscular tissues. In conclusion he thinks it is possible that with an improved construction the angiotribe may reach such perfection as to win success in gynecologic operations without ligatures. [W.K.]

Centralblatt für innere Medicin.

September 23, 1899. [20. Jahrg., No. 38.]

Two Contributions to the Study of Acetonuria. Hugo Lüthje.

Mayer teaches that **acetonuria** is an evidence that an acid intoxication of the organism exists. In order to investigate this Lüthje produced strychnin poisoning in a number of dogs, thus causing an acid intoxication through the muscular spasm. In no instance was acetonuria the result and he decides that the acid intoxication produced in this way is not followed by acetonuria. Aceton was looked for in 31 epileptics also, after convulsions, and was found in only 13 instances and then in but small quantities, and several of these patients at least had aceton in their urine before the convulsions. Hence this also speaks against an acid-intoxication as the cause. In order to attempt to see whether the aceton comes from the gastrointestinal tract calomel was given to a diabetic girl that showed acetonuria. Were the aceton formed in the gastrointestinal tract it would seem probable that after the disinfecting and purgative action of the calomel the quantity of the urine would be less. On the contrary the amount was rather greater than less, and at any rate it was not decreased. [D.L.E.]

October 21, 1899. [20. Jahrg., No. 42.]

The Excretion of Ammonia in Digestive Disturbances of Infants. Arthur Keller.

Keller's article is merely an answer to criticisms, implied in Bendix's writings, that the methods used in his investigations were imperfect. The large amount of ammonia found could not well be the result of decomposition, as the high figures were found only in children with digestive troubles, and the method used was subjected to various tests to prove its accuracy. [D.L.E.]

Neurologisches Centralblatt.

September 15, 1899. [18. Jahrg., No. 18.]

1. A Case of Hemiatrophy of the Tongue. Wiersma.
2. A Remarkable Group of Centripetal in the Anterolateral Horns of the Spinal Cord of the Rabbit. Wollenberg.
3. A Peculiar State of Dulness Occurring in the Posthypnotic Period. Higier.

1.—Wiersma reports 7 remarkable cases of **hemiatrophy of the tongue** occurring as a result of various causes, and exhibiting some important points in the symptomatology and the etiology of this condition. The first patient, a girl, at the age of 23, had a slight cold, followed by a prolonged period of hoarseness; there was some difficulty in swallowing, and liquids were frequently regurgitated through the nose; otherwise she was perfectly well. Her physical condition was excellent; there was no disturbance of the eyes, nor of sensation. When examined it was found that the left side of the tongue was distinctly atrophied; the tongue was protruded towards the left, and in the mouth, deviated toward the right side; there was no disturbance of sensation of the tongue, and apparently no marked impairment of movement. The electrical reactions of the hypoglossal nerve and the tongue-muscle were normal. This condition was manifestly not produced by a peripheral lesion, and therefore it is likely that some pathologic condition must have existed in the medulla. Wiersma suggests an extremely localized poliomyelitis, involving only the hypoglossal nucleus, but admits the possibility of embolism, hemorrhage, or thrombosis, although the latter is unlikely on account of the age and the physical condition of the patient. The second patient, a woman, at the age of 22, noticed slight diminution of power in the right arm and hand following a slight traumatism. A year later, similar symptoms appeared in the left hand; there was evidently diminution of temperature-sense, and there were trophic changes in the fingers. Finally, at the age of 29, she had slight attacks of vertigo, interference with swallowing, and regurgitation of liquids through the nose. There was slight paresis in the left side of the face; the pupils were unequal, and the right side of the tongue was distinctly atrophied. There was some diminution in electrical response in the atrophic muscles. The case was one of syringomyelia with hemiatrophy of the tongue. The third patient, a woman, at the age of 60, had attacks of vertigo, disturbances of gait, and finally inability to stand without support. Nine months later there was disturbance of speech and swallowing, and hoarseness of the voice. The general symptoms of brain-tumor were not present. When examined, she was found to have total paralysis of the right side of the face, deafness of the left ear, but no disturbance in the eyes. The right side of the tongue was atrophic, and the muscle was completely paralyzed. The patient died of catarrhal pneumonia. At the autopsy, a tumor was found in the posterior cranial fossa just behind the internal auditory meatus, that had pushed the right cerebellar hemisphere to one side and caused flattening of the medulla and pons. It also pressed upon the seventh, eighth, ninth, tenth, eleventh, and twelfth nerves. The fourth case, a woman, at the age of 24, had an abscess of the left lower jaw, which was followed by atrophy of the left side of the tongue. There were no disturbances of sensation. The reaction to electricity was diminished, but the reactions of degeneration were not present. The case was probably one of swollen lymph-glands in the lower jaw that had pressed upon the hypoglossal nerve. Fifth, a woman, of 35, had pain behind the right ear, vertigo, vomiting, and later, numbness and weakness of the right arm and leg. In the beginning there was some fever. Later, there was diplopia, disturbance of speech and swallowing. She subsequently improved. When examined, there was paresis of the right side of the face. The right side of the tongue was atrophied. There were no fibrillary twitchings, but a complete reaction of degeneration. The hypoglossal nerve did not respond to any form of stimulation. There was some disturbance in the right side of the body. Improvement gradually progressed, although atrophy of the tongue was persistent. It is probable that the lesion was a local meningitis, involving the portion of the medulla. The sixth patient, a man, who, in childhood, had developed paralysis of the right arm and leg. Later, there was improvement, although not complete restoration of function. When examined at the age of 29, there was paresis of the right side of the body, exaggerated reflexes, atrophy of the right side of the tongue; sensation was not disturbed; the reaction of degeneration was present. No disturbances in motion of the muscles of the palate existed. This appears to be a case of hemiatrophy associated with cerebral infantile palsy, but the disease of the tongue is probably peripheral in nature. The seventh case, a man, at the age of 21 years, was wounded in the neck just beneath the angle of the jaw on the left side. There was some disturbance of speech and subsequently apparent recovery. When examined, the right half of the tongue was atrophied; there were fibrillary twitchings and reactions of degeneration. Sensation was not disturbed. This represents peripheral injury to the hypoglossal nerve. [J S.]

2.—Wollenberg, in an effort to discover the **lower termination of the second sensory tract of the fifth nerve,** discovered the following ascending groups of fibers in the anterolateral column at the level of the decussation of the pyramids: One that extends to the lateral nucleus, nucleus ambiguous, the facial, and possibly the superior olive. The second, the ventral spinocerebellar tract extends dorsally along the edge of the pons into the crus. A third branches from this to the nucleus of the lateral filet, to the posterior corpora quadrigemina, and a fourth, a branch of the third that gradually approaches the median line and decussates at the level of the nucleus of the petrosal nerve, and finally disappears in the central gray matter about the level of the posterior commissure. It seems to disappear in the posterior long association fibers. The fourth has apparently not hitherto been described. [J.S.]

3.—Higier reports the mental condition of three patients,

one with supraorbital neuralgia not hysterical, one with hysterical aphonia, and one with hysterical vomiting. The condition apparently consisted of a **confusional state,** or rather one of depressed intellect, so that the patients were unable to answer single questions correctly, not even recognizing their names, the order of numbers, or the names of objects. Simulation was apparently excluded, and the condition invariably occurred without the slightest suggestion on the part of the observer. The state usually lasted from thirty minutes to several hours. When the patients were observed without their knowledge, they behaved exactly as if they were suffering from soul-blindness. The nature of this condition is difficult to explain, but it resembles the form of **psychosis** described by Ganzer in **association with hysteria.** [J.S]

Sundry French Journals.

1. Anatomopathologic Study of Peritoneal Tuberculosis. GABRIEL MAURANGE. (*Gaz. Heb. de Méd. de Chirur.*, March 26, 1899. 46me Année, No. 25.)
2. Methodical Percussion of the Skull. GILLES DE LA TOURETTE. (*Sem. Méd*, March 20, 1899. 19me Année, No. 14.)
3. Ligation of the Vessels of the Spermatic Cord in Hypertrophy of the Prostate and its Effects upon the Nutrition of the Testicle. MONOD. (*Sem. Méd.*, March 29, 1899. 19me Année, No. 14.)

1.—Maurange divides **tuberculosis of the peritoneum** into the acute miliary form, the fibrocaseous form, and the fibrous form. In the acute miliary form, the peritoneum is dotted over with hard, grayish-white, or reddish granulations that are sometimes deeply imbedded in the wall, and surrounded by an area of connective tissue that isolates them from the endothelium; and that are sometimes superficial and transparent. Histologically, a vessel may be seen, the lumen of which is obliterated by hyperplastic endothelial cells that are fused together by hyaline degeneration, so that they resemble giant-cells in appearance. True giant-cells may also be present in the lesion, and each variety of cell may contain bacilli. The peritoneum in the neighborhood of these tubercles is generally the seat of an inflammatory reaction, the intensity of which depends upon the degree of confluence of the granulations. It is polished, covered over by a fibrous exudate, injected, and sometimes ecchymotic. The fluid in the peritoneal cavity is of a yellowish or grayish color, and usually transparent, sometimes blood-stained or seropurulent. There are no adhesions or septa. As a general rule the ascites is a sign of the energetic defence of the organism and is seen in connection with the attenuated forms of infection that are spontaneously curable, or that represent the first stage of the passage of the disease to the chronic form. The lesions of the lymph-nodes are not marked, but disseminated granules are usually found in some of the other organs. When such is the case, the condition terminates rapidly in death before the lesions have had time to develop fully. In other cases cure may be accomplished, either spontaneously or by laparotomy. The absorption of the exudate is gradually accomplished and the return of the peritoneum to its normal condition may be complete. In other instances the disease may develop into the fibrocaseous form. In the latter form of the disease, when the abdomen is opened the number and thickness of the adhesions uniting the abdominal organs to each other and to the wall is seen. These adhesions are formed by thick false membranes of reddish, or yellowish-white color, infiltrated with the granules, and honeycombed by caseous masses and small abscesses that produce a series of cavities, filled with a fluid that may be serous, chyliform, bloody, chocolate-colored, or fatty, that has resulted from the breaking down of the tubercles. The lesions involve the great omentum, the mesentery, the loops of the intestine, and the solid abdominal organs. The retroperitoneal organs may present tuberculous infiltration, and, following ulceration, a fistula may form between the loop of the bowel and one of the purulent cavities; sometimes the ulcerative process extends to the bloodvessels, which become thrombotic, or which rupture, giving rise to hemorrhage that may prove fatal. In children an abscess may burrow through the abdominal wall in the neighborhood of the umbilicus, giving rise to a periumbilical abscess, that may rupture upon the surface. The mesenteric lymph-nodes are almost always involved. The above-described lesions may be limited to a few intestinal loops, or may be confined to a single cavity surrounded by false membranes, producing the encysted form of fibrocaseous tuberculosis. This latter has a more favorable prognosis than the generalized form. It is usually seen during the process of recovery from the original disease. Lesions may be localized in the pelvis, producing an ulcerative pelvic peritonitis, that is usually the sign, or the consequence of genital lesions. In this position the cystic form is the rule. The ulcerative process may extend to the neighboring organs, destroying them or perforating them. Whatever the degree or the extent of the lesions may be, it may easily be conceived that they can give rise to the phenomena of compression of any of the abdominal organs. The parietal peritoneum presents, superficially, a caseous layer with round cells and epithelioid cells in the process of disintegration, represented by nuclear debris, between which numerous free bacilli are found. In the deeper part of the membrane the epithelioid cells are still well colored, but are changed by the numerous bacilli. In the subperitoneal tissue there is a perivascular endothelial infiltration. The lesions of the peritoneum covering the intestines are more intense and cannot be differentiated into layers. The omentum and mesentery are merely masses of endothelioid cells containing some fibrous elements. The adhesions are composed of masses of fibrous tissue, formed from the fibroblasts, from the sclerotic vessels, and from follicles with a fibrous center. The fibrous form of the disease represents the spontaneous development of the tubercle towards cure, and may present itself as: (1) A purely fibrous form, the dry fibrous form, or a better term, the fibroadhesive form; and (2) the fibrous form with ascites. The fibroadhesive form is characterized by the substitution of fibrous tissue for the caseous tissue. The protoplasm of the epithelial cells disappears and is replaced by an indefinite granular substance with a small enveloping membrane. Some of these cells disappear, others become fusiform and are called fibroblasts. It is at the expense of these cells that the new connective tissue is formed. At the same time, the subperitoneal connective tissue proliferates and forms vascular granules composed of embryonic cells that grow towards the surface of the serous membrane, where they become covered by endothelial cells. These growths cause the different layers of the peritoneum to adhere and they also play a part in the absorption of the collected fluids. Solid, contractile adhesions form, and at the same time that they produce encysting of the tubercles, may result in adhesions between the intestine and the abdominel wall. In the ascitic form the lesions are usually fibrous, and are situated principally on the omentum. The fluid is different chemically from that due to cirrhosis of the liver. It sometimes contains the bacilli. [J.M.S]

2.—At a meeting of the Académie de Médecine, held March 28, 1899, Gilles de la Tourette read a paper in which he showed that it was possible, by means of **percussion of the skull,** to determine the thickness of its wall, which is an important thing to know when one wishes to operate upon the skull. The percussion may be done with a small hammer or directly with the finger, the subject having the mouth closed. The author reported 5 cases of trephining in which he was able to verify his opinion, and that showed that the tone of the cranium varies with its thickness, being clearer when the wall is thin and less clear when the wall is thick. On the other hand, percussion will not furnish information concerning the condition of the soft parts contained within the skull. [J.M.S.]

3.—At a meeting of the Société de Chirurgie, held March 22, 1899, Monod reported the case of a patient suffering from **hypertrophy of the prostate,** with acute retention of urine. After 3 days, during which time it was impossible to catheterize the patient, Monod tapped the bladder and was finally able to introduce a sound, that was tied in, but was badly borne by the patient. He then **ligated the vessels of the spermatic cord** and soon the sound ceased to cause discomfort to the patient. Several days later normal micturition was established. The testicle was slightly atrophied, but did not present indications of gangrene. The apparent harmlessness of this operation may be explained by the fact that the artery of the vas deferens not being included in the ligatures, carries nutrient blood to the testicle. [J.M.S.]

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.

Medical Treatment of Movable Kidney.—Stengel (*University Medical Magazine*, September, 1899) believes that the inclination of writers to condemn the abdominal belt and pad as useless, is partly due to misdirection in the making of the belt. On account of the shape of the kidney and the direction of its peritoneal attachment, the movability of the kidney is not directly upward and downward, but from the right above to the left below; hence the tendency is to exert pressure upon the duodenum and pylorus. A pad to be effective should be so shaped and applied as to make pressure upward, backward, and towards the right. The form of pad frequently used presses upward and backward, and as a resultant of the two forces—the kidney tending to fall forward and to the left—the organ is pushed farther towards the duodenum than normally, and the symptoms are increased rather than relieved. Stengel suggests a roughly kidney-shaped pad, having a concave upper border, when the pad is about ½ inch thick, a convex lower border when it is as much as 1½ inches thick in some instances. It should be soft, but firm, and leather-covered. The greatest length should be about 3 inches, the greatest width about 2½ inches. This pad is placed so that the concave border faces upward and toward the right, lying a little below the line passing from the umbilicus to the anterior superior spine of the ileum, and facing upward toward the tip of the eighth rib. The pad is held in place by an abdominal belt of knitted silk or cloth, secured with perineal straps, and makes a gradual and uniform pressure in the right direction. This support has given marked relief in 4 cases cited by the author.

Belladonna in the Bronchopneumonia of Children.—Hodghead (*Pedriatics*, September 1, 1899) reports a grave case of pneumonia in a child, in which after failure with the usual remedies, marked improvement followed the exhibition of a half-grain of calomel, every hour until the bowels were moved, and two drops of the tincture of belladonna every hour. In 24 hours the improvement was so marked that the belladonna was gradually decreased, and the child made a rapid recovery. Based upon this case, a series of experiments was begun, with the result that in 25 cases of his own, and in 5 in the practice of other physicians, there were 28 recoveries. The writer concludes that calomel should be used in small doses until a cathartic effect is secured; that belladonna in small doses is mildly narcotic, and brings about a condition more comfortable to the child; that it is a heart-tonic; that it is a respiratory stimulant; and that it produces dilatation of the superficial capillaries, and relieves the congested lungs. The most important influence, however, is that it diminishes the secretion in the bronchi and the pulmonary tissues. To be effective it has to be used every hour or two until the desired result is obtained. The drug has not been found effective in the beginning of the disease, but becomes especially applicable when the bronchial secretion is abundant.

The Therapeusis of Salipyrin in Gynecology.—Beuttner (*Centralblatt für Gynäkologie*, No. 37, 1899, quoted by the *University Medical Magazine*) reports the results of his experiments on rabbits and frogs to determine the therapeutic influence of salipyrin. He also considers the experience of other authors with this drug and its indications. Salipyrin, he believes, is indicated as follows: (1) In menorrhagia (with or without disease of the adnexa); (2) in metrorrhagia (with or without disease of the adnexa), when not due to carcinomatous processes, large tumors, labor, or abortion; (3) in climacteric hemorrhages; (4) in hemorrhage after labor or abortion (endometritis post abortion); (5) in threatened abortion; (6) in dysmenorrhea; (7) in uterine disturbances, which are neuralgic or appear periodically; also in all menstrual disturbances, when no organic disease of the uterus is present; (8) in premenstrual and menstrual psychical depression.

The Treatment of Uremia.—Hare (*Pennsylvania Medical Journal*, October, 1899) notes that when uremia is well marked hypodermocylsis of normal saline solution will oftentimes produce excellent results. The treatment is more effective when the uremia is due to chronic contracted kidney, than when it is due to parenchymatous nephritis, and when dropsy is marked it is most valuable. In plethoric patients or others with high arterial tension, venesection is often advantageous. As regards the contradictory views concerning the use of morphin in uremia the author believes that the contradictions are rather more apparant than real. Uremia is the result of a complex poisoning. In some instances poisons seem to be present which powerfully depress the nervous system, in others their effect seems to be that of irritation. Probably those cases which have been greatly benefited by morphin are cases in which the sedation of the nervous system produced by the drug is beneficial, whereas in those cases in which this condition has not been present the use of morphin has simply increased nervous atony. On the other hand, Sir George Johnson has recorded instances in which in his opinion morphin had caused rapidly recurring and ultimately fatal convulsions, perhaps by diminishing the excretory work of the kidneys and producing constipation, and in Nestor Tirard's recent book upon renal disease he uses these pregnant words in regard to the employment of morphin: "I have always refrained from the use of a drug which might produce present comfort at the cost of the life of the patient." In conclusion, Hare argues that the question of the administration of morphin must be decided in each individual case, and that it cannot be ordered for or denied to every patient who presents this grave malady.

The Treatment of Tuberculosis.—Flick (*Pennsylvania Medical Journal*, October, 1899) believes that a great deal can be accomplished by drugs when they are judiciously chosen and used. He has found iodin the most valuable remedy. He uses it in the form of europhen, and gives it by inunction. One teaspoonful to a tablespoonful of the following ointment he directs should be rubbed into the armpits and inside of the thighs once or twice a day:

℞.—Europhen	1 dram.
Oil of rose	1 drop.
Oil of anise	1 dram.
Oil of olives	2½ ounces.

A long experience with this treatment has convinced him of its value. It should be kept up for a long time, even after all symptoms have disappeared. Creasote, he believes, is especially valuable in the more advanced stages of the disease. He gives it in ascending doses until the patient takes 40 to 50 drops three times a day. He prefers to give it before meals, believing that it stimulates the appetite. He finds that hot water is the best vehicle, and the draught of water is increased with dose of the creasote, so that the maximum dose of the latter is taken in about a pint of water. In this way the drug can be taken without inconvenience. To the third place, as regards efficiency of drugs, he assigns strychnin. Other remedies that are sometimes useful are arsenic, digitalis, mercury, both in the form of calomel and corrosive sublimate, belladonna, muriate of ammouia, aromatic spirits of ammonia, nitroglycerin, the mineral acids and vegetable tonics. Nitroglycerin he has found useful in checking hemmorhage, and muriate of ammonia for stimulating the secretions of the bronchial glands. He has for some time used a modification of antitoxin treatment, which seems to have given good results. He places an ordinary fly-blister over the affected lung front or back and allows it to remain in place about an hour. He then has the plaster removed and the skin washed with warm water. In the course of a few hours a large vesicle raises, and as the epidermis has not been broken, the serum is retained, and in 24 hours is reabsorbed. During the process of reabsorption chills, feelings of malaise, and some fever are liable to occur, and the picture of the clinical symptoms is very similar to that described as occurring after the injection of antituberculin. He believes that benefit follows the application of a blister in this way, and that the benefit is greater than is obtained by the ordinary method of applying a blister.

A Recent Pronouncement on Ether.—*The British Medical Journal* of October 21, 1899, quotes from Teale's article on ether in the recently-issued *Encyclopedia Medica*, presenting the writer's views of the subject as an operating surgeon. Mr. Teale, after 20 years' experience with chloroform, adopted ether, and now after two more decades in

which he has used that anesthetic affirms unhesitatingly that ether is safer, and, if properly given, quite as serviceable as chloroform. He has found ether wholly satisfactory in abdominal surgery, in throat work, and for young children and aged persons. The two stock objections urged by those who use chloroform in preference to ether have recently been its after-perils, that is bronchitis, pneumonia, etc., and the less profound narcosis, which causes rigidity, hurried breathing, and so on. These, Mr. Teale's experience goes to show, are more theoretic than real. He has never seen ether-bronchitis, and agrees with those anesthetists who regard it as being most rare, and, when present, commonly due to exposure of the patient to cold before, during, or after the operation. That surgeons like a patient to be profoundly anesthetic is natural, but whether the condition, always one of extreme risk, is often desirable from the patient's point of view seems fair matter for argument.

Rectal Injections of Sodium Cacodylate.—Renaut (*Bull. de l'Acad. de Méd.*, No. 22, 1899) finds that the rectum is very tolerant of arsenic when it is given in the form of solutions of sodium cacodylate. The latter is a stable preparation, is very soluble, and contains nearly 47% of metallic arsenic. The writer suggests the following solution:

℞.—Sodium cacodylate.....4 to 6 grains.
Water.....6½ ounces.
Sig.—80 minims three times a day.

The drug can be given hypodermically in doses of ¾ to 1⅕ grains a day, without the slightest irritation, but Renaut prefers rectal injections since the patient can administer them himself. He has found the drug of great value not only in neurasthenia, chorea, and as an aid to the bromids in epilepsy, but also in the early stage of phthisis, in exophthalmic goiter, diabetes, and leukemia. In a case of leukemia the author noted, after less than 5 months' treatment with sodium cacodylate, a marked reduction in the size of the spleen, an increase in the number of red cells from 600,000 to 3,200,000 per cubic millimeter, and a decrease in the number of white cells from a proportion of 1 to 4 to 1 to 18.

Cocainization of the Spinal Cord.—Bier (*Deutsche Zeitschrift für Chirurgie*, April, 1899) reports the results of certain experiments undertaken to determine the practical utility of rendering large areas of the body anesthetic by injecting into the subdural space of the spinal cord, after the method of Quincke, minute quantities of cocain. After the injection of $\frac{1}{12}$ to $\frac{1}{6}$ of a grain, he was enabled to perform certain major operations painlessly, such as resection of the ischium, and resection of the knee and ankle joints. In several instances, however, untoward symptoms resulted, such as headache, nausea, and vomiting, which persisted for several days. To estimate the gravity of these symptoms, Bier injected into himself and into Hildebrand $\frac{1}{12}$ of a grain of cocain. Anesthesia developed in about 5 to 10 minutes and lasted for nearly ¾ of an hour, when sensation slowly returned. The after-effects, however, were severe in both instances, Bier being confined to bed for several days.

A Local Application for Rheumatism.—Arendt recommends:

℞.—Salicylic acid ..... ½ ounce.
Oil of turpentine ..... ½ ounce.
Lanolin ..... ½ ounce.
Lard, to make ..... 3 ounces.

Treatment of Occupation-Neuroses.—The London correspondent of the *Therapeutic Gazette* for October 15, 1899, calls attention to a paper on this subject read by Short at a recent meeting of the Midland Medical Society. The author contends that it is idle to enjoin complete rest to a class of patients for whom such is an impossibility, for pecuniary reasons, and complete rest is only essential in the early stages, when pain is present. Such pain is best relieved by the local application of belladonna, and by rest. After the relief of pain the most important point is to keep up the nutrition of the muscles by passive movements and electrization, at the same time encouraging in the patient a confident hope of recovery, as in most of these cases a powerful mental influence is at work. Active muscular exercise of some kind should be insisted on, such as carpentering, or knitting, so as to maintain the power of the hand muscles, while at the same time giving relief from the actual work of writing. Care, too, must be bestowed on the actual mode of writing; this will usually be found to be cramped and throwing all the work on the small muscles of the hand. Writing from the shoulder should be studiously cultivated, and this can be best affected by writing large letters on a blackboard or a sheet of paper on the wall; the position of writing necessitates then the use of the shoulder muscles. Twenty minutes of this exercise twice a day is sufficient at first. With these precautions carefully obeyed, some amount of writing may usually be permitted to the sufferer in his daily occupation. Here, too, much can be done by attention to details. The table should not be too high for the chair, or undue pressure will be exerted on the ulnar border of the forearm and irritate the ulnar nerve. A thick penholder is better grasped than a thin one, and it should not be unduly light, as this diminishes its momentum in writing. Ball-pointed or quill nibs are the best, but a quill pen is too thin for an easy grip. The study of shorthand is a very excellent training of the muscles of the hand, and may be of commercial value to the patient. It is a first-rate training of delicate movements, and it is a familiar fact that shorthand writers are singularly exempt from writer's cramp. Over and above this, all such measures are indicated as promote well-being of mind and body.

Gout with Uric Acid Gravel.—

℞.—Lithium benzoate } of each..... 15 grains.
Lithium bicarbonate }
Potassium bicarbonate..... 20 grains.
Carbonic acid water ..... 1 pint.
Mix and dispense in a siphon—2 pints daily.

—H. C. WOOD.

Formalin in the Treatment of Otorrhea.—Cipriani (*Therapist*, October 16, 1899) reports 10 cases of otorrhea in which he secured prompt relief from injections of a 2% formalin solution and insufflations of eka-iodoform. He concludes that the results obtained with formalin were doubtless not due to early treatment, as the cases were chronic; nor could it be said that the cases were specially favorable for treatment, because the patients had passed through various other treatments without result. He is convinced that the cure was solely due to the formalin, which always acts favorably, and possesses, besides its antiseptic properties, the capability of making the parts unsuitable for the development of any pathogenic germs. In all the experimental and clinical cases the formalin assisted healing, protected against excessive granulation, improved the hearing, and, lastly, caused a return of the hearing in certain obstinate cases of otorrhea.

A New Lubricant for Genitourinary Work.—Ruggles (according to *Merck's Archives*, October, 1899) recommends for use in private practice the lubricant suggested by Kraus. The following advantages are claimed for it: (1) It is inexpensive; (2) it is soluble in water, and therefore, instruments are readily cleansed. On this account it is particularly advantageous for endoscopic work, as it leaves no film on the prism. (3) It is nonirritating. (4) It remains aseptic even when left uncovered for hours. The lubricant is prepared as follows:

℞.—Gum tragacanth.....48 grains.
Carbolic acid (95% solution).....50 minims.
Glycerin..... 3 drams.
Water to make 4 ounces.

Mix the latter three constituents, pour the resulting liquid upon the gum in a mortar and let stand over night. The next day triturate with a pestle until a homogeneous mass is found. It can then be used from an ordinary ointment jar.

Argentamin in Gonorrhea.—Williams (*Memphis Medical Monthly*, July, 1899) reports a number of cases of gonorrhea in which he obtained excellent results from injections of hydrogen peroxid and solutions of argentamin. The former was used in ½ strength, and was followed by a solution of argentamin, the strength of which was 1 to 3000 or 1 to 2000. The writer concludes that argentamin is superior to other preparations of silver, and should be used only in fresh solutions, of not less than 1 to 3000 strength.

Original Articles.

MAMMARY GLAND THERAPY IN GYNECOLOGY.

BY JOHN B. SHOBER, A.M., M.D.,

of Philadelphia.

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THE value of the animal extracts as therapeutic agents is gradually becoming recognized in many branches of medicine, and gynecology has already claimed several of them as possessing particular usefulness in its sphere. The most important of these are the thyroid gland, the ovaries, the mammary gland, and the parotid gland. It must not be forgotten that the theory upon which these remedies are used is not by any means a new one, for, as has been mentioned by a number of writers, we are told by Pliny that the ancient Greeks and Romans were in the habit of eating the testicles of donkeys as a remedy for impotence, and I have recently heard from an African explorer that he knows of tribes which have long practised a certain form of cannibalism upon slaves and captives for the same reason. We must also bear in mind that pepsin, pancreatin, oxgall, beef-blood, bone-marrow, etc., are all animal extracts, and that they have long been known as highly valuable therapeutic agents, so that the recognition of the usefulness of extracts of other parts of the animal economy, including the ductless gland series, may be looked upon as a natural sequence of thought.

The brilliant series of biologic experiments from which we have obtained our knowledge of thyroid therapy is largely responsible for similar investigations in connection with other glands. It is not the object of this paper to trace the stages by which we have arrived at our knowledge of the indications which call for the use of these preparations, nor is it intended to discuss the many theories which have been advanced to explain their usefulness. The general principle that not only the general system but also the healthy metabolism of the several glands, depends upon the presence and healthy action of one or more of these glands is acknowledged. This is very strikingly shown in the complex symptoms following the removal of the thyroid in dogs, first pointed out by Schiff in 1859 and later by Reverdin and Kocher, who, in 1882 and 1883, described cachexia strumipriva or operative myxedema in man.[1]

Then followed the well-known implantation experiments by Schiff (1884), Birchner (1890), Horsley (1890), and others, by which the development of myxedema was prevented in thyroidectomized animals by grafting in the peritoneal cavity the thyroid from a healthy animal, and cases of myxedema and cretinism in man were cured by implanting the thyroid of healthy sheep.

George B. Murray[2] reported that he had prepared and injected subcutaneously a glycerin extract of thyroid into a patient with myxedema with marvelous result. The news spread rapidly and the experiment was repeated many times with uniformly favorable results. Then came reports of the successful use of the thyroid gland given by the mouth by Horwitz,[3] Mackenzie,[4] and Fox.[5] The value of the thyroid gland in psoriasis and other skin affections was soon recognized and further study revealed the fact that the active principle of this gland is a powerful lymphatic stimulant, and it came to be used with much success in cases of obesity. It was soon recognized that it acts as a decided depressant to the heart, producing tachycardia and great nervous depression, especially if used in large doses over long-continued periods of time. Its action in psoriasis and myxedema proved it to have a decided beneficial action upon epithelial structure wherever found. This fact seemed to give the hint for its use in gynecology, and it soon began to be used for its influence upon the endometrium in cases of menorrhagia, and many favorable results were reported.

When given in cases of metrorrhagia and menorrhagia associated with fibroid tumor of the uterus, it was found in most cases to act very happily, and in many of them it is reported that the fibroid tumor diminished in size. Jouin, while employing thyroid gland in a case he was treating for obesity, who also had a fibroid tumor of the uterus, discovered at the end of 12 months that the fibroid had shrunk from two inches above the umbilicus to one inch above the pubes.

At the meeting of the American Gynecological Society held in Boston last May, a report on the use of thyroid gland for fibroids of the uterus was made by Dr. William E. Moseley, and a discussion followed in which Mann, McLean, Duer and Fry reported very encouraging results in a number of cases. Moseley reported five cases of uterine fibroids so treated and stated that in all of them the excessive flow was diminished, in some of them the menstrual flow became normal in amount and character, and in certain cases the treatment was followed by diminution in the size of the growth, and in all, the general health of the patients improved. He also presented a report by Dr. E. L. Whitney, upon the physiologic action of thyroid-gland feeding. In summing up his report Whitney says that the action of the gland may be due to stimulation of the tissues composing the fibroids with resultant absorption, or to an increase in the oxidizing power of the blood, with absorption of the fibroid as a secondary result.

Dr. William M. Polk[6] reports a series of cases in which thyroid extract was used in the palliative treatment of uterine fibroids. In the majority of cases improvement was noticed, the greatest in those that took the remedy longest. The manifestations were: (*a*) control of the menstrual flow; (*b*) arrest of the growth, and, in some cases, diminution in the size and apparently soft-

ening of the tumor; (*c*) disappearance of pain and diminution of tenderness in the growth, and also of the sense of abdominal and pelvic distention, with increase in muscular and nervous energy; (*d*) betterment of the general nutrition, manifested at first by slight loss, and then by return, of flesh; improved state of the skin, hair, and nails, and in the substitution of a good color for the appearance of anemia. It is believed that the nearer the growth approaches the type of pure myoma as distinct from fibromyoma, the better the ultimate result. One patient showed a tendency to pseudomyxedema during the use of the drug. Tachycardia was the troublesome symptom in all, but in none was it excessive.

The influence of the thyroid gland upon epithelium led Dr. Bell[7] to use it in cases of epithelioma of the cervix with astonishing results. Bell states that epithelioma would seem to be the result of an aberrated condition of the matrix of the epithelium, the consequence being that abnormal instead of normal cells are generated, and their proliferation increased *pro rata*. The same symptoms are manifest in myxedema, which is usually accompanied by metrorrhagia to a greater or less extent. When this disease is treated by means of the thyroid gland the epithelium is restored to health, and, as a consequence, the hemorrhage ceases. Bell also points out that thyroid hypertrophy in pregnant women often undergoes retrogression, and such observers as Bouilly, Tuffier, Guinard, Picque and Bloch have observed thyroid tumors to disappear, or at least to considerably diminish after extirpation of the pelvic organs. All this goes to show an intimate relation existing between the thyroid gland and the genital organs.

From what has been said it will be seen that thyroid gland, while increasing the oxidizing power of the blood, acts as a powerful lymphatic stimulant, and has a marked action in restoring diseased epithelial and connective-tissue structures wherever found, as shown in myxedema, obesity, psoriasis and other skin lesions, and most strikingly in epithelioma of the cervix, as pointed out by Bell.[8]

It would seem, therefore, that the results obtained in cases of fibroid tumors are due primarily to the action of the gland upon the endometrium and utricular glands, restoring them to such a normal condition that the excessive flow ceases, and in many cases menstruation becomes normal. The general health of the patient improves, and by reason of the diminished congestion of the uterus during the menstrual flow, the growth of the tumor is retarded, and, in a few cases, they even decrease in size, for some reason we do not as yet understand. The writer has found it difficult to reconcile the happy results alluded to above with his own experience in the use of thyroid gland in cases of fibroid tumors of the uterus.

In a few cases of menorrhagia, when the treatment covered a period of only 6 or 8 weeks, he has met with more or less success, but the use of this gland, except in the smallest doses, has always been accompanied by nervous depression, tachycardia and marked cardiac irritability, so that he has come to look upon it as a drug calling for the most careful watching during its use, and necessitating reinforcing treatment by means of cardiac stimulants. Since the treatment of each case of fibroid tumor by this means must necessarily cover long periods of time, the above considerations would seem to outbalance any advantages which we might hope for, so that in the opinion of the writer myomectomy or hysterectomy is to be preferred.

THE MAMMARY GLAND.

The value of *mammary gland* as a therapeutic agent in cases of metrorrhagia and menorrhagia and in fibroid tumors of the uterus was first pointed out by Dr. Robert Bell, and referred to by me in a paper[9] read before the Section on Gynecology of the College of Physicians of Philadelphia, in May, 1898; also in a short paper[10] read at the twenty-third annual meeting of the American Gynecological Society, held at Boston, May, 1898. In these papers I reported 4 cases of uterine fibroids treated by means of mammary-gland desiccations, in all of whom very unusual results had been obtained. The length of time these patients had been under treatment varied from 2 to 4 months. They were all under the age of 35 years, and therefore the menopause cannot be said to have had any influence upon the results obtained; the tumors were all decreasing in size, the menorrhagia and metrorrhagia had ceased, and the menstrual periods had become regular and normal, the general health of each patient was improving and no untoward systemic effects had been observed. When given in large doses the preparation seemed to produce cramps and contracting pains in the tumors. In one case, which was carefully observed, the tumor seemed to grow smaller and contract during the paroxysm of pain. One of these cases has been lost sight of, but the other 3 have continued the treatment during the past year. The tumors have undergone a very positive and decided diminution in size, the menstrual periods have continued regular and normal without pain or clots, and there is no leukorrhea. In addition to a continuation of the reports of these cases, I desire to add to them a report of 5 other cases of uterine fibroid treated by the means of mammary-gland desiccations during the past 12 months.

For the sake of brevity and in order that the salient feature of each case may be seen at a glance, it has been thought best to tabulate them as follows:

A careful study of these cases will show that only the most general conclusions can be drawn from them. The results, however, have been so uniform that it seems fair to conclude that under the influence of mammary-gland feeding, when given in proper doses,

Case.	Name.	Age.	Social State.	Began Treatment.	Time Under Treatment.	Description of Tumor Before Treatment.	Tumor at Present.	Menses Before Treatment.	Menses During Treatment.	Remarks.
1	M. W.	32	Secundipara. White. Last pregnancy 3 years ago.	Dec. 14, 1897.	15 mos.	An immovable, globular, impacted fibroid, rising above level of the umbilicus, extending into both flanks, concealing the anterior superior spines of ilii. Girth 37 inches. Perpendicular measurement 7½ inches. Lateral measurement 10½ in.	A freely movable, irregular, multinodular fibroid; rising to within 2 inches of umbilicus. Spines of ilii easily defined. Girth 30 inches. Perpendicular measurement 5½ inches. Lateral measurement 8½ inches.	For two years past has always anticipated 3 to 7 days. Profuse flow with clots and dysmenorrbea for 6 to 10 days.	Always regular, 3 days, amount normal, no clots, no pain.	For preliminary report of cases 1, 2, 3, 4 see *American Journal of Obstetrics*, Vol. xxxviii, No. 3, 1898. General health greatly improved. Had been aware of a tumor for 1½ years.
2	L. G.	32	Single. Colored.	Jan. 13, 1898.	14 mos.	An irregular, not freely movable, multinodular fibroid; rising on the right side 2 inches above the line of the umbilicus. Bulk of tumor on the right side. Girth 29¾ inches. Lateral measurement 9½ inches.	The tumor is now two-thirds its former size, freely movable, rising on right side to the level of umbilicus. Girth 27 inches. Lateral measurement 8¼ inches.	For 2 years dysmenorrhea, menorrbagia, metrorrhagia. Flooding every 2 weeks for 6 or 7 days. She was anemic and rapidly losing strengtb.	Regular, lasting 5 or 6 days, free, not profuse, no clots. Slight pain on first day.	General health improved. Had been aware of a tumor for 4 years. Was kicked in the abdomen 6 years ago.
3	M. D.	33 Colored.	Primipara.	Nov. 26, 1897.	16 mos.	Two small nodules on left lateral wall near fundus. A pear-shaped peduneulated nodule, 4 inches long by 2½ inches broad, rising from fundus. It is freely movable and bulges the right inguinal eanal. She was wearing a truss for rupture.	Examined March 22, 1899, under chloroform. The two nodules on left lateral wall eannot be felt. The large nodule has shrunk about one-half and no longer bulges the inguinal eanal.	For 2 years past anticipates 3 or 5 days, lasting 4 or 5 days, profuse, clots, pain before and during.	Every 28 days for 3 days. Amount normal, no clots, no pain.	General health improved.
4	R. Y.	34 Colored.	Primipara.	April 2, 1897.	2 mos.	A freely movable multinodular fibroid, rising to within 1½ inches of the umbilicus.	No change.	For one year past anticipates 3 days. Very profuse 3 days. Often a showing during the interval for 2 or 3 days. Always clots and pain before and during.	First regular period 2 days early for 3 days, not so free, less pain, no clots. Second period one day early, 3 days, less free, no pain, no clots.	General health improved.
5 Vol. i, p. 355.	L. C.	35	Married. Nulliparа. 2 miscarriages.	May 31, 1898.	2 mos.	A dense, globular, not freely movable fibroid, rising to level of umbilicus. Girth 33 inches. Perpendicular measurement 8 inches. Lateral measurement 10½ in.	Examined July 2, 1898. Tumor is more freely movable, the lobules are becoming defined.	For 2 years past regular, but profuse with clots, and severe dysmenorrhea. Flow lasts 10 to 14 days. April 29 for 10 days. May 26 for 9 days. Began treatment during this period. Always goes to bed during first and third day.	June 24 for 7 days. Amount less, no clots, much less pain, did not go to bed. July 20 for 7 days. Amount less, no clots, only slight pain. Is able to be about and is much encouraged about herself.	Did not return for treatment.

CASE.	NAME.	AGE.	SOCIAL STATE.	BEGAN TREATMENT.	TIME UNDER TREATMENT.	DESCRIPTION OF TUMOR BEFORE TREATMENT.	TUMOR AT PRESENT.	MENSES BEFORE TREATMENT.	MENSES DURING TREATMENT.	REMARKS.
6 Vol. i, p. 356.	F. D.	36	1 miscarriage 5 years ago.	Sept. 23, 1898.	5 mos.	Two nodules size of golf balls on anterior face of uterus below the fundus. Pressure by these tumors on the bladder causes constant vesicle irritation. Frequent micturition through the day and 5 or 6 times at night.	Examined under chloroform February 28, 1899. Tumors are about one-third smaller and feel very hard.	For 1 year past anticipates 1 week or 10 days. Flow lasts 6 days, profuse, clots, pains before and during. Irritable bladder for two years, worse during period. September 25, for 6 days, profuse, clots, pain. October 17 for 5 days, 1 week early. Frec, clots, pain.	November 12, for 3 days, 3 days early, less pain, no clots. Vesicle irritation about the same. December 8, for 4 days, 1 day early, scanty, no pain. Vesicle irritability less. January 2, for 3 days, 3 days early, slight pain, no clots. She has not taken her tablets for 10 days. January 25, for 3 days, 5 days early. Failed to take tablets for 2 weeks. No pain, no clots. February 19 for 3 days, 3 days early. Amount normal, no pain, no clots.	General health improving. February 23, 1899. Much less vesicle irritability. Seldom rises at night.
7 Vol. i, p. 364.	M. K.	24 Colored.	Primipara. 3 miscarriages.	Oct. 15, 1898.	4 mos.	Mass on left side moves with uterus, size of baseball, irregular in outline, rises 2 inches above pubes, freely movable.	No change except that the mass seems more freely movable.	For 1 year past menorrhagia, metrorrhagia, dysmenorrhea, duration 5 to 7 days, profuse, clots. September 7 for 4 days, profuse, clots, pain. September 18 for 6 days, profuse, clots, pain. Went to bed. October 11 for 5 days, profuse, clots, pain. Began treatment.	November 2 for 3 days, profuse, clots, pain. November 23 for 3 days, a few clots. Amount less, pain less. November 31 for 6 days, less free. Has neglected tablets for 2 weeks. December 22 for 3 days, free, no clots, only slight pain. January 19, 1899, for 2 days, on time, free, no clots, no pain. February 16, for 3 days, on time, free, no clots, no pain.	General health improved.
8 Nov. 28, 1898. P.	E. P.	28 Colored.	Primipara, 7 years ago.	Dec. 2, 1898.	4 mos.	Examination under ether. Interstitial fibroid, size of lemon, on left side. Two small nodules at angle of flexion on right side. Uterus measured 3¾ inches. Os patulous. Uterus cureted.	Examination under ether March 23, 1899. The nodule on left side is smaller and harder. Uterus measures 3 inches.	Puberty at 12 years. Dysmenorrhea always. Since labor always irregular, lasting 7 to 10 days, profuse, clots, pain, takes morphia. October 2 for 3 days, profuse, clots, pain. October 29 for 9 days, 1 day early; profuse, clots, severe pain. November 28 for 7 days, 2 days late, great pain, profuse, clots. Always obliged to go to bed for one or two days.	December 29 for 3 days, 3 days late, pain less severe, less free, a few clots. January 28 for 3 days, 2 days late. Scanty, no clots, sharp pain for a few hours. February 25 for 4 days, on time, free no clots, "less pain than for many years." March 23, 5 days, 2 days early, scanty, no pain until 25th. Was free for 12 hours with some pain.	General health improved.
9 Nov. 1, 1898. P.	M. D.	37	Single.	Nov. 21, 1898.	4 mos.	Examination under ether November 18, 1898. Two small fibroid nodules, size of cherries; one at angle of cervix on left side; the other on fundus at right cornua. Uterus measured 3¾ inches.	Examination under ether March 22, 1899. Nodules present but smaller. Uterus measures 3 inches.	For past 18 months anticipates 5 to 10 days. Duration 4 days. Amount free, clots at times Severe pain 2 days before and during. November 7 for 4 days, 1 week early. Much pain day before and first and second days, a few clots, 2 napkins a day.	December 1, 4 days as usual. December 29 for 3 days, freer than usual, much less pain, no clots. January 23 for 3 days, 3 days early, free, no pain, no clots. February 20 for 3 days, on time. Not so free as usual, no pain. March 19 for 3 days, 1 day early. Normal.	General health improved.

the metrorrhagia and menorrhagia cease, the menstrual periods tend to become regular and normal, and as a result of the cessation of excessive flow, the general health of the patients improves, also that the tumors diminish in size in cases who continue faithfully a lengthened course of treatment. As to the possibility of the entire disappearance of a fibroid tumor of the uterus under this method of treatment, the reader is referred to Case 3, in which was noted the disappearance of 2 small nodules on the left lateral wall near the fundus 4 months after beginning treatment. The preliminary examination was made under ether, and the presence of these nodules was undoubted. They have not returned, and a third large nodule diminished steadily in size until the patient neglected treatment for several months; it increased again to its original size, and all her symptoms returned. Upon renewing treatment the symptoms at once came under control and the tumor again began to diminish in size. There has been no constitutional or systemic disturbance throughout the course of treatment in any of these cases, and, as has already been pointed out, the only unpleasant effect from large doses of the mammary gland, is the resulting cramp and contracting pain in the tumor or uterus.

In addition to these 9 cases of uterine fibroid treated with mammary gland, I have employed this agent in the treatment of about 20 cases of menorrhagia from various causes; also in a number of cases of subinvolution of the uterus.

A detailed report of the history of each of these cases would be tedious. In general, the results have been more than satisfactory. As an example of one of the types treated, might be mentioned a case of long-standing dysmenorrhea associated with profuse menorrhagia lasting 6 to 10 days. The patient had been married 7 years and was sterile. Upon examination the uterus was found to be slightly enlarged and anteflexed, the cervix congested, the os small and the adnexae normal. She was placed upon four mammary tablets a day, and gradually the menses became regular, the amount normal and the pain greatly diminished. She is still under treatment and improving,

In a case of subinvolution in which the uterine measurement 4 months after labor was 4 inches, the patient had been flowing 10 days when she applied for treatment. In 2 days the flow ceased; the next period was 2 days early and lasted 6 days. At the end of 8 weeks the uterus measured 3 inches. Menstruation has since been regular and normal, lasting only 4 days.

The mammary-gland desiccation employed by me is from the sheep. It is put up in tablet form, each tablet containing 2 grains of the desiccated powder, and each grain of the powder is equal to 10 grains of the fresh gland. The dose is 3 to 6 tablets daily.

From what has been said it would seem that mammary-gland feeding has some beneficial influence upon morbid conditions of the uterus associated with menorrhagia and metrorrhagia, and that it causes a reduction in the size of fibroid tumors. Such being the case, we have an agent which will enable us to place many of these cases in a more favorable condition for operation, and it would seem to be especially indicated after myomectomy in order to prevent development of interstitial nodules which may have escaped attention at the time of operation.

The well-known physiologic relationship existing between the mammary gland and the uterus as shown in pregnancy and lactation is the consideration which first led Bell to use this agent. We know that upon the approach of puberty the breasts develop rapidly, that manipulation of the nipples stimulates the sexual sense, that during sexual excitement the nipples become erectile, that during pregnancy certain marked changes take place in these glands, that during the first weeks of the puerperium lactation aids materially in causing involution of the uterus, and that during the act of nursing her child the mother experiences frequent and sharp after-pains. These considerations, taken in connection with the fact mentioned above, that large doses of mammary gland cause contracting pains in the uterus, seem to indicate that the mammary gland has a positive influence upon the contracting power of the uterus, either directly upon the uterine muscle or upon the nerve-supply. The active principle of the mammary gland is probably a nuclein. Sturrock of Edinburgh[11] says, that there is a nucleo-proteid in the cells of the mammary gland which is of a highly complex constitution, containing a nuclein, a carbohydrate and proteid radicle. It may be the antecedent of caseinogen and lactose. It contains a true nuclein, whereas caseinogen is a pseudonucleoalbumin. The nuclein bases are not excreted, but seem to remain in the gland, probably in the nuclei of the cells, as active agents in the formation of more mother substance.

These neuclein bases, which Sturrock says are not excreted, may possibly contain the active principle upon which depends the usefulness of the gland when employed as a therapeutic agent.

We have now seen that both the thyroid and the mammary glands not only have a close physiologic relationship with the uterus, but also that in diseases of the uterus associated with hemorrhage, and especially in fibroid tumors, they are valuable therapeutic agents, checking the hemorrhage and in many cases causing the tumors to decrease in size. While accomplishing the same result the *modus operandi* appears to be entirely different. The *thyroid* acts upon the epithelium of the utricular glands, restoring them to a state of health. Being a powerful lymphatic stimulant and a blood-oxidizer it may possibly promote absorption, thus accounting for the decrease in size, reported in some cases; but it is also a cardiac irritant and a nervous de-

pressant, and must therefore be used with caution. The *mammary* gland seems to act upon the uterine muscle either primarily or through its nerve-supply, increasing its contractile power, and thus diminishing the blood-supply to the endometrium and to the body of the tumor. The congestion being thus relieved, the endometrium is restored to a normal condition and the tumor gradually shrinks. Much experimental work is to be done, and observations upon a large series of cases must be made before we can determine the relative value of these two agents.

Since the mammary gland gives rise to no untoward systemic effects, and the results obtained by it have been uniform and satisfactory, I prefer it to the thyroid. The thought has naturally arisen whether the combined use of the mammary and thyroid glands might not be even more satisfactory than either of them employed alone, and a series of cases are about to be so treated.

Before closing, a word of caution is important. Not all cases of uterine fibroid with metrorrhagia and menorrhagia are suitable for this treatment. They must be most carefully selected and during treatment constantly watched or else much harm may be done, and valuable time lost in cases requiring operation.

The diagnosis must be accurate and therefore should be made with the patient under an anesthetic. Fibroids which have undergone cystic degeneration or malignant change, or which by pressure have caused or threaten to cause kidney or other complications, also submucous fibroids, and certain fibroids associated with cystic degeneration of the ovaries, are operative cases, and do not come under the class above considered. Also in the cases of metrorrhagia and menorrhagia we select for this treatment we must be sure that there is no condition which requires immediate operation, such as retained secundines, malignant adenoma, carcinoma of the fundus, etc.

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A Melon-seed in the Left Bronchus for Over 9 Months.—G. W. Armstrong (*Australasian Medical Journal*, September 20, 1899). A child, 18 months old, while playing with melon-seeds, sucked one of them into the windpipe. Since that time there had been frequent paroxysmal attacks of coughing, but after 9 months the child became worse and on examining the chest it was clear that the left bronchus was obstructed and the lung beyond partially collapsed; tracheotomy was performed and almost immediately after opening the trachea an unusually violent respiratory action caused the seed to be expelled, the trachea was closed immediately and the child recovered and remains quite well. [M B.T.]

ASEXUALIZATION AS A POSSIBLE PROPHYLACTIC OF THE INCREASE OF CRIME, IDIOCY, AND INSANITY.

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THE century just about closing has witnessed marvelous advancements in medicine. It was just before its beginning, in 1793, that Pinel, in France, Tuke, in England, and Rush, in America, began the great work of reforming the treatment of the insane. They were followed by a long line of physicians eminent in psychiatry, and, as the outgrowth of their teaching, no one today regards the insane as either possessed of the devil on the one hand, or the special recipients of divine favor on the other; and everywhere we find hospitals for the insane, well equipped with every necessary appliance for the successful treatment and the judicious care of these unfortunates.

It was in 1836 that Dubois wrote his classical treatise on idiocy, followed soon by the admirable work of Esquirol, Duboisin, Seguin, and, as a consequence of their labors and that of their successors, today the medico-pedagogic treatment of the feeble-minded is carried on in every civilized community. It was in 1892 that Gall in his researches wrote "that the measure of culpability, and the measure of punishment (of criminals) cannot be determined by a study of the illegal act, but only by a study of the individual committing it." He pointed out with the skill of an expert the stigmata of degeneracy with which these delinquents abound. He was in advance of his generation, but in due time the efforts of Lombroso, Benedict, Ellis, Wey, and a score of other eminent physicians have by their observations established beyond all question the fact that the habitual criminal is an abnormal man. The abnormality manifests itself physically and psychically in the criminal physiognomy, in stigmata of degeneracy, in anomalies of the muscular, the sensory, the respiratory and circulatory systems, in moral insensibility, lack of forethought, low grade of intelligence, vanity, egoism, and emotional stability, and as a consequence of their labors the criminal is beginning to receive that scientific treatment to which he is as well entitled as his near relatives, the idiot and the insane.

These great advancements that stand out so prominently in the history of the century are exceedingly creditable to the medical profession—a profession that has in all ages been characterized by an unselfish devotion to the welfare of humanity. But while we can congratulate ourselves on these things, we are in the midst of them brought face to face with serious problems that demand our most careful consideration for their proper solution.

In the olden times the frequency of the death penalty, the horrible tortures of the criminals, the gross neglec

and inhuman treatment of the insane and the idiots prevented the rapid increase of these abnormals. But with that wise care and humane treatment that are so manifest today, and the practical abolishment of the death penalty, we find an increase of them out of due proportion to that of the population.

In crime in the United States census reports show the following increase:

Year.	Prisoners.	Ratio to Population.
1850	6,737	1 in 3,442
1860	19,086	1 in 1,647
1870	32,901	1 in 1,171
1880	58,609	1 in 855
1890	83,329	1 in 757

These statistics have been disputed by some eminent criminologists for the reason that they regard the reports prior to 1880 as unreliable, and indeed question those of 1880. But the statistics of the State of Pennsylvania confirm the results of 1880 and 1890.

	1880.	1890.	Per cent. Increase.
Population of State	4,282,891	5,248,574	22.5
Inmates of penal institutions	5,449	7,340	34.7
Defective classes	6,070	9,712	60

The records of the police department of Chicago prove the same thing by considering the number of arrests for 10 years.

Year.	No. of Arrests.	Year.	No. of Arrests.
1884	39,434	1889	48,119
1885	40,998	1890	62,230
1886	44,505	1891	70,556
1887	46,505	1892	89,833
1888	50,432	1893	96,976

The Board of City Magistrates of New York still further confirm the National Statistics.[1]

In the annual report it is shown that the population of the city has increased 33⅓% in the last 10 years, while crime has increased more than 50%.

In the presence of these figures, while we may differ as to the ratio of increase, yet I think none can differ as to the fact of an increase out of all reasonable proportion to population. The showing is as bad for idiocy. The United States census reports are as follows:

Year.	Number.	Ratio to Population.
1860	18,865	1 in 1,400
1870	24,527	1 in 1,270
1880	76,895	1 in 700
1890	95,000	1 in 600

The statistics of insanity are no more encouraging.

Year.	Number.	Ratio to Population.
1850	15,610	1 in 1,485
1860	23,999	1 in 1,310
1870	37,432	1 in 1,031
1880	91,997	1 in 600
1890	106,485	1 in 570

The following from England, Ireland, and Scotland is added testimony:

[1] Crime and Criminals: Dr. Christison.

Year.	Number.	Ratio to Population.
1862	55,525	1 to 530
1872	77,013	1 to 450
1882	98,871	1 to 350
1892	117,336	1 to 330

These tables furnish us with abundant evidence of the increase of crime, idiocy and insanity out of due proportion to the increase in population, and it becomes us to inquire, what are the etiologic factors that are producing this blot on our civilization? The study of crime, I think, will speedily bring us to the conclusion that the habitual criminal is largely the product of vicious parentage.

Dugdale, in his study of the Juke family, demonstrates this.[2] He found a line of 1,200 descendants, the offspring of one criminal, in 5 generations, consisting of criminals, prostitutes, vagabonds, and paupers, with a very few honest workers.

McCullough,[3] in the study of the Ben Ishmael family, identifies 1,750 criminals and paupers, and 121 prostitutes, the offspring of this single rascal. And Professor Pellman, of the Bonn University, has recently studied the offspring of Frau Ada Jurke, and found 709, of whom 7 have been convicted of murder, 76 of other crimes; 141 were professional beggars, 61 lived on charity, and 181 were prostitutes.

These 3 remarkable examples are by no means exceptions to the great rule of heredity in crime. Heredity bears the same relation to idiocy, and the students of these defectives differ only as to the percentage.

Peterson[4] puts this heredity at from 40 to 50%, and my own observations and studies would lead me to suppose that this is sufficiently low. In insanity hereditary influences largely predominate over all other causes. Alienists differ simply as to percentage. Folsom[5] puts this percentage at 75, which is not unreasonable. I regret that I have been unable to obtain any statistics of the number of insane who are annually discharged from our American hospitals. The annual discharges from the hospitals of Great Britain are about 15,000, and the total number of insane in our American institutions is much the same as in those of Great Britain, so that we may safely infer that the number of discharges in this country is much the same. Our Illinois hospitals for the insane discharge about 900 annually. Those persons, who have made more or less complete recovery, and are considered sufficiently well to be discharged, soon become merged into the general community. The married resume their marital relations; the single not infrequently enter into the matrimonial state, and, so far as these persons are concerned, the results to themselves may have been unexceptional,

[2] Dugdale: "Study in Criminal Pauperism and Heredity." G. P. Putman & Son.

[3] Boies: "Prisons and Paupers," page 176.

[4] Church: "Mental and Nervous Diseases," page 176.

[5] Mental Diseases, "A System of Practical Medicine by American Authors," vol. 5, p. 113.

but how about their posterity? The number of feebleminded discharged from the Illinois Asylum for the Feebleminded for 6 years has been 202, and how many of these have propagated their kind we have no means of determining.

The United States census of 1880 shows that 10% of all the feebleminded then in the country were living in some kind of marital relations. Admitting, then, that crime, idiocy, and imbecility are the result of the tyranny of organization, usually the result of a vicious inheritance, and that they are perpetuating their kind, it seems to be imperative that some method of correction should be devised. Every effort of our modern civilization, by the great care which it throws around them, tends irresistibly to their accumulation, and no one, I think, in this enlightened age would have this careful attention in the slightest degree modified.

There is one remedy that, if it could be enforced, would result in no harm to these defectives, but in great good to the community, and that is asexualization, and the form of asexualization recommended is by ligating the vasa deferentia and the fallopian tubes. Castration would accomplish the same results, but this makes a great deformity. Ligating the vasa deferentia makes no deformity, aad we have reason to suppose that the testicles play some important part in general metabolism; that they have some physiologic function, not clearly understood, besides the secretion of semen, and their removal would do something more than prevent the propagation of the species.

Castration is followed by complete loss of sexual power, ligation of the vasa deferentia only by a diminution of this power, and it is as effectual in preventing propagation. Ovariotomy would asexualize, but it is a dangerous operation, and, like the testicles, the ovaries besides that of ovulation, have some important function in metabolism to perform. The ligation of the vasa deferentia not only does not result in a deformity, but is not a dangerous operation, and the same is true of the ligation of the tubes if done through the vagina. These operations for the criminal class might exclude the accidental type of criminal; for idiocy it should include all classes; and for insanity it might be limited to the degenerative types, using the term in the broad sense of Kraëplin. At the Asylum for Idiots at Winfield, Kans., where castration has been used on inveterate masturbators, much benefit has resulted, and this would lead us to suppose that at least some of this class of defectives might derive permanent benefit. The cessation of the menses in the insane sometimes produces a favorable change in their mental symptoms, and sometimes a cure, so that we can hope for permanent benefit from the operation in some of these patients. But be this as it may, unless it can be shown that serious injury would result from the processes herein described, the fact that they will succeed in diminishing the rate of increase of criminals, idiots, and degenerate insane demands for them on our part a deliberate consideration for the protection and benefit of society at large.

THE PATHOGENESIS OF APPENDICITIS.[1]

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DURING the 14 months prior to January 1, 1899, it was my fortune to receive for purposes of examination 460 vermiform appendices. These constituted all the appendices, with one or two exceptions, that had been removed by operation by Dr. John B. Deaver at the German Hospital during 1897 and 1898. The routine examination to which in general each appendix was subjected consisted in carefully weighing it, photographing it, measuring its length, its exterior diameter, the thickness of its wall, and the diameter of its lumen throughout its extent; noting its macroscopic appearances; hardening and embedding it, cutting and staining sections from at least three regions of each appendix, and studying their microscopic appearances; and bacteriologic investigations of the contents of its lumen, of the exudate on its peritoneal surface, of free pus in the peritoneal cavity, and of drainage fluid subsequent to the operation. In addition to these 460 appendices there were in the laboratory a considerable number of other appendices that had been removed prior to January 1, 1897. These were accorded a more or less cursory examination. Examinations were also made of about 50 appendices that, from time to time, had been removed at necropsy. These were presumably normal, and were included within the scope of these investigations for the purpose of thoroughly familiarizing myself with the appearances of presumably normal appendices, and for purposes of comparison, more particularly with reference to minor pathologic alterations in presumably diseased appendices. These studies were undertaken with the idea that a careful and detailed examination of a considerable number of diseased appendices might lead to the detection of some new features in regard to the pathology or pathogenesis of appendicitis, or that some disputed etiologic factors might be elucidated or at least find some confirmation. It was thought also that the coincident examination of a few presumably normal appendices might assist in the consummation of these objects. For various reasons it has been considered wise to limit the scope of this paper to a discussion of some features in connection with the pathogenesis of appendicitis, reserving for a future communication the detailed statistics upon which the opinions to be narrated are founded.

At the outset it may be stated that, in consonance

[1] Read at a meeting of the College of Physicians of Philadelphia, April 5, 1899.

with clinical observation, pathologically two forms of inflammation of the vermiform appendix may be distinguished—an acute and a chronic appendicitis. The inflammation may commence either acutely or chronically. If the former, the acute manifestations may subside after a greater or less interval of time, and the pathologic alterations may persist as a chronic inflammation. It is thought also that if the acute manifestations be very mild they may possibly subside entirely and the appendix return to a condition indistinguishable, upon histologic examination, from the normal. It is believed, however, that for reasons that will be detailed later this is of very rare occurrence. Chronic appendicitis may be the residual indications of a previous acute inflammation, or the condition may be inaugurated as a chronic inflammation. Of the acute and chronic forms of appendicitis several varieties may be distinguished, and for purposes of pathologic study it is thought advisable to adopt some rational classification. The following classification, based upon the results of this investigation, but which does not differ essentially from several that have already been proposed, is suggested:

Acute appendicitis.
1. Catarrhal.
   (*a*) Simple.
   (*b*) Purulent.
   (*c*) Hemorrhagic.
2. Interstitial.
3. Ulcerative.
   (*a*) Nonperforative.
   (*b*) Perforative.
4. Gangrenous.

Chronic appendicitis.
1. Catarrhal.
2. Interstitial.
3. Obliterating.

This classification is not in contravention of the clinical course of the disease. It must, however, be candidly admitted that we are not always able to distinguish clinically the different pathologic varieties of appendicitis. In other words, these different pathologic varieties may present analogous clinical manifestations. Again, the severity of the clinical manifestations of an individual attack frequently bears no proportion to the seriousness of the lesion of the appendix; but these facts constitute no valid reason against the adoption of a rational pathologic classification. Rather do they indicate the similarity in the reaction of the body to diverse morbid conditions and the limitations of our diagnostic abilities.

The narrating of the pathologic characteristics of the several varieties of acute and chronic appendicitis is also deferred to the future communication above alluded to. Directing attention, for the present, to the pathogenesis of the affection, it may be stated that inflammation of the vermiform appendix is, in many respects, such a unique disease; it differs so materially from inflammatory affections of other portions of the gastrointestinal tract; it is often so sudden in its onset, so alarming in its aspects, and so disastrous in its consequences, that it behooves us to look for some cause or causes resident in or about the appendix itself to account for the much greater frequency of inflammation of this portion as compared with other portions of the gastrointestinal tract, and for the preponderating role such inflammation plays in the etiology of peritonitis. As a matter of fact, there pertain to the appendix certain important anatomic and physiologic peculiarities that must of necessity exert considerable influence in the production of diseased conditions of that organ—that act, in a measure, as predisposing factors. The most important of these are: (1) The shape of the mesoappendix. (2) The excessive length as compared with the width of the appendix. (3) Gerlach's valve. (4) The histologic structure of the organ. (5) The blood-supply. (6) The nerve-supply. (7) The evidences of involution of the organ.

The mesoappendix is of importance, for several reasons. It not only often acts as a predisposing factor in the causation of inflammation of the appendix, but it has also important bearings with reference to the possible results of such inflammation. The relations of the appendix to the peritoneum and *vice versa* are various. As a rule, though the appendix is completely enveloped by a fold of the peritoneum, and lies free within the peritoneal cavity, it is an intraperitoneal organ. Exceptionally, however, its posterior surface is unprovided with a peritoneal covering. Under such circumstances the organ is in direct association with the retroperitoneal connective tissue, and this relation is of importance as influencing the course of possible periappendicular suppuration. Commonly, however, as already stated, it lies free in the peritoneal cavity, and is almost invariably provided with a mesoappendix. The latter is usually triangular in shape, though it varies considerably in size, thickness, and the extent to which it is attached to the appendix. In the majority of instances the mesoappendix extends the entire length of the appendix. Exceptionally, however, the tip of the organ may be free—rarely more of the organ—the mesoappendix under these circumstances being attached to but the proximal one-third or two-thirds of its length. It is, however, the size of the mesoappendix that has an important etiologic relationship to inflammation of the appendix. If it have a breadth commensurate with its length, or if it be very short or entirely absent, so far as the mesoappendix is concerned, the appendix will be quite straight. If, however, it be relatively narrow, as compared with its length, the appendix will be correspondingly curved or distorted. To a like extent, under such circumstances, the free drainage of the organ, so essential to its well-being, will be compromised. As will be detailed later, when the thorough drainage of the appendix is interfered with one of the most important etiologic factors of appendicitis becomes operative.

The excessive length of the appendix, as compared with its width, more particularly the caliber of its lu-

men, is another important etiologic factor in appendicitis, and this also because of the interference thereby engendered to thorough drainage. Appendices vary considerably in length, some being very short, others very long. The average length is about 8 cm. The average diameter of its lumen, on the other hand, is but 3 mm. to 5 mm., and the caliber of the lumen often varies much in different portions of the same appendix, particularly if the latter has been the seat of previous inflammatory disease. The relation, then, of the diameter of the lumen to the length of the appendix, is about 1 to 16 or 25, an evident disproportion, to which must be ascribed considerable pathogenetic significance, especially if for any reason the lumen be diminished in caliber.

The exact significance to be attached to Gerlach's valve is indeterminate, and this largely for the reason that the structure itself is very indeterminate. It is usually evident, when the cecum is viewed from within, as a small prominence of the mucous membrane, surrounding, either completely or in part, the orifice of the appendix. Upon close inspection it is seen to be made up of a reduplication of the mucous membrane, and microscopic examination reveals, in addition to this, some lymphoid tissue. The valve is, admittedly, an inconstant structure, but it can nevertheless be readily surmised that, when present, it serves to retard the entrance into the appendix of intestinal contents, and to hinder, possibly to a less degree, the escape into the cecum of appendicular contents. It is this latter function that is the more important in this connection.

The histologic construction of the appendix has important bearings upon the pathogenesis of inflammation of the organ. It is quite correct to state that in general the appendix conforms in histologic architecture to the structure of the large intestine, but it is, nevertheless, very unwise to lose sight of the many particulars in which it presents deviations from that type. That which is particularly the most important is the presence in the mucous membrane of the appendix of a considerable amount of lymphoid tissue. These lymphoid cells at times infiltrate, without definite arrangement, the mucosa; at other times they are collected into definite areas and form circumscribed masses that are spoken of as lymphoid follicles. It is because of this richness in lymphoid tissue that the appendix has been aptly compared to the tonsil. The amount of lymphoid tissue in the appendix seems to bear some relation to the age of the individual, and this may not be without significance in the production of inflammation of the organ. My own investigations, which have been so largely with diseased appendices, hardly warrant me in formulating a positive opinion on this subject; they have, however, led me to believe with Ribbert, and Kelynack, that lymphoid elements are more abundant in the appendix during childhood than during later life. Ribbert states that the typical arrangement of the lymphoid elements into follicles is preserved until about the thirtieth year, when the follicles commence to undergo some atrophy and become more widely separated. Exceptionally, however, this physiologic atrophic process may be installed so early as the twentieth year. Ribbert and Kelynack nevertheless state that lymphoid tissue may be found in the appendices of the aged. Ribbert mentions also that in the rabbitt, more than in man, the appendix is characterized histologically by the presence of such an amount of lymphoid tissue as to make it resemble a single large Peyer's patch. Hawkins, on the other hand, is reservedly inclined to believe that the amount of lymphoid tissue does not bear any direct relation to the age of the individual, but states that only the examination of a large number of normal appendices would warrant any definite statement on this subject. Another histologic peculiarity of the appendix not without significance is the relatively extensive epithelial surface that it presents. Under conditions of even slight irritation or erosion it thus affords a large field for the absorption of noxious products of bacteria.

[To be continued.]

ECTOPIC GESTATION, WITH A REPORT OF SOME INTERESTING CASES.[1]

BY J. MURRAY JOHNSON, M.D.,
of Bridgeport, Conn.

ECTOPIC GESTATION is a condition that is of as great interest to the general practitioner as to the obstetrician or the gynecologist. As a rule, these cases are seen by the family physician before the surgeon is called, therefore, I urge the necessity of an early diagnosis being made. Undoubtedly, there have been many valuable lives lost because the true condition was not recognized. The cases I will speak of occurred during my hospital service in New York City.

Ectopic gestation occurs much more frequently than was formerly supposed, and, whether the sac be ruptured or not, is a menace to life. Until recently it was thought that the action of the tubal cilia was toward the uterus, while the wave of the uterine cilia was upward, thereby making the upper portion of the uterus the meeting-place of the elements of generation. It has since been demonstrated by Hofmeier and other investigators, that the currents of the tubal and uterine cilia move in the same direction, viz., from above downward, and that normally the most probable place of conception and fertilization is in the tube. My belief is that the male elements of generation, by their ameboid movements, pass up the vagina, after which they ascend up the uterine canal, and finally enter the tube. The meeting-place of the elements of generation is in the upper portion of the tube. If there is any obstruction, whether it is intratubal or extratubal, that causes the lumen of

[1] Read before the Bridgeport Medical Society, July 11, 1899.

he tube to become entirely occluded, the male element annot pass. On the other hand, if the opening is not ntirely obstructed the male element can pass, and fer-ilization may take place. The fertilized ovum im-nediately begins to develop and soon becomes too large o pass the tubal obstruction, the result being that the vum continues to grow, and the pregnancy becomes ctopic.

Diagnosis of cases in which the sac is not ruptured.—he symptoms somewhat resemble those of a normal regnancy. In many cases one of the first symptoms ne patient will notice is suppression of menses, with norning nausea and vomiting; the breasts begin o develop; the uterus will be enlarged and the cer-ix somewhat softened. The characteristic bluish iscoloration of the vagina is also present in many ases of ectopic gestation. In some cases, however, here is no cessation of menstruation, the patient hav-ng her menses regularly, up to the time the pregnancy as discovered. On bimanual examination a tumor ill be found, to the right or left of the uterus, accord-ng to which tube is affected; the growth gives a slight esisting "feel" and is tender on pressure. If decidua cast off from the uterus and you find a growing and ulsating tumor it is very probable that the case is one ectopic gestation.

Hofbauer, in January of this year, published a paper n the administration of grape-sugar to the pregnant nd nonpregnant woman. He found that nonpregnant omen could fully oxidize 100 gms. of grape-sugar, hile in the pregnant woman a portion of it appears n the urine; the more advanced the pregnancy the rger the amount found in the urine. In ectopic preg-ancy and in mole-formation, sugar did not appear in ne urine. He explains the failure of the organism to xidize the sugar by depression of the assimilative ower due to pregnancy. Therefore with the presence a growing and pulsating tumor and the other signs, ken collectively, I think a positive diagnosis of ec-pic gestation can be made.

The diagnosis being made, the only thing to do is to move the tube containing the product of impregna-on. Some operators use the vaginal route, but I think n abdominal section the safer and better way of oper-ing. Different methods of treating unruptured and owing cases have been advanced, such as injecting orphin into the sac, also using the electric current, and this way killing the fetus, thereby hoping to have it come absorbed, or at least remain quiescent. The in-ction and electric treatment should never be used; it tenth-century surgery and should not be resorted to.

In cases of rupture of the sac the patient is suddenly ized with faintness. If she is about her usual work nd the hemorrhage is severe, she falls to the floor before e is able to help herself; the pulse is weak and the in cold and clammy. The extent of the collapse de-nds upon the amount of blood there is lost. She has an anxious expression and feels as if she is dying, there is intense pelvic and abdominal pain, and if the rupture has torn a large bloodvessel and is intraperitoneal the symptoms of shock are more severe. The pulse becomes weaker, and if the bleeding is not soon controled the patient will die.

In all the cases that have come under my observation I have noticed that the patient did not offer the slightest objection when told that it would be neeessary for her to undergo a very serious operation. When the rupture has been extraperitoneal, which is so in about 25% of the eases, the pain is more severe, but the shock not quite so profound. When the hemorrhage continues, the symptoms will gradually beeome more severe, the patient will regain conseiousness and remain conseious almost to the end. The only thing to do is to stimulate the patient with the normal saline infusions, and cardiac stimulants, and operate as soon as possible.

A free, abdominal incision, extending from the pubis to about one inch above the umbilieus and to the side of it, should be made. The ruptured tube is then seized and elamped with a hysterectomy elamp, or some similar instrument. The free blood and elots are partly cleared away in order that the operator may see more clearly what he is doing; the tube should be removed and the peritoneal toilet hastily but earefully made.

If the peritoneal cavity is thoroughly clean no drainage will be necessary.

The histories of the following eases are of interest:

CASE 1.—Mrs. A , Jewess, born in Russia, aged 34, married 12 years. Menses first appeared at 14 years of age, slight dysmenorrhea, but no other pelvic symptoms. She had one child four years after marriage. No miscarriages or abortions. She did not again become pregnant until the present time, although very anxious for a child. Never used any means to prevent conception. June 21, 1897, while about her usual household work, she suddenly became faint and fell to the floor, becoming unconseious.

Dr. A. Brothers was called and found her in the following condition: Pulse very weak and thready, marked anemia, cold clammy skin, intense abdominal colic and pelvic pain. She was in profound shock, could not speak above a whisper, and had an extremely anxious facial expression. On vaginal examination the uterus was found enlarged to about the size of a two-months' pregnancy. The cervix was softened and a bluish discoloration of the vagina was present. A doughy mass was felt in the posterior culdesac.

A diagnosis of ruptured ectopic gestation was made and the patient transferred to the New Yorker Frauenklinik, where Dr. Brothers was in service. She was immediately prepared for an abdominal section. Dr. Brothers, assisted by Dr. Brooks Wells and myself, made an incision extending from the pubis to about one inch above and to the side of the umbilicus. The peritoneal cavity was filled with free blood, also blood-clots; the ruptured tube was at once clamped with a hysterectomy forceps and the bleeding controled. The blood and clots were removed. After making the peritoneal toilet the abdomen was closed in layers, no drainage being used. An uneventful recovery followed.

CASE 2.—Mrs. B., aged 36, Jewess, born in Russia, married 16 years. Menses first appeared at 15 years of age: she had had a miscarriage one year after marriage, but has had two children since, the last one being born 4 years ago; missed her period in April; early in May had a slight show. During the early part of June she passed what she termed "some strings."

On June 21 she called at Dr. A. Brothers' office for treatment. After a careful examination a diagnosis of unruptured ectopic gestation was made, based on the following symptoms: On vaginal examination the cervix was softened and the uterus enlarged, a tumor was found to the right of the uterus, it was soft and painful on pressure. She gave a history of a slight previous pelvic peritonitis. Examination of breasts showed a little milk. Dr. Brothers sent her to the hospital with a note to me saying it was a case of unruptured ectopic gestation; operation for the following day.

The patient was prepared in the usual manner for an abdominal section. In the meantime Case No. 3 presented itself.

CASE 3.—Mrs. C., born in Russia, age 26, married 5 years, menses first appeared at the age of 15 years. She always had had trouble during her menstrual periods, but had had no abortions or miscarriages and was very anxious for a child. Her last period was in April; in May she passed some blood and clots; she had pain in right side of pelvis. While preparing to retire for the night she was suddenly seized with cramps and fainted. Dr. A. Brothers was summoned and to his great surprise found he had another case of ruptured ectopic gestation.

The patient was removed to the hospital and operated on that night. An abdominal section was made and the peritoneal cavity was found filled with free blood and clots. The ruptured tube was clamped and the bleeding vessels controled. On removing the blood-clots a fetus of about two months was found among the intestines; the same technic as in Case 1 was used. Recovery.

The next day Case No. 2 was operated on by Dr. Brooks Wells, assisted by Dr. A. Brothers and myself. The diagnosis was found to be correct and the offending tube was removed. Recovery.

The occurrence of these cases, practically synchronously, was most remarkable, and I do not believe the like ever occurred to any other medical man.

The first case was seen by Dr. A. Brothers on Monday, June 21, 1897, at 4 P.M.; the second at 8 o'clock P.M., and the third at 10.30 P.M. Dr. A. Brothers operated in the two ruptured cases, and Dr. Brooks Wells on the unruptured one. All were operated on during 24 hours, and lay in the ward alongside of each other. They all made excellent recoveries, not even so much as a stitch-hole abscess resulting.

A peculiar coincidence about another case I shall mention is that the rupture occurred while the patient was in the hospital being treated for an iliac abscess.

CASE 4.—Mrs. D., aged 28, born in Ireland, housewife; menses first appeared at age of 14, had considerable dysmenorrhea and flowed four days at each period. In August, 1896, she was operated on for an iliac abscess, which was opened and drained. After about two weeks' treatment the patient was discharged from the hospital and instructed to have her family physician do the dressing. The wound continued to discharge, and the patient returned to the hospital.

About one week after being readmitted to the hospital she was seized with intense abdominal pain and collapse. I made a diagnosis of ruptured ectopic gestation. Dr. H. J. Boldt, one of the visiting gynecologists, was in the hospital at the time, and I called his attention to the case. After making a careful examination he arrived at the same conclusion and had the patient prepared for an abdominal section. The abdomen was opened and the peritoneal cavity found filled with fresh blood; the torn tube was bleeding profusely.

The tube was clamped and removed. The rupture was about the size of a 25 cent piece; the sac was protruding through the opening in the tube, and was removed intact. The peritoneal cavity was carefully cleaned out, the abdomen closed in layers, and a small opening left for drainage in the lower angle of the wound. The patient made an excellent recovery.

CASE 5.—Mrs. E., aged 31, born in Russia, married 10 years; had one child 4 years after marriage, then remained sterile until the present condition presented itself. No further history was obtainable as the woman was in profound collapse when seen. Her husband was a very ignorant man and could give us no information regarding his wife's history. Dr. H. N. Vineberg was called in consultation and found the woman in profound collapse, the pulse was hardly perceptible, and the face blanched. A diagnosis of ruptured ectopic gestation was made. Dr. Vineberg immediately telephoned to St. Mark's Hospital for me to assist him; he then went to his office for his instruments and nurse.

On his return to the patient's home, which was in an East-side tenement, he found the patient in a very desperate condition, practically in "articulo mortis." My hospital-associate, Dr. F. J. Schoenenberger, etherized the patient, and during the operation administered cardiac stimulants and infusions of the normal saline solution. The patient was almost pulseless, but we gave her the only possible chance and opened the abdomen. The peritoneal cavity was filled with fresh blood and blood-clots; the ruptured tube was bleeding freely. A hysterectomy clamp was at once applied to the bleeding tube, and the hemorrhage controled. The patient was in such a critical condition that we closed the abdomen with a through and through suture of silkworm-gut, leaving an opening in the lower angle of the wound for a gauze drain.

The loss of blood was so great that the patient had simply bled to death.

The family-physician did not recognize the condition and only called in a consultant after several hours of waiting. Had he called in Dr. Vineberg earlier, undoubtedly the patient would have recovered.

In addition to the cases already mentioned, I will briefly describe the history of a patient I operated on for an old ectopic gestation, since reading the above paper:

Mrs. F., Italian, aged 32, married 10 years. Menses began at the age of 14, were normal with the exception of a slight dysmenorrhea, the day preceding the beginning of the flow. The patient has had 2 children and 2 miscarriages, the former being born during her second and fourth years of married life; the first miscarriage occurred 1 year later and the last 4 years ago. The present illness dates back, as near as I can learn, to a period of 8 months. The first symptom the patient noticed was a sudden faintness and extreme pain in the lower portion of the abdomen and in the pelvis, this continued for one week, when she returned to her work in a factory.

Nine weeks later, having retired for the night, she was suddenly awakened by the intense pain in the pelvis, she fainted and on recovering consciousness was very much frightened. The pain continued for two days when it gradually became less severe. It left her in a very weak condition for several days. She noticed that there was a large mass that completely filled the entire right side of the pelvis. Since that time she has been unable to work and has been under the care of several physicians. About 3 months ago her husband contracted gonorrhea and infected her. So near as I can learn the treatment she was getting consisted of hot douches, glycerin and ichthyol tampons and painting the vaginal vaults with tincture of iodin. They gave practically no relief.

Dr. Smith was called into the case, and after treating her for a short time noticed that there was a large mass in the pelvis. July 13, I was called in consultation by Dr. Smith and after making a careful examination found the following condition: The uterus was enlarged somewhat, and was connected with an immovable mass that filled the entire pelvis; the cervix was not softened.

On bimanual and on rectal examination, the right side of the pelvis was very tender. It was impossible to distinguish one structure from the other.

My diagnosis was an old ectopic gestation in which there had been repeated hemorrhages. The patient had several attacks of pelvic peritonitis which walled off the mass from the free peritoneal cavity.

The patient, with her family, lived in two rooms in a dirty tenement-house district. I advised an operation, explaining the dangerous condition the patient was in, through the aid of an interpreter. Having gained the husband's consent I had the patient prepared for both an abdominal and vaginal section. I intended doing a vaginal operation, but prepared the abdomen in case it should be necessary to open from above. Ether was used for the anesthetic. I first cureted the uterus and found that it was about 4 inches deep, but perfectly clean. The cervix was then grasped with a vollsella forceps, and my assistant used gentle traction upward and outward, the posterior part of the vagina was depressed with a speculum. I made a small incision about one inch behind the cervix; there was considerable bleeding, but little, if any, attention was paid to it. I then introduced a long-bladed angular scissors into the sac, keeping the point turned well up toward the uterus in order to avoid puncturing the rectum. I enlarged the opening with a uterine dilator and introduced my fingers into the sac, which extended well up in the abdominal cavity, also between the layers of the right broad ligament.

There was no fluid matter in the sac, it being well coagulated and quite dense. I broke it up, as well as possible, with my fingers, and also used a large blunt curet, taking care not to go through the sac wall and into the peritoneal cavity. The sac was then irrigated with hot saline-solution and packed with iodoform-gauze. The contents of the sac consisted of small pieces of placental tissue, old blood-clots, and a small portion of a fetus. It had a disagreeable odor and was just beginning to break down.

The after-treatment consists of daily irrigations of the sac cavity with a mild bichlorid solution; gauze-packing being used for drainage, and to keep the opening from closing. The patient is free from pain, has normal temperature, and is making a rapid recovery.

In this case the vaginal operation was the safest, the easiest to perform, and finally the patient still has her appendages. I was assisted by Drs. Smith and Cenicola, and by my student, Mr. E. Wilson Dupee. My impression is that the first rupture was slight, and that it was intraperitoneal; the second tore a large rent in the tube and the contents of the tube passed between the layers of the right broad ligament.

Regarding the difficulties of the diagnosis, at times, I well remember a case of supposed ectopic gestation (unruptured) that we had at St. Mark's Hospital while I was a member of the house staff. One of my visiting surgeons, a very prominent gynecologist and obstetrician, was treating a patient for what he supposed to be an unruptured ectopic gestation. He proposed to make an abdominal section and remove the tube containing the pregnancy. Before the operation, with the other members of the house staff, I examined the patient in the presence of the operator. I did not concur in the diagnosis and informed him that in my opinion it was a dermoid cyst of the ovary. He operated and found a dermoid cyst, about the size of a small fetal head, which was removed; the other ovary being badly diseased was also removed. He found that the woman was pregnant, but the pregnancy was intrauterine.

The patient aborted about a week after the operation. She made a good recovery, with the exception of an anesthesia-paralysis of the right arm, which gradually improved. In conclusion, I would suggest the following points be discussed:

1. Diagnosis.
2. Question of operating immediately, or waiting for the patient to partly recover from the shock.
3. Method of operating, abdominal or vaginal.
4. Question of drainage.

THE PATHOLOGY AND THERAPY OF CANCER, WITH SPECIAL REFERENCE TO CANCER OF THE STOMACH.[1]

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Mr. President and Gentlemen:—You will allow me to thank you for the high honor which you have conferred on me on this occasion. While your selection has done me great honor, the choice of subjects which would be of interest to the members of this representative body of professional men, is one which has caused me some anxiety. After ripe deliberation I have come to the conclusion that this is an opportunity for presenting the modern standpoint of a certain department of medical science. I have been engaged in practical surgical work for nearly 25 years as teacher and operator, and shall base my critical remarks on the advances that have been made in the treatment of cancer largely upon my own observations. There has been great activity in the study of malignant neoplasms, and the last few years have brought about a marked change in the therapy of these diseases. We are now doing operations of such magnitude and extent and are invading regions not thought of formerly. In fact, these operations in cancer-cases are of daily occurrence, and are done by many surgeons in all parts of the world as a matter of principle and of duty. In an address of this kind it can not be my object to present the results of original research so much as to present to you the present views, as they have been evolved by many observers in the laboratory and in the clinic. The main object must be to arrive at some definite conclusions as to the value of our methods of managing the very common and apparently increasing numbers of cases of cancer that seek our advice and our aid.

I shall use the word cancer in its general sense, including the two forms of malignant neoplasms known as carcinoma and sarcoma. I have a right to assume that the histologic structure of these growths is well known to all of you as presented in the modern textbooks, and shall only call your attention to the fact that there are forms of sarcoma which so closely resemble some forms of carcinoma, that a differential diagnosis is not so simple as it might appear from the teachings of the textbooks. Some very important investigations recently made by Ribbert seem to show that even epithelial growths are preceded by changes in the connective

[1] An address delivered before the Oregon State Medical Society at its annual meeting at Portland, June, 1899.

tissue which always underlies the epithelial layers of the skin and mucous membranes. I have myself seen two large-celled sarcomas which had a plain alveolar structure and puzzled all investigators very much indeed. I wish to go on record as holding that the sharp line which has been drawn between sarcoma and carcinoma cannot be maintained, and that in my opinion we are far from an understanding of the biologic significance of the malignant tumors. The line of research which promises finally to solve the question as to the origin of tumors has been followed in a most laudable but as yet only tentative way by that brilliant English surgeon, Mr. Bland Sutton. His little work on tumors is so instructive and so concisely written that I cannot refrain from recommending it to you, and promise you a rare treat from its perusal. While speaking on the literature I can say that the work on tumors by my friend, Nicholas Senn, of Chicago, is the only work on the subject written by an American surgeon which deserves mention. It is truly a great book, which stands next in importance to Senn's Principles of Surgery among the works of that admirable and indefatigable surgeon.

I have just stated that a sharp line cannot be drawn between sarcoma and carcinoma, and I must now tell you that a line cannot be drawn which will everywhere separate malignant from benign tumors. It is a fact that the microscope alone cannot be relied upon to make a differential diagnosis between sarcoma and some forms of granulomas. Sarcoma cannot always be distinguished from lymphoma, nor from gumma, and not even from some tuberculous tumors, by any known histologic methods. The absence of tubercle-bacilli in a tumor does not prove that tubercle-bacilli are not the producers of the toxin which may have caused the proliferation of cells in question. Even when to the history and the microscopic examination of sections of a tumor is added a full clinical examination by means of all our modern methods and by means of all our instruments of precision, a reliable diagnosis is sometimes impossible. Fortunately for us and for our patients, these cases are extremely rare, but I felt constrained to bring out in this address the existing defect because we are strongest when we best appreciate our weaknesses.

Along the line of bacteriologic research all attempts to solve the question as to the etiology of tumors have not advanced our knowledge much. The numerous alleged discoveries recently published still await corroboration, and while no doubt some valuable facts have been discovered, their authors have failed to prove that the various parasites, some resembling ameba, others belonging to the coccidia, and still others closely resembling ordinary fungi of decomposition and saprophytes are really etiologic or causative in the development of cancer. These workers have, however, succeeded in proving to us that under the head of what we call cancers, malignant neoplasms, some widely different things are included. When we think of a malignant papilloma or wart; of a small black sarcoma of the choroid, beautifully visible in the background of the eye; of a soft almost bloodless, white or gray sarcoma of the fascia lata; again, of a hard scirrhous tumor of the breast, or of a pulsating blue vascular sarcoma of the orbit, we must all believe that under the head of cancer are gathered a great many things which probably are etiologically widely different, and we all know that our notion of malignancy is a most elastic one. We know that some of these malignant growths are very slow in doing their deadly work, while others kill almost like acute infections caused by virulent poisons or toxins.

While I am convinced from my own observations and experiments that some forms of cancer are purely of extraneous or parasitic origin, I am convinced that the great majority of tumors, benign as well as malignant, are developmental in their origin. It will be shown that the large majority are referable to some ancestral inherited defect. The vast majority of tumors will be found to be traceable to a rudiment of an organ which, ages ago, played a more or less important part in the physiology of our progenitors. Drawing the logical conclusion from the facts that have been proven about the descent of man from forms of life, which in a long unbroken line have been developed on this planet since it cooled off to such a degree as to permit of the existence of life, as we know it, we can truly say that we have almost infinite atavistic possibilities. Just as we now positively know that a congenital fistula of the neck is a remnant of a branchial cleft, of a gill as it were, so will we some time in the future know how to explain the thousands of deformities and neoplasms malignant as well as benign. The solution of the question as to the origin of tumors will come when the Ontogeny and the Phylogeny of the human animal will have been worked out to a high degree by morphologic, embryologic and biologic researches. Much of this work, I feel, will be done on this side of the Atlantic by American students, in magnificent universities, richly equipped with all modern scientific apparatus in the finest laboratories on earth, endowed by the States and independent of the good will of the wealthy.

Before leaving the subject of the pathology and etiology of tumors, I must refer to the Cohnheim hypothesis, which attributes the origin of tumors to a matrix of embryonal cells which lie dormant in the form of cell-lumps or misplaced islands of cells in the tissues. In order for them to develop, a suspension or diminution of physiologic resistance in the tissues (whatever that may mean) must take place in the vicinity of the hypothetic matrix. In the absence of this "matrix of embryonal cells," the possibility of a tumor is absolutely precluded. I suppose the diminution of physio-

logic resistanee would be furnished by traumatisms, irritations, inflammations, adverse conditions of life sueh as elimate, poor environment, hereditary encumbrances, old age, etc.

If the existenee of a matrix of misplaeed embryonal cells is ever supported by seientifie proof, it will be found in the form of "rests," "vestiges," or rudimentary organs. These have great significanee when viewed from the developmental standpoint. Here, as elsewhere, in the social and natural seienees, evolution will be the torehlight that will lead us out of darkness and ignorance into light and knowledge.

Let us now turn to the praetical side of our subjeet and see what we ean do in the way of treatment of malignant tumors. In the middle ages, when it was believed that an omniseient and watehful Deity distributed eaneers among sinners as in His wisdom He saw fit to do, prayers were the logieal remedy to be employed, and we have reeords of cures by this means. We also have eertificates of eures of eaneer by the more modern Christian Seienee, and the pamphlets sent out by the promoters of health-resorts and of many natural springs eontain plain statements of cases of eaneer whieh were eured by the air and the waters of these spings. Several times in my life, as a surgeon, patients have come to my office bearing sears upon their bodies which they elaimed were the sears of former eaneers that had been eured by the waters of some springs or by the pastes of some quaek. In every single instance a careful investigation proved to me that the scars were those of syphilis or some more benign ulcer that had healed up rather in spite of, than by virtue of, the treatment they had undergone. The ignorant laity as well as designing fakirs are only too prone to eall any chronie ulcer whieh does not yield to ordinary treatment a caneer. They do not know that the diagnosis of eaneer is often very diffieult and sometimes uneertain after all has been done that seienee offers. I have never seen a spontaneous eure of a eaneer, nor have I ever seen one eured by medieation of any kind whatsoever. The recently introdueed methods of inoculation with erysipelas and other toxins as well as the serumtherapy of eaneer have now been amply tried and found wanting. I myself tried these methods on some eases which in my opinion were inoperable, but could never reeord a permanent improvement, and, of eourse, a eure was out of the question. Where we find reports of favorable results of the inoculation-treatment by good surgeons, we will usually find a statement that the pathologist found the tumor to be a spindle-eell or a small round-cell sareoma. As above stated, the mieroseopie examination is not eapable of positively recognizing or differentiating these forms of sareoma from granulomas or even from benign tumors whieh have their origin in the lymphatie or eonnective tissues. The pathologist was in error, and it is probable when a tumor reeurs after an operation, in or near the scar, that it is a granuloma, a keloid, or a benign, fibrous or myxomatous tumor, or perhaps simply a thiekened eieatrieial mass, such as we sometimes find in the subeutaneous tissues after operations. These growths sometimes require months and even years for their final absorption.

I do not wish to disparage the serumtherapy or the inoeulation-therapy, and not even the injeetion of pyoktanin or aleohol, or any other ehemieal into the substanee of inoperable eancers. These methods or new ones more or less like them should all be tried before they are eondemned. They are deserving of elaborate trial, as we cannot prediet their effeets a priori. And in inoperable eases the attending surgeon must, at least for psyehieal effect, if for no other, do something to encourage the unfortunate patient in order to keep him from despondency or suieide.

I must insist, however, that in all operable eases the surgeon has no right to temporize or put off the operation for a period of more than 4 or 6 weeks, and even that short time may injure the ehances of a suceessful operative cure. Many of you will now ask how can we draw the line between operable and inoperable eases. This, I will answer, is purely a relative matter, and what is inoperable for Dr. A. is operable in the opinion of Dr. C., and Dr. C. will perhaps eonsent to do the operation at once, and Dr. D. will even urge it and hold out good prospects of a successful operation, and, though a cure ean never be promised, he will eneourage the patient and inspire hope to such a degree that he will demand to be given the only chanee of a cure whieh we have to offer.

[To be continued.]

THE TREATMENT OF YELLOW FEVER BY THE USE OF POTASSIUM BITARTRATE AND SALOL.[1]

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of Santiago, Cuba.
Acting Assistant Surgeon, U. S. A.

Since the beginning of the present outbreak of yellow fever, while on duty at the United States Army General Hospital, and later at the Yellow Fever Hospital, I have adopted a line of treatment whieh may perhaps not be new, but which is, nevertheless, giving most satisfaetory and sueeessful results. The treatment is based on the antiseptie plan, and its effieieney appears to be in direet relation with the promptness of its administration. Having in view the infeetious charaeter of this disease, and eonsidering that the stomaeh is the organ primarily invaded and affected by the pathogenie mieroorganism, whatever it may be, it is evident that a therapeutie agent eapable of destroying it, or at least attenuating the virulenee of its toxin, would eertainly bring the disease to a favorable termination. In years past, while in eivil practiee in the Department of Santa

[1] Published by authority of the Surgeon-General, United States Army.

Clara, Cuba, I had occasion to try a similar treatment in certain sporadic cases which came under my observation, but I was then unable to draw any definite conclusion, from the want of a sufficient number of cases upon which to base it. The number of cases recently treated here, added to those previously mentioned, give sufficient evidence for its endorsement. It is, however, a well-known fact that it is no easy matter to carry out any given line of treatment in a disease like yellow fever, in which the toleration of the stomach is usually lost early in the beginning of the attack. It is precisely one of the principal advantages I claim for this treatment, that it can be administered without disturbing the stomach and without ever giving rise, so far as experience goes, to disagreeable after-effects if judiciously carried out.

I begin the treatment by giving the patient a dose of calomel, followed by a saline purgative, generally epsom salts, and immediately after I commence the use of a solution of potassium bitartrate and fresh lime-juice, and the salicylate of phenol or salol, the latter preferably in tablets, every 2, 3, 4 or 6 hours, according to indications. With the cream of tartar the urine is rendered alkaline, and the renal function is stimulated by its diuretic properties. The local action of this agent on the stomach is no less important, since it is pleasant and soothing, quenches the intense thirst, relieves the nausea and vomiting, and, by its laxative properties, ensures free movement of the bowels. With salol, a twofold action is obtained: first, the antisepsis of the intestinal tract; and second, the reduction of the temperature by its antithermic properties. The drug is well borne, not only by the stomach, but also by the kidneys, and apparently tends to reduce the amount of albumin in the urine. No alcoholic drinks or nourishment are allowed during the first stage of the disease. The epigastralgia and rachialgia are treated exclusively by counterirritation with sinapisms. During the second stage the salol and cream of tartar, accompanied by large quantities of diluent drinks, especially warm water to which a few drops of lime-juice have been added, is to be continued until defervescence takes place.

NOMENCLATURE: MYOTONUS—NORMAL MUSCULAR TONE; HYPOMYOTONIA—HYPOTONIA OR FRÄNKEL'S SIGN; HYPERMYOTONIA—KERNIG'S SIGN.

BY CHARLES J. ALDRICH, M.D.,

of Cleveland, Ohio.

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Myotonus.—If a normal person will lie upon the back and attempt to flex the thighs upon the trunk without bending the knees, he will experience a very uncomfortable sensation of tension in the hamstring muscles and popliteal space as the limbs near the desired angle. It is said that it requires considerable training to accomplish this act without flexing the knees. If the experimenter further attempts to flex the thighs upon the body without genuflexion he will find that he is attempting an impossibility. This can be accepted as the normal standard of tone in the muscles, or myotonus. Rosenbach has recently expressed the opinion that the normal tone of the extensor muscles is derived largely from the brain, and that of the flexors chiefly from the spine. I believe that this is an inference drawn from clinical observation rather than any physiologic experiment. It certainly has considerable interest in this connection.

Hypotonia.—Some years ago Fränkel discovered that in a person suffering from tabes it was quite possible to keep the knees extended and yet flex the thigh markedly upon the abdomen without discomfort. To this condition he applied the term hypotonia, or lack of muscular tone.

Hypertonia.—Kernig discovered that a sufferer from meningeal inflammation, while lying on his back in bed, might not show any contraction of the muscles of the extremities, but if he was raised to a sitting posture there appeared marked contraction of the hamstring muscles, flexing the knees and preventing the extension of the legs. It has also been observed that if the experimenter takes the heel of the sufferer in his hands and attempts to flex the thigh upon the abdomen while keeping the leg extended, that the leg will be powerfully flexed ten or twenty degrees whenever the thigh is brought to a right angle with the body, and that the patient will also experience a very painful sensation of tension in the popliteal space and hamstring muscles. This seems to be an exact antithesis of the condition which Fränkel observed in the patient of locomotor ataxia, and which, as before mentioned, he termed hypotonia. If we follow Fränkel's terminology it will be quite proper to term the increased muscular tone as manifested in Kernig's sign, hypertonia, but the word hypertonus has been used to indicate increased muscular tension in the intraocular space when there is no existing disease, and since it is natural to name the ordinary tone of muscle *myotonus*, it seems to me that *hypomyotonia* would be a much better name for Fränkel's sign than *hypotonia*. In conformity with this nomenclature I would suggest the name of *hypermyotonia* to express in scientific terms that which is now known as Kernig's sign.

I do not wish to burden medical literature with any more names, but believe that each of these suggested terms convey an accurate meaning of the exact condition, and that all carry with them their own definitions; therefore, one may be pardoned for this attempt to secure a plainer and more scientific terminology of the muscular conditions which have been mentioned.

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See Advertising Page 21.

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The Spirit of the Genus Anti.—All know the delightful story of the puzzled immigrant who, quizzed by the ward boss as to whether he was a democrat or republican, could only ask, "Have yez a government here? Then put me down as agin the government." However often repeated this story is never old, because it is so freshly and variously illustrated every day about us. There is, taken in lump, a preposterously large number of people who would go crazy or die if they could not array themselves as "agin" something. In some instances the psychologist is compelled to diagnose their cases as instances of inflammatory egotism, delirium grandiosum, etc., etc., because there are not infrequently the most patent evidences that the anti is far more interested in himself than in the cause antied. These characteristics are fatally likely to become the genuine and principal causes of reactionism and stolid conservatism. All good and careful people are by sheer disgust compelled *stare super antiquas vias*, so that the anti is the very worst enemy of the cause he advocates. He produces the very evil he rails at. If his cause is good, or has any element of truth in it, the anti will contrive by his narrow violence and vainglorious captiousness to render this good and true both evil and false, and in disgust all sensible people will "shut up" and disassociate themselves from the cause made ridiculous by its advocates. In these days of antitoxins let us hope that a great benefactor will arise and that he will discover some antiantitoxin as a universal prophylactic against the scourge. Democritus hoped from the name, Anti-nose-in, that this drug would prove efficacious, but no clinical reports have come to hand, even from the rhinologists, in this particular field of therapy.

A Personal Word to Our Friends—and by our friends we understand the friends of independent medical journalism, with all that that means—is that you should not lessen sympathy nor relax effort because of the measure of success we have attained. To be entirely frank, it must be plain to the wise that the prosecution of fearless and professional journalistic methods will arouse a host of secret enemies. Our aims and methods are not those of commission-men, newspaper-doctors, political tricksters, and professional hucksters, and if these can devise or hunt out a pretext or plan of hurting us they will do so with a delight and a patience worthy of a better cause. The jealous, the failures, the thwarted, will clique with the birds of like feather and rally under any cry that promises or excuses. The antiadvertisement crank will embrace his brother, the antivivisectionist crank, and the fanatic lion will lie (if not lie down) with any willing and digestible lamb, while "morality" will be blazoned on the transparencies of the immoral. We have demonstrated that for a small amount of money the profession can have a large amount of medical literature, and that this commercial benefit is not incompatible with professional ideals and methods, but it rests with you who know this to hold up our hands with effective courage.

The testimony of a football expert and an enthusiast, as to football failures, is frankly confessed and deplored in the following quotations from an article explaining why the Pennsylvania team did not win:

> Last year there was a noteworthy increase in the number of injuries, and this year it has been unprecedented. The very best men, excepting Hare, have actually spent almost as much time in the hospital and in their rooms as on the field since September 28. Hare himself has played for three weeks of the season with a strained tendon. . . . When the genuine Varsity players have been in the majority on any team that has gone into a game they have been so crippled and out of condition that it was melancholy to see them. As a rule, more substitutes than Varsity men have been in the games. . . . This education the Pennsylvania players of this year did not have in time to prevent the physical injuries that have rendered impossible their further education as a team in the science of football. . . . The men who are thought to be slow in their studies are encouraged to spend a part of each day with their books. The fact is that we have been playing cripples and substitutes who have not played together long enough to learn any system, and particularly our system.

The logical *reductio ad absurdum* could not be more clearly drawn by "that most offensive person, a quitter," or even a critic who has a lingering belief in intellect and learning as the proper ideals of a university and of its students, leaving out of the count, of course, the professor.

The revocation of the dog-muzzling regulation has taken place as far as London is concerned, and probably will soon follow all over England. Mr. Walter Long, the Minister of Agriculture, who has been responsible for the regulations, rendered the department very unpopular by the apparent capriciousness

with which the muzzling orders were made; but he is able to point to the fact that during the five years now ending rabics has practically been stamped out in England. This may silence some of his hysterical adversaries who, placing their love of dumb animals above their love of their fellows, have been attacking Mr. Long with a virulence almost unexampled in English politics ever since the board of agriculture determined to take drastic action against rabies. There is not a more inhuman animal than your thoroughgoing professional humanitarian.

A new variant of the eternal optical farce is the M.D., turned optician and luring the general physician by division of the spoils. The first part of the trick consists in the "moderate fee," and the "free examination" (providing $3 a visit is secured for as many visits as the "medical gymnast" chooses to demand), and by the free examination the allegiance of the unprofessional brother is secured. It is put this way:—

> While the services of an oculist are worth all he charges, yet the fact remains that many persons are really unable to pay his fee. Neither would they think of applying at a public dispensary, but prefer to maintain their self-respect by paying a moderate amount and receiving skilled services and polite attention as their right. I have, therefore, fixed my office fee at $3. If you have a destitute patient, a note from you to that effect will entitle him to a free examination. In simple cases there will be no charge except for the glasses.

The innuendo is made that any reputable ophthalmologist would not do the same for the poor. What would be the charge for the glasses?

But all this is prefatory to the closing paragraph:—

> I combine also the services of an optician in fitting glasses, thus concentrating responsibility and saving your patient trouble and expense.
>
> The usual courtesies of the profession will be cheerfully extended to yourself or to any member of your family. As I would like to make a proposition in which I think you would be interested, I would be pleased to have you call *in order that we may arrive at an agreeable understanding, or write me whether I can look for you to enter into an arrangement which would prove mutually advantageous.* In the meantime, if occasion presents, may I not ask you to use the enclosed blanks?

Encouragers of the Nostrum-traffic.—The great genus of the Antis has a pestiferous little family, the distinguishing characteristic of which is an amusing and ineradicable hatred of medicines called by them (with much lip-curling) "the proprietaries." Hence, a very appropriate name for this family or group would be the Antiprops. They care nothing about the progress in therapeutics and pharmacology due to the chemists and pharmaceutic manufacturers; they are reckless of the rights of capital invested in legitimate and law-protected industries; they do not worry about any injustice done to these manufacturers; they do not distinguish between good and bad, secret or nonsecret, commercially honorable or dishonorable, etc., but lump them all together in one universal denunciation. If they find it wise or necessary to use one of the horrible "proprietary preps," they give it another name on prescriptions, and instruct the druggist by word of mouth. If they can make the manufacturer pay for the publication of scientific books or journals by advertisements, they are, or pretend to be, ashamed of the profitable bargain, and scorning the fellowship, do not concern themselves about their responsibility in the division of profits, in thanking the editor, and in performing their part of the contract with the advertiser. The Antiprops, like all their brother (and sister) antis, are the greatest friends and benefactors of the cause they supposedly fight—in this case the downright nostrum-traffic. As the Antivivs, by excess and producing disgust, beget a reactionism ending in cruelty to animals, so in the name of ethics, the Antiprops, contemptuous of all other ethics except their one faddist kind, drive sensitive people into an utter indifference to the whole question of proprietary medicines. One cannot help feeling, that if such are the converts and such the methods, verily the cause itself must be hopelessly bad. All broadminded physicians have to protect their hearts against the fatal disgust excited by the rabids in order not to settle into bored recklessness as to the whole matter of advertised drugs. Because few can do this, the great mass of the profession is sinking into just such carelessness generated by the fanatic and strife-stirring Antiprop. Let us beware of him!

Insanity in the Jury-box.—A medico-legal point of great interest and importance has been raised by the alleged insanity of one of the jurymen in the recent Ingham-Newitt trial in this city. The facts, as stated, are that a member of the jury became violently insane eight days after the rendering of the verdict and had to be taken to an asylum. The certificate of one of the asylum physicians says that the man when received was very insane, that he was the subject of delusions and auditory hallucinations, and that during the last ten years he had been admitted to the asylum five or six times with similar attacks, and that his periods of maniacal excitement lasted from three to six months. So far as we know the case is unique in the annals of medical jurisprudence, and requires for its determination a nice discrimination of all the facts.

From the purely medical standpoint there can be no doubt about the diagnosis. The patient is evidently the victim of recurrent mania; and how such a man could ever have been permitted to sit upon a jury passes ordinary lay comprehension. The vital point in the case hinges upon the probable mental state of such a patient only eight days before the outbreak of his maniacal attack. It is well known to alienists that such an attack is always preceded by a prodromal period during which the symptoms are gradually culminating, and there are few experts, we judge, who would be willing to assert that such a patient with such

a history could be in a perfectly normal mental state during this prodromal period. The testimony of non-experts, such as his fellow-jurymen, in favor of his sanity, should be received with great caution, because it is well known that these prodromal changes are often most effectually controled and conccaled by the patient. Certainly in the case of a man who had already passed through six maniacal attacks in ten years, the presumption is strongly in favor of his being already in a morbid mental state only eight days before the pronounced outbreak of his attack. The determination of such a case, it seems to us, calls for the highest exercise of the judicial function, aided by expert testimony, and its decision will be regarded with great interest by all who are concerned with the problems of medical jurisprudence.

On the Role of Insects, Arachnids and Myriapods as Carriers of Bacterial and Parasitic Diseases of Man and Animals.—We have on a previous occasion made brief reference to the transmission of disease through the intermediation of the lower animals. We wish now to call attention to an admirable critical and historic study of this subject presented by Nuttall, in Nos. 1 and 2 of Vol. VIII of the *Johns Hopkins Hospital Reports*, 1899, and to present the merest epitomization thereof. It is not denied that anthrax is transmitted through flies, but very few positive cases of this have been recorded. Experimental inoculation by means of coleoptera, bedbugs and fleas has yielded negative results. Plague may be transmitted through flies, ants and fleas. It has been believed, but without demonstration, that hog-erysipelas is spread through the agency of flies. Bedbugs can take up the bacilli of mouse-septicemia, but it is doubful if they convey infection. Cases are on record that appear to indicate that septicemia, pyemia and erysipelas may be transmitted through the bites of insects. Fleas, lice and bedbugs have been thought to convey relapsing fever. Infection with yellow fever has under some conditions been referred to the agency of insects, particularly mosquitos. It has been clearly demonstrated that flies are capable of conveying cholera. The evidence is less certain with regard to yellow fever, but the probability of this mode of conveyance is considerable. The transmissibility of tuberculosis through flies and bedbugs has not been established. It is thought that leprosy may be transmitted through the agency of various insects, such as flies and sarcoptes. Some forms of ophthalmia may be conveyed by insects. It is well known that the ova of many forms of animal parasites, especially tapeworms, distomata, and filariae, are transmitted through insects. There is no longer any doubt of the conveyance of malaria through mosquitos. While, thus, it has been determined that insects may contain pathogenic bacteria within their bodies, it has been demonstrated experimentally that they do not always transmit infection merely through their bites. The danger is greatly increased if the animals are crushed at the point where they make their puncture. This entire subject is a most important and a most interesting one, and its possibilities are manifold and far-reaching. The field of investigation is one in which much good work can be done.

The Relation of Migraine and Epilepsy.—At the recent meeting of the Philadelphia Neurological Society a series of interesting cases, illustrating the importance of this subject, was reported by Dr. McCarthy, Dr. Sailer, Dr. Hamill, and Dr. Spiller. These cases, while presenting some problems for diagnosis, were in the main differentiated without difficulty; some of them evidently belonging to the group of migraine, and the others just as obviously falling into the list of epilepsy. The fact was evident, however, that a tendency exists at present to find closer affinities between the two diseases. It was pointed out, nevertheless, that while the explosive neuroses—such as migraine, epilepsy, and hysteria—have certain points of contact, this does not necessarily prove that any one of these neuroses can merge into another. In the case of migraine and epilepsy there are reliable distinguishing marks. Thus, convulsive phenomena and loss of consciousness should at once establish a diagnosis of epilepsy, for while epilepsy may present itself without apparent loss of consciousness or even the slightest observed convulsion, yet the converse is not true. In other words, the positive value of these symptoms is far greater than their negative value. Neither of them has been observed in true migraine. Moreover, even in the slightest cases of true epilepsy, as in petit mal, or in the so-called sensory type, or in the psychic equivalent, there is always a disturbance of consciousness ranging from the momentary blank to the impulsive delusion—a psychosis, in other words, such as has not been demonstrated in migraine. It is, in fact, too much to say that there is ever no loss of consciousness in epilepsy; there is always at least a disturbance of consciousness, but whether this is a "loss" becomes, after all, a matter of words. Consciousness is never unaffected in the disease.

The sensory auras in migraine, let them be never so various and bizarre, do not have the distinct epileptic character. They are much more gradual, and much more prolonged. Whether this aura is an amblyopia or an anesthesia in the arm, it endures for minutes, and as it gradually recedes gives place to the headache. The paralyses following migraine are extremely rare, and almost, if not quite, confined to the ophthalmoplegic type, and certainly have nothing in them suggestive of epilepsy.

That the two diseases may coexist in one person is beyond doubt, but this fact is not a proof of their possible identity. That migraine ever merges into epi-

lepsy may be fairly doubted, although the fact must be admitted that in the graver forms of migraine, such as the ophthalmoplegic type, good observers have claimed that there is a distinct affinity with epilepsy. But this type of migraine is in itself so peculiar that it may well be doubted whether conclusions can fairly be drawn from it and applied to the simpler form of the disease.

The Care of Dependent Children.—We have frequently called attention to the manner of caring for the dependent children in general, and especially in the Australian colonies. The report of the State Children's Council for South Australia for the year ending July 31, 1899, is at hand, and it gives an unusual amount of interesting information in regard to the boarding-out system under the control of State and voluntary organizations working together. The Council cared for 1,223 children during the year, 644 boys and 579 girls; 1,004 of these were boarded out, 128 were in the reformatory under criminal indictment, and the balance were in various institutions and hospitals, or awaiting consideration or treatment. The board regrets the necessity of bringing the children before magistrates hearing cases involving adults, and urges the establishment of children's courts for the consideration of juvenile offenders, similar to the court recently established in Chicago. Eight children died under the care of the Council, all of them from diseases of an infectious character, except perhaps one boy, 13½ years old, who died of heart disease; $6,645 were collected from parents and near relatives for the support of the children during the year, and $7,800 were obtained from the sale of farm products and manufactured articles and from fees of various kinds. The total cost of the work of the Council was $83,385, of which $9,500 was for central administration, $41,990 for boarding out children, and $21,940 for the five reformatory institutions under the charge of the Council, and the balance for medical attendance, local organization, and hospital service. It is not possible to learn from the report what each child boarded out costs per week, but it will be interesting to note that children 16 years and over earned $3,560, which was deposited in the postal savings banks to their credit.

Suggestions to Writers, No. 46. A few Verbs give many people a great deal of trouble, and though physicians are not worse sinners in this respect than, *e.g.*, lawyers, the frequency in medical writings and speakings of certain errors gives us warrant for a passing allusion to them. Let us first take the two words, in the use of which there are probably more blunders made than in others:—*lie* and *lay*. In half the clinics of the land, a patient will be told to *lay down*, and when the event is described it will be in this way—*he laid down*. Those thus speaking and writing may, and probably do, know perfectly the proper forms; but habit asserts itself in unconscious usage, and in this way shows us the need of correct examples and usage during childhood. *Lie, lay, lain*, are the "principal parts" of the intransitive verb, while *lay, laid, laid*, are those of the transitive form. Hence, of course, we should say, *I lay, I laid, I have laid* (the patient or the book) *down*, but *I lie, I lay, I have lain*, down to sleep. In the same way one says, *he* (it, or she) *lays* (down the rules), *he lies, lay, has lain* (down to rest). It is unfortunate that in English a third verb, lie, to tell a falsehood, should exist, so like or similar in form as to be a source of confusion. *Sit* and *set* are also botherers, which few in all cases will use correctly if speaking quickly and unconsciously. After the hen lays or has laid the egg, the woman sets the hen, but the hen sits. The patient is asked to sit down and sat. When seated, or, having sitten, he set forth his symptoms. *Sit, sat, sitten; set, set, set; seat, seated, seated.*

Gotten is, perhaps, the more correct past participle of *get*, but we prefer the simpler form *got*, and believe that it is fast taking the place of the longer word. We also fear that the proper imperfect, *gat*, is likewise being dispossessed by *got*. For the present we should say, *get, got, got*. But let us make a desperate effort to drop the word when it is not needed, as it is not when we wish to indicate simple possession. In "I have got the forceps," "he has got the sponges," "you have got bronchitis," etc., the speakers weaken their language by the redundant word. The word get is also misused and greatly overused in many other ways, as, *e.g.*, in "to get left," "to get rid of," "to get hungry," etc.

Many err in the use, especially of the imperfect, of *thrive, throve, thriven; shake, shook, shaken; drink, drank, drunken.*

Cystoid Disease of the Testicle.—F. R. Sturgis (*American Medical Quarterly*, September, 1899) details a unique case to which he applies the name teratoma testis. The patient denied all history of venereal disease, and the only point in his family history that might bear upon the diagnosis was the fact that his grandfather had had epithelial cancer. The diseased testicle was much enlarged, hard, smooth, without fluctuation or softening, insensible to pain, but causing discomfort from weight; the scrotum was not diseased; the cord and glands of the groin were not implicated. The initial treatment comprised the administration of potassium iodid and the strapping of the diseased organ, but at the expiration of a month the testicle had increased nearly 3 cm. in its different diameters. It was decided now to remove the diseased organ, and after operation recovery was immediate and uncomplicated. Pathologic examination of the specimen showed a number of septums dividing it into lobes; nodules of cartilage, between which were cysts containing cheesy material, and surrounded by a colloid matter; other areas of adenocarcinomatous structure, necrotic in some places; some areas resembling sarcoma, granular tubes, etc., while normal tissue of the testicle could not be found. Three months following the operation the patient suffered from a brawny edema of the left leg with slightly enlarged glands in both groins, followed later by transient pain throughout the abdomen, and the effected leg. The inference may be drawn that these pains, etc., may be due to pressure by some abdominal growth, though no evidences of tumor were present at the time of the last examination, and hence the growth in the testicle might be metastatic and not primary.

Reviews.

Leitfaden für gynäkolischen Operationskurs, mit Berücksichtigung der Operation an den Lebenden. By Dr. E. G. Orthmann, of Berlin, with a Preface by Professor Dr. Martin. 147 pp., and 86 colored illustrations. Leipzig: Arthur Georgi. Price 4.50 marks.

This valuable little volume is splendidly illustrated; indeed, its chief value depends upon this fact, which makes it useful to the physician and the student, aiding him to understand the various gynecologic operations. The different procedures are clearly and concisely described, and the illustrations appropriately introduced.

Transactions of the Medical Society of the State of West Virginia. Meeting held at Weston, May 17, 18, and 19, 1899. Wheeling: Daily Intelligencer Steam Job Press, 1899.

This brochure contains 10 papers dealing with various aspects of medical art, together with the President's address, the "Autobiography of a very Modern Doctor," in verse, a reply, also in verse, to the toast "The Old Family Physician," as well as minutes, reports, catalogs, and memorials. The Society deserves to be encouraged in its laudable efforts.

Transactions of the Vermont State Medical Society, 1898. Published by the Society. D. C. Hawley, M.D., Secretary. Pp. 229. Burlington: Free Press Association, 1899.

It seems a pity that nearly a year should elapse after a meeting before the papers presented to it are published. While the papers themselves may lose nothing in inherent value by the delay, it seems only just to their authors that they should receive timely publication. The 16 papers contained in this volume deal with varied topics of especial interest to the general practitioner.

Transactions of the Medical Society of the State of North Carolina. Forty-sixth Annual Meeting, held at Asheville, N. C., May 30, 31, and June 1, 1899. Pp. 255. Charlotte, N. C.: Observer Printing and Publishing House, 1899.

This Society is to be congratulated on the prompt publication of its volume of *Transactions*, which contains an interesting collection of papers, and a scarcely less interesting discussion. Quite a considerable amount of business was transacted at the meeting, and in addition to a record of this, the volume contains lists of officers and members, the code of ethics, etc. The publication is much less useful than it would otherwise be by reason of absence of a table of contents and of an index.

The Mechanics of Surgery, comprising detailed descriptions, illustrations, and lists of instruments, appliances, and furniture necessary in modern surgical art. By Charles Truax, of Chicago. 1899.

This is a book of decided value to any practitioner who invests any considerable sums of money in instruments or appliances. The writer is an instrumentmaker of unusually large experience, whose mechanical knowledge and long association with physicians and surgeons makes his opinion of decided worth. He says, in regard to textbook descriptions, "Accurate descriptions are few, differentiations on patterns are almost unknown, and definite reasons for preferring one model to another are often absolutely wanting," and in regard to catalogs, that in them are found only illustrations, often inaccurately designed, as a rule poorly executed, and no other information save the name and price. This book describes and illustrates almost everything necessary to the physician's or surgeon's outfit; the cuts are excellent, the descriptions clear and concise, and the comments on the points of merit or demerit of the thing described will be of great service in making a decision with regard to adaptability. No doubt the book will be as valuable to the man who buys comparatively little as to him who buys much, for very often the professional man without any special mechanical knowledge buys of a dealer with less, who is glad to pass off his out-of-date wares and often manages to do so by sending out special salesmen.

Practical Anatomy, Including a Special Section on the Fundamental Principles of Anatomy. Edited by W. T. Eckley, M.D., Professor of Anatomy in the College of Physicians and Surgeons, University of Illinois; Professor of Anatomy in the Northwestern University Dental School; Professor of Anatomy in the Chicago Clinical School, and Director of the Chicago School of Anatomy and Physiology; Member of the American Medical Association, the Chicago Pathological Society, the Chicago Medical Society, etc., and Mrs. Corinne Buford Eckley, Instructor of Anatomy in the Northwestern University Dental School; Professor of Anatomy in the Northwestern University Woman's Medical School; Professor of Anatomy in the Chicago School of Anatomy and Physiology. With 347 illustrations, many of which are in colors. Octavo. Price, $3.50 net, cloth; $4.00 net, oilcloth. Philadelphia: P. Blakiston's Sons & Co., 1012 Walnut St.

Morris' Anatomy is coming into such general use that a practical dissector based on its teachings will no doubt be welcome to teachers and students. This book gives briefly the essential points to be noted in the surface anatomy of any part to be dissected, the most suitable skin incisions, the best way of exposing the various structures from the superficial parts to the deeper parts, and the usual information supposed to be found in dissectors, which is so essential to the student in his effort to get an adequate knowledge of practical anatomy. Along with this are many helpful suggestions with regard to the medical and surgical importance of the structures studied. Whether the introduction of the quiz-compend system into a book of this kind is desirable is questionable, as is also the value of the chapter on the fundamental principles of anatomy for the student who has a reasonable preliminary education. On the whole, however, the book is a most excellent one; the systematic way in which it is written, the emphasis laid on important points, and the profusion of fine illustrations, is certain to make the book very helpful to the student. It is more concise, up-to-date and accurate than almost any of the books on practical anatomy now in general use.

A Text-book of Mental Diseases, with Special Reference to the Pathological Aspects of Insanity. By W. Bevan Lewis, L.R.C.P., M.R.C.S., Medical Director of the West Riding Asylum, Wakefield, England. Second edition. Philadelphia: P. Blakiston's Son & Co., 1899.

In the ten years that have elapsed since the appearance of the first edition of this work great changes have occurred in our knowledge of nervous histology. All the work on the neuron practically has been done in that time. The author, in recognition of this fact, has recast the anatomic section in his treatise and brought it into accord with the new histology and quite up to date. This was especially a requisite in Bevan Lewis' book, because, more than any other English work on insanity, his book is based on a study of the minute structure of the nervous system. Much of this revision is founded on original work by the author, and is illustrated with original drawings. Lewis' treatise, as is well known, is quite original in design and execution. The author has his own way of regarding his subject and of expressing himself. If we were to attempt to characterize the book in brief we should say that it was a somewhat premature attempt to describe insanity in terms of pathologic histology. How successful this attempt has been is a question on which different minds will differ. Like all premature births this one must have run some risk of being a still-birth, and even today we cannot regard it as a really satisfactory clinical work on insanity. For the average practitioner it must be

hard reading—but for the advanced specialist it is undoubtedly a mine of scientific details.

In the clinical section the author has added a chapter on Progressive Systematized Insanity, by which title he evidently means paranoia (a word which did not even appear in the index of his first edition). Like most English writers, Lewis appears to us to be awkward and involved in his attempts at a criticism of this whole subject of systematized delusional insanity. He treats monomania, delusional insanity, and progressive systematized insanity all under separate headings, and creates confusion in his very attempts at making the subject clear. In the main the clinical features of this edition are about the same as in the first, except that the treatment of insanity is included in a separate chapter.

Lewis maintains his former views as to the importance of the scavenger-cell, and presents the pathology of insanity with all the technical detail for which his book is well known. We regret that the heavy type used for emphasizing the author's views is retained. It disfigures the text, and does not at all assist the understanding.

Defective Eyesight, and the Principles of its Relief by Glasses. By D. B. ST. JOHN ROOSA, M.D., LL.D. With 36 illustrations and one set of test-types. Pp. 193. New York: The Macmillan Company, 1899.

The author of this book hopes that it may be a guide to the student and practitioner in ophthalmology, and incidently of interest to educated lay people as well as general practitioners. Two of these classes it certainly will *not* interest—the laity, by reasons of its technicalities; and the specialist, because of its crudity. To the other two classes, the beginner in ophthalmology and the general practitioner, it is dangerous as preaching a doctrine of carelessness and incomplete work. Although the volume is divided into chapters it might be equally well arranged under 3 headings, of one sentence each, to wit:

I. Apostrophe to the ophthalmometer; II. The vanity of mydriatic refraction; III. Belief in muscular imbalance the first sign of cerebral imbalance (in the surgeon).

We know of no book in recent years from the pen of one supposedly in high authority, that is more calculated to lower the working ideals of the ophthalmic novice. Nothing could be more misleading to such students than the following statements:

1. "It is not absolutely essential that the practitioner should know how to use the ophthalmoscope in order to adjust glasses properly for quite a large number of cases requiring them" (p. 13).
2. "Mydriatics are useless if one can use an ophthalmometer" (p. 96).
3. "Astigmatism is but a variety of either myopia or hypermetropia or a combination, if I may so speak, of two kinds of refraction in one and the same eye" (p. 20).
4. "I reiterate my advice to every practitioner to learn to use the ophthalmometer and make his diagnosis with that instrument if this be at all possible; if he will do this, he will scarcely ever find it necessary to paralyze the accommodation for the purpose of prescribing glasses" (p. 121).
5. "It has been reserved for our time to produce those, of whom the present author is one, who, after a fair trial at restoration of the so-called 'balance' or 'equlibrium' of the ocular muscles by prisms and tenotomies have ceased to believe in the existence of any such condition as 'muscular asthenopia'" (p. 23).
6. "He who desires to improve defective eyesight need not take prisms into account in his prescriptions (p. 121). Weak prisms are but a placebo; strong ones are unbearable and of more than doubtful value" (p. 123).
8. "It is very doubtful if this kind of prism exercise (of the interni) has any curative value, although much was expected of it at the time" (p. 124).
9. "For years I spent much time in making Graefe's and other tests of the power of the externus and internus especially, but I have abandoned them entirely, and I advise every practitioner to do the same" (p. 126).

These excerpts illustrate the main trend of Dr. Roosa's doctrine, and furnish a glimpse of the author's robust individuality; but while individuality is the quality most to be desired in all books, it must studiously hold aloof from the baneful influences of dogma. Moreover, the careful reader cannot but be struck with the looseness of statement and the inconsistencies of the book. In evidence of this inconsistency, and in at least partial rebuttal of Dr. Roosa's doctrine as above set forth, we quote the following (p. 102): "To put ordinary eyes at rest, a 4 gr. solution of atropia should be used after each of seven regular meals; that is to say, for two days and a half, and very often for a longer period. It is a very troublesome and trying means of getting glasses—but a *certain* one." (Italics by the reviewer.) Precisely so. It is the *certain* method *only* that can be justified in righting the inaccuracies of an organ so precious that Nature has allotted to it four pairs (that is to say one-third) of all the cranial nerves. That concientious adherence to this method is often troublesome and trying and sometimes even exasperating, any painstaking ophthalmologist will readily admit; but, in just so far as one neglects any means to make certain his ophthalmic result, in that far does he fail to fulfil his responsibility to his patient.

No thinking oculist disputes the fact that the ophthalmometer is a signal addition to our objective methods, but to say that it furnishes a final verdict in most cases is a proposition that will not meet with general acceptance. Retinoscopy, which is not even mentioned by Dr. Roosa, is a much more reliable method and furnishes a completer and more scientific result. We also note the absence of any reference to the lenticular bifocal glass, a device that has more than all others popularized the bifocal lens among wearers of glasses.

Altogether, the volume cannot but prove a disappointment to all lovers of good refraction work as well as to the publishers who have certainly done all one could wish for in the making of the book.

The Anatomy of the Central Nervous System of Man and of Vertebrates in General. By PROF. LUDWIG EDINGER, M.D., Frankfort-on-the-Main. Translated from the Fifth German Edition by WINFIELD S. HALL, Ph.D., M.D., Professor of Physiology in the Northwestern Medical School, Chicago, Assisted by PHILO LEON HOLLAND, M.D., Instructor in Clinical Neurology in the Northwestern University Medical School, Chicago, and EDWARD P. CARLETON, B.S., Demonstrator of Histologic Neurology in the Northwestern University Medical School, Chicago. Illustrated with 258 engravings. 6½ x 9½ inches. Pages xi–446. Extra Cloth, $3.00. Philadelphia: The F. A. Davis Co., Publishers, 1914–16 Cherry St.

Textbooks in which the anatomy of the central nervous system in man is satisfactorily, indeed almost exhaustively, treated, are quite numerous, but until Professor Edinger's work appeared, anyone seeking to gain a knowledge of the comparative anatomy of the central nervous system would have been obliged to have access to a large medical library and to seek his information from many sources and in several languages. This book certainly fills a well-defined want, for the importance of the standpoint of comparative anatomy to him who wishes to obtain an adequate understanding of any question in morphology is well recognized. The book is divided into three sections: The first with a chapter giving an interesting historical account of the various methods of investigation that have been and are in use in studying the brain; a chapter on the present conceptions of the ganglion-cell and nerve with regard to their structure and function; and a chapter on the physiology of the central organ and peripheral nerves. The next section of about 120 pages gives an accurate account of the embryology and comparative anatomy of the vertebrate brain. The remainder of the book is taken up with a consideration of the special anatomy of the mammalian brain, with more particular reference to the human brain. By the continued study of the central nervous system from the standpoints of embryology, comparative anatomy, and pathology; by the several methods of anatomical investigation and staining; by physiologic experiment; by all these combined, as is outlined in this work, we shall in the future finally get a thorough and accurate knowledge of the central nervous system. The substance of the book was first embodied in a series of twenty-five lectures given to the practising physicians of Frankfort and with slight changes in form they are printed in twenty-five chapters. Professor Edinger's easy, colloquial language has been rendered into very good English by the translators. The book is well printed and bound, and the numerous illustrations compare very well for the most part with those of the original German edition.

Correspondence.

SURGICAL COMMISSIONS—THE DECOY LETTER.

By G. FRANK LYDSTON, M.D.,
of Chicago, Ill.

To the Editor of The Philadelphia Medical Journal:—

Since the publication of my article on "The Surgical Commission Man and Surgical Canvassing" in your Journal of November 4, I have been besieged with requests for the publication of the original letter that was sent to different members of the profession regarding the placing of surgical cases on commission. The letter as written and signed by my friend Dr. Banks is herewith enclosed for publication. The fact that a large proportion of those approached are willing to do business upon the basis outlined in the letter needs no comment. Those of the profession who have not seen my article of November 4 will find abundant food for thought therein. The Banks letter is herewith appended:

Atlanta, Ill., August 14, 1899.

Dear Doctor:—It so happens that I often have occasion to refer operation cases to the city for treatment. I have been sending them to a gentleman who has recently treated me in a way I don't like, and I am therefore desirous of making arrangements with some one else. What portion of the fee do you usually give the doctor who brings the case? I am free to say I have always had 50%. This is not too much, because I always know just what the patient can stand and have him worked up for a good fee beforehand. This is a rich farming country, you know.

An early answer will oblige, as I have several cases that ought to be operated very soon.

Very fraternally yours,

J. H. Banks.

LABORATORY DIAGNOSIS IN THE LATE WAR.

By WILLIAM G. B. HARLAND, M.D.,
of Philadelphia.
Late Surgeon First Regiment Infantry, Pennsylvania Volunteers.

To the Editor of The Philadelphia Medical Journal:—

In publishing his remarks concerning the availability of laboratory diagnosis in the late war,[1] Acting Assistant Surgeon C. T. Craig might have stated the time when the Sternberg General Hospital was opened for patients and the time when the Laboratory connected with it began its regular work.

Troops were gathered together at Chickamauga long before the middle of May. Samples of drinking water were sent by us in June to Philadelphia for analysis. Typhoid did not become epidemic in the First Regiment P. V. until after August 1. During June and July malarial and dengue-like diseases together with typhoid were present that did call for a laboratory differential diagnosis, but it was not at hand.

The Sternberg General Hospital was opened toward the end of August, too late to avoid the blot of crowded division hospitals; the laboratory was put in action too late to answer the questions of diagnosis and of water purity that arose in May, June and July. The committees that investigated the typhoid epidemic do not mention in their reports any work done by any laboratory at Chickamauga during June and July.

The Surgeon-General's paper read before the American Medical Association and published in the Philadelphia Medical Journal summed up the questions of blame, etc., most ably. Dr. Craig might refer the misinformed to that paper; at any rate, would it not be well to publish the actual dates so that no one may be misled either "for or against" by a too general statement?

[1] Letter published in The Philadelphia Medical Journal, October 28, 1899.

ANASTOMOSIS FORCEPS.

By A. J. DOWNES, M.D.,
of Philadelphia.

To the Editor of The Philadelphia Medical Journal:—

February 4, 1899, I described in the Philadelphia Medical Journal the method of removing my anastomosis forceps thus: "the thumb and index finger of one hand hold the sutured bowel on the blade as the other hand rotates the handle." While this was waiting for publication I had demonstrated also the very reverse of this, that the handle could be held fixed while the bowel itself was pushed by the thumb and index finger into the hollow of the blade. The exceeding ease of the removal of this forceps, as a whole, in any and all positions is a fact. The value of this instrument is not yet well enough known, otherwise there would be little excuse for the invention, so-called, of compound forceps. I am on the program of the Philadelphia County Medical Society for December 6, when I will report a practical test, and when I will demonstrate and illustrate, I hope, to the satisfaction of surgeons the great simplicity and practicability of this ideal anastomosis medium.

HERPES ZOSTER OPHTHALMICUS.

By N. J. WEILL, M.D.,
of Pittsburg, Pa.
Formerly Assistant to the University Eye Clinic, Zürich, Switzerland.

To the Editor of The Philadelphia Medical Journal:—

Herpes zoster ophthalmicus is comparatively rare in our climate, and because of its rarity errors in its diagnosis occur; therefore it might be well to briefly delineate a case which I recently had.

J. C. O., age 73, until recently real-estate agent in Pittsburg, was suddenly attacked about 8 weeks ago by neuralgic shooting and boring pains in the left half of the head. These started in the left temporal region and extended up and back on the convexity of the head. After 3 or 4 days of these piercing pains the overlying scalp of the affected portion presented a reddened appearance, was swollen, very painful to even the most superficial touch, and was partially covered with a scattered vesicular eruption. Extreme tenderness to light and constant watering of the left eye added decidedly to his discomfort. Inasmuch as the patient was accustomed to occupy himself with garden work, the consulted physician diagnosed the case as resulting from some vegetable poisoning—rhus toxicodendron being the most probable—and treated the patient accordingly. A wash of zinc oxid and carbolic acid in lime-water was applied locally after the zinc ointment had been tried fruitlessly. Strychnin was administered internally to tone up and allay distress from the altered heart. A *shade* was constantly worn before the weeping eye.

After 8 weeks of quite acute suffering the patient was brought to me by his physician and left in my care, as the eye involved was still photophobic, even after the dermatitis of the scalp had been already cured and the pains in the left half of the head were somewhat less severe. The actual state of affairs was very obvious. The striking difference in the color of the skin of both sides of the head stood forth; that of the left side was quite red, and in it were many deeply pitted scars, the whole of which extended exactly to and not beyond the median line of the head. Total anesthesia of this portion was also present. To complete the

picture of herpes zoster ophthalmicus the central portion of the entirely transparent cornea was still anesthetic, while the peripheral parts had quite regained their sensibility. The tension of this eye was a degree lower than that of the other.

The object of this paper is not to discuss at length the subject of zona ophthalmica, since Sulzer (*Annales d'Occulistique*, 1898) and Cohn (*Archiv für Augenheilkunde*, 1899) have most recently dilated upon it, but simply to point out the usefulness of the *shade* employed before the affected eye. The wearing of the shade possibly prevented a corneal complication. Fortunately too, the zinc lotion was prescribed in preference to the commonly used lead-water, which in these very cases in which the cornea is insensitive, is often extremely detrimental to the vision, making the cornea opaque whenever there may chance to be a destruction of its covering epithelium. (Vide Tab. 20, in *Haab's* Atlas of External Diseases of the Eye, edited by G. E. de Schweinitz, M.D.)

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending November 25, 1899:

Tuesday, November 21.—College of Physicians, Section on Ophthalmology.

Wednesday, November 22.—County Medical Society.

Thursday, November 23.—Pathological Socioty.

According to the will of the late George W. Rexamer, after the death of his widow and a sister-in-law, his entire estate, amounting to between $150,000 and $200,000, will revert to the Episcopal Hospital for the erection of a ward or building, to be known as the Rexamer Ward or Building.

Bucks County (Pa.) Medical Society.—At the annual meeting held in Doylestown, November 1, the following officers were elected; President, Dr. Abraham S. Wilson, Bristol; vice-presidents, Dr. Noah S. Nonnamaker, Bedminster, and Dr. John A. Fell, Doylestown; secretary, Dr. A. F. Myers, Blooming Glen; treasurer, Dr. Frank Swartzlander, Doylestown. The society decided to meet in Quakertown in February, 1900.

Daily Medical Inspection of the Schools of Philadelphia.—The Board of Education has empowered the Committee on Elementary Schools to make arrangements with the faculties and trustees of the medical colleges and hospitals for the formation of a corps of physicians to visit the schools daily and make an inspection and medical examination of such children as may present manifestations of illness.

Philadelphians to Serve in the British-Transvaal War.—Dr. Charles Henry Weber, formerly resident physician in the Children's Hospital of Philadelphia, Miss Ludekens, superintendent of the Children's Hospital, who has been granted a six-months' leave of absence, and Miss Manly, a graduate of the Presbyterian Hospital Training School for Nurses, sailed during the week on the *Meseba* for England, whence they will embark for South Africa on the hospital ship *Maine*. Dr. Weber and the Misses Ludekens and Manley form a part of a contingent that is to do duty in South Africa on behalf of the Association of American Women, of which Lady Randolph Churchill is president. They take with them, as a gift of Mrs. Whitelaw Reid, one of the best and latest model ambulances.

Vital Statistics of Philadelphia for the week ended November 11, 1899:—

Diseases.	Cases.	Deaths.
Total mortality		314
Pulmonary tuberculosis		46
Pneumonia 29, congestion of the lungs 1		30
Inanition 11, marasmus 9, debility 8		28
Diphtheria 24, membranous croup 2	117	26
Heart-disease		23
Apoplexy 13, paralysis 6, softening of the brain 3		23
Nephritis 17, uremia 1		18
Inflammation of the brain 9, congestion of the brain 3		12
Carcinoma		11
Casualties 9, burns and scalds 2		11
Convulsions 9, epilepsy 1		10
Typhoid fever	36	8
Scarlet fever	68	4
Gastroenteritis 8, peritonitis 5, dropsy 4, senility 3, cirrhosis of the liver 3, cyanosis 2, diarrhea 2, hernia 2, intestinal obstruction 2, suffocation 2, asthma 1, malaria fever 1, puerperal fever 1, influenza 1, pleuritis 1, appendicitis 1, poisoning 1, suicide 1, tetanus 1, pertussis 1.		

Philadelphia County Medical Society.—At a meeting held November 8, DR. MORDECAI PRICE read a paper entitled, **The treatment of appendicitis and its great mortality.** He emphasized the fact that the affection is a surgical disease and demands surgical treatment. That the latter be effectual it must be undertaken early, and this necessitates early recognition of the condition. Several illustrative cases were cited to show not only the various manifestations of appendicitis, but also the similarity in clinical manifestations of fecal impaction and inflammation of the appendix. The diagnosis and differential diagnosis of the condition were spoken of, as were also the technic of the operation and the after-treatment. It was stated that, in acute cases, the mortality is generally from 8% to 25%; but these figures were considered entirely too high. His own operative procedures had given better results, and these were considered in great part due to thorough flushing, irrigation, and persistent and thorough drainage with gauze. In the discussion, DR. W. E. ASHTON stated, that as soon as the diagnosis of appendicitis is made, half of the battle is won, and operation should be performed immediately. He had abandoned flushing, and considered the great mortality due to delayed operation. DR. LEON BRINKMANN criticised Dr. Price's procedure of leaving a stump of the appendix, and strongly advocated removing the appendix in all cases. He considered flushing of no more utility than mere swabbing, and stated that the mortality is due to the nonagreement of surgeons as to the time of operating, thus leaving the physicians perplexed. DR. A. J. DOWNES stated some views regarding the pathology of the affection, urged early operation, and considered flushing of little value. The President, DR. S. SOLIS COHEN, dissented from the view that it is justifiable to operate in every case of appendicitis, and spoke of the simulation of appendicitis by typhoid fever in its early stages.

DR. CHARLES W. DULLES read a paper entitled, **Medical journal ethics.**

Pathological Society of Philadelphia.—At a meeting held November 9, DR. P. W. DARRAH read a paper entitled: **Experimental study of illuminating-gas poisoning.** He recounted some experiments undertaken with a view of discovering a means of resuscitating animals asphyxiated with illuminating gas. He found that various stimulants were without effect, that hydrogen dioxid subcutaneously and intravenously and saline injections were also useless. On the contrary, transfusion of arterial blood led to almost instant recovery in many cases and to eventual recovery in all cases in which it was tried.

DR. A. E. BLACKBURN presented a **carcinoma of the stomach involving the pancreas, omentum, and liver** from a man, aged 54 years.

The President, Dr. F. A. Packard, presented the spinal cord from a case of **cerebrospinal meningitis.** Dr. Simon Flexner spoke of the bacteriology of the condition.

Dr. A. V. Meigs read a paper on **endophlebitis.** He detailed the history of a man, aged 25 years, many of whose veins were found excessively hard, and who in addition complained of cardiac disorder. A vein on the dorsum of the right foot was excised and subjected to microscopic examination. This revealed great thickening of the intima and media, the most noteworthy alteration being a considerable overgrowth of a fibroid material within and at the expense of the muscular coat. The condition much resembled endoarteritis, but differed from it in some respects and was considered very unusual in the veins. The discussion was participated in by Drs. Alfred Stengel, A. A. Eshner, David Riesman, W. G. Spiller, W. M. L. Coplin, and A. V. Meigs.

Dr. M. Howard Fussell presented specimens from a man who had died of **chronic nephritis.** In addition to the lesions of chronic nephritis there were detected chronic pleuritis, ascites, nutmeg liver, enlarged spleen, hypertrophy of the heart without valvular lesion, and a persistent thymus gland.

Dr. J. Dutton Steele reported a case of **endothelioma of the retroperitoneal region.** The patient was a child, aged 4 years, who had been ailing 1 year, with loss of flesh and strength, and a large mass in the left side of the abdomen. The tumor was removed by operation. The patient recovered, but died some time later of metastasis. Microscopic examination of the extirpated growth revealed it to be an endothelioma.

Dr. John H. Musser and Dr. David L. Edsall presented specimens from a case of **carcinoma of the pancreas** with extensive metastasis throughout the glandular system and the lung, the entire lower lobe of one lung being almost entirely involved.

College of Physicians of Philadelphia.—Section on General Medicine.—At a meeting held November 13, Dr. William G. Spiller read a paper on, and presented a patient affected with, **Apoplectic hypertonia** (Bechterew). Bechterew, in a recent communication, drew attention to the more common conditions following hemiplegia, such as posthemiplegic chorea, athetosis, tremor, etc., and from these cases he separates another class of cases, of which he reports 3, and could find no reference to similar cases in the literature. These are characterized, not so much by hemiplegia as by hemiparesis, which may be slight, and the occurrence of tonic spasm in the affected members. The case reported by Dr. Spiller is another instance of a similar affection, and is in the person of a girl aged 15 years. At the age of 3 months it is reported that she suffered with convulsions and unconsciousness, and that following this attack there persisted spasticity of the right face, arm, and leg. The spasms that now affect the right arm are not athetoid, nor clonic, but distinctly tonic, though they vary from time to time, and are increased under excitement and may disappear when the patient is quiet and not observed, at which time she has quite good use of the arm. There is also spasm of the face and the right leg. There are no contractures nor any atrophy. Dr. Spiller suggested that a preferable designation for the condition is **postapopletic hemihypertonia,** and that these cases should be distinctly separated from other postapopletic conditions. It is probably due to some irritation of the motor tracts beneath the cortex. In the discussion Dr. F. A. Packard detailed the history of a case of a similar disorder in a girl, aged 4 years, whom he had observed some years ago. Dr. A. A. Eshner asked if Dr. Spiller thought that the affection differed other than in degree from other posthemiplegic conditions. Dr. Spiller pointed out what he considered differences in the two conditions.

Dr. Spiller also reported a case of **Jacksonian epilepsy with hemianopsia and monohypertonia.** The patient was a man, aged 25 years, who suffered a trauma of the head, following which there developed Jacksonian epilepsy. After the lapse of several years operative treatment was undertaken, with but temporary relief. Subsequently two other operations were performed, but the result was not encouraging. After one of the operations there developed hemianopsia and hemiparesis. The latter condition improved and was followed by monohypertonia, but the hemianopsia persisted.

Dr. F. A. Packard reported two cases of **traumatic tetanus with somewhat unusual features.** The first was a man, aged 46 years, who was injured in the hand by a blank cartridge. Seven days later the first manifestations of tetanus developed and the patient rapidly became worse. He was given tetanus antitoxin, physostigmin, bromid, chloral, and an occasional dose of morphin. The convulsive seizures were not appreciably controled, when at the end of several days, he became generally relaxed, cyanotic, ceased breathing, and his pupils dilated widely. Inhalations of oxygen and artifical respiration resulted in improvement of the alarming symptoms, but they recurred several times, and finally the patient died. The second case was that of a young man, who stumbled, striking himself just below the left thigh with a twig that stood several feet from the ground. The interesting features of the case were that the first manifestations of the tetanus developed at the site of the wound, and then spread to other parts of the body. He was treated with tetanus antitoxin, bromids, physostigmin, and injections of carbolic acid. The carbolic acid seemed to be of distinct advantage, but he died at the end of 15 days from the reception of the wound. The tetanus antitoxin seemed of no advantage in either case. In the discussion, Dr. A. J. Scott detailed an account of a case of tetanus in which recovery had followed the use of carbolic acid injections, and another case in which the same treatment had proved furtile. Dr. Spiller stated that he thought that in some cases the tetanus poison first acted peripherally and then centrally, as in Dr. Packard's second case. Dr. Cleeman spoke of a case in which recovery had followed the use merely of chloral and bromids, the former being of especial value. Dr. Stengel recounted the history of several cases of tetanus of unusual character. Both occurred some time after vaccination with glycerinated lymph by the same physician, and one was complicated by concurrent diphtheria. Recovery ensued in both instances. The vaccination had progressed normally for some time, and it was thought that infection had occurred subsequent to the vaccination. Dr. Judson Daland spoke of the efficacy of carbolic-acid injections in several reported cases.

Dr. J. D. McCarthy read a paper on **narcolepsy,** and reported several interesting cases, the chief clinical manifestations of which were an irresistible desire to sleep followed by falling to the ground, and sleep for varying periods of time. The different characters of allied conditions and the differential diagnosis were dwelt upon.

Dr. J. Dutton Steele reported a case of **typhoid fever with concurrent malarial infection.** The patient was a man, aged 23 years, whose attack of typhoid fever ran the usual course until the twenty-fourth day, when there occurred a severe chill with high fever. No malaria hematozoa could be detected in the blood. The chill recurred on the third day, and on this occasion malarial hematozoa of the tertian type were discovered in the blood. The administration of quinin was followed by the cessation of the chills. The discussion of concurrent typhoid and malarial infection was participated in by Drs. Stengel, Scott, Packard, and Daland.

NEW YORK.

Death of Dr. Charles H. Holzhausen.—On November 5, Dr. Charles H. Holzhausen, one of the surgeons in Bellevue Dispensary, died at his home from typhoid fever after an illness of two weeks. He was a tenor singer in Holy Trinity Church.

Epidemic of Rabies Under Control.—State Commissioner of Agriculture Wieting has been informed that the epidemic of rabies in Erie and Niagara Counties is rapidly

subsiding, largely owing, it is said, to the good work done by the Buffalo police in capturing and muzzling dogs.

New York Polyclinic.—Dr. Morris Manges has been appointed professor of general medicine to succeed the late Professor Page.

Ambulance Horse Runs Away.—The horse attached to the ambulance of the Manhattan State Hospital took it into his head to run away on upper Fifth Avenue the other day, with the result that a plate-glass window in a nearby saloon was wrecked, and the driver of the ambulance was cut about the head.

In Aid of Beth Israel Hospital.—This hospital for East Side Hebrews is soon to have increased accommodations. On November a concert was given at the Educational Alliance, the proceeds of which go to the hospital. This concert was arranged by the members of the Home Nursing Club, mostly working-girls, who have been indefatigable in their efforts to make it a success.

The New York Eye and Ear Infirmary.—It is reported that this institution is in need of funds to meet the ever increasing demands upon it. According to the annual report, there were 121,770 visits to the dispensary in 1898. A plot of ground, in Thirteenth Street, adjoining the present hospital, has been purchased, and it is intended to erect upon it a pavilion for contagious eye-diseases.

Watching an Injured Chinaman Die.—The other day a Chinaman, while endeavoring to alight in front of his laundry from a rapidly moving car, fell in the street. When taken into the laundry he was conscious, but evidently suffering. The only visible mark was a bruise on his elbow. A physician advised his removal to hospital, but instead of that his countrymen in the shop sat around gazing at him. When the police heard of it about two hours afterward, they found the Chinaman lying there dead.

Another Broken Back Operated on.—A telephone lineman fell from a pole in Long Island City the other day, and broke his back. On November 5, the surgeons at St. John's Hospital determined to see if they could not do as much for him as had been done for young Duryea, as they resected the eighth, ninth, and tenth dorsal vertebrae. He bore the operation well, and although it was found that the injury was more extensive than in the case of Duryea, there is some prospect that he will recover.

Dissension Again in the Sailors' Snug Harbor.—Another feud has arisen in this institution on Staten Island. This time the doctors and nurses are in revolt against what they allege to be the unwarranted interference with their work by the governor. The physician in chief declares that the governor countermands the orders of the physicians regarding the care of the hospital patients, and acts in other ways entirely subversive of proper discipline, and incompatible with the dignity of his office. The investigation is still going on.

A Filipino Bullet Revealed by X-rays.—Lieutenant J. L. Donovan, of the Sixty-ninth Regiment, who was shot in the thigh last June, could not rest content with a large bullet in his limb, and consequently on his arrival in New York, although the wound had healed, he insisted that the bullet be removed. By the aid of the x-rays Dr. John A. Bodine located a 1¼-inch brass jacketed bullet in his left thigh, and removed it without difficulty. He found that the bullet had pierced the bone and had traveled through the medullary canal for a distance of 8½ inches, and had then emerged from the bone, finding a final resting-place in the soft parts.

A Lively Hysterical Patient.—On the night of November 4, a young woman was found in the street trying to break her skull with a paving stone. She was taken by the police to the J. Hood Wright Memorial Hospital, where it was found that she was hysterical. At 10 o'clock the following morning she jumped out of bed and made for the window. Two women nurses were unable to control her, but their screams aroused the policeman in the hospital. Before he could reach the struggling women the patient leaped headfirst through the glass window and fell on the ground, one story below. The policeman dropped through the window after her, and found that although unable to stand she was trying to drag herself along. When taken into the hospital again it was found that she had been severely bruised, and had a fracture of one thigh. In spite of the shock of the fall, and of her severe injuries, she fought her rescuer vigorously.

Tongue Pulling vs. Tooth Pulling.—An excitable Polish Jewess took her 10-years-old girl to the Good Samaritan Dispensary to have her tooth pulled. According to her story, the dentist was not in, and two students volunteered to attend to the child. To this she consented, but was soon horrified to see the child struggling violently and bleeding from the mouth. She then claims that she saw the forceps were grasping the child's tongue. The mother interfered, snatched her fainting child, and ran out to a physician in the vicinity. According to the statement of the latter the child had a high fever for three days, and it was almost impossible to control the bleeding from the lacerated tongue. When first seen by him there had been a piece of the tongue, about ¼ of an inch wide, hanging by only a shred. The physician in charge of the dispensary ridiculed the whole story, and claimed that the child had been unruly and abusive, and had bitten her own tongue as well as the hand of the dentist's assistant.

Operating on a Buffalo.—We read so much of surgical technic nowadays that even the little changes that are constantly being made and reported fail to impress one with their novelty. It is, therefore, with more than a languid interest that we chronicle the performance of an operation upon a buffalo. The newly opened zoological garden in Bronx Park, New York, was good enough to furnish the subject, a buffalo, who, in order to show his deep-rooted prejudice against being removed from his home in Texas, smashed in the side of his car, and so wounded and infected his right hind leg as to lead to the formation of three large abscesses. The lame animal succeeded in leading the herdsman of the garden a lively chase, and the crowd watched the preparations for the operation from a respectful distance. He was finally lassoed, wound up in the lariat and turned upon his back. From first to last interest in the preparatory treatment never flagged, and it was not without an exciting struggle, and some damage, that the animal was finally tied down securely, and the doctors were allowed an opportunity to inject cocain and operate on the abscesses.

New York Academy of Medicine.—At the last stated meeting DR. ANDREW H. SMITH read a paper entitled: **The pathology of lobar pneumonia as a basis for treatment.** He maintained that lobar pneumonia was not an inflammation of the lung, but a culture of the pneumococcus, and that the peculiar features of the disease were dependent upon the special conditions existing in the lung. He directed attention to the presence of a double

circulation in the lung, and insisted most strenuously that pneumonia has to do with the functional circulation, while the life of the pulmonary tissue is maintained by the nutrient circulation. The growth of the pneumococcus in the fibrinous exudate in the air-cell was the essence of pneumonia. In considering the treatment, he dwelt on the possibility of inhibiting this germ-growth by suitable medication of the blood from which the exudate is derived, and took the position that owing to the feeble vitality of the pneumococcus, and the fact that the blood could be readily saturated with such substances as chloroform, sodium salicylate and creasote it was entirely possible by the means just suggested to prevent the disease from spreading to other air-cells. Those who participated in the discussion of this paper disagreed with its author, and expressed their continued belief in the older theory that pneumonia is a true inflammation.

Craig Colony Prize for Original Research in Epilepsy.—Last year Dr. Frederick Peterson, president of the Board of Managers of the Craig Colony for Epileptics, offered a prize of $100 for the best original contribution to the pathology and treatment of epilepsy.

The 7 papers received were submitted to 3 members of the New York Neurological Society, who reported to the Board of Managers of Craig Colony, that in view of the fact that some of the essays submitted failed to comply with the conditions of the competition, and that others were more limited in scope than a successful essay should be, no awards will be made. Three essays deserve special mention. Their titles and devices are:

"The Pathology of Epilepsy" by $CO\begin{Bmatrix}NH_2\\OH,NH_3\end{Bmatrix}$

"Status Epilepticus," by "Aura."

"The Pathology of Epilepsy," by "On and ever onward."

The prize of 1899 not having been awarded in accordance with the report of the committee, Dr. Peterson now offers a prize of $200 for the year 1900 under similar conditions. This sum will be awarded to the author of the best contribution to the pathology and treatment of epilepsy. Originality is the main condition. The prize is open to universal competition, but all manuscripts must be submitted in English. Each essay must be accompanied by a sealed envelop containing the name and address of the author and bearing upon the outside a motto or device which is to be inscribed upon the essay. All papers will be submitted to a similar committee, consisting of 3 members of the New York Neurological Society, and the award will be made upon its recommendation at the annual meeting of the Board of Managers of the Craig Colony, October 9, 1900. Manuscripts should be sent to Dr. Frederick Peterson, No. 4 West 50th Street, New York City, on or before September 1, 1900. The successful essay becomes the property of the Craig Colony and will be published in its medical report.

The Buffalo (N. Y.) Academy of Medicine—Surgical Section.—At the meeting held November 7, Dr. Herman Mynter presented a paper entitled **Etiology and pathology of appendicitis and their bearing on treatment.** As predisposing causes of appendicitis, he mentioned first the anatomic position and structure of the appendix, exposing it to pressure from above and to the entrance of the contents of the bowel; its large absorbing surface allowing solid particles to be left behind and form concrements; its one artery allowing gangrene; its large amount of lymphoid tissue allowing easy attack by inflammations; its participation in several of the frequent abdominal affections; it contains normally a microbe, the bacillus coli communis, which by slight provocation becomes virulent. Previous attacks were also given as an etiologic factor in from 30 to 50%. Relapses would occur unless the appendix became destroyed by an attack of gangrene or obliterated by destruction of the epithelium and growing together of the newly formed tissue; the latter did not always mean recovery. Relapses, unless of the very mildest character, leave pathologic changes, such as strictures, thickening and bending by retraction of the mesentery, which lead to stagnation, dilatation and formation of coproliths and these in turn produce relapse. He ascribes perforation in many cases to pressure-necrosis, without the aid of microbes and gives to the bacillus coli communis the largest share of credit for the virulent pyogenic conditions arising in appendicitis. He found strictures, flexions and bends present in 30% of his observations, and he believes that their injurious action depends upon the stagnation produced and upon the quick growth of the microbes in the retained secretion and blood, and empyema thus developed in the dilated part. A large number of cases of nervous dyspepsia are suffering from one form or another of chronic appendicitis. Appendicitis is the cause of more deaths than any other abdominal affection, and 90% of all deaths from inflammation of the bowels in young men are caused by it. Stricture is the main corner-stone of the pathology, even while acknowledging that bacterial infection may occur with it. From these pathologic or etiologic facts, he holds that medical treatment has no place whatever in the conduct of a case of appendicitis; that it is simply and always a surgical affection; that the danger lies in the disease and not in the operation, and that the time for the operation is during the first 24 to 36 hours. He then went into the various points of diagnosis. In the discussion Dr. Matthew D. Mann stated that he believed appendicitis to be a surgical disease, the great difficulty being to decide when to operate, but more were saved by early operation, consequently, when in doubt, operate. There is analogy between the appendix and the fallopian tubes, each having access to the external world and receiving infection therefrom; the fallopian tubes have no tendency toward gangrene and perforation and the peritonitis arising does not spread out of the pelvis. Dr. A. L. Benedict said that it was quite evident that both the medical and the surgical ideas regarding the treatment of appendicitis were getting nearer together in that the surgeons were not so radical as a few years ago, while medical men are becoming less conservative and more ready to call the surgeon in early, and even to dictate when the operation should be performed. It is quite possible to have a clinical appendicitis after removal of the appendix by operation, and 90% of the cases had their virulence due to the activity of the bacilli coli communis, indirectly to the occurrence of intestinal stagnation. Dr. Henderson called attention to the relation of appendicitis to lithemia or uric-acid diathesis, comparing it with the tonsils in regard to inflammations of lymphoid tissues, claiming microbes only of secondary importance. He called attention to the apparent geographical distribution of appendicitis. Dr. Ingraham stated that in his experience all cases of recovery under medical treatment relapsed. Dr. Blaauw referred to the teachings in Europe of the use of opium in this disease, and believes that the American method of treatment by surgical operation to be the most successful one. Dr. Congdon thinks that it is impossible to distinguish the form of the disease without seeing the appendix, and the danger is in the disease and not in the operation. Dr. Mynter closed the discussion by stating that in his experience and that of other surgeons, the cecum was always found empty, except in cases of obstruction in the colon. He secures rest, quiets pain for which opium is administered just sufficient to control, avoids cathartics because of the inability to make an exact diagnosis, and because gangrene and perforation are both possible without temperature, rapid pulse or tenderness; if no improvement in 24 or 36 hours, pulse up, temperature up and slight muscular rigidity, his rule is immediate operation. In his experience he had never saved a case of diffuse inflammation after 4 days.

Dr. H. Mynter reported a case of **retropharyngeal polyp,** and presented the specimen, the patient and the instruments. The tumor filled a two-ounce bottle. Tracheotomy was a preliminary operation and the tumor was removed by way of the mouth while the patient was in the Trendelenburg position. The operation required a staphylorrhaphy. Among the instruments was one designed for this operation, which had a little of the character of the shuttle action of a sewing-machine.

NEW ENGLAND.

An outbreak of typhoid fever has occurred recently at Collinsville, Mass. Twenty-eight patients were affected and the infection is reported to have come from a contaminated well.

Beverly (Mass.) Hospital.—Dr. Albert S. Dolloff has been elected a member of the staff to succeed Dr. W. H. Swan, who recently resigned.

A mother aged 100 years and a child aged 81 years recently celebrated their birthdays at Walpole, N. H. The centenarian is Mrs. Eunice Slade.

Smallpox Around Boston.—Smallpox continues to manifest itself in Chelsea despite the more or less vigorous efforts of the Board of Health there to suppress it. There were two new cases last week, and the Board of Health has taken possession of an abandoned schoolhouse, where they purpose quarantining suspected cases. In the neighboring cities of Malden and Everett free and compulsory vaccination of school-children is in force.

Massachusetts Medical Society.—The semiannual examination of the Censors of the Massachusetts Medical Society occurred November 9. The paper, which was the same for the whole State, was as follows :

1. Describe the shoulder-joint.
2. Symptoms, diagnosis and treatment of appendicitis.
3. Describe briefly the systemic, pulmonary and portal circulation, and the changes which take place in the blood during the circuit.
4. What is a carbuncle? Describe the principal features of carbuncular swelling.
5. Breech-presentations :—mechanism and management.
6. Dysmenorrhea :—causes and treatment.
7. Name six preparations of iron, with doses. Write prescriptions *in full* containing iron for,
   (*a*) Chlorosis with constipation.
   (*b*) Anemia following fever.
8. Treatment of syphilitic iritis in acute and chronic states.
9. Malarial and typhoid fevers :—give the main points in differential diagnosis.
10. Locomoter ataxia :—diagnosis. Describe in full the characteristic symptoms.

Boston Society for Medical Improvement.—At a meeting held November 6, DR. BENJAMIN FENNEY reported **an unusual case of appendicitis.** The patient was a woman 79 years old. Her symptoms were pain in the right groin and in the abdomen, nausea, and much general prostration, constipation, and temperature 101°. There was a tender swelling midway between the iliac and pubic spines and below Poupart's ligament about the size of a walnut, doughy to the touch, only slightly movable and gave no impulse in coughing. Six years before she had once noticed this "lump," after some extra exertion; but it had never before troubled her seriously. The only tenderness in the abdomen was just above Poupart's ligament on the affected side. The diagnosis of probable old omental hernia, suddenly strangulated, was made, and taxis attempted, but quickly given up as causing intense pain and doing no good. Then there was an aggravation of all symptoms, and operation was decided upon. The incision disclosed an inflamed herniated appendix. Three inches of appendix were removed and the case made a good recovery. In discussing hernia of the appendix, the reader called attention to two lists of such cases, both published in 1895, one of 98 cases by Bajardi, and one of 25 by McAdair Eccles. Since then, Van Hoch, of Chicago, has reported one. Good and Rose, of London, one each, and the writer's make the fourth. Bajardi's table gave inguinal 57, femoral 40, obturator 1. The 29 remaining cases reported gave: Inguinal 13 and femoral 16. These cases of hernia gave the symptoms of early appendicitis, but with a localized tenderness so sharp that it could not be overlooked. In many cases there were the symptoms of intestinal obstruction, but the vomiting is less severe, less frequent, and less fecal. The length of time appendices had been herniated with no special symptoms is interesting as bearing on the question of the tenderness of the normal appendix. In only one of the cases reported had a correct diagnosis been made before operation, and then a patient who had been cured of a supposed abscess of the testicle returned by the same clinic with a solid cord in his scrotum.

CHICAGO AND WESTERN STATES.

Woman's Hospital of Chicago.—The annual commencement exercises were held last week and nine women received diplomas.

Cincinnati (Ohio) City Hospital.—Dr. John W. Murphy has been appointed laryngologist to succeed the late Dr. Max Thorner.

The Chicago City Council has passed an order directing the expenditure out of the general fund of $4,750 for the employment by the Department of Health of 10 medical inspectors at a salary of $75.00 a month, and 10 disinfectors at a salary of $83.33 a month.

Smallpox in Illinois.—The Secretary of the State Board of Health, of Illinois, Dr. Egan, reports that smallpox is spreading in the State, especially in the southern part. The Board of Health is using every endeavor to stamp out the disease, but notwithstanding its efforts, the members are apprehensive that the disease may become epidemic. Vaccination is therefore advised.

Provident Hospital, Chicago.—Six trained nurses received their diplomas this week. The secretary of the Board of Trustees presented his annual report at the graduating excercises, showing that 415 patients had been received in the hospital during the last year. Of these, 183 were colored, and 232 were white. The expenses of the institution for the year were over $11,000.

The Warden of Cook County Hospital, Chicago.—The *Chicago Daily News* is investigating the methods of the Warden of Cook County Hospital, and it is said that one 10-cent note book containing entries amounting to $196 is all the public record of receipts for 5 years which the Warden could show when requested to do so at the Institution which it costs the taxpayers a quarter of a million dollars a year to support.

Illinois State Board of Health.—Legislative inquiry into the affairs of the Illinois State Board of Health is demanded by Dr. John A. Vincent, of Springfield, Democratic member of the late House, from the Thirty-ninth District Dr. Vincent states that the Board has not taken the public into its confidence regarding its finances, as the law requires, and that an effort should be made to see whether the members are or are not amenable to some authority. He recommends an official overhauling of the Board's administration. Rumors alleging extravagance on the part of the Board recently have become common among the members of the medical profession in Illinois.

The St. Louis Academy of Medical and Surgical Sciences.—At the annual meeting held November 7, the following officers were elected for the ensuing year: President, Dr. James Moores Ball; senior vice-president, Dr. William Porter; junior vice-president, Dr. H. G. Nicks; secretary, Dr. R. B. H. Gradwohl; treasurer, Dr. Emory Lanphear; orator, Dr. J. C. Murphy; curator and librarian, Dr. Robert Edward Wilson. At the same meeting Dr. Lanphear read a paper on "Some Practical Points in the Treatment of Diseases of Women," and Dr. B. S. Simpson presented his thesis, "Report of a Case of Exophthalmic Goiter Treated by Sympathectomy."

The Noise of Chicago.—Health-Commissioner Reynolds has taken up arms against the multifarious din of railroad-whistles, steam-sirens, locomotive-bells, and other distracting sounds that vex the civic ear by day and night.

Edgar Allan Poe might have added another verse to his "Bells" had he lived in these latter days, but he could not have compared the modern city noises to "Runic Rhymes." There is neither rhyme nor reason in much of the clang and clash and roar of the streets. Hurtful to invalids, exasperating to students, worrying to the hard-worked businessman, are many of the sounds of the city. Rattling milk-wagons, howling dogs, screeching parrots—all are under the commissioner's ban. It is not likely he will attempt to fix responsibility for the feline concerts that affright sensitive people in midnight hours, but if the anti-noise crusade can accomplish nothing more than the suppression of some of the unmusical and brain-piercing sounds that many unreflecting persons seem to delight in creating, he will deserve the thanks of the community.

Chicago Medical Society.—At a meeting, held November 8, Dr. Gustav Kolischer presented a paper on **The modern treatment of face presentations,** in which he dwelt upon the diagnosis, prognosis, the indications for interference, preparatory measures, and operative delivery.

Dr. C. S. Bacon followed with a contribution on **simple hyperemia and infection of the breast in childbirth.** The following is a synopsis of this paper: Secretion and retention of milk not accompanied by fever. Importance of diagnosis between hyperemia and infection. Simple hyperemia or enlargement of breast not only due to distention of breast with milk,but to increase in the blood and lymph supply and enlargement of the secreting-cells. Treatment by bandage and massage. Principles and proper application of breast massage. Infection due to staphylococci and streptococci. Origin of germs from clothes of mother, nurse and child. Invasion through nipple-wounds and milk-passages. Mode of growth. Staphylomycosis and streptomycosis of the breast. Differential diagnosis between hyperemia and infection, breast infection, and genital wound infection, controlable infection and abscess. Prophylaxis before lactation, cleanliness during lactation. Avoid germs and nipple-wounds. Application of nipple shields. Treatment of infection: Bandage, heal nipples, ice, open abscess by the aid of infiltration-anesthesia.

Dr. H. D. Peterson reported a case of **ovarian cyst complicating labor.** He said that this complication is rare, and cited the statistics of the Berlin Maternity Hospital showing that it occurs once in about 3,500 cases. The principal methods of treatment of cyst complicating labor are abdominal section, vaginal section, and evacuation or enucleation. By vaginal section the cyst may be drained or evacuated, or, if semisolid, enucleated.

SOUTHERN STATES.

Aseptic Barber Shop.—We noted in the first number of our Journal (Vol. 1, No. 1, page 5), the opening of an aseptic barber shop in Baltimore, Md. We now read in the *National Barber* that the following is the course of treatment prescribed for an aseptic shave in this shop:

1. Chair put in position, and gown properly adjusted.
2. Razor is stropped, and then sterilized before using. Cup, shaving brush, hair brush and combs are sterilized each time after being used.
3. Hands are washed with castile soap—all soap is removed by rinsing with plain water; then the hands are immersed in an antiseptic fluid, and wiped on a sterilized towel.
4. Sterilized towels are taken from sterilized bag, and towel adjusted around customer's neck.
5. Sterilized cup and brush are used in making the lather, and then the barber proceeds to shave.
6. The face is washed with a sterilized towel—taken from sterilized bag.
7. Powder is applied on the face by dipping end of sterilized towel in powder box, and then rubbed on the face, and removed with end of sterilized towel. The towel is not to be redipped in powder after being once used.
8. Proceed to dress hair with sterilized hair brush and comb.
9. The barber's sleeves must be tight fitting, and about three inches above the wrist.

Memphis (Tenn.) Medical Society.—The meeting held November 7, was a joint meeting of physicians and druggists. Dr. E. A. Neely read a paper on **A plea for a more thorough study of materia medica.** The prevalent lack of knowledge of materia medica and therapeutics on the part of the doctor is due to (1) laziness, (2) lack of proper course of training in pharmacy, and (3) the prevalence and push of the proprietary medicine manufacturer. He advocated putting a thorough course in pharmacy in every medical curriculum, and exhorted the doctors to avoid ready-made formulas and proprietary medicines. Messrs. F. W. Ward and J. C. Treherne discussed the subject from the pharmacists' point of view, condemning counter-prescribing, substitution, etc. In the discussion it was brought out that prevalent abuses were due to patent medicines, to proprietary medicines, and the physician's proneness to use them, thus cutting into the druggist's income and compelling him to carry side lines (soda water, cigars, etc.), and commit other indecorous acts. It was agreed that the doctors ought to learn more therapeutics and prescribe official remedies more, and that druggists should confine themselves to the practice of pharmacy, and leave the practice of medicine to the doctor, and the conducting of department stores to those whose business it is.

MISCELLANY.

Amended Spelling.—The Department of Superintendence of the National Educational Association at its annual meeting in 1898 appointed a committee to recommend a list of words with simplified spelling for use in the published proceedings of the department. The report of the committee was duly made and the spelling so authorized was used in the published proceedings of the meeting of the department held in 1899. At a meeting of the Board of Directors of the National Educational Association held July 7, 1899, the action of the Department of Superintendence was approved and the list of words with simplified spelling adopted for use in all publications of the National Educational Association as follows: Program (programme), tho (though), altho (although), thoro (thorough), thorofare (thoroughfare), thru (through), thruout (throughout), catalog (catalogue), prolog (prologue), decalog (decalogue), demagog (demagogue), pedagog (pedagogue).

Why not add to this list emmenagog, cholagog, galactogog, hydragog, etc.?

Obituary.—Dr. Charles I. Pardef, for 25 years dean of the medical department of the University of the City of New York, suddenly, November 3, aged 61 years.—Dr. W. C. Taylor, formerly of Amite, La., at Tangiphoa, La., October 24, aged 75 years.—Dr. Daniel G. Donovan, Troy, N. Y., October 27, aged 29 years.—Dr. D. K. Phillips, Bangor, Me., November 5, aged 41 years.—Dr. Samuel Q. Robinson, major and surgeon U. S. Army at Hot Springs, Ark., November 6.—Dr. Myra K. Merrick, reported to be the first woman who practised Medicine in Ohio, Cleveland, O., November 10, aged 74 years.—Dr. John A. McCreery, New York, November 10, aged 49 years.—Dr. W. H. Beane, Middletown, Pa., November 8, aged 62 years.—Dr. Milton S. Erdman, Quakertown, Pa., November 9, aged 41 years.—Dr. Walter J. Hoffman, U. S. Consul at Manheim, Germany, died in Reading, Pa., November 8, aged 53 years. He graduated from the Jeffer, son Medical College, class of '66, and began the practice of medicine in Reading, Pa. At the outbreak of the Franco-Prussian war he received a commission of surgeon in the Prussian army. After his return to America he was appointed, in 1871, acting-assistant surgeon, U. S. A., and naturalist to the expedition for the exploration of Nevada and Arizona. Dr. Hoffman was ordered in August, 1872, to the

military post at Grand River Agency, now North Dakota, where he served as post surgeon, and prosecuted researches in the language and mythology of the Dakota Indians. He accompanied many expeditions, and later became connected with the Smithsonian Institution at Washington. He was for a number of years associated with the Bureau of Ethnology, and was recognized as an authority on the subject. He devoted many years of study to the Indians, wrote a great deal on this interesting subject, was admitted into a number of tribes, and was initiated as a "medicine man" by the Menominees, of Minnesota. President McKinley appointed him United States Consul at Manheim, Germany, in 1898.

Health-Reports.—The following cases of smallpox, yellow fever, cholera, and plague have been reported to the Surgeon-General of the U. S. Marine-Hospital Service, during the week ended November 11, 1899:

SMALLPOX.—UNITED STATES.

			Cases.	Deaths.
ILLINOIS:	Chicago	Oct. 27–Nov. 4	1	
IOWA:	Ottumwa	Oct. 1–7	1	
LOUISIANA:	New Orleans	Oct. 27–Nov. 4	1	
NEW YORK:	New York City	Oct. 27–Nov. 4		1
OHIO:	Cleveland	Oct. 27–Nov. 4	2	
TENNESSEE:	Nashville	Oct. 27–Nov. 4	1	
VIRGINIA:	Portsmouth	Oct. 27–Nov. 4	1	2

SMALLPOX.—FOREIGN.

BRAZIL:	Rio de Janeiro	Sept. 30–Oct. 6	70	56
GREECE:	Athens	Oct. 7–14	7	2
INDIA:	Bombay	Sept. 26–Oct. 3		6
JAPAN:	Formosa, Tamsui	July 1–Aug. 31	36	1
MEXICO:	Chihuahua	Oct. 21–28		3
RUSSIA:	St. Petersburg	Oct. 7–14	4	1
"	Warsaw	Oct. 7–14		3
TURKEY:	Erzeroum	Oct. 1–7	2	1
"	Smyrna	Oct. 8–15		1

YELLOW FEVER.—UNITED STATES.

FLORIDA:	Key West	Nov. 1–6	19	
"	Miami	Oct. 31–Nov. 6	27	
LOUISIANA:	New Orleans	Oct. 28–Nov. 6	16	6

YELLOW FEVER.—FOREIGN.

BRAZIL:	Rio de Janeiro	Sept. 30–Oct. 6	5	4
CUBA:	Havana	Oct. 19–26	24	4
MEXICO:	Vera Cruz	Oct. 19–Nov. 6		6

CHOLERA.

INDIA:	Bombay	Sept. 26–Oct. 3		2
"	Calcutta	Sept. 16–23		4
"	Kurrachee	Sept. 23–30	1	1

PLAGUE.

AFRICA:	French Ivory Coast	Sept. 16	Recurrence.	
"	Loronzo Marques, Magudo	Sept. 11–18	"	
INDIA:	Bombay	Sept. 26–Oct. 30		83
"	Calcutta	Sept. 16–23		47
"	Kurrachee	Sept. 23–30	4	3
JAPAN:	Formosa, Tamsui	July 1–31	65	66
PARAGUAY:	Anuncion	Sept. 14	Plague suspected. Has since been officially confirmed.	

Changes in the Medical Corps of the U. S. Navy

for the week ended November 11, 1899:

BRODRICK, R. G., passed assistant surgeon, ordered to Washington, D. C., November 17, for examination for retirement and then home and to wait orders.
NORTON, O. D., surgeon, detached from the "Ranger" and ordered to the "Monadnock" via the "Solace."
SMITH, R. K., passed assistant surgeon, detached from the Naval Hospital, New York, and ordered to the Naval Hospital, Mare Island, Cal.
EAKINS, O. M., assistant surgeon, ordered to the Naval Academy.
WHEELER, W. M., assistant surgeon, ordered to the Naval Hospital, New York.
ODELL, H. E., assistant surgeon, detached from the Naval Hospital, Mare Island, Cal., and ordered to the "Ranger."
MARMION, R. A., medical director, promoted to medical director.
SIMONS, M. H., medical inspector, promoted to medical inspector.
HENEBERGER, L. G., surgeon, detached from the "Indiana," November 10, and ordered home and to wait orders.
MCCLURG, W. A., surgeon, ordered to the "Indiana," November 10.
COSTIGAN, G. D., passed assistant surgeon, promoted to assistant surgeon.

Changes in the U. S. Marine-Hospital Service

for the 14 days ended November 9, 1899:

BANKS, C. F., surgeon, upon expiration of leave of absence to proceed to Boston, Mass., as inspector of unserviceable property. October 28.
PERRY, T. B., passed assistant surgeon, to proceed to Titusville, Fla., for special temporary duty. October 28.
WERTENBAKER, C. P., passed assistant surgeon, to proceed to Atlanta, Ga., and report to the Governor of the State for special temporary duty. October 28.
BLUE, RUPERT, passed assistant surgeon, relieved from duty at Portland, Ore., and directed to proceed to New York, N. Y. (Immigration Depot), for temporary duty. November 2.
VOGEL, C. W., assistant surgeon, relieved from duty at Boston, Mass., and directed to proceed to New York, N. Y. (Stapleton), for duty and assignment to quarters. October 30.
DUDLEY, D. E., acting assistant surgeon, granted leave of absence for 30 days. October 31.
KENAN, SPALDING, acting assistant surgeon, granted leave of absence for 6 days. October 28.
CARTER, H. R., surgeon, to proceed to Miami, Fla., for special temporary duty. November 9.
SMITH, A. C., passed assistant surgeon, relieved from temporary duty at the Tortugas Quarantine Station, and directed to proceed on steamer "Powhatan" to the Reedy Island Quarantine Station. November 3.
NYDEGGER, J. A., passed assistant surgeon, to report at Washington, D. C., for special temporary duty. November 3. Granted leave of absence for 6 days. November 6. To proceed to Cadiz, Spain, for duty. November 6.
SPRAGUE, E. K., passed assistant surgeon, granted leave of absence for 2 days. November 3.
GREENE, J. B., assistant surgeon, granted leave of absence for 21 days. October 28.
TABB, S. R., assistant surgeon, to rejoin station at Savannah, Ga. November 8.
ANDERSON, J. F., assistant surgeon, granted leave of absence for 4 days. November 3. To proceed to Barcelona, Spain, for duty. November 3.
FRICKS, L. D., assistant surgeon, relieved from special temporary duty at Key West, Fla., and directed to proceed to Miami, Fla., for temporary duty. November 6.
SCHERESCHEWSKY, J. W., assistant surgeon, to report to Surgeon L. L. WILLIAMS, Immigration Service, New York, N.Y., for assignment to duty. November 3.
LORD, C. E. D., assistant surgeon, to report to Medical Officer in command, New York, N. Y. (Stapleton), for temporary duty and assignment to quarters. November 3.
GREGORY, G. A., acting assistant surgeon, granted leave of absence for 5 days. November 6.
MONCURE, J. A., acting assistant surgeon, granted leave of absence for 30 days from November 15. November 3.
GOODMAN, F. S., hospital steward, granted leave of absence for 30 days from December 1. November 9.

PROMOTION.

GREENE, J. B., assistant surgeon, commissioned as passed assistant surgeon. November 2.

APPOINTMENTS.

SCHERESCHEWSKY, J. W., of Massachusetts, commissioned as assistant surgeon. November 2.
LORD, CHARLES E. D., of Maine, commissioned as assistant surgeon. November 2.

Precautions in Administering Anesthetics.—Alfred Shewen (*Austral. Med. Gazette*, September 20, 1899) holds that the art of anesthetizing is to give just sufficient—and no more—to keep a patient perfectly still during operation. If a patient has been under chloroform for some time, the depth of anesthesia required to keep him quiet will be much less than if ether is used, as chloroform appears to have an accumulative action; ether has very little, if any. Patients under ether will not bear chloroform well, and when ether is replaced by chloroform, the latter must be given with the utmost caution. On the contrary, a patient under chloroform takes ether very well, and when the respiration under chloroform becomes shallow, and the pulse falls, it is well to change. The conjunctival and pupillary reflexes are the only quantitative guides; persons, slow in recovering their reflexes, require particular care in anesthetizing. Never continue to give an anesthetic when there is absence of conjunctival reflex and a dilated pupil.

Foreign News and Notes.

GREAT BRITAIN.

The Royal College of Surgeons of England will celerate its centenary July 25, 26, 27, 28, 1900. The program ncludes a conversazione at the college; demonstrations in he Hunterian Museum by Prof. Stewart, F.R.S., Conservator; festival dinner at Lincoln's Inn; a conversazione given by he Lord Mayor of London. There will also be a general eeting at the College, with an address by the president and he conferring of honorary fellowships.

Royal Academy of Medicine in Ireland.—At th nnual meeting held October 27, the following distinguished embers of the medical profession were elected honorary ellows of the Academy: Sir J. Burdon Sanderson, Bart., .D. Edin., F.R.S.; Professor Howard Kelly, Baltimore; rofessor Koch, Berlin; Professor Kocher, Bern; Professor heodore Leber, Heidelberg; Sir W. MacCormac, Bart., K. .V.O., London; Professor Martin, Berlin; Professor Nothagel, Vienna; Professor Osler, Baltimore; and Sir W. urner, M.B., F.R.S., Edinburgh.

Dr. John T. Arlidge, whose death is announced as aving taken place at Newcastle-under-Lyne in Staffordire, was a well known physician and sanitarian and an auority in the medicine of lunacy. He was also the author an admirable and standard work "The Diseases of Occuation," which has already borne fruit in influencing legislaon to protect operatives and is destined to bear more. Dr. rlidge was a greater man than his fame, for many persons ave made a fine home in the scientific world with a tithe of s work.

Dr. Conan Doyle, the creator of Sherlock Holmes, in esiding over an athletic meeting, has pointed out that in no al sense can the English army of 40,000 sent to the Transal be considered a strain upon the population of a country ntaining 30,000,000. The "reserves" are said to have been lled up, but as he said, the real "reserves" of Great Britain e not the old soldiers but the young athletes, half a million whom would turn out at a moment's notice if the country as engaged with a foe of equal strength. Dr. Conan Doyle's finition of a reserve force has been quoted in every paper the country.

The new Director-General of the Egyptian Sanitary Board, hich has done and is doing such splendid work in the untry of the Pharaohs, is Mr. Horace Pinching, a medical an. Mr. Pinching received his medical education at **Oxrd University and St. George's Hospital,** and some een years ago won a commission in the Army Medical rvice. He distinguished himself in the earlier Soudan mpaigns, and resigned his commission on attaining the nk of Surgeon-major to become Chief Inspector to the yptian Sanitary Board. He now succeeds Sir John Rogers, o is retiring, as Director-General.

"Typhoid Fever is the greatest enemy to beleaged cities, and it is typhoid fever that English medical en fear may prove the victors of the gallant defenders of afeking, Kimberley and perhaps Ladysmith." So writes a quent English correspondent upon November 4, continu-: "Before you get this note something will have happened deciding the fate of these cities, but though they be isfactorily held against the Boers by British guns, they l also have to be held against the attacks of typhoid fever. three cities have two water-supplies, a river without the entrenchments and surface wells within. At Mafeking and Kimberley the outside supply has already been cut off and the garrison are dependent upon the wells. It need hardly be said that such a supply is very perilous, while in times of siege every one is so busy that filtering arrangements are apt to be neglected. It is unlikely that either Mafeking or Kimberley can be relieved until the end of November, but the siege may be raised by the Boers on finding that it is necessary for them to mass their forces elsewhere. Both places will then have been some six weeks in a state of siege, so that, I think, medical apprehensions are reasonable."

The Society of United Prayer for the Prevention of Cruelty to Animals.—A correspondent has sent us a leaflet which he found on a seat in a London church issued by the above society, the honorary secretary of which is Miss Woodward, of Lancaster-road, W. This lady, we take it, is the same lady who was, and may be still, honorary secretary of the Church Antivivisection League. No one can cavil at a society formed for the purpose of united prayer and we should be the last to do so. Medical men are in no wise in love with cruelty. But so far as we can judge from the leaflet of "Intercessions" the members of the society seem to be devoid of that saving grace, a sense of humor. Thus we find a petition "that energetic workers in the cause of mercy may be raised up among the residents of Colwyn Bay." For a "spirit of mercy . . . especially for drivers at Colwyn Bay." That "the Masters of Eton College may no longer countenance cruelty among their pupils." What this last petition can mean we are unable to imagine unless it has some recondite allusion to the school pack of beagles. We must, however, congratulate the society on apparently working on different lines from other opponents of vivisection. Everyone has a right if he or she be so minded to consider vivisection immoral and to fight against it. But lies, misrepresentations, and slander are not proper weapons, and vivisectors have been, and probably will be again, exposed to such.—[*Lancet.*]

The Bradshaw Lecture of the Royal College of Physicians of London was delivered on November 2 before the college by Dr. Arthur Foxwell, physician to Queen's Hospital, Birmingham, and Professor of Therapeutics in Mason College, the local branch of the Victoria University which the omnipotent Mr. Joseph Chamberlain is said to intend should be converted into a separate institution as the Midland University. Dr. Foxwell took as his subject "The Causation of Functional Heart-Murmurs," but his interesting discourse was chiefly confined to a consideration of the reasons going to the formation of the pulmonary murmur or systolic bruit heard over the second and third left interspaces close to the sternum. This murmur, from many arguments carefully thought out, he declined to consider as due to any change in the blood; while of several possible physical factors he was prepared to hold that the one which accounted satisfactorily for the signs and symptoms manifested by the affected patients was dilatation of the conus and pulmonary artery with a carrying up of the root of the artery so that in the supine condition it tends to be directly over the bifurcation. With considerable skill and ingenuity Dr. Foxwell was able to reproduce in the dead subject the pulmonary murmur by artificially dilating the conus and pulmonary artery of a healthy heart, thus affording considerable proof of the correctness of his view.

High Infant Mortality in Lancashire.—The annual report of the Medical Officer of Health for the county, Dr. Edward Sergeant, while it shows a fair state of health for the county on a whole shows a high state of infant mortality. The proportion of deaths of children under the age of 1 year to 1000 registered births was equal to 173 in the urban, and 130

in the rural districts. These rates, although slightly better than the previous year, when the urban rate averaged 174 and rural 138, do not bear favorable comparison with 1896, when the urban rate was 161 and the rural 121, or with the average of 156 for the nine years 1889–97. In the following districts a very high infant death-rate prevailed, no doubt owing to some particularly vicious methods of infant feeding locally in vogue: Abram 247, Farnworth 245, Gorton 242, Heywood (B.) 233, Little Lever 225, Skelmersdale 213, Ines-in-Makerfield 204, Leyland 202, Upholland 202, Accrington (B.) 201, Brierfield 200, and Longridge 200; and the following districts had low rates, viz: Wardle 88, Allerton 83, Carnforth 76, Ulverston 68, and Childwall nil. In the reports received from Accrington, Heywood, Lees, and Leyland, the factory employment of mothers, and consequent inattention to the nursing and feeding of infants, is mentioned as the cause of many infant deaths, while at Lytham the medical officer suggests as a remedy for the slaughter of the infants a systematic course of instruction under the auspices of the County Council and directed towards mothers on the importance of cleanliness and suitable diet to an infant. Of course when the mothers are employed in factories the babies get no breast milk, and excellent as many modern substitutes in the way of patent foods may be, they are not so nutritious as the natural diet and require a care in their exhibition which can not be given in a dirty environment.

The Royal Army Medical Corps and the Transvaal War.—Hard upon the appointment of Sir William MacCormac to Sir Redvers Buller's staff at the South African war comes the information that two other prominent London surgeons are to proceed to Cape Colony and supplement with their operative skill the labors of the Royal Army Medical Corps. These are Mr. Frederick Treves and Mr. G. H. Makins. Mr. Treves has a world-wide reputation as a surgeon, especially as a brilliant diagnostician and fearless operator in obscure abdominal conditions. He is consulting-surgeon to the London Hospital, having retired a year or two ago, and while still little over 40, from the active staff. His private practice is an enormous one and his pecuniary sacrifice in leaving it to go to the Transvaal must be reckoned by thousands of pounds literally. Mr. Makins is also a highly successful and learned surgeon. He is on the staff of St. Thomas' Hospital, at which institution he has often assisted Sir William MacCormac. There is a rumor that Mr. R. L. Swan, a well-known Dublin surgeon, and President of the Royal College of Surgeons of Ireland, is also shortly to leave for the seat of war. The sending out of these gentlemen is undoubtedly a good move on the part of the British Government; but as far as the War Office is concerned it is a grave confession of weakness. The fall back upon civilians has been rendered necessary because in times past the War Office behaved so badly to the medical officers of the army that the best young members of the profession refused to compete for commissions. Moreover, the "study leave," for which the army medical officer has always asked, as the only means of preventing him from getting rusty in his scientific work in times of peace and at a healthy station, has alway been denied, consequently many army surgeons have had no opportunity of perfecting themselves in operative procedure. To see civilian medical men exalted in time of war above the military department must be very galling to that department, but the Royal Army Medical Corps will win golden opinions from every one if it betrays no resentment until after the struggle is over. England is going to have a hard task before her, in bringing the Boers by force and later by policy to her way of thinking, and it is to be hoped that the medical officers of the army, a branch of the service that always covers itself with credit during active service, will sink all feelings of chagrin until the tyranny of war be overpast.

CONTINENTAL EUROPE.

Resection of the Perineal Nerve for Painful Cystitis.—At the meeting of the French Association of Urology held on October 20, M. Rochet read a paper on the above subject. According to the *Lancet*, in 3 cases of patients who suffer from urethrocystitis accompanied by pain and difficulty in micturition, M. Rochet has met with great success by resecting the perineal branch of the internal pudic nerve on both sides. As this nerve supplies all the perineal muscles, both superficial and deep, its section does away with the spasm while the pain and tenesmus disappear. The operation is quite harmless, but possibly somewhat delicate to perform. The internal pudic nerve is cut down upon as it passes out by the small sacrosciatic notch, where it divides into the perineal branch and the dorsal nerve of the penis. The operator divides the former and leaves the latter alone (*on respectera*). This method opens a new way of treatment in case of painful cystitis of the neck of the bladder, and offers a last and most valuable resource in those cases where a perineal section has done no good or where the pains return after the fistula has been allowed to heal.

Famine and the Population in Russia.—The following figures do not refer to the present famine in Southern Russia, but they are interesting as showing the price in human lives which was paid in the last famine in 1892. Fortunately the present scarcity is nothing like so severe as was in that year and the effect on the population statistics not likely to be of so startling a character. The figures are taken from the *Lancet* quoting *Vratch* from the "Medical Chronicle of the Kherson Government." They refer to the ten easterly governments of European Russia:

	Average for 1887-91.	In 1892.	Difference
Births	1,086,740	948,319	— 138,4
Deaths	775,849	1,129,026	+ 353,1
Natural increase or decrease	+ 310,891	— 180,707	— 491,5

In other words, in these ten governments the population after the famine was nearly half a million less than it would have been had no famine occurred.

Vaccination in the French Colonies.—At a recent meeting of the Academy de Médecine of Paris, Dr. Brousdel read a paper on some experiences of Dr. Loir, a medical man practising in Tunis. According to the *Lancet*, this paper included some most interesting details with regard to vaccination in that colony. Smallpox is extremely common there and very virulent in type, and only recently out of the 160,000 persons who make up the population of Tunis, 1,6 died in one smallpox epidemic. Medical men, therefore, are obliged to vaccinate and revaccinate as widely as they can, but owing to the climate there are many and great difficulties in the way of carrying out this method of prophylaxis, and these difficulties formed the chief subject of Dr. Loir's report. It is a fact that exposure to a high temperature destroys the efficacy of vaccine and hence it has been found that vaccine sent out from France to her colonies during the summer is often inert even when it has been carefully packed in ice. The few tubes which do arrive in an active condition are used for vaccinating calves which in their turn furnish a supply of active lymph. Dr. Loir suggests that the Academy of Medicine should cease sending out vaccine during the hot season, and that stations for the preparation of vaccine should be established in various parts of Tunis so that the colony would be independent of an outside supply.

Annual Meeting of Swiss Medical Practitioners.—The annual autumnal meeting of Swiss medical practitioners was held at Olten on October 28, according to the *Lancet*, and was attended by about 250 medical men from all parts of Switzerland. Professor P. Müller, of Bern, spoke of the use of **india-rubber gloves in gynecologic and obstetric practice,** advocating their employment in private practice in urgent cases where the necessary time for proper disinfection is wanting, as well as when an examination is necessary soon after the medical man has come in contact with septic substances. The gloves should also be used if there are any doubtful scratches on the medical man's hands whereby a patient might be septically infected, and last, not least, to protect him against syphilitic or other infection. In clinical practice Dr. Müller makes use of the gloves as an additional protection against infection. In the ensuing discussion it became evident that some surgeons, such as Dr. Brunner and Dr. Kroenlein, object to gloves as being a useless addition to complicated antiseptic methods, whereas Dr. Kocher, of Bern, uses disinfected gloves in operating on septic cases. Dr. Erni, of Gersau, who has many phthisical cases under his care in small sanatoria on the south side of the Rigi, spoke of the **treatment of lung cavities by means of a sort of external massage with a silver instrument shaped like a paper-knife.** He asserted that cavities are in this way emptied of their contents and kept cleared of septic matter and their healing promoted. His statistics not being very reassuring, Professor Sahei, of Bern, suggested that the good results obtained in some cases were principally due to climatic and other treatment. Dr. Haeberlin, of Zürich, spoke of the **indications for the use of injections of saline solutions in case of acute anemia from hemorrhage as well as in infectious and toxic conditions.** He said that the treatment was successful in some cases, and he showed a convenient small apparatus, which will, no doubt, for the practitioner, replace the large and inconvenient apparatus now in use.

Dr. Köhl, of Coire, presented a report on an important case of **pachymeningitis hemorrhagica interna** of traumatic origin, where surgical interference was successful. A man, aged 42 years, had a severe fall in February, 1899, whilst sleighing and received a serious contusion on the left side of the head. The external wound healed in a fortnight, but 6 weeks afterwards increasing headaches necessitated his giving up all work and he suffered also from vertigo. On May 20, he consulted Dr. Schnöller, of Davos, who diagnosed abscess of the brain and recommended operative interference. During the following night the patient became comatose and was removed to the Davos Hospital. He recovered a little and gave evidence of left-side paralysis—the right side of the head being most sensitive. He could hardly stand, but fell over to the left side. There was incontinence of urine and feces. Dr. Köhl made the diagnosis of hemorrhage with pressure on brain-tissue, and trephined in the middle of the skull slightly in the frontal direction. About 3 ounces of dark blood escaped. A plug of iodoform-gauze was introduced and was removed on the third day. After 4 weeks the wound was completely closed and the patient was discharged, having been well for some time and continued so up to the present date. The operation is justified by the results of this case. Even though the hemorrhage should recur the operative interference would at least have prolonged the patient's life and restored him to health for a time.

MISCELLANY.

Obituary.—JOHN THOMAS ARLIDGE, M.D., F.R.C.P. Lond., a distinguished physician and consultant, in Staffordshire, England, Milroy Lecturer of the Royal College of Physicians of London in 1889, and author of a work entitled, "The Hygiene, Diseases, and Mortality of Occupations," at Newcastle-under-Lyme, October 27, aged 77 years.—DR. OTTO SCHADEWALDT, a well-known laryngologist in Berlin.—DR. MAX VOGL, surgeon major-general in the Bavarian army.—DR. FRANZ CRON, director of a well-known sanitarium in Berlin.—DR. KRONER, privat-docent for gynecology in the University of Breslau, aged 45 years.

International Medical Congress, Paris, 1900.—It has been ordained by the French Executive Committee that any one desiring to read a paper at the forthcoming meeting must send the title and an abstract of the paper to the proper sectional secretary before May 1, 1900. The following is a list of the various secretaries, with their Paris addresses:

Comparative Anatomy.—Dr. Auguste Pettit, 6, Rue Saint André des Arts.
Descriptive Anatomy.—Dr. Rieffel, 7, Rue des l'École de Médecine.
Histology and Embryology.—Dr. Retterer and Dr. Loisel, 15, Rue de l'Ecole de Médecine.
Physiology, with Biological Physics and Chemistry.—Dr. Dastre at the Sorbonne; Dr. Gley, 14, Rue Monsieur le Prince; Dr. Weiss, 20, Avenue Jules Janin.
General and Experimental Pathology.—Dr. Charrin, 11, Avenue de l'Opéra; Dr. Roger, 4, Rue Perrault.
Pathological Anatomy.—Dr. Letulle, 7, Rue de Magdebourg.
Internal Pathology (Corresponding to our Section of Medicine in part).—Dr. Rendu, 28, Rue de l'Université; Dr. F. Widal, 155, Boulevard Haussmann.
The Medical Diseases of Childhood.—Dr. Marfan, 30 Rue La Boétie.
Therapeutics.—Dr. Gilbert, 27, Rue de Rome.
Pharmacology.—Dr. Chassevant, 70, Rue de Rennes.
Materia Medica.—Dr. Chassevant, 70, Rue de Rennes.
Neurology.—Dr. P. Marie, 3, Rue Cambacérès.
Psychiatry.—Dr. Ant. Ritti, the Charenton Asylum, Seine.
Dermatology and Syphilography.—Dr. G. Thibierge, 7, Rue de Surène.
General Surgery.—Dr. Walther, 21, Boulevard Haussmann.
Surgery of Children.—Dr. A. Broca, 5, Rue de l'Université; Dr. Villemin, 28, Rue Notre Dame des Champs.
Urinary Surgery.—Dr. Desnos, 31, Rue de Rome.
Ophthalmology.—Dr. Parent, 26, Avenue de l'Opéra.
Laryngology and Rhinology.—Dr. Lermoyez, 20*bis*, Rue La Boétie.
Otology.—Dr. Castex, 30, Avenue de Messine.
Stomatology, including certain Dental Diseases.—Dr. Ferrier, 39, Rue Boissy d'Anglas.
Obstetrics.—Dr. A. Bar, 122 Rue La Boétie; Dr. Champetier de Ribes, 28, Rue de l'Université.
Gynecology.—Dr. Hartmann, 4, Place Malesherbes.
Forensic Medicine.—Dr. Motet, 161, Rue de Charonne; Dr. Thoinot, 8, Rue de l'Odéon.
Military Medicine and Surgery.—Dr. Catteau, the Ministry of War, Paris.
Naval Medicine.—Dr. Laugier, the Ministry of Marine, Paris.
Colonial Medicine.—M. Kermorgant, the Colonial Ministry, Paris.

Spontaneous Rupture of the Heart.—A. W. Hoisholt (*Occidental Medical Times*, October 15, 1899.) A man, 55 years of age, was suddenly taken with sharp pain in the chest while walking, he reached home without difficulty, however, and the pain ceased after application of mustard plaster and hot fomentations, later the pain returned extending over the left side to the back and after a sudden increase of pain the patient became cyanosed, dyspneic and died. There was no history of rheumatic trouble or addiction to alcohol, and the patient had enjoyed previous good health. A necropsy was performed and the pericardial sac was found distended with clotted blood, an opening the size of a goose-quill, connected directly with the left ventricle, this opening was situated near the right border of the ventricle, and was 4.5 cm. from the apex and 0 625 cm. from the septum, the coronary arteries were thickened and atheromatous, especially the left. Microscopic sections from the head, well stained with Bismarck brown, showed longitudinal cut muscle-fibers whose striation was in some parts indicated, in others almost hidden by fat-granules. A second case is reported occurring in a man of 40, who had been suffering for some time with acute mania for years. He had been addicted to the use of alcohol to excess. During his stay in the asylum he had enjoyed good health. He went to bed usually well, and was found dead the next morning. At the necropsy about a pint and a-half of blood-clots were found in the pericardium, the heart was enlarged and flabby and there was a semicircular tear about 1.15 cm. in length located about 3.75 cm. from the right border of the left ventricle and about the same distance from the apex. In the center of the tear was a small opening admitting an averaged sized probe. Microscopic section of the heart's muscle showed transversely-cut fibers separated by spaces varying in size and containing a structureless mass. Longitudinal sections showed transverse striae only higher, and they were often barely perceptible, while many of the fibers looked like tubes filled with granules. The cause of rupture in both cases was very evidently fatty degeneration. [M.B.T.]

The Latest Literature.

British Medical Journal.

October 28, 1899. [No. 2026.]

1. A Discussion on the Preventive and Remedial Treatment of Tuberculosis. T. Clifford Allbutt, Sir William Broadbent, Sir R. Douglas Powell, Bart., William Osler, James Tyson, Theodore Williams, Arthur Ransome, Shingleton Smith, Sir Hugh Beevor, Bart.; Woods Hutchinson, J. Mitchell Bruce, Alfred R. Parsons, Alfred Hillier, A. G. S. Mahomed, St. Clair Thomson, J. Lardner Green, Arthur Newsholme, Denton Johns, William T. Garner, William Calwell, F. W. Burton-Fanning, and S. Tristram Pruen.
2. Papers on Uric Acid and Gout. Alexander Haig, Arthur P. Luff, William Bain.
3. On the Recognition of Enlargements of the Left Auricle by Percussion. William Ewart.
4. The Relation of Pulmonary Tuberculosis to Mitral Stenosis. Hugh Walsham.
5. Prevention of Tuberculosis in Everyday Life. Alfred Hillier.
6. The Defence of the Cardiac Orifices other than Valvular. D. W. Samways.
7. The Form of the Chest in Phthisis and its Significance. Woods Hutchinson.
8. On the Prebalnear Treatment of Heart Disease by Inhalations of Carbonic Acid Gas, and on the Uses of the Inhalation in Cardiac Dyspnea and in Anginoid Pain. William Ewart.
9. Albuminuric Retinitis. Samuel West.
10. On the Enlargement of the Chest in Emphysema and its Treatment. Harry Campbell.
11. Observations on Clinical Thermometry. W. Fleming Phillips.
12. Papers on Gastric Ulceration. William Calwell and Alfred R. Parsons.
13. A Case of Carcinomatous Omentum in an Umbilical Hernia. A. William Sheen.
14. The Treatment of Burns and other Surface Wounds. G. Archdall Reid.
15. Intercostal Neuralgia. Crisholm Williams.
16. A Case of Bullet in Brain (9 Months); Abscess: Operation: Recovery. Augustus H. Bampton.
17. Excision of the Rectum for Cancer by a New Method, and its Results. Thomas Carwardine.
18. A Simplified Method and Apparatus for Maintaining the So-called Lithotomy Position during Operations on the Perineum, etc. Reginald H. Lucy.
19. Sarcoma of the Epididymis; Removal. W. B. Russell and F. L. Wood.
20. Hemming the Omentum to Prevent its Forming Visceral Adhesions. C. Hamilton Whiteford.
21. A Case of Poisoning by Linimentum Opii, with Report of the Necropsy. Charles B. Rossiter.
22. Cork North Infirmary. Cholecystotomy for Distended Gall Bladder with Removal of Calculus Impacted in Cystic Duct by Direct Incision. Jeremiah Cotter.

1.—Albutt communicates a long article on **The preventive and remedial treatment of tuberculosis.** He considers tuberculosis contagious; congenital tuberculosis if not unknown he thinks exceedingly rare. Pulmonary phthisis depends in part, at any rate, upon a frailty transmitted from parent to child. This bias cannot be neglected in considering the causation of tuberculosis. The bacillus is perhaps rarely the immediate cause of the disease. It is probable that the virulence and active diffusion of the microbe is secured more by the spray of the spittle than by the heavier and more voluminous parts of it. The dissemination of tuberculosis through the medium of dried sputum is less likely on account of its perishability, especially when exposed to daylight. The sphere of the tubercle-bacillus is therefore roundabout the tuberculous individual. It finds its entrance through the following channels: By the skin in certain rare cases; in the vast majority of cases, however, by way of the throat, by nose as well as mouth, by tonsil as well as by gullet and windpipe. The reason that bowel tuberculosis is more common in early life is probably in part dependent upon the diet, but the changes of the vital machinery must enter more or less into the explanation, such as varying phases of glandular activity, or of the defensive apparatus in this part of the body. The bacillus reaches the lungs in three ways (*a*) by the blood; (*b*) by the lymph; (*c*) by the air. Either as the result of the self-cleansing of glandular filtration and destruction, or by the cellular defense against the microbes and poisons, or through the epithelial activities of the healthy lung the tubercle which frequently penetrates into the intimate parts of the lungs may do and often does no harm. The frequency of involvement of the apex of the lung in the adult is owing to the fact that in them the apical bronchi take a very steep direction upward, so that to pass from the main bronchus to the apical branches the air-streams must be diverted almost at a right angle, while the course of all other tubes is either straight or at a very large angle. Moreover, the air-stream passing outward from the apical bronchi must conflict with the stronger currents from the middle lower tubes, creating thereby a dead-point in the most apical bronchus near the junction of these streams. The relative immunity of the apex in children is explained by the fact that this disadvantageous position of the apical lobes is less marked in them. The way in which the tubercle in reaching the lung by inhalation engrafts itself is explained as follows: If it settles upon the mucous membrane in a bronchus lying between the third and fifth magnitude in the posterior bronchial apical area if circumstances are favorable, having planted itself more securely upon the part it breeds, and goes through the manufacture of secondary products, such as small cell-infiltration and giant-cells in the subepithelial layer, athrombosis of the tubes is established. Beyond the block atelectasis of the corresponding distal area ensues, with secondary and inflammatory and obliterative process, later with circumscribed pleurisy. On the hither side of the block the tube dilates, fills with degenerate secretion and undergoes softening and ulceration until it ruptures. By way of this rupture tubercle-bacilli and septic tissue-products may be swept into the sputum, or by aspiration into other pulmonary areas. Instead of sudden and considerable rupture a dissecting extension may take place, probably with more or less hemorrhage and cavity formation. Sometimes for months the tuberculous process proper may be plugged into an enclosed area without access to the outer world. These cases of enclosed tubercle are difficult of diagnosis. As the tubercle-bacillus develops slowly the patient may resist the disease, the knot become more densely encapsulated, dry up and calcify. In these ulcers and cavities other organisms may find a proper soil and a mixed infection result. The physical diagnosis of tuberculosis is difficult. In the stage of enclosure to examine the sputum is useless. A study of the two-hour temperature record taken from 8 A.M. to 8 P.M., a study of the temperature after exertion and in women during the menstrual period, is of much greater importance. In women there may exist a premenstrual access of fever. The chief early physical signs, obtained only as the result of minute examination, are harshness of the murmur with loss of the vesicular quality, or ill definition (weak breathing); moist sounds are often absent, but a single click is sufficient to clinch the diagnosis. Tuberculin seems an almost certain test of the presence of tuberculosis in its early stages, but up to the present time there exists a certain amount of reluctance to its use. The old tuberculin is to be preferred for this purpose. We have no specific in the treatment of tuberculosis. The open-air system is of unquestionable value. For young and vigorous persons the Alpine resorts are far more potent in the cure of phthisis than those of lower latitudes. For sanatorium treatment the incipient cases must be rigorously selected, and it is to patients of the first stage only that a hope of anything like a definite cure within six months can be extended. There are certain individuals for whom Alpine altitudes are inadvisable—chilly, neurotic persons, and those with organic disease in other organs. For such patients the sanatorium-treatment near home is recommended. High feeding is commendable; gorgiug the patient is to be condemned. It is not so much an increase in mere fat that is desired, but rather a condition of hardness of muscles. Hereditary proclivity to tuberculosis is of no great value in calculating the prognosis. The gouty

habit is peculiarly favorable to arrest of the disease. Isolation from home and business is as important as in the treatment of neurasthenia. For children, sanatoriums by the sea should be recommended. In the further discussion of this subject, Broadbent suggested that the reason why certain cases ran an acute course, while others progressed slowly, was to be found in the existence of proclivity. A sign of great value in incipient cases is a scattered fine sibilus, perhaps heard only on deep inspiration or expiration. Dr. Osler, in the diagnosis of early cases, laid chief stress on the examination of the sputum, the fever, and, if necessary, the tuberculin test. Dr. Tyson called attention to the fact that the proportion of deaths from consumption to all deaths in Philadelphia had been reduced by 8% within 20 years, which he ascribed to the increased attention paid of late to preventive measures. He especially recommended the climates of Colorado and New Mexico as the most desirable to be found in the United States. Dr. Williams expressed confidence in the serum-treatment of tuberculosis. Dr. Ransom was doubtful of the possibility of contagion in open places, but not in infected houses. Dr. Smith spoke against notification of cases of tuberculosis. Dr. Beevor thought overcrowding a conspicuous accompaniment of excessive phthisis mortality. This association is much more productive of evil in adults than in children. Dr. Mitchell Bruce called attention to the prevalence of tuberculosis in training-ships for boys in the Royal Navy, where it is three times as great as in the general population. This was attributed to overcrowding in the low-deck, wretchedly ventilated, decaying, soaked timber of old wooden ships. He recommended immediate destruction of these vessels. Dr. Hillier referred to the dangers of indiscriminate expectoration and recommended widespread dissemination of papers of simple instructions for the general public. Dr. Mahomed directed attention to the necessity of making it possible for the poorer classes to obtain the best mode of treatment if we wish to eradicate the disease. Dr. St. Clair Thomas emphasized the necessity of the early recognition of pretuberculous laryngitis. When laryngeal manifestations are limited to one side the case should be looked upon as suspicious. Local symptoms associated with general signs were strongly suggestive of tuberculosis. The patient should receive in addition to local treatment the same general treatment as that accorded the phthisic patients. Dr. Newsholme recommended the destruction of houses in certain districts to which phthisis seemed to cling. He advocates early voluntary notification and the treatment of houses in which deaths occur should be the same as that in which deaths from infectious diseases happen. [S.M.H.]

2.—In the discussion on **Uric acid and gout,** Haig presented a paper on **Uric acid and the circulation.**

Luff presented a communication on the **Gelatinous form of sodium biurate and its power on the pathology and treatment of gout,** in which he reached the following conclusions: "The higher the alkalinity of the blood from the presence of sodium bicarbonate, the more rapid and the more complete is the conversion of the soluble gelatinous biurate into the comparatively insoluble and crystalline form. In connection with this point it is instructive to bear in mind that mineral waters rich in sodium bicarbonate are well known to accelerate an attack of gout in many gouty subjects; and it is also of interest to note that in some observations conducted during the past few months on the alkalinity of the blood of gouty patients, the results of which are not yet published, there has been found in every gouty patient examined that the alkalinity of the blood is higher than the average alkalinity of the blood of healthy individuals, and since this increased alkalinity is due to a higher proportion of sodium carbonate or bicarbonate it can be understood, in the light of the present investigation, why such blood is prone to hasten and to augment the formation of gouty deposits. On the other hand, it is seen that when the increased alkalinity of the blood-serum is due to the presence of potassium bicarbonate, the conversion of the gelatinous biurate into the crystalline variety is delayed as regards time, and is considerably diminished as regards quantity, thus explaining the well known beneficial effect of the alkaline potassium salts in the treatment of acute and subacute gout."

Bain makes the following summary of results from an experimental contribution to **the study of gout:** (1) That the methods in vogue for separating uric acid from the blood are not sufficiently delicate for the detection of minute quantities. (2) That the phosphoric acid varies directly with the uric acid excretion, the patient being on a fixed diet. (3) That the alloxur bases in gout are not increased. (4) That colchicum does not seem to have any influence on the excretion of uric acid in gout. (5) That sodium salicylate and thymus increase the excretion of uric acid in gout. [S.M.H.]

3.—Ewart defines the left auricular postcordial dulness as a small, semilunar area, the convex upwards, and including the eighth and ninth dorsal spines. One must rely mostly upon the quasidulness of the ninth spine as the landmark which serves to localize the auricle. The semilunar dulness measures about 3½ inches in the transverse, and 2½ in the vertical diameter, and is strictly median in position. In subjects of mitral stenosis moderate enlargement of the auricle may be shown by a slight increase of the auricular dulness in the upward direction. In the more advanced cases, considerable extension of the total cardiac dulness will be perceptible, but within it a more marked dulness of the auricle itself will occupy a more increased proportion of space. Other less common conditions may affect the postcordial dulness in an analogous way, among these are aneurysm and cancer of the lower part of the esophagus. Careful percussion of the interscapular dulness is of value in the diagnosis of posterior mediastinal conditions. The size of the infratracheal and bronchial glands can be recognized by the following method of percussion of the back: The fifth dorsal spine is invariably dull and can quickly be recognized by its percussion note. This normal dulness extends for a short distance on either side of the middle line, but more to the right than to the left in the proportion of ⅓ to ⅔ of an inch respectively. If the size and the shape of this square patch of dulness be much modified, one may suspect enlargement of the glands in question. Changes in the abdominal viscera create alterations in the percussion-note of the back. Enlargements of the spleen as well as those of the liver cause a degree of dulness at the base of the thorax which is often obvious and referred to its proper cause. This dulness may sometimes be mistaken for a pleuritic exudation of a pulmonary consolidation. The spleen has a greater tendency to enlarge forwards and downwards than upwards and backwards. Simple general enlargement of the liver modifies the posthepatic dulness in two ways: (1) It increases the vertical dulness obtained below that of the heart in the middle of the back and gives a blunter angle at the left base; and (2) it enlarges the nucleus of Piorry in varying proportions. Decided enlargement of the liver is shown by this dulness encroaching upon the resonance which at the axillary base separates in health the nucleus of Piorry from the anterior hepatic dulness. Great uniform enlargement leads to a complete loss of this resonance and to a continuous dulness encircling the right side of the chest. The area of renal dulness and its absence should both be studied in renal conditions. The second lumbar spine is normally less resonant than the others. This normal dulness is connected with the presence of the pylorus, the first part of the duodenum and the head of the pancreas in the vicinity of the body of that vertebra. The pancreatic dulness is a dulness extending across the lumbar region between the first and second lumbar and immediately above the renal dulness. Ewart has been able to trace this dulness across the renal dull outlines and at the level of the second lumbar spine, and the localized dulness of the second spine may be due at least in part to the pancreas. There is not much information to be gained by percussion of the sacrum. Percussion of the pelvis will probably in the future assist the general practitioner in the diagnosis of obscure cases. It is of definite use in determining the presence or absence of ascitic fluid when other methods fail. [S.M.H.]

4.—As a result of the study of the literature and careful clinical and pathological study, Walsham concludes that **mitral stenosis and pulmonary tuberculosis** existing together in the same patient is so rare a condition that the one cannot be regarded as the cause of the other, although not antagonistic to each other. [S.M.H.]

5.—Hillier finds that the objects to be obtained in **the prevention of tuberculosis in private life** are destruction of the seed and sterility of the soil. The chief sources of danger are dust, the milk-supply, including buttermilk, skim-milk, butter and cheese, and meat. To protect ourselves against this disease, there-

fore, it is advisable to avoid dust as much as possible and to carefully remove it wherever it accumulates in houses, public buildings and conveyances. In its removal moisture should be used in order to prevent the dust from flying about and settling elsewhere. To protect ourselves against infection by milk it is advisable to sterilize all milk we receive by bringing it to the boiling point, or else to obtain milk from dairymen who guarantee that the tuberculin-test is used periodically among their cattle, and that none but perfectly healthy cattle are kept in the herd. Infection from butter and cheese can be obviated by demanding a guarantee of some process of sterilization of the milk and cream used in the manufacture of these articles. The risk from meat is not so great and can be obviated by the purchase of meat from slaughter-houses in which inspection is periodically carried out. Susceptibility to infection is inherited or acquired. It is a matter of importance in dealing with consumptive cases to see that they are properly instructed in the measures necessary to their own and the public health by this condition. They must be made to recognize that they must entirely adapt their lives for the sake of themselves, their families, and their neighbors to the requirements of the disease. [S.M.H.]

6.—Samways concludes that it is fairly evident that **the defence of the cardiac orifice** is partly muscular and partly valvular. The auriculo-venous orifices are guarded by muscular sphincter fibers. They may leak sometimes just as valved orifices do, but there is no evidence showing that they are in the habit of leaking even when the auricle is hampered by disease. The auriculoventricular orifices, during the first phase of the ventricular contraction, are also guarded largely by muscular action. The valves are supported and even kept open by the auricle contracting behind them. They are thus supported while the intraventricular pressure is rapidly rising, and left to themselves only when that pressure has about reached its maximum and will remain fairly constant as the blood escapes into the aorta. Similarly it appears that when the ventricle has expelled its blood into the aorta during the second phase of its contraction it remains, during its third phase, contracted behind the aortic valves, probably supporting them as far as possible while any disturbance in the aortic pressure is for the moment adjusting itself. It would seem, therefore, (1) That in cases of mitral stenosis when the auricular contraction is prolonged that the absence of regurgitation is due to the auricular defence of the stenosized and incompetent valves, during the whole or part of the expulsive phase of the ventricular contraction, for the ventricle cannot force the blood back into the auricle passing such regurgitation. (2) Regurgitation and a systolic murmur may appear as the stenosis advances, for when the auricle fails to expel its blood in time to become sufficiently small to resist the ventricle when its contraction opposes it, regurgitation must occur. Mechanical dilatation of the auricle will then commence, and with and through it the cardiac breakdown which appears sooner or later in this disease. (3) The auricular systolic murmur of mitral stenosis may reasonably be supposed to be presystolic and early systolic, since the auricular systole like the murmur runs up to and into the ventricular systole. (4) Hypertrophy of the auricle would aid or exaggerate the above results. [S.M.H.]

7.—Woods Hutchinson sums up an article on **The form of the chest in phthisis and its significance** as follows: The tuberculous chest is not only relatively but also absolutely deeper, narrower, and longer than the normal. Instead of being flat, it is round and long. In all of these dimensions it is apparently arrested at a certain stage of its development. The practical bearings of these observations are important. If the arrest of the chest-form is at about the period of puberty, it is a predisposing factor in tuberculosis. We then have an indication of the pre-tuberculous state of easy application, and no little value. As for the cure, a vigorous, active life in the open air, with plenty of tree-climbing, ball or spear throwing, bar-work, and all kinds of exercise which develop the great pectoral muscles to pull the chest into shape, will be most effective. [S.M.H.]

8.—Ewart has found from **the inhalation of carbonic acid gas in patients who suffer from cardiac symptoms** the subjective effects to have been as follows: (1) Rapid diminution and even an immunity to or cessation of cardiac discomfort or pain; (2) a feeling of increasing freedom of respiration. The objective effects have been a visible increase in the depth of breathing, a marked improvement in the pulse, and obvious improvement in both the expression and complexion. The effects obtained from the first inhalation persist for many hours. The systematic repetition of inhalation brings about improvement in the patient's general condition, as well as in the cardiac and respiratory functions. [S.M.H.]

9.—Kidney diseases, according to West, fall into two groups according as dropsy is a prominent symptom or not and the kind of **albuminuric retinitis** most frequently met with in these two groups is found to be different. The two forms, degenerative and exudative, stand in strong contrast with each other in the following respects: (1) Of the forms of disease with which they are usually associated; the degenerative with granular kidney; the exudative especially with parenchymatous nephritis. (2) Of their nature and cause; the exudative being inflammatory and probably toxic in origin, the degenerative consequent on vascular changes and more or less mechanical in origin. (3) Of sight; for the exudative, even in the extreme forms, may recover, with little or no defect of sight, but with the degenerative if there is any impairment of sight it is usually progressive. (4) Of diagnostic value; the exudative having an interesting by-phenomenon of parenchymatous nephritis, an affection the existence of which is obvious enough, while in granular kidney the degenerative often makes a diagnosis certain in cases which have been hitherto obscure. (5) Of risk of life, for while in both cases it indicates a grave form of renal disease which may of itself prove fatal, in granular kidney it indicates in addition all those dangers to which arterial disease exposes the patient. [S.M.H.]

10.—According to Campbell **the chest wall** is pulled outwards **in emphysema** from overaction of the respiratory muscles. This overaction results from diminution in pulmonary elasticity, thereby removing a force which operates against it. The fixation of the chest is essentially due to a shortening of the inspiratory muscles owing to their chronic overaction just as happens in talipes. While the chest gets set in its normal position the thoracic joints and possibly the elbows also tend to become rigid. In treating emphysema, therefore, we should endeavor: (1) To preserve pulmonary elasticity; (2) to prevent as far as possible overaction of the costal elevators and thus check the tendency to thoracic expansion; (3) to prevent the chest from becoming fixed. [S.M.H.]

11.—According to Phillips the mean normal **body temperature** in healthy individuals should be 97.4° F. The normal range in the adult, when the temperature is properly taken in the armpit, is from 97.0° to 98.4° F. The range is practically the same in most children. The armpit is not only the most convenient place for taking temperature, but is also in all respects the best. The instrument should be placed between the arm and the side in a position parallel to the axis of the arm, the bulb being passed into the vault as far as it will go. If the arm be now kept pressed against the side the instrument will be entirely covered and in contact with the skin. It is advisable to have the bulb of the same diameter as that of the stem so that the entire bulb will be in actual contact with the skin of the armpit when the thermometer is in position. Until some uniform method of taking the temperature is adopted writers should use the initial (a) for axilla; (o) for mouth; and (r) for rectum, when indicating the body temperature. All thermometers should be kept in position for at least three minutes. [S.M.H.]

12.—1. Calwell describes a type of **dyspepsia** which he calls the **adhesion type,** which often follows attacks considered to be ulcer of the stomach; but it also occurs independently of any clear history of ulcer. The symptoms pointing to this condition are: (1) The history of gastric ulcer or of some inflammatory condition in the region of the pylorus, particularly of localized pain and tenderness; (2) freedom from dyspeptic trouble while in bed or while at rest with easily digested foods; (3) pain of a dragging nature and relieved by rest, but increased by exertion; (4) a frequent history of sharp, shooting pain on sudden exertion or stretching, and the intuitive avoidance of certain movements and of heavy meals; (5) some comfort from a fairly tight abdominal bandage; (6) good general health and a fair appetite, but the patient afraid to eat; (7) pain half an hour after

eating and being thus distinct from the pain of gastric ulcer and the delayed pain of atonic dyspepsia; (8) no change in the gastric juice. The treatment of the very severe form is surgical. An exploratory operation should be done in the very chronic and threatening forms. The intermediate form should be treated by proper regulation of the diet, well-directed hygiene, and the administration of medicines directed to the control of gastric fermentation. The food should be of easy digestibility and small in bulk. Some mechanical abdominal support in the shape of a bandage is advisable. If no improvement follows this line of treatment, if the patient is in any way disabled or becoming hypochrondriacal, exploratory operation is advisable. The author refers to having so observed operations in these cases, and says that in all instances adhesions were discovered. He suggests that these adhesions sometimes prevent the healing of ulcers, and believes that the implication of rather large nervous twigs aid in keeping up severe gastric disturbance at times. He calls attention to the fact that acute hemorrhagic pancreatitis is frequently associated with an adherent stomach and suggests that it is due to bacterial infection therefrom.

2. Dr. Parsons had under his care a girl, aged 9 years, suffering from symptoms of **gastric ulcer.** She was suddenly seized with violent abdominal pain and was operated upon a few hours later. The patient made a complete recovery. The author lays special stress upon the increasing frequency of the pulse and the obliteration of the area of hepatic dulness in the diagnosis of perforation of ulcers in the anterior wall of the stomach. He opposes the administration of opium until the diagnosis is well established on account of its tendency to mask the symptoms. He emphasizes the importance of early diagnosis and early operative interference. [S M.H.]

14.—Reid in the treatment of **surface wounds** proposes the use of a wire cage to be placed over the wound to keep the dressings from coming in actual contact with the raw surface. This method of dressing, while affording sufficient protection, does not irritate the wound by cutting the lint or gauze touching the granulating tissue and acting as a foreign body. In this form of treatment it is important that the wound surface be frequently cleansed to prevent crusting of the discharges. To accomplish the same purpose it is a good scheme to cover the wire cage with wet lint and the whole with waterproof. The advantages of the method are the abolishment of the irritant of a foreign body, the wound is quickly, easily and painlessly dressed, the method is ideally aseptic, and the wound heals with remarkable quickness. [G.B.W.]

15.—Williams reports a case of intercostal neuralgia, for the relief of which he resected from 2¼ to 3½ inches of the fourth, fifth, sixth, and seventh dorsal nerves. The relief from the pain was absolute, and healing of the wound was complete in 3 weeks. The patient, however, became melancholic and died, from what appeared like general paralysis of the insane, about 6 weeks after the operation. [G.B W.]

17.—Carwardine describes a **new method of resecting the rectum for carcinoma.** After proper dieting and preparation the patient is placed in a prone position with the left knee supported on a stool, the buttocks being at a higher level than the chest. The coccyx and fourth and fifth pieces of the sacrum are resected subperiostially. A median proctotomy is then done by passing a slender knife in at the anus and transfixing the periosteum of the fourth sacral segment and then cutting through. The gut is cut through at some distance below the tumor and is separated from the levator ani muscle and prostate gland. This dissection is carried up to the peritoneum anteriorly. At at least an inch above the growth the mucous membrane alone is divided which exposes the perirectal tissues continuous with which will be found the presacral tissue, and glands. The presacral tissue is then separated from the periosteum of the sacrum and the peritoneum dissected with the finger from around the gut. Section is made as high as desired. In this way the cancerous tissue is removed all in one mass. The upper gut should be sutured to the anus and the wound closed after a gauze drain has been inserted. The stitches can generally be taken out on the ninth day. [G.B.W.]

19.—The **sarcoma** developed evidently from the effects of repeated blows on the **testicle.** The tumor, from the time of the first injury to its removal, which was about 4 months, grew to 3¼ pounds in weight, and was kidney-shaped in form. As there was some recurrence in the stump of the cord, a second operation was done, after which the patient remained free from recurrence; however, the last accounts being only 3 or 4 months after the operation. [G.B.W.]

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2. The Use of Mercury in the Treatment of Heart-Disease. Alexander Morison.
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5. The Typhoid Fever of Malarial Countries: some Remarks and Suggestions on its Pathology and Treatment. W. Forbes-Leslie.
6. Uncontrollable Vomiting Relieved by Laparotomy and Manipulation in a Case of Gastric Obstruction Due to the Pressure of an Aneurysm, with Remarks. William Ewart and J. Jaffrey.
7. Acro-arthritis Digitorum of Trophoneurotic Nature, with Akromegalic Symptoms. J. Ross MacMahon.
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9. Scarlet Fever, Appendicitis, and Acute General Peritonitis; Recovery. A. M. Sutton.
10. Music in Medicine. James T. R. Davison.
11. A Case of Virulent Acute Rheumatism with Extensive Purpura; Temporary Improvement Followed by Death from Cardiac Failure; Necropsy; Microscopy. D. B. Lees.
12. Two Cases of Cut-Throat with Opening of the Air-Passage. Edward R. C. Earle.

1.—Makins reports 2 cases of **wounds of the rectum.** A girl, 9 years old, was taken with sudden pain in the lower part of the abdomen and with constipation. She was put to bed and an enema was given, but the condition continued to grow worse, abdominal pain became very severe and there was great distention. The child was admitted to the hospital on the third day of the illness with a temperature of 102° F. and a small weak pulse of 140, there was frequent vomiting of brown offensive matter, the bowels had been confined since the beginning of the attack. A diagnosis of septic peritonitis was made and operation was considered the only chance of saving her life. The abdomen was opened in the middle line below the umbilicus and a large amount of foul fecal-smelling pus escaped. There were no adhesions. The patient's condition was so bad that further exploration was not undertaken, but a large drainage-tube was inserted and the abdomen closed. There was slight improvement of the general condition, but the patient sank and died 14 hours after the operation. At the necropsy a rent an inch in length was found in the anterior wall of the rectum, 4½ inches from the anus. There seems little doubt that the rectum was injured on the occasion of administering the enema. In the second case, a girl, 8 years old, was trying to spring over a broken chair and impaled herself on a sharp jagged portion of the uprights of the chair-back. When admitted to the hospital she was suffering much pain and coils of small intestine were protruding from a rupture of the perineum, which extended from the vagina to the anus. An anesthetic was administered and it was found that the rupture passed only to the depth of the external sphincter, above this the rectum was intact for 2½ inches, while the small intestine entered it by a tear in the anterior wall. The intestine was carefully washed and returned to the abdomen through the rectal wound and sutures were then inserted through the whole thickness of the bowel-wall and tied to the mucous aspect. Meanwhile another operator opened the abdomen from above, thoroughly cleansed the coils of intestines, which had protruded, flushed and sponged the pelvic cavity and inserted a large drainage-tube; the perineum was closed as in the ordinary operation for rupture. For some days there were unfavorable symptoms, but recovery eventually followed. [M.B.T.]

2.—Morison finds small doses of **mercury** useful in reducing impedimental conditions of vascular tension. Used as a vasomotor relaxant, the action of mercury on the heart is altogether indirect. The impediment is removed, not the heart directly stimulated, and it is in this fact that the

utility of the combination of mercurials with strychnin, arsenic, and the digitalis group lies. Another method of using mercury in cardiac dropsy is one in which the effect upon the circulation is also chiefly indirect, and is produced by a direct action upon the kidneys. This method consists in the administration of from $\frac{1}{5}$ to $\frac{4}{5}$ of a grain of calomel every 2 hours during the day. This should be continued for a period of 4 or 5 days, and should ultimately be combined with the administration of small doses, $\frac{1}{7}$ to $\frac{1}{3}$ of a grain, of powdered digitalis leaves. Mercurialization and purgation rarely result, and are readily controled, if they occur, by abandoning the drug for a time. The diuretic effect begins about the fourth or fifth day, and continues for a week or 10 days after the calomel has been stopped. This combination is often effective in cases in which the separate use of the drugs has been negative. Calomel usually acts better in mitral than in aortic diseases, and is useless when there is concurrent nephritis of noncardiac origin. The diuretic effect is lost if the treatment is repeated too often. Diuresis is directly due to stimulation of the secreting structures of the kidney itself during the elimination of the drug. Mercury in combination with potassium iodid is sometimes very effective in the treatment of heart-disease, especially in syphilitics. [S M.H.]

4.—Four **operations for renal calculi** are reported. A man, 29 years old, had had severe pain in the right loin for 2 years; later hematuria appeared, the kidney was large and tender. Operation was undertaken, but before examining the right kidney an exploratory incision was made to determine the condition of the left kidney. A calculus weighing 77 grains was then removed from the pelvis of the right ureter and three other small calculi from the interior of the kidney. A fortnight later a small procedure was carried out on the left side; the kidney was a mere sac containing urine, the ureter being blocked by a tightly impacted irregular calculus weighing 150 grains. In both operations the wounds healed by primary union and recovery followed. In a second case, a man of 36, had had symptoms related to the right kidney for 5 years. A calculus weighing 40 grains was removed by the ordinary lumbar incision, the patient left the hospital in good health, but returned some months later with left renal colic and hematuria, from which he was relieved by medical treatment. In a third case, a man of 32, had had renal colic and hematuria for 14 months; a uric acid stone, the size of an almond, was removed from the pelvis of the right ureter and a small stone through an incision into the cortex. The wound healed by primary union and the patient returned home on the fourteenth day. In a fourth case, a girl, 18 years old, came to the hospital with enlarged right kidney and pus in the urine, she also had pain in the left kidney. The right kidney was found so disorganized and filled with a large and small calculi that nephrectomy was performed. The wound healed by primary union, but there was still pain in the left kidney with considerable pyrexia. The patient died about 12 months later. Deansley believes that in every case in which persistent morbid conditions of the urine are associated with signs referable to one kidney; operation is indicated; for example, persistence of minute quantities of blood and pus in the urine with frequently recurring pain in one loin constitute a sufficient presumption of stone, tuberculosis or pyelitis to justify exploration. Catheterization of the ureters is not regarded as indispensable; in case there is clinical evidence pointing to one organ an exploratory abdominal incision may be undertaken to determine the condition of the other kidney. Deanesley has found that wounds of the pelvis of the kidney heal as readily as those of the cortex and consequently there is no necessity for incision through the cortex in removing stone. If both kidney and ureter have been completely freed from calculi the wound may be closed without drainage. [M.B.T.]

6.—A woman of 49 had been suffering from constipation and persistent vomiting for a week; the abdomen was flat, tender and tense, and a pulsating tumor with bruit and thrill could be distinctly felt in the left epigastric and umbilical regions. The vomiting had persisted in spite of treatment and diet suitable for malignant disease or ulcer, and intestinal obstruction was suspected. An exploratory incision was made above the umbilicus and the stomach was found healthy though dilated. A large fusiform **aneurysm** of the **abdominal aorta** was located about half an inch below the aortic opening of the diaphragm and extended to the left of the umbilicus. The pyloric end of the stomach was flattened over the convex surface of the aneurysm causing **obstruction** to the passage of the **stomach contents.** As much as possible of the dilated stomach was pulled over to the right side of the aneurysm to relieve the pressure due to the weight of the dilated stomach, and as it seemed inclined to remain in its new position, it was considered unnecessary to fix it. The patient rapidly recovered from the operation, alarming symptoms disappeared and she slowly improved until able to take solid food and walk a short distance. [M.B T.]

7.—A man presented himself for the treatment of a peculiar condition of the fingers and thumbs of his hands, all of which were greatly increased in bulk, clumsy, and club-shaped in appearance. No cause for the condition could be discovered, although he had slipped and sat down forcibly, straining his back, about three months previously. There was no gouty or rheumatic history. The free movement of the fingers was interfered with, the nails were of normal contour, but easily broken, furrowed, and lustreless, and the surrounding hypertrophied tissue encroached upon their surface. The skin was tender and subcutaneous tissue increased in thickness, and there was increase in the circumference of the bones of the terminal phalanx. The phalangeal joints were disorganized, resembling the condition seen in tabetic arthropathy as described by Charcot. There was distinct grating and rubbing of the eroded surfaces, blunting of sensation and weakened power, although there was no muscular atrophy nor pain. Hutchinson has described last-joint disease or **acroarthritis,** which occurs only when, with liability to Raynaud's phenomena strongly inherited, tendency to gout also exists. The pathologic cause is evidently peripheral or central neurosis acting on the vessels, causing spasm of the arterioles. [M.B.T.]

8.—A woman of 35 had a painful swelling in the groin which she attributed to lifting. The pain did not keep her in bed, though relieved by lying down; there was no vomiting or constipation, but an uncomfortable feeling on urination. On examination a swelling was found at the external abdominal ring the size of a walnut, the tumor was doughy to feel, irreducible, without impulse on coughing, somewhat tender, but not very painful on pressure. An operation was carried out and after exposing the pillars of the external ring a fatty substance was seen extruding from it. This was carefully dissected through in the expectation of coming on the peritoneal sac, but at the bottom was found a mass of thick tissue which at first was thought to be thickened sac, but was identified as **hernia of the bladder wall.** To make certain, a puncture was made into it and a few drops of urine escaped. A suture was inserted and the fatty mass was cut away and the abdominal wound closed. Recovery was uneventful. [M.B.T.]

9.—A youth, 19 years old, had a typical attack of scarlet fever. On the eighth day of the disease he complained of abdominal pain and tenderness, the pain became worse, uncontrolable vomiting set in, and the patient became rapidly collapsed. The patient was 60 miles by wagon-road from skilled assistance, hence operation was not undertaken. He remained in a very low condition for some days, but gradually improvement followed and a lump appeared in the right iliac fossa. A few days later there was a copious discharge of pus and mucus, streaked with blood, from the rectum. After this the patient rapidly improved and has now regained perfect health. The trouble is thought to have come from appendicitis. [M.B.T.]

11.—A girl, aged 17 years, was admitted to St. Mary's Hospital under the care of Dr. Lees. She was suffering from purpura and shortness of breath. The purpura began two days before admission and was followed on the next day by pains in the joints. She gave a history of an attack of chorea 5 years previously, and an attack of rheumatic fever 2 years previously. The chief features in the case were a severe attack of rheumatism in a patient already predisposed to the disease, the special clinical interest being marked cardiac dilatation and most extensive purpura. Eight days after admission a pericarditis without effusion developed. The purpuric rash in many places developed into large, sanious bullae, and over the back the epidermis began to give way, leaving raw and painful surfaces. Cultures were made from the blood which was withdrawn under strict antiseptic precautions. On two occasions a pure growth of cocci ranged

in chains was obtained. In one of the anaerobic tubes a bacillus was found which unfortunately could not be isolated. The fluid from the bullae gave a growth of staphylococcus. The blood-examination showed no leukocytosis. There was a **slight improvement** later **and the cardiac dilatation slowly diminished.** At **the end of two months the purpura had subsided.** About a month later the pulse became irregular, troublesome vomiting developed, the liver enlarged rapidly, venous congestion increased, and after a few days the patient died, rather suddenly, from heart failure. The postmortem showed the heart much dilated—the left lung collapsed and hidden behind the left ventricle. The pericardium was adherent, the adhesions being of recent date. There was no fluid in the pericardial sac. The right limit of the heart, occupied by the right ventricle, did not, when traced downward, curve inward at its lower part to join the right ventricle, as is normally the case, but extended in a straight line to the diaphragm. The heartmuscle was profoundly altered and of a pale purple color. The mitral, aortic, and tricuspid valves were all slightly thickened. There was no recent valvulitis and there was rigidity rather than stenosis of the mitral orifice. There were some patches of aortitis in the first part of the aorta and a small infarct was found in the spleen. There were recent pleuropericardial adhesions on both sides. Microscopic examination of the heart showed extensive fatty change in the muscles. Scattered through the heart-wall there was also cellular exudation between the muscle bundles, though not extensive. There was great capillary dilatation. [S.M.H.]

12.—A negro was brought to the hospital, with all the tissues in front of the trachea cut and the trachea severed for ⅔ of its diameter just below the cricoid cartilage. No large vessels had been injured, the wound was carefully closed, 3 catgut sutures were inserted, bringing the cut edges of the trachea together and after dusting with iodoform the edges of the external wounds were approximated, leaving about 2 inches of the middle part open for drainage. A few days after the patient had a severe attack of dyspnea due to discharge entering the trachea through the wound. The external sutures were removed to relieve tension and give freer drainage and the condition rapidly improved and progress toward recovery was uneventful. In a second case a negro had received a large transverse **cut** across the **throat** 4 inches in length along the upper border of the thyroid cartilage, the upper part of the larynx had been completely severed and the edges of the wound had retracted, exposing about 2 inches of the interior wall of the pharynx. All the muscles and tissues uniting the tongue and hyoid bone had been cut. An endeavor to unite the thyroid cartilage below to the thyrohyoid membrane was prevented by severe coughing on inserting the needle. The edges were approximated by bending the head forward and the skin-flaps were brought together by 2 silk sutures. The wound healed rapidly and complete recovery resulted. [M.B.T.]

New York Medical Journal.

November 11, 1899. [Vol. lxx, No. 20.]

The Bath Treatment in Typhoid Fever. H. E. Ballard.
The Relation of Pathological Conditions in the Ethmoidal Region and Asthma. Clinical Phases. Clarence C. Rice.
The Relation of Pathological Conditions in the Ethmoid Region of the Nose, and Asthma. Clinical Phases. E. Fletcher Ingals.
The Pathology and Therapy of Cancer, with Special Reference to Cancer of the Stomach. Augustus C. Bernays.
Notes on Urethral Catheterism, Catheters, and Bougies. W. S. Gouley.
Brain Fatigue. R. Ellis.
The Treatment of Epididymitis. Robert C. Kenner.

1.—Ballard employed the bath treatment with success in a case of **typhoid fever** in private practice. [S.M.H.]

2.—Rice believes it necessary that when **asthmatic symptoms** coexist with ethmoidal disease there should be present either nasal passages blocked with polypi, hence mouth-breathing with a general catarrh, or else very acutely inflamed conditions which would produce neurotic asthma by vasomotor disturbance. [S.M.H.]

3.—Ingals has occasionally observed cases of asthma relieved by the removal of nasal polypi. [S.M.H.]

5.—For the **exploration of the urethra** for stricture or in dilating narrow structures free from complications, the use of flexible web **bougies** is advised. In dilatation the bougies are inserted, increasing the size until No. 10 or 12 of the English scale have been reached, after this conical steel sounds may be used. Unduly frequent and excessive dilatation is irrational and harmful. If whale-bone bougies are used they may be preserved by coating them with carbolized vaseline and preserving them in metal tubes, otherwise they may become dry and brittle and are soon destroyed by parasites. As to the size of **catheters,** one should be used which moderately fills but does not stretch the urethra; to the use of small catheters may be ascribed the majority of prostatic false passages and the frequent attacks of urethritis and orchitis from which autocatheterists suffer. Patients should be cautioned against too frequent use of the evacuating catheter, as some, if not cautioned, will pass the instrument every hour if suffering from vesical spasm. This may be obviated by the administration of $\frac{1}{200}$ grain of hyoscyamin three times daily. In catheterism for vesical irritation the double current catheter should be abolished, for it does not allow enough of the injected material to accumulate for proper distention and irrigation. [M.B.T.]

6.—Ellis reports the case of a sensitive man of fine caliber, aged 60 years, who had been working under pressure the most of his life. While under special pressure he suffered from dizziness and uncomfortable sensations in the head, which increased for several days until one morning while writing a letter he was unable to remember the name of the town in which he lived. Abandoning his work for a time he had complete relief. On other occasions the condition occurred with even more marked manifestations. [S.M.H.]

7.—In the treatment of **epididymitis,** measures should be considered for the relief of pain and acute inflammation, and later on to hasten the removal of inflammatory deposit. The use of tobacco leaves, wet in hot water and applied to the scrotum, is recommended for the relief of pain. If this is not successful a flaxseed-poultice, to which laudanum has been added, may be used. Cold applications are considered unsatisfactory. To hasten resolution pulsatilla is considered almost a specific by some, but Kenner has not found its use satisfactory. Strapping gives good results, but is disliked by patients. The use of iodin vasogen rubbed into the scrotum every 3 or 4 hours is highly recommended as a means of hastening rapid resolution. [M.B.T.]

Medical Record.

November 11, 1899. [Vol. 56, No. 20.]

1. Ten Years' Experience with Typhoid Fever at the Roosevelt Hospital. W. H. Thomson.
2. Electricity in Respiratory and Cardiac Failure, with a Case of Paralysis of the Diaphragm. A. D. Rockwell.
3. The Etiology of Scarlet Fever. Harry O. Hall.
4. Potassium Iodid in the Treatment of Acne. Fred. J. Leviseur.
5. Entrance of Air into the Circulation. J. D. McPherson.
6. Fracture of the Arm in a New-Born Child. Charles H. Holzhausen.
7. Starvation Edema. Annie H. Patterson.
8. The Hand as an Obstetrical Instrument. J. Hunter Wells.
9. Septic Infection and Obstinate Hiccough during the Puerperium. William F. Barry.

1.—Thomson's experience in 10 years' service has been 368 cases, with 25 fatalities—a mortality of 6.8%. If deaths which occurred during the first week after admission were excluded the fatalities were but 11, or 3%. Diarrhea was noted in the records of but 32 cases as occurring after the first week and was rarely severe. Constipation was extremely common. The infrequent occurrence of diarrhea is thought to be due to the fact that meat-broths were not often used—these, Thomson thinks, readily ferment and excite diarrhea. Tympanites was noted in about 20% of cases, but many of these instances were seen in much reduced soldiers. Tym-

panites is considered an ominous sign. Six soldiers had combined typhoid and malarial infections. In 4 the plasmodium disappeared after the typhoid had run its course, while in 2 the malaria reappeared during convalescence from the typhoid. Hemorrhage occurred in 7.3%. It was best treated by hypodermoclysis of normal salt-solution, 8 to 12 fluid-ounces. There were four instances of perforation, two of which were operated upon, but unsuccessfully. Delirium was rare except when present on admission, and other nervous symptoms, accumulation of sordes and similar signs of great prostration were uncommon. Peripheral neuritis was seen in 24 cases. It is believed to be due to the foot-drop induced by prolonged relaxation of the leg muscles. Phlebitis was seen 7 times, subcutaneous abscesses 29 times. The latter appeared in somewhat epidemic form in 1894 and the cause was thought to be some infection of the skin through cold baths in Croton water. Relapse occurred in 15%. In one instance ulcers were found in the large intestine only. In another fatal case there was a severe pelvic myositis thought to be typhoidal, but no lesions were found in the intestine. The treatment was a mercurial purge repeated every third night for 2 weeks. Exclusive milk diet up to the fourth week, the milk being always equally diluted with lime-water, and the use of pepsin and bismuth in 10-grain doses. Pepsin is believed to improve the condition of digestion greatly and prevents diarrhea, and inflammation of the mouth, throat, middle ear, and parotid glands. Cold baths were always used. Albuminuria and oliguria were treated by rectal irrigation with salt-solution. [D.L.E.]

2.—The case reported was one of dyspnea following grip. There was aphonia. The epigastrium became depressed upon inspiration, and grew full upon expiration. Faradism, followed later by a combination of faradism and galvanism, resulted in cure within a month. The combination of the two currents is said to be more useful than either separately. Electrical stimulation of the pneumogastric depresses heart-action, and is therefore not useful in cardiac failure; but stimulation of the phrenics increases respiratory action, and percutaneous use of electricity in therapeutic doses stimulates the phrenic nerve and has no effect upon the pneumogastric. It is therefore useful in poisoning by opium, aconite or chloroform, or in drowning. [D.L.E.]

3.—In examining medical literature Hall has found that scarlet fever occurs in epidemic form in countries where cow's milk is used as a food, but not in countries where children are fed solely at the breast or on goats' or asses' milk. He states that the disease is rare or unknown in China, Japan and India. [D.L.E.]

4.—In many instances Leviseur has found that potassium iodid first stirs up an old **acne,** but that subsequently the usual remedies, previously ineffective, rapidly cause the acne to improve and disappear. [D.L.E.]

6.—A male **child, 1 day old,** was brought to the hospital with a **fracture** of the surgical neck of the humerus. According to the grandmother's story the child was born without assistance, no physician or midwife being present. The fracture was treated the same as if it occurred in an older child, and union resulted in about 3 weeks. [M.B.T.]

8.—J. Hunter Wells, of Pyengyang, Korea, makes a plea for the use of **the hand as an obstetrical instrument.** Of course use forceps if you can get them, but do not let a woman and baby die because there are no forceps convenient, without trying what may be done with the hand. He describes a case of placenta prævia with twin pregnancy in which labor-pains had ceased. [W.K.]

9.—Barry gives an illustration of the extremely low condition into which a patient may sink, the utter hopelessness of the case, and yet, withal, recovery take place. The case was a very severe one of **septic infection and obstinate hiccoughing during the puerperium.** The typical symptoms were of such severity that the family insisted that there was no use in further treatment, but the uterus was cureted, a tampon inserted later to arrest profuse flow, with the result of stopping the hiccoughing of 3 days' duration. Upon the removal of the tampon the hiccough at once returned, but ceased when a fresh piece of gauze was inserted. During the fourth week the abdomen was opened for the relief of localized peritonitis and a large amount of foreign material flowed out. Copions injections of normal saline solution were used and the patient became strong and well again. [W.K.]

Medical News.

November 11, 1899. [Vol. lxxv, No. 20.]

1. The Advance in Our Knowledge of Typhoid Fever. HERMAN M. BIGGS.
2. Eye-Complications in Typhoid Fever. ALVIN A. HUBBELL.
3. Angiotripsy. CLEMENT CLEVELAND.

1.—Biggs gives a brief description of our present knowledge of **typhoid fever.** He calls attention particularly to the fact that typhoid bacilli are not restricted to the intestine, but find their way into the blood, and are execreted by the kidneys as well as by the bowels. He believes the Widal test of great efficiency, and also thinks that the typhoid bacilli should be obtained from the excreta by cultivation. The diazo-reaction is less valuable. Preventive inoculations, as carried out in the English Army, seem to be of distinct benefit. Prophylatic measures should include much more than disinfection of the stools, as has hitherto been practiced, particularly the sterilization of the bladder if possible. The most valuable treatment is hydrotherapy. At present in America, the subject of hygiene is entirely too much neglected. [J.S.]

2.—Hubbell calls attention to the following **complications** occurring in the course of **typhoid fever** and **affecting the eyes:** conjunctivitis, suppuration of the deeper structures, iritis, choroiditis, opacities of the vitreous humor or lens, various infections of other parts of the eyeball and orbit, hemorrhages, thrombosis, and occasionally hemianopsia. Postfebrile affections may be oculo-palsies, and nerve-atrophy. The bacteria may occasionally be the direct cause, but more frequently the toxins are the active agents. Conjunctivitis is frequently produced by the profound exhaustion, during which the patient fails to wink, and the lachrymal glands fail to secrete as much as normal. Under these circumstances, careful attention to the condition of the eye may prevent infection. The prognosis of all complications is less favorable in typhoid fever than when they occur in persons in good health. [J.S.]

3.—Cleveland gives a brief history of **angiotripsy** and of the various instruments used for the compression of the bloodvessels, and presents the histories of 26 successful cases in which the angiotribe was employed. In discussing the advantages of the instrument he compares it with the ligature. The angiotribe leaves a small flat ribbon-like stump, which in a few days sloughs away, with very little discharge and odor. The stump left by the ligature is necessarily large and often requires weeks to slough away, frequently giving rise to a secondary sepsis. The almost total absence of pain and the absence of almost every indication that a severe operation has been performed is the rule after the use of the angiotribe. He believes that this method will abide for all time as it is based on solid and scientific principles. [W.K.]

Boston Medical and Surgical Journal.

November 9, 1899. [Vol. cxli, No. 19.]

1. Criminal Abortion, with a "Dying Declaration." F. W DRAPER.
2. A Case of Ptomain Poisoning. H. G. BLAKE.
3. A Report of Medico-Legal Autopsies. FREDERICK H BAKER.
4. An Analysis of the Cases of Eclampsia Occurring at th Boston Lying-in Hospital during the last 15 Years F. S. NEWELL.
5. A Case of Uterine Fibroid. GEORGE H. WASHBURN.
6. A Case of Ovarian Cyst with Twisted and Strangulate Pedicle. W. L. BURRAGE.

1.—Draper discusses the **legal value of dying declarations.** When they are properly authenticated, these hav all the force of sworn depositions and are regarded as equall good evidence. He gives the history of a case in which th declaration of a patient, the victim of a septic infection fol lowing a criminal abortion, secured the indictment of th person who committed the crime. [W.K.]

2.—The patients, two sisters, had partaken of raw bologn sausage. They were taken sick shortly afterwards with vom iting, no diarrhea and no pain. Later there were contracture of the hands and feet and profound depression. No phys

cian was called in for four days, and he then diagnosed gastritis, and considered the condition serious. Four days later the younger sister died. Blake, who was the medical examiner, did not perform an autopsy, as the attending physician assured him that it was a case of simple gastritis, and that the patient suffered from some chronic disease. The following day the other sister died, and was immediately injected by the undertaker. The autopsy was not performed. Blake believes that in view of the fact that neither had money, it was not a case of murder, but of **ptomain poisoning.** He excludes arsenic on account of the lack of pain and the long duration of life after the first symptoms. Morphin had been given during the disease. He then gives a brief list of some of the more important ptomains. [This paper impresses us as exceedingly curious. Even although it might have been impossible to test for arsenic after the embalming fluid had been injected, we can see no reason why an autopsy was not performed. It is perfectly possible that some discovery might have been made. In view of the extraordinary symptoms in both cases, and the fact that they had begun at the same time, the failure to perform an autopsy of the first case impresses us as being a piece of serious neglect. There is very little real basis for the diagnosis of ptomain poisoning. J.S.]

3.—Baker describes 5 **autopsies.** The first, a male, 25 years of age, had made a wager that he could drink a pint of whisky within 10 minutes. As a matter of fact, he drank 1½ pints in less than 5 minutes. Shortly after, he became unconscious, vomited, had convulsions, and died within 6 hours. The autopsy was made 36 hours after death. There were marked rigor mortis, and some postmortem mottling and discoloration. The brain was edematous and hyperemic. Both lungs were exceedingly hyperemic and edematous, and there were numerous pleural ecchymoses. The stomach contained a brownish black faintly-acid material, with a slight alcoholic odor, there were numerous particles of undigested food, and the mucous membrane was swollen, and contained petechial hemorrhages. Cultures were negative. Analysis of the stomach-contents showed that they contained 14.5 cc. of absolute alcohol, and the liver 3.5 cc. The organs microscopically were normal. The second patient, a girl, 21 years of age, had been accused of stealing, and while her trunk was being searched for the stolen articles, drank some prussic acid. She became unconscious, had tetanic convulsions, and died in about 12 minutes. At the autopsy, one hour after death, the pupils were widely dilated, the mucous membrane of the stomach and upper part of the small intestine were bright red, and there was enlargement of the organs. The blood showed the characteristic cherry-red color and was fluid. There was a marked odor of prussic acid which was also found in the stomach-contents. The third patient, a man of 29, had been drinking heavily, and while returning home fell out of the wagon, and was left on the road. He was carried home in a wagon and left in the shed over night, and the next morning was found dead. At the autopsy, an extensive blood-clot was found occupying the site of the pancreas, and there was blood in the pancreatic duct. The other organs were infected, but otherwise normal. The fourth patient, a boy of 14, was struck on the back of the head by the wheel of a toy express cart. The following 3 days he complained of not feeling well, and vomited several times, and on the fourth day became suddenly ill, delirious, and died the following morning. At the autopsy, a scalp wound was found to be infected; there were diffuse areas of hemorrhage all over the lobes of the cerebellum, and in addition an acute purulent meningitis. Cultures showed the presence of streptococcus and staphylococcus. The fifth case, a man of 35, had been drinking beer, and some hours later was found dead. The history was that he had severe abdominal pain, vomiting, and diarrhea. The autopsy was entirely negative. Chemically, the examination of all the organs and fluids failed to reveal any poison, and cultures remained sterile. The brain and cord were entirely negative. The history and course indicated an irritant poisoning. [J.S.]

4.—Newell gives a careful analysis of the cases of **eclampsia** occurring in the Boston Lying-in Hospital during the last 15 years. During the period since 1885, 90 cases have occurred of so-called eclampsia, although in 11 no convulsions occurred. So there were 79 cases of true eclampsia in 6,700 deliveries, an average of 11.7 to the thousand. Of these 57, or 72.2%, were primipara and 22, or 27.8%, were multipara. He details the treatment employed at different periods and urges that the mortality can be reduced by employing prophylactic measures to prevent the shock which is produced by the condition. [W.K.]

5.—Washburn reports the successful removal of a large fibroid tumor from the uterus by **myomectomy.** The abdominal route was used and the uterine incision closed with chromicized catgut. He urges the employment of this method rather than hysterectomy in suitable cases. [W.K.]

6.—Burrage reports the successful removal of an **ovarian cyst** with twisted and strangulated pedicle. The cyst wall was thickened and necrotic, and was found closely adherent to the parietal peritoneum. It filled the pelvis and was intimately adherent to the pelvic wall, bladder, omentum and intestines. The tumor was removed and pedicle ligated, peritoneal cavity flushed with saline solution and the postural method of drainage employed. The convalescence was uneventful. [W.K.]

Journal American Medical Association.

November 11, 1899. [Vol. xxxiii, No. 20.]

1. Four Cases of Cerebellar Abscess: One Success, Two Autopsies. B. Alex. Randall.
2. Report of a Case of Brain and Other Abscesses: Following Tonsillar Abscess and Nonperforative Suppurative Otitis Media. D. Milton Greene.
3. Fractured Base, with Deafness, Tinnitus, Vertigo, Exophthalmus, Facial Paralysis, Mastoiditis. J. A. Stucky.
4. Intestinal Lesions Associated with Intraabdominal Operations, with Report of Five Cases of Resection of the Ileum. Thomas A. Ashby.
5. Some Clinical Observations in Rectal Diseases. B. Sherwood-Dunn.
6. On the Relation of Diseases of the Accessory Cavities to Diseases of the Eye. J. H. Bryan.
7. Eye-troubles Attributable to Nasopharyngeal and Aural Disturbances. Joseph A. White.
8. Some of the Ways in which X-rays Assist in Medical Diagnosis. Francis H. Williams.
9. Adenoma of the Urethra. G. Frank Lydston.

1.—See this Journal, Vol. IV, p. 16.

2.—See this Journal, Vol. IV, p. 16.

3.—See this Journal, Vol. IV, p. 16.

4.—Five cases of-end-to-end anastomosis of the ileum by means of Murphy's button are reported. A primipara of 21 was found following labor to have a soft mass in the uterus, which, when drawn out with placental forceps, proved to be a small intestine which had forced its way through a rupture in the uterine wall. When the abdomen was opened the intestine was seen to be so lacerated that resection of 8 inches of the ileum was necessary. Supravaginal hysterectomy was also performed. In a second case 5 inches of ileum was resected because so firmly adherent to a cystic pelvic tumor from a woman aged 30. In a third case 5 inches of ileum was resected because of intestinal obstruction resulting from adhesions caused by an abdominal cystic tumor occurring in a woman of 25. Six inches of ileum adherent to pus-tubes was resected in the case of a woman 35 years old. Fecal fistula near the anastomosis button resulted and this was followed by septic peritonitis and death. In a fifth case 26 inches of intestine had to be resected at the time of removal of diseased tubes and ovaries. Recovery resulted in all the cases except the one complicated by fecal fistula. [M.B.T.]

5.—A number of cases of chronic **pruritus ani** have been found by Dunn to result from a small superficial **ulcer** placed between the internal and external sphincters, and in obstinate cases he advises that this cause be always sought for. The ulcer should be treated in the same way as all rectal ulcers. [M.B.T.]

6.—See this Journal, Vol, IV, p. 13.

7.—See this Journal, Vol. IV, p. 13.

8.—For satisfactory **medical work with the x-rays,** an efficient apparatus, and experience in examining a large number of cases are requisite. Williams uses a static machine which has four revolving plates, 6 feet in diameter, and four fixed plates, 6 feet 4 inches in diameter. In Europe coils are more commonly used. The vacuum tubes designed by Dr. W. H. Rollins, are found excellent, and are the only

ones that withstand a very powerful exciter. They are provided with regenerators for lowering the vacuum, and the anode in one form is so constructed as to be readily rotated if the energy used is sufficient to melt a hole through the platinum; in another form the anode is hollow and can be cooled by passing water through its interior. To avoid x-ray burns, the tube should be placed at some distance from the patient, and an aluminum screen, which should be grounded, should be interposed between the tube and the patient. When a picture of the bones is desired, the x-ray photograph has advantages. Speaking generally, however, the examination with the fluorescent screen is the more satisfactory method. It permits the physician to follow the movements of the heart and lungs during respiration, and outlines of the heart, lungs, and diaphragm are more sharply defined on the screen. For physicians, the most useful field at present lies in the thorax. There x-ray examinations aid us to detect most aneurysms of the thoracic aorta, central pneumonia, emphysema, early pulmonary tuberculosis, fluid in the chest, as in pleurisy or empyema, pneumopyothorax, etc. In cases of doubt as to the cause of dulness in the lower part of the chest, whether from a pleuritic effusion or a thickened membrane, an x-ray examination can determine that fluid is not present, for if there is no fluid the outline of the diaphragm is clearly defined. An advantage over percussion is that changes in the central portion of the lung are seen by this means, whereas percussion is limited to the more superficial portions of the lungs. The method is especially valuable in pulmonary tuberculosis, and we may frequently recognize, on the fluorescent screen, abnormal appearances in the lungs before physical signs have led us to suspect the condition. Hydatid cyst of the lung, new growths, an encysted pleurisy, abscess of the lung, calcification of the pleura, may be located by x-ray examinations. In the abdomen we may, under favorable conditions, see on the screen the outline of the spleen, liver, and left kidney. By giving bismuth subnitrate—which is opaque to the rays—with a meal, the outline, position, and size of the stomach may be seen, and its diminution in size during the process of digestion and the changes in outline during its peristaltic movements may be followed. If the stomach or large intestine be distended with some gas they show as light areas on the screen; the sigmoid flexure and descending colon, for example, in detail. By this method these and adjacent organs may be examined. The kidneys, when they contain calculi, offer an excellent field for diagnosis by means of x-ray photographs. Gallstones are unfortunately of such a composition that they do not cast much shadow and do not offer a good opportunity for detection. In the pelvis we may recognize bony deformities, and determine the size of the openings, and whether or not the pelvis is normal. In diseases of the heart the fluorescent screen gives us a means of determining the size, position, mobility, and action of this organ more fully and more accurately than has hitherto been possible. [M.B.T.]

9.—A man, aged 23, had suffered for 3 years from pains in the hypogastrium and frequent micturition, which despite treatment of various kinds, persisted and had grown steadily worse. The symptoms were intermittent, lasting a week or two, and then for a time ceasing. There was pain and burning at the head of the penis. The urine had been cloudy, but never bloody. Exploration showed the bladder to be free from stone. The prostate was enlarged and tender and evidently the seat of chronic inflammation. There was no organic urethral obstruction, but great pain and spasm of the membranous urethra was excited by the passage of the instrument. Perineal cystotomy and dilatation of the vesical neck was performed, and while making a careful digital examination of the perineal and deep urethra, a little irregularity of the urethral surface was felt. Examining this carefully, a mass began to detach itself from the urethral lining, and a distinct, somewhat lobulated **tumor** that seemed to proceed from the base **of the bulbous urethra** on the right side, was dissected out. Histologic study showed the tumor to be an **adenoma.** [M.B.T.]

American Journal of the Medical Sciences.

September, 1899. [Vol. cxviii, No. 3.]

1. Operations in Gastric Ulcer. LEONARD A. BIDWELL.
2. Epithelioma as a Sequel of Psoriasis and the Probability of its Arsenical Origin. M. B. HARTZELL.
3. A Case of Cystic Degeneration of the Kidneys, with General Dermatitis Exfoliativa. G. PARKER.
4. Purulent Encephalitis and Cerebral Abscess in the New-Born Due to Infection Through the Umbilicus. GUY HINSDALE.
5. Congenital Idiopathic Dilatation of the Colon. J. P. CROZER GRIFFITH.
6. On the Toxicity of the Urine. F. FORCHEIMER and R. W. STEWART.
7. The Disease of Convulsive Tic (Gilles de la Tourette's Disease). BERNARD GETTINGER.
8. Aneurysm of the Coronary Artery; a Report of Two Cases. JOSEPH A. CAPPS.
9. A Critical Summary of Recent Literature Concerning the Mosquito as an Agent in the Transmission of Malaria. THOMAS B. FUTCHER.

1.—Operation for gastric ulcer is required absolutely in all cases of perforation of the ulcer into the general peritoneal cavity. It is also demanded in cases in which profuse hemorrhage has taken place and has been repeated within a short interval, and in cases of oft-repeated slight hemorrhage. It is also recommended in those cases which resist ordinary medical treatment, especially in those in which there is dilatation of the stomach from pyloric obstruction, depending either upon cicatricial contraction within or adhesions outside of the stomach. The symptoms that should guide in making a **diagnosis of perforation** are: (1) History of previous treatment for gastric ulcer and of the occurrence of hematemesis; (2) the sudden onset of the pain; (3) the intense shock; (4) the boardlike rigidity of the abdominal walls and the presence of a tender spot over the stomach; (5) the diminution or absence of liver-dulness; and (6) the presence of free fluid in the peritoneal cavity. In cases of perforation of the posterior surface of the stomach the symptoms are less marked. The importance of early operation in cases of perforated ulcer is proved conclusively by statistics. In a series of 55 cases collected by the author, the operation was done within 12 hours in 13 and was successful. Of the 14 cases operated on between 12 and 24 hours, one-half were cured; and of 15 cases operated on after a longer interval than 24 hours, only 5 were cured. At the time of the operation especial precautions must be taken to minimize the shock caused by the operation itself. An incision 3 inches long is made either in the left linea semilunaris, or in the middle above the umbilicus. Bidwell prefers the former situation. The details of the operation are described, but they need not be reproduced here. No attempt should be made to excise the ulcer, but it should be invaginated. If, with strong signs of perforation, no extravasation is found in the peritoneal cavity, and there is some injection of the peritoneum, the rupture of an ulcer on the posterior surface of the stomach should be suspected. Care should be taken not to mistake a severe attack of colic accompanied by collapse and associated with a history of gastric ulcer, for a perforation of the stomach. The main factors in arriving at a diagnosis in such cases will be the absence of any interference with the liver-dulness, the absence of boardlike rigidity of the abdominal walls, the absence of signs of fluid, and the small amount of shock. However, in cases of real doubt it is better to operate than to run the risk of leaving a perforated ulcer until too late for a successful result. Perforation of a gastric ulcer may lead to a collection of pus under the diphragm-subphrenic abscess. The author has collected the statistics, and finds that there were 172 recoveries in 494 operations, a mortality of 65.2%. This series contains cases which were operated on many years ago. Since 1894, the results have been much more favorable, and the mortality has been reduced to 47.15%. The next indication for operation is hemorrhage. There is a large choice of operations in this condition; (1) resection of the ulcer, (2) the application of a purse-string suture around the ulcer without excision, (3) gastroenterostomy, and when the ulcer involves the pylorus, (4) pyloroplasty, and (5) pylorectomy. Bidwell recommends that after performing laparotomy the stomach should be opened and emptied of its contents. If an ulcer can be seen, and its base is not contracted by adhesions to neighboring parts, it should be surrounded by a purse-string suture, so as to constrict its base. If the ulcer be adherent, it should not be sutured, but a gastroenterostomy should be performed; if no ulcer is seen the stomach should be inverted like the finger of a glove and a search made for a super-

ficial abrasion; this, when found, should be surrounded by a purse-string suture. It may be advisable to perform gastroenterostomy in many cases in which there is a slight tendency to dilatation, in order to insure rest to the ulcer. The results are not very satisfactory; 21 cases of operation giving a mortality of 61.9%. Operation may also be required in cases of old-standing ulcer in which the patient is unable or unwilling to follow the necessary diet; in cases of severe pain, progressive emaciation and vomiting; last, in cases of dilatation of the stomach, either from actual ulceration or cicatricial contraction, especially if a tumor be felt in the pyloric region. Many cases of gastric ulcer in the neighborhood of the pylorus, accompanied by inflammatory, thickening and causing dilatation, have been diagnosed as cases of new growth. This is especially apt to occur when the glands in the hilus of the liver are affected, although these glands are often involved in consequence of gastric ulcer. The operations which may be performed in these cases are gastroenterostomy, pyloroplasty, pylorectomy, and Loretta's operation. The choice lies between gastroenterostomy and pyloroplasty. The mortality of the operation of gastroenterostomy has been greatly reduced and is now about 11.5%, while that of pyloroplasty is 15.5%. The last condition in which an operation may be required is when adhesions have formed, after the cicatrization of the ulcer, between the stomach and neighboring organs. If the adhesions are in the region of the pylorus, they will probably cause a kink, and so produce dilatation of the stomach; when in other parts of the organ, they may give rise to persistent vomiting or only severe pain. This pain from adhesions is worse in the early morning, before food has been taken. The treatment consists in opening the abdomen in the middle line. If adhesions exist between the omentum and the stomach, the omentum should be divided between ligatures. If adhesions exist with other organs, it is better carefully to separate them with the finger; and if the surface of the stomach then shows a thin cicatrix, it is best to invaginate and suture the scar, so as to avoid the risk of a subsequent perforation. [D.R.]

2.—In a single woman, 35 years old, who for years had been subject to **psoriasis** and had been treated with arsenic, a tendency to **keratosis** of the palms and soles manifested itself. Some time later, at the site of several of the corneous lesions **ulcers** appeared which were found to be **epitheliomatous** in nature and gave rise to a metastatic growth in the groin, causing the patient's death. Hartzell reviews literature and finds altogether about 10 cases resembling his own. In all of them the sequence of events was psoriasis, keratosis, and cancerous ulceration. In 8 out of 11 (including his own) arsenic had been given in considerable quantity for a long period; and in view of its almost universal use in psoriasis, its administration in the remaining 3 could not positively be excluded. He is inclined to look upon the carcinoma in these cases as caused by the arsenic, and thinks that if this is substantiated the theory of the parasitic origin must be abandoned or the existence of multiple causative agents must be admitted. [D.R.]

3.—Parker reports a case of **cystic degeneration of the kidneys, associated with general dermatitis exfoliativa,** in a man 43 years of age. The skin was covered by a universal scaly eruption and there was general anasarca. Before the eruption became generalized, the patient had been troubled with dandruff and a scaly, itching patch on the back. The urine was normal in quantity, acid, had a specific gravity of 1010 to 1017, and had a trace of albumin. On a light diet and rest in bed the skin improved rapidly, and the edema and albumin disappeared. Suddenly one morning the patient sank into a comatose condition, in which he died in a few hours. At the autopsy the liver was somewhat fatty, and the kidneys presented well-marked cystic degeneration, measuring 7 by 4 inches. The skin-eruption was clearly one of the secondary types of pityriasis, following upon the patch of eczema of the scalp and center of the back. Whether the edema was due to the kidney-disease or was merely an inflammatory infiltration of the skin, is a matter of doubt. The author discusses the subject of cystic disease of the kidney, naming the various theories advanced for its explanation, viz.: (1) the theory of persistence of embryonic remnants; (2) the theory of retention-cysts, and (3) the theory than they are adenomatous growths. None of these covers every case. [D.R.]

4.—The mother of the child was a colored woman, 27 years of age, who had a history of uterine trouble previous to and of a febrile disturbance associated with pain in the right iliac region, during the pregnancy. A male child, weighing 12 pounds, was delivered after 48 hours' labor. During and after the expulsion of the placenta, a large quantity of pus was said to have come from the womb. The child soon after birth developed retraction of the head, uttered shrill cries, and had fever and convulsions. The umbilical cord had a fetid odor. Death occurred on the third day. At the autopsy a **purulent meningitis** was found, together with a large abscess in the left frontal lobe. Microscopic study showed distinct, acute encephalitis, while culture revealed the presence of a bacillus belonging to the colon group. The infection evidently had occurred through the umbilicus. [D.R.]

5.—Griffith describes a case of **congenital idiopathic dilatation of the colon** in a boy, 2 years and 11 months old. The child had never been ill, except for constipation, which had existed practically since birth. At the age of 5 months, marked distention of the abdomen began, and was associated with more or less pain. Bowel-movements would occur sometimes at weekly intervals, followed in such cases by diarrhea and an increased gaseous distention of the abdomen. On his admission to hospital, he measured 63½ cm. (25 inches) at the umbilicus, and 69 8 cm. (27½ inches) at the most prominent portion. Some days after admission, a watery, greenish diarrhea set in and fever developed. An inguinal colotomy was done, but the child died 5 days after the operation. At the autopsy, nothing was found abnormal in the abdomen, except a marked constriction, about 10 inches in length, situated in the ileum shortly above the cecum. The ileum was not distended. There was no constriction found in the colon, and the abdomen was collapsed. In connection with this case, Griffith gives the synopses of all the cases of a similar nature which he has been able to find in the literature, together with a list of cases that, in some respects, resemble his own, but which, for various reasons, cannot be considered identical with it. The term "idiopathic" is employed by the author to designate an innate tendency to dilatation, which is not dependent upon discoverable organic cause, and the term "congenital" he applies not only to an actual dilatation present at birth, but also to the existence of a congenital tendency to early dilatation. The **characteristic symptoms** of the condition are primarily **constipation** and **distention.** There is generally a tendency to repeated attacks, or rather to exacerbations, during which the constipation becomes more intense, and the distention more marked. The stools are very rarely scybalous; usually, they are soft. Twenty of the cases collected were in the male, and four in the female sex. The prognosis, while not totally bad, is most unfavorable, 18 of the 24 having terminated fatally. In all of the autopsies, the large intestine was found enormous in size, with a thickening of the walls of the bowel. The **diagnosis** rests upon the early presence of constipation, the development with this, soon after, or rarely before, of great tympanitic distention of the abdomen, the discovery often of the distended colon outlined through the abdominal walls, the absence of signs of impaction or of organic obstructive cause, as shown by exploration of the rectum and colon, and absence of any previous debilitated state of health which might occasion colonic atony. The **treatment** is hygienic, and medicinal, and operative. Massage is indicated in cases without diarrhea or tenderness, but should be cautiously performed. Electricity may be used. Means must be employed to empty the bowels, either by purgatives or enemata. Objections exist to both, as they tend to weaken still further the muscular power; yet they may have to be employed. The use of the rectal tube to remove gas may also be expedient. In 3 instances, puncture of the intestine with a fine trocar has been performed. In severe cases, early operation of some sort is indicated. An artificial anus may be made first, before resorting to Treves' operation of removal of the dilated colon, and joining of the small intestine to the rectum. [D.R.]

6.—The authors have made a number of experiments for the purpose of determining the **conditions to be observed in testing the toxicity of human urine** on the lower animals. They used the method of intraperitoneal injection. Their conclusions are as follows: (1) Fresh urine

injected immediately can be safely used. (2) Filtered urine, immediately filtered and immediately injected, can be safely used. (3) Urine boiled and injected immediately should not be used unless error caused by possible changes within the body of the patient be first eliminated. (4) The addition of boric acid does not give reliable results. (5) Urine that has stood for 24 hours should never be used. (6) The method cannot be used for exact determinations of toxicity in that a range of from 35% to 50% of error is found for individual cases. Most of the **toxicity** of the urine seems to **be due to the development of bacteria,** although the authors do not wish to assert that there is no other toxicity except that due to bacterial activity. The urines were obtained from pregnant women, from healthy subjects, and from persons who could be considered as being affected with gastro-intestinal autointoxication. [D.R.]

7.—The author presents a rather involved hypothesis as to the origin of **convulsive tic,** or Gilles de la Tourette's disease. The apparently purposive acts performed involuntarily by patients subject to convulsive tic may be explained by assuming, in the author's words, "that an impulse originating in sense-perception is associated with perception-memories, carried thence to mechanisms storing associated memories of volition, and terminating in action represented by the latter, the inhibitive function of the will (that selective quality of the mind evolved by coordination and synthesis of thought-memories) being held meantime in abeyance." The nature of imperative conceptions is also discussed. In cases in which the conception leads to action, this is ascribed to the giving way of the centers of judgment to a reflex, effected by sense-perception and passing from memory of perception to memory-mechanism, recording an act, and thence to the corresponding motor center. The **coprolalia** of convulsive tic is generally connected with sexual perversion. Not all of the muscle-contractions, in convulsive tic, are to be considered as reflexes emanating from memory-centers, although those which are characteristic are. Muscular twitchings also occur which do not differ from those ordinarily seen in nervous persons, and may be regarded as inanition twitchings due to abnormally sensitive or irritated muscle-centers. Recovery from convulsive tic is rare. The **treatment** consists in the enforcement of quiet, good hygiene, and improvement of the surroundings. As the cause is probably toxic irritation, elimination is indicated. The presence of the uric-acid diathesis should be combated by reduction in the allowance of meats, of other nitrogenous substances, and of carbohydrates. Arsenic is useful; bromids are at times indicated. Alcohol is usually badly tolerated. Warm baths and galvanic electricity may be administered for their quieting effect. Cold sponges may be given when well borne. Forced feeding, as in the Weir Mitchell treatment, is always indicated. [D.R.]

8.—Capps reports two cases of **aneurysm of the coronary artery.** The first occurred in a man of about 40 years who was found dead on the street. The heart externally presented nothing significant. The opening of the left coronary artery was enlarged and irregular, and just beyond the orifice the artery was dilated into a sac the size of a pigeon's egg. The heart microscopically showed segmentation and fragmentation of muscle-fibers. The second patient was 39 years old, and for weeks preceding his admission to the hospital had been having convulsions. Several years before he contracted syphilis, and one year before he had a paralytic stroke. He died of bronchopneumonia. Just below the junction of the left and anterior semilunar valves there was found on autopsy a small bulging of the septum which admitted the tip of the index finger. Above the left semilunar was a bulging of the aortic wall upwards and forwards into the loose periaortic tissue, so that the artery was undermined. Bordering on this aneurysm was the left coronary orifice which was of normal size. Immediately beyond the opening was a fusiform dilatation of the arterial wall large enough to contain a hazel-nut. The author collects the cases reported in the literature, 17 altogether, and finds that the left and right coronary arteries are involved with about equal frequency. The usual site of the dilatation is very near the origin from the aorta, in the loose cellular tissue. The male sex is more frequently affected than the female. Twice the disease occurred in children. It usually terminates in death from rupture of the aneurysm into the pericardium. [D.R.]

9.—In reading of the development of the knowledge of **malaria,** one is reminded in some respects of the history of tuberculosis. The most conscientious scientific zeal is being brought to the solution of the problems and the results promise to be as absolute as those achieved by Koch. The principal interest centers in the **etiology and in the relation of the mosquito to the disease.** Futcher in the present article reviews the literature on this subject. The **mosquito-theory** was first advanced many decades ago, but was first vigorously supported by Manson in 1894. The first thorough work, a work truly monumental in character, was done by Ross, who began by studying the malarial organisms of birds' blood. After a certain variety of mosquito, which he terms the gray mosquito, had fed on the blood of birds containing mature organisms (proteosoma), he found that the stomach-wall of the insect always contained on the second day afterwards peculiar pigmented bodies in its substance. These bodies resembled coccidia. They grew rapidly, a capsule developed, and the pigment, which generally surrounded one or more large vacuoles, gradually diminished, until on about the fourth day it had vanished entirely. From this time the contents of the body became studded with numerous small particles resembling oil-globules, and the whole cell began to protrude from the external wall of the stomach into the celum, or body-cavity, of the mosquito. The coccidia continued to grow in size, until about the seventh day after feeding. Later, Ross was able to distinguish two forms of coccidia, one containing innumerable threadlike bodies closely packed within the capsule of the mother coccidium, and the other containing large black spores. On the eighth or ninth day the coccidia rupture and set these reproductive elements free to be distributed by the blood-current throughout the tissue of the mosquito, as was readily demonstrated by microscopic examination. He found large numbers of the threadlike elements in certain glands situated in the anterior part of the thorax. These gland-cells constitute a gland, the duct of which enters the base of one of the stylets or lancets of the proboscis, traverses the whole length of it to open at its extremity in such a manner that the secretion of the gland must be poured into the very bottom of the wound made by the piercing apparatus of the proboscis. He believes that this gland represents a veneno-salivary gland, and strongly suspects that the threadlike bodies or germinal spores are injected with the secretion of the gland into the bitten bird, where they are capable of developing into mature proteosoma, thus completing the cycle of the parasite; and the correctness of this suspicion was proved by experiments made by himself and by his pupil, Daniels. Koch, Rübner, and others have pointed out the intimate geographic association between malaria and the mosquito; where one is found, the other usually also prevails. Grassi found that three varieties of mosquito are constantly present in malarious regions and absent in healthy sections. Bignami introduced some mosquitos obtained from a malarious district into a room and allowed an individual to sleep in the same chamber for over a month. The man, who had never had malaria, developed a remittent fever and characteristic estivoautumnal parasites were found in the blood. Grassi examined the mosquitos and determined them to be of the three varieties which he had found associated with estivo-autumnal malaria. Bastianelli, Bignami, and Grassi, working together, claim to have followed certain phases of the development of the malarial bodies in a mosquito, the Anopheles claviger, and to have produced a double tertian malaria as the result of the bite of this insect in a man who was not suffering from malaria and who lived in an unmalarious district. They traced all the various stages of the parasite in the tissues of the mosquito, which had previously been described by Ross for the proteosoma of birds. Their conclusions are as follows: (1) That the hemosporidia of malaria run in man the well-known cycle of development characterized by the long duration of the ameboid stage and the absence of the encapsulated phase; in this cycle they reproduce themselves an undetermined number of times, and also give rise to forms which remain sterile in man ("gameti" of Grassi and Dionisi). These latter reach the middle intestine (or stomach) of the Anopheles claviger and develop into sporozoa, which in turn result in the formation of sporozoids. These sporozoids collect in the salivary gland, and reach man again in the act of biting. (2) The develop-

ment of the hemosporidia in the body of the mosquito has been demonstrated for the parasites of estivoautumnal and ordinary tertian fever. (3) While the direct passage of hemosporidia from man to the mosquito, and from the mosquito to man, has been demonstrated, it remains yet to be proved that the mosquito transmits malaria to its progeny, although this is quite probable. Bastinelli and Bignami find it more difficult to cultivate the tertian than the estivo-autumnal parasite in mosquitos. This is due to the fact that there are fewer gameti in the circulating blood of patients with the former than with the latter infection. By "gameti" they mean those forms of the parasite which do not go on to sporulation in the human subject, which are destined to continue the life-history of the malarial parasite outside of the human body. McCallum had observed that there were two forms of round bodies in the halteridium studied by him in birds, one of which represented the female, and the other the male organism. Bastinelli and Bignami have found that there are two forms of gameti in the tertian parasite as well, and have designated the male element "microgametocyte" and the female "macrogameti." From the microgametocytes the flagella arise. They designate the flagella by the term "microgameti." The number of gameti bears a close relation to the acuteness of the malarial attack. They are most numerous in the first attack and the first relapse, and less numerous in subsequent relapses. They also found various points of difference between the gameti of estivo-autumnal and tertian malaria. The proof is now positive that 2 mosquitos—**Anopheles claviger** and **Anopheles pictus**—are capable of conveying estivoautumnal fever to man, the former apparently doing so more frequently than the latter. It is also firmly established that the Anopheles claviger is the conveyer of tertian infection. It has likewise been shown that the infection can be conveyed from the mosquito to man, and from man to the mosquito, thus completing the cycle. Suggestions have been made for the **extermination of the mosquito,** as thereby malaria would be eradicated. It is impossible, as Ross states, to kill the adult mosquito, as it is a flying insect. The larvae, however, are found in stagnant pools and artificial collections of water, and can readily be destroyed. Ross is of the opinion that there are good prospects of annihilating the Anopheles claviger, and, consequently, also malarial fever from a given district by removing the natural breeding-pools of the mosquito and preventing their reformation. [D.R.]

American Journal of Obstetrics.

August, 1899.

1. A Case of Spondylolisthesis, with Description of the Pelvis. J. WHITRIDGE WILLIAMS.
2. The History of the Early Operations for Fibroid Tumors. CHARLES P. NOBLE.
3. The Operation for Complete Tear of the Perineum. HOWARD A. KELLY.
2. Preliminary Report of Transplantation of the Ovaries. JAMES F. MCCONE.
5. Some New Instruments to Facilitate the Operation of Myomectomy. HOWARD A. KELLY.
6. The Surgical Treatment of Unrotated Occipitoposterior Positions. HENRY D. FRY.
7. Note on the Value of Blood-Examination in Gynecology. WALTER R. GRIESS.
8. A New Handle and Grip for Scissors for Plastic and other Delicate Work. HOWARD A. KELLY.
9. Postpartum Reflections. "CASEY."

1.—See this JOURNAL, Vol. III, page 1199.
2.— " " " "
3.— " " " 1201.

4.—McCone reports a series of experiments in **ovarian transplantation** made on 30 animals. He has thus far reached the following conclusions: (1) Contact between ovary and tube is not essential for conception; (2) ovaries grafted from one part of an animal to another part of the same animal continue to grow, to functionate, and pregnancy can and does occur; (3) an ovary grafted from one animal to another of the same species continues to functionate, and maintains the normal condition of tubes and ovaries. Pregnancy may occur; (4) ovaries grafted from one species to another continue to functionate, and seem to prevent post-castration atrophy of tubes and ovaries; (5) best results are obtained when the raw surface of the transplanted ovary is sewed to a denuded surface. [W.K.]

5.—Kelly describes some new instruments to facilitate the operation of **myomectomy.** The first is a myoma-enucleator somewhat modified by Kelly from the spatula-shaped instrument devised by Dr. Cullen. The instrument is in two sizes for use in the varying sizes of myoma, is provided with a stout handle affording a firm grasp, 12 cm. long and 2½ cm. wide with a slightly curved blade 12 cm. long, in the smaller instrument 1½ cm., and in the larger 2½ cm. wide. The enucleating edge is serrated with the teeth, not pointed, but curved. The second instrument is a small two-tined pick for nodules from the size of a pea to that of a cherry. The advantages claimed for these instruments are the material shortening of the time of operation, the lessening of the amount of trauma, and the entire absence of handling of the parts. [W.K.]

6.—Fry discusses the question of proper measures to use in cases of **occiposterior presentations** as substitutes for the forcible extraction with forceps. When possible he believes podalic version should be resorted to, otherwise craniotomy in all cases where the fetus is dead, or symphysiotomy when the child is living. [W.K.]

7.—Griess claims that the **value of an examination of the blood** in diseased conditions of the uterine appendages cannot be overestimated. After careful physical examination is made and complete clinical history is obtained, the blood-count, as a rule, makes us positive in regard to the condition confronting us. The presence or absence of leukocytosis is also valuable in making a differential diagnosis. [W.K.]

8.—Kelly has made some changes in the handles of scissors for plastic vaginal work and for delicate work on the bladder and ureters. The new handle takes the operating hand out of the field of vision and allows the cutting to be done with accuracy and far greater convenience. [W.K.]

Edinburgh Medical Journal.

September, 1899. [N. S., Vol. vi, No. 3.]

1. Some Points in the Mechanics of the Skeleton. W. ARBUTHNOT LANE.
2. The Relation of Typhoid Fever to Diseases of the Gall-bladder, with a Reference to the Bacterial Origin of Gallstones. A. W. MAYO ROBSON.
3. Medico-Legal Notes—II. HARVEY LITTLEJOHN.
4. The Pathology of Renal Tumors. T. N. KELYNACK.
5. Cases Illustrative of Syphilitic Meningomyelitis. G. SCOTT MACGREGOR.
6. Infective Endocarditis. Remarks with Illustrative Cases. R. KIRKLAND.
7. Pulmonary Tuberculosis in Young Children. H. J. CAMPBELL.
8. Accident in which Crowbar Traversed Vertical Diameter of Patient's Abdominal Cavity. Survival for Three Weeks. A. C. MILLER.
9. Perforated Gastric Ulcer. W. J. CANT.
10. Urethrotomy for Stricture. MARK WARDLE.

1.—Lane considers enlargement of the pharyngeal tonsils, so-called **adenoids,** nothing but the swelling of lymphatic tissue secondary to infection of the mucous membrane of the nasopharynx. Partial removal of the lymphatic tissue alone is imperfect treatment. The first measure should be to attack the primary source of infection of the mucous membrane and then to undertake development of the nasopharynx. Deficiencies exist because the forcing draft through this cavity has not been normal. By improving the respiratory capacity by breathing exercises, and insuring the passage of all inspired and expired air through the nose, the nasopharynx is developed. Treatment should be carried out systematically for a long time in order to give success. For some time he has treated a large number of cases without operation and has operated only very occasionally. Lane also states that to restore a broken bone to its normal form and retain it in position by splints and other means is, except in a few cases of transvere fracture, quite wrong. Hemorrhage into the soft parts surrounding the bone and inflammation are mechanical factors which prevent accurate apposition of fragments. The bone can be restored to its original

form only by operation; generally by wiring. In the treatment of **congenital dislocation of the hip-joint,** Lane divides the muscles above the level of the great trochanter transversely: the upper end of the femur is exposed and cleared from the soft parts, a cavity is cut in the ilium, the head of the femur is trimmed and adapted in form to fit the cavity in the ilium, a hole is drilled in the femur and through the floor in the acetabulum and through these holes wire is carried and knotted securely. The ligaments and muscles are also brought together by wire sutures and the wound is closed. After 10 days or so movements are commenced and their range is increased daily. This is practised systematically for 2 or 3 months till a joint has been thoroughly developed. The knot in the wire loop is then exposed, and the wire is cut and pulled out. [M.B.T.]

2.—A woman, 48 years old, had had **typhoid fever** 20 years previously, and dating from that time pain and tenderness beneath the right costal margin, followed within a year by so-called spasms. The attacks had, of late years, been followed by slight jaundice and pain over the left side of the abdomen, with vomiting and deterioration of health. When first seen there was tenderness midway between the ninth costal cartilage and the umbilicus. A diagnosis of **cholelithiasis** was made and an operation was confirmed by the removal of 46 gallstones, one of them projecting into the common duct. Adhesions to the pylorus were separated, the gallbladder was drained and uninterrupted recovery followed. The patient is now perfectly well. In a second case, a woman 36 years old had an attack of intestinal obstruction of a week's duration; a short time previously she had had a severe attack of typhoid fever. The abdomen was distended and there was tenderness in the right hypochondriac region. At the operation the transverse colon was found contracted in its entire length to the size of the middle finger, and the ascending colon and small intestines were much distended. Two bands were found passing from the gallbladder across the hepatic flexure of the colon, one of them completely encircling it; these were divided and the transverse colon immediately became distended. The patient has been in good condition since the operation. The bands of adhesion are believed to have arisen from the inflammation of the walls of the gallbladder during the attack of typhoid fever. [M.B.T.]

3.—Littlejohn discusses the number of cases of **suicide** which have occurred in Edinburgh during a period of 13 years. The total number was 298. The ratio of males to females was 2 to 1. The most of the women were addicted to drink. The majority of cases occurred in the spring and summer, the smallest number in winter. The hours of daylight were those usually chosen. The youngest suicide in the series was that of a schoolboy aged 17. There were 11 others under 20 years of age, 7 males and 4 females. The oldest suicide was a man aged 84 years. There were 6 cases, 4 females, over 75 years of age. The largesr number occur at the age periods embracing the time of life when the individual is faced with the greatest responsibilities. The choice of method is largely influenced by circumstances. Of the 298 Edinburgh cases, 86 were the result of poisoning, and 46 of these were poisoned by laudanum. Of the 86, 53 were males and 33 females. Suicide by jumping from a height is abnormally frequent in Edinburgh, owing to the facilities afforded by reason of its high tenement dwellings and through the temptation offered by the Dean bridge. There were 53 deaths by hanging, 40 males and 13 females; 42 deaths occurred as the result of cuts and stab-wounds; 40 of these were cut-throats; 15 males and 11 females drowned themselves. There were 24 suicides, all males, from gunshot wounds. Of the 8 deaths by railway injuries but 1 was a female. Suicides in occupations involving outdoor manual labor are relatively infrequent. Sedentary occupations and those tending to an intemperate mode of life furnish a large proportion of suicides. The suicide rate is, as a rule, higher among the educated classes than among the illiterate, and the legal and medical professions have a particularly high rate. [S.M.H.]

4.—Kelynack suggests the following classification of **renal tumors:**

1. True renal growths.	1. Originating from the connective tissues.	(a) Benign . . . . Fibroma.
		(b) Malignant. . . .Sarcoma.
	2. Originating from the renal epithelium.	(a) Benign. . . . .Adenoma.
		(b) Malignant. . .Carcinoma.
2. Pelvic growths, generally a malignant papilloma (epithelioma).		
3. Hilum growths, generally sarcoma.		
4. Capsular growths, generally sarcoma.		
5. Growths arising from adrenal inclusions.		
6. True adrenal growths.	. . . . .	(a) Benign. . . .Adenoma.
	. . . . .	(b) Malignant. . . .Sarcoma.
7. Perirenal growths.	Fibro-lipoma.	
	Sarcoma.	

Primary renal tumors form from 2 to 3% of all cases of primary malignant disease examined portmortem. Secondary growths of the kidney occur in about 8% of all cases of sarcoma. Renal sarcoma is the commonest form of abdominal growth in children. Little is known as to the etiology of renal growths. There is strong evidence to suggest that some may be accounted for by embryonic defects. In an analysis of 160 cases, Kelynack found that over 52% originated below 10 years of age. From the standpoint of age renal tumors may be divided into (1) fetal or congenital growths; (2) growths in infancy and childhood; (3) growths of active or adult life; (4) Growths arising in declining life. One sees every size of growth. Sarcomas are always much larger than carcinomas. There is no difference in the frequency with which the different kidneys are affected. Following out the classification given above, tumors of the connective-tissue type are divided into (1) simple or so-called benign forms; (2) the malignant or sarcomas. The former are extremely rare; of no practical importance, and are usually of fibrous or lipomatous nature. The great bulk of the growths are of the malignant connective-tissue type. These sarcomas are most conveniently divided according to: (1) The period of life at which the growth develops; (2) the point of origin, and (3) the histologic characters. The first division includes fetal sarcoma; sarcoma of infancy and childhood, and sarcoma of adults. The second includes the capsular sarcomas, the intertubular sarcomas, the hilum sarcomas, and the perirenal sarcomas. The sarcomas considered in relation to their structure, the majority consist of round and spindle cells in varying proportions. The round are the most rapidly growing and the most malignant. The striated-cell sarcoma (rhabdomyosarcoma) is met with in the fetal forms and those of infancy. Mixed with the round cells in this form there are elongated and transverse striped structures. They are generally smaller and thinner than the true muscle-cells and have no sarcolemma. They vary much in size and degree of striation. It is suggestive to note that this curious form of celi is met with especially in hilum growths. In many instances of this variety duct-like structures are met with apparently derived from true renal tubules. These growths are frequently bilateral, although one kidney may be much more involved than the other. Very vascular forms or angiosarcoma are occasionally met with. A certain number of sarcomas, adenosarcomas, present a distinct although variable amount of tissue resembling the glandular type mixed up with true sarcomatous cells. Compound and complex forms not infrequently occur. Alveolar sarcomas have been described. Liposarcomas, evidently of perirenal origin, have been noted, and melanotic sarcoma, always secondary, is not infrequent. Myxomatous degeneration may take place in any one of the ordinary forms (myxosarcoma). The growths of the epithelial type include: I. Adenomatous growths: (1) the simple adenoma; (2) the trabecular cystomas; (3) papilliferous cystomas. II. Carcinomas: (1) True renal carcinomas; (2) papillomas. Renal growths and adrenal inclusions (adrenal nests) are supposed to originate from included suprarenal tissue. They have been found in the periadrenal fat, in the tissues around the solar plexus, in the mesentery, in the broad ligaments, and within the kidney capsule. There is undoubtedly a group of renal tumors which present a structure closely resembling the zona fasciculata of the suprarenal bodies, of adenomatous appearance, which have affinities with sarcoma rather than with carcinoma. The number of cases reported belonging to this class is under 40. They usually affect but one kidney, generally grow slowly, and for a long time remain local. Secondary deposits do occur. Several growths, apparently belonging to this group, have been successfully removed. Of the adrenal growths we have; I. Benign or simple growths (adenomas), which are met with as (1) multiple nodules, or (2) large single forms. In structure they closely resemble the normal adrenal tissue. II. Sarcoma, which are of rare occurrence. [S.M.H.]

5.—Macgregor reports in detail 4 cases illustrative of **syphilitic meningomyelitis** from which he makes the

following deductions: Syphilis scatters its lesions broadcast, either by contiguity of the bloodvessels or by infarct. Its propagation by the bloodvessels leads to dissemination of the lesion which entails dissemination of the symptoms. The arrangement of the blood-supply of the cord makes it impossible to confine the lesion to any particular segment. Acute syphilitic myelitis may declare itself early in the secondary period. The lapse of time does not seem to modify the severity of the attack, and it may be transmitted hereditarily. It is curable, as was evidenced in one of the cases reported by Macgregor and in similar instances related by other authors. [S.M.H.]

6.—Kirkland believes that antecedent valve-changes occur in practically all cases of **infective endocarditis.** In all its forms it is essentially a mycotic process, the local and constitutional effects being produced by the growth of the valves and the transference to distant parts of microbes which vary in character according to the nature of the infection. While in most cases the microorganisms found in the vegetations seem to depend upon the nature of the causative agent, there are some cases in which it is impossible to find how the infection is communicated. Two such cases are described in this paper. There had been no antecedent infection. These cases are most interesting; the name arterial pyemia suggested by Wilkes is well given. It should be restricted to cases when infection seems to be from the center towards the periphery, the left heart being involved, unless in case of malformed valves, when the right heart may be the starting-point. Infective endocarditis is more common in the young than in the old. Persons exposed to cold, want, and other injurious external influences, together with the dissipated, suffer more frequently than other people. Pathologically the most characteristic naked-eye features are the vegetations on the valves, and in some cases the presence of ulceration. In the slightest forms there may be a simple abrasion or there may be a process of erosion by which one-half the valve may be destroyed or the septum or ventricular wall perforated. The interesting pathologic features in the disease are the changes due to embolism. Hemorrhages upon the skin, serous and mucous surfaces are frequent, and may be due to the effect of microbic toxins or may be embolic, producing a minute necrotic or suppurative center. The spleen is the commonest seat of infarction; next the kidneys, and at times the gastrointestinal tract. The symptoms are extremely variable. Signs of severe constitutional disturbances are usually present. Cardiac symptoms may be marked or may not obtrude themselves. The embolic process gives especial prominence to local symptoms. The three recognized types of the disease are the intermittent or malaria, the cerebral, and the typhoid. Four cases are recorded, one resembling ordinary quotidian ague, a second in which there was a sudden onset with intense prostration, rapid pulse, dry brown-coated tongue, hyperesthesia and delirium, with petechia and hemorrhagic eruption, suggesting either hemorrhagic smallpox, hemorrhagic measles or cerebrospinal meningitis. No murmur could be heard at any of the valve-areas in this case and the lungs were normal. The postmortem, showing soft recent vegetations on the aortic valves the cusps of which were somewhat puckered, together with the bacteriologic demonstration of streptococci and staphylococci on these vegetations, cleared up the diagnosis. The third case, typhoid in type, closely resembled a case of typhoid fever. There was a pericardial friction-sound present, with only a slight impurity of the first sound at the apex. The fourth case was of the cardiac type and more readily recognizable. As regards the treatment of this condition there is little to be said. It is advisable to prevent persons with old valvular lesions from exposing themselves unnecessarily to infective lesions, and to live in the best possible sanitary surroundings. Existing otitis or chronic gleet should be promptly treated. The patient should lead a careful, well-regulated life, avoiding debilitating influences and dissipation. In the more chronic cases arsenic, with or without quinin, is useful. Treatment with the antistreptococcus serum is promising. The marked difference between streptococci of different origin, however, handicaps the usefulness of this measure. The author has had no experience in the use of nuclein. [S.M.H.]

7.—Campbell communicates an article on **pulmonary tuberculosis in children,** pointing out the difference existing between the course symptoms and pathology of the disease in adults, and children under 10 years of age. [S.M.H.]

8.—A young laborer, 20 years old, was employed in the construction of a railway embankment. While standing on the outside ledge working with a long-pointed crowbar, he lost his balance, let go his hold of the bar, which fell, turning and sticking fast in the ground with its pointed extremity presenting upward. The man fell upon it, the point entering 4 inches below the junction of the thigh to the pubis, passing beneath Poupart's ligament, through the abdominal cavity, and finding its exit 1½ inches below the angle of the right scapula. There was not much bleeding. The tenth and eleventh ribs were fractured, there was considerable oozing from the thoracic wound and the surrounding tissue became emphysematous. There was considerable disturbance of respiration, but later the circulation and respiration became quiet and regular. The following day vomiting set in. The wounds were thoroughly irrigated with carbolic acid solution and stuffed with iodoform gauze. On the sixth day after the injury the patient's condition became critical, vomiting was offensive, the pulse was small, slow and compressible, the wound on the thigh was gangrenous. The thoracic wounds discharged a large quantity of pus, but later on the femoral wounds became healthy. On the eleventh day the patient began to expectorate slaty greenish material at times tinged with blood, and large quantities of pus escaped from the thoracic wound at every dressing. His condition became progressively worse and he died from exhaustion about the twentieth day after the injury. [M.B T,]

9.—A girl aged 17 had been taken ill with epigastric pain and vomiting, the vomited matter at times contained blood. A little less than 24 hours after the beginning of the attack an operation was undertaken, a median incision was made, gas escaped at once and there were particles of food in the abdominal cavity. A **perforated ulcer** the size of a three-penny piece was found in the anterior **wall of the stomach,** near the esophagus. The ulcer was closed with a double row of Lembert sutures, the abdominal cavity was cleansed by sponging, iodoform was insufflated, a drainage tube was inserted and the wound was closed. The next day the patient's condition was much better and rapid recovery followed. [M.B.T.]

10.—A man, 40 years old, who had been under treatment for **stricture** gradually got into such condition that **operation** seemed necessary. A No. 4 elastic catheter was passed into the urethra past his first stricture, but because of numerous false passages it was impossible to enter the bladder. Incision was made down to the stricture and a No. 9 catheter was passed through the wound into the bladder. The end of the No. 4 catheter was then brought out of the wound and entered into the No. 9 catheter and in this way carried past the false passages into the bladder with ease. The operation was then completed, rapid recovery followed, and the patient was discharged on the eighteenth day. [M.B.T.]

Berliner klinische Wochenschrift.

July 3, 1899. [36. Jahrg., No. 27.]

1. The Symptomatology and Therapy of Uterine Myoma. L. Landau.
2. Modern Myoma Operations. A. Czempin.
3. The Secretion and Traceability of Glycuronic Acid in Urine. P. Mayer.
4. Apparent Idiopathic Enlargement of the Heart in Children. Hauser.
5. Acute Miliary Tuberculosis. C. Benda.
6. Remarks upon Dr. Buttermilch's Paper "Upon the Irritants of Whooping-cough." Dr. Buttermilch's Reply to Dr. Czaplewski's Remarks on the Above. Czaplewski.
7. The Present Standing of the Neuron-theory.

1.—Landau discusses at considerable length the symptomatology and treatment of different forms of myoma of the uterus. [W.K.]

2.—Czempin reports a series of operations performed by him in cases of myomatous uteri, with comments on the operative technic. [W.K

3.—**Glycuronic acid** arises in the body through oxida-

tion of glucose, from which it differs only in containing two atoms of hydrogen less and one atom of oxygen more. It appears in the urine when, through pairing with other substances, it is protected against oxidation. There are a number of bodies which when introduced unite or pair with the acid, as chloral, camphor, naphthol, turpentine, menthol and phenol. Glycuronic acid has marked **reducing powers,** rotates polarized light to the right, and is not fermentescible. The paired glycuronic acids also reduce copper-solutions, and are not fermentescible, but are levorotatory. It has been asserted rccently that when morphin is taken it combines with glycuronic acid and appears in the urine as morphin glycuronic acid. The close relation between glycuronic acid and pentoses makes it interesting that in morphin-urine pentoses have also been found. The author recently had occasion to examine the urine from a case of morphinism. The urine contained abundant acetone and diacetic acid and reduced Fehling's solution, but in a peculiar manner. During the heating the urine remained unchanged, but after the urine had been kept boiling for a minute or two copper oxid was suddenly precipitated. This **delayed reaction** is characteristic of pentoses and the paired glycuronic acids, and is against the presence of sugar. The urine did not ferment with yeast, and polarimetric examination gave a levorotation of 3%. Levulose could be excluded. The urine gave Tollen's reaction with phoroglucin and hydrochloric acid, which reaction is given both by pentoses and paired glycuronic acids. The presence of pentoses was improbable, as they are either optically inactive or dextrorotatory, and it seemed most likely that the polarimetric effect was due to paired glycuronic acids. The author then isolated the levorotatory substance and endeavored to split the paired glycuronic acids by heating with dilute acids. If this could be done the levorotation of the urine should diminish and should gradually pass into dextrorotation, since the free glycuronic acid is dextrorotatory ; and this, indeed, happened, proving that the urine had contained glycuronic acid. It was impossible to prepare an osazon, since the paired glycuronic acids do not combine with phenylhydrazin. Free acid, however, combines with the latter substance into crystals, melting at 135° C. It is probable that glycuronic acid forms various compounds with phenylhydrazin. [D.R]

4.—Hauser believes that **percussion of the heart in childhood** can easily give rise to deception. This he was able to prove by means of the Röntgen ray. The illustrative cases are as follows: A girl of 12 years, somewhat anemic, suffered from fatigue, palpitation, and dyspnea on slight exertion. Examination showed apparent dilatation of the heart. The Röntgen ray revealed a very high position of the diaphragm and limited excursion of the latter. In consequence of the elevation of the diaphragm the heart was pushed upward and turned, so that the diameter of the transverse dulness was enlarged. A girl of $13\frac{3}{4}$ years had similar symptoms with vertigo and fainting. After meals she would often have a peculiar sensation in the precordia. The cardiac dulness was enlarged to the left by a finger's breadth. The fluoroscope revealed a normal-sized heart and a very high position of the right half of the diaphragm. A girl of $9\frac{3}{4}$ years presented a similar condition. The heart was pressed up by the stomach and the diaphragm. In a boy of $11\frac{1}{2}$ years there was found a marked and persistent irregularity of the pulse. The cardiac dulness was enlarged to the right and to the left. The Röntgen ray showed an abnormally high diaphragm and apparent enlargement of the heart. The irregularity of the pulse had existed for $6\frac{1}{2}$ years. A laxative, and a limited diet brought about a regular pulse in 20 hours. The author thinks that the pulse-irregularity was due to marked over-filling of the stomach and intestine—perhaps, also, to the use of coffee, etc. In all the cases, ranging in age from 9 to 14 years, there were generally objective and always subjective signs of cardiac disturbance. The enlargement of the heart, however, upon Röntgen-ray examination, revealed itself as only apparent; the elevation of the diaphragm by pressing up the heart forced it to lie more transversely. The cause of the diminished function of the diaphragm is to be found partly in the increased abdominal pressure and partly in the general weakening of the entire muscular system in consequence of anemia and deficient exercise. The treatment consists in a proper regimen, the exercise of the respiratory musculature, especially the diaphragm, and frequent small meals with avoidance of carbonaceous beverages and rich foods. Apart from elevation of the diaphragm, there is another condition which produces a deceptive increase in the cardiac dulness; this is the imperfect action of a part of the lungs. [D.R.]

5.—In an important essay, lacking, however, in clearness, the author discusses the **structure and origin of tuberculous foci** in vessels. The general view is that the vessels are eroded from without. That such an erosin is possible cannot be questioned. The behavior of the vessel-wall in these cases is illustrated by a typical specimen of erosion of the jugular vein by tuberculous cervical abscess. The vessel ran entirely free through the cheesy material, its lumen contained no thrombi, and at one place only the intima appeared a little loosened. Microscopic examination showed an extensive cheesy inflammation extending inward to the outer layers of the media. Only a few nodules were found in the media. The intima showed no tuberculous change whatever, only a slight reactive inflammation. The author found the **study of the elastica** of value. In some cases he noted that the entire vessel-wall participated in the tuberculous process. Miliary tubercles in the vessels must be distinguished from tubercles in the organs shining through the thin vessel walls. The absolute diagnosis can only be made microscopically with the aid of the staining of the elastica. The ordinary miliary tubercles are outside of the elastica, while recent vascular foci always lie **within the inmost elastic lamella,** *i.e.*, completely within the intima. The author has seen four cases of tubercle of the pulmonary veins, the characteristic features of which were previously described by Weigert. The central end of the tubercle, that is the one facing the heart, hangs generally drop-like or even as a long polyp, in the lumen of the vessel—in one of the cases, from the pulmonary vein almost into the left auricle. The lesion is usually situated at the point of bifurcation of the vein. Weigert has looked upon these tubercles as having originated outside of the vessel and having perforated the venous wall. Benda, however, believes that in some cases the connection with extravascular tubercles is only apparent and that the polyp is continuous with a tuberculous thrombus in a small collateral vein. [D.R.]

July 10, 1899. [36. Jahrg., No. 28.]

1. The Malignant (not septic) Form of Endocarditis Rheumatica. M. LITTEN.
2. The Question of Sugar Formation in Fat in Severe Cases of Diabetes Mellitus. E. ROSENQVIST.
3. The Secretion and Traceability of Glycuronic Acid in Urine. P. MAYER.
4. Concerning Modern Myoma-Operations. A. CZEMPIN.
5. Upon Constipation and Diarrhea. R. SCHÜTZ.

2.—Rosenqvist concludes that the possibility of the **formation of sugar from fat** in cases of diabetes must be admitted. [D.R.]

3.—Mayer was able in chloral-urine to diminish the levorotation by heating with sulfuric acid, and in one instance succeeded in producing a distinct dextrorotation through splitting of the paired glycuronic acid. After the heating he also obtained the **orcin reaction** of Tollens and a phenylhydrazin compound. He then investigated **norma urines** to see whether **paired glycuronic acids** were present, it having been maintained by Haas and others that normal urine was levorotatory. None of the urines gave the orcin reaction; but after heating with sulfuric acid it was obtained in several instances. Of course the amount of paired acids could not have been large. In these normal urines that were levorotatory he was able to obtain a phenylhydrazin compound in the form of fine needles or thorn-apple crystals after heating with sulfuric acid. Too much stress, he states, should not be laid upon the form of phenylhydrazin crystals. They vary, even in the same compound. Strauss, in some experiments on alimentary glycosuria, had obtained urines which reduced copper, did not ferment, and were optically inactive or levorotatory. Mayer believes that these urines contained paired glycuronic acids. The oxidation of glucose into glycuronic acid does not disturb the carbon nucleus of the molecule. This is only attacked upon the decomposition of the glycuronic acid itself. Mayer believes, therefore, that in the patients of Strauss the body

was capable of oxidizing sugar as far as glycuronic acid, but was not able to carry the destructive oxidization further. The free glycuronic acid circulating in the blood pairs with other substances. These reflections have some bearing upon diabetes. It is probable that in some diabetics a part of the sugar is oxidized as far as glycuronic acid, with the appearance of paired acids in the urine. In such cases paired glycuronic acids and sugar might coexist side by side. Indeed, the author found, even in grave cases of diabetes, some paired glycuronic acid present in the urine. [D.R.]

4.—Czempin, continuing, reports another case of myoma of the uterus which he operated upon, performing vaginal morcellement. He then discusses at some length the different methods of operating for myoma of the uterus. [W.K.]

5.—Schütz emphasizes the importance of examining the feces in cases of intestinal disease, and sums up the attainable results as follows: The most important determination that is possible by an examination of the stools is whether mucus is present or not. Whether this mucus is still physiologic can be readily ascertained by practice. Mucus in pathologic quantities proves, in cases of constipation (barring the readily diagnosed colica mucosa), the existence of intestinal catarrh, which is practically always a colonic catarrh. The decision must be cautious in case mucus is present with diarrheic evacuation; either the examination made after the cessation of the acute diarrhea will decide whether the mucus is pathologic or not, or a microscopic examination must be employed to determine whether it is a simple dyspeptic diarrhea or an enteritis. Regarding the localization of the catarrh the statements of Nothnagel are undisputed. The discharge of pure mucus without feces, as well as the complete envelopment with mucus of solid scybala, especially small ones, points to catarrh of the lowest section of the intestine. Intimate mixing of the mucus with the feces indicates involvement of the upper portion of the large or of the small intestine. Abundant muscle-remnants, and especially starch-remnants, together with the presence of mucus, fevers being absent, point to disease of the small intestine. For purposes of topical diagnosis the hyaline mucous particles and the yellow mucous grains of Nothnagel are of very little value. Regarding the treatment of constipation, the author believes that laxative remedies do harm, and that their great vogue, apart from the habit of the public, is due to the fact that other means (massage, faradization, hydrotherapy) are not easily applicable in domestic practice. The oil infusions of Fleiner are valuable and may be used at home. [D.R.]

Deutsche medicinische Wochenschrift.

September 21, 1899. [25. Jahrg., No. 38.]

1. Traumatic Diseases of the Mucous Membrane of the Stomach. R. Stern.
2. Our Present Knowledge of the Functions of the Bloodvessel-glands. H. Boruttan.
3. A New Method of Röntgen-photography of the Stomach. P. Bade.
4. Contribution upon Organotherapy. Burghart.
5. Suggestion-therapy in Internal Medicine. A. Hofmann.

1.—Injury to the mucous membrane of the stomach from external violence, clinically considered, can be divided into two groups: (1) In which healing takes place rapidly, and (2) in which the course becomes chronic. The former of these two groups are characterized by bloody vomiting following in a few hours, or possibly days, after the trauma. This vomiting may or may not be repeated, but the case heals up generally in about 14 days, occasionally, however, the case may stretch to 3 months before all the symptoms disappear. A simple traumatic rupture of the mucous membrane of the stomach may produce symptoms closely resembling those of gastric ulcer. In the second group when the condition becomes chronic the prognosis is not so favorable and the disease can run on for years without much improvement. Stern does not believe that in making a diagnosis of gastric carcinoma, a history of trauma is of any practical significance. Very likely, however, is it that if the tumor already existed, trauma may cause an acceleration in the rapidity of growth of the tumor. [G.B.W.]

3.—Bade suggests that in endeavoring to determine the borders of the stomach with the x-rays, the organ should be distended with air instead of introducing a substance impermeable to the x-rays. By this method the rays pass more readily through the body instead of being hindered. [G.B.W.]

4.—Burghart describes some interesting results obtained in the treatment of Graves' disease. But the report must arouse a certain degree of scepticism. He followed the suggestion of Ballet and Enriquezin using the blood of dogs whose thyroids had been removed, and who had become ill therefrom, in the treatment of exophthalmic goiter. Three cases were so managed and two gained respectively 14 and 20 pounds, and the symptoms were in general very much relieved; the third patient left the hospital soon after the treatment began, and although this patient had improved considerably there had not been time for striking results. In one case there was a somewhat troublesome eruption of urticaria like that seen after the injection of diphtheria antitoxin. Another case was treated with the blood of a case of myxedema. This was a girl of 15, who, at the time of the beginning of the treatment weighed 75 pounds, and had very severe symptoms, particularly marked exophthalmos and a pronounced loss of hair. After 8 weeks' treatment he showed much improvement in the exophthalmos. It was possible for her to close her eyelids, the sweating and tremor had decreased, and the languor had vanished. The condition of the heart was somewhat improved. It is especially remarked that during this time she gained 17 pounds, and within 6 months after the beginning of the treatment had gained in all 23 pounds, and subsequently gained 7 pounds more. Burghart also describes good results from the use of didymin in diabetes. He thought of the use of this preparation because of the frequent occurrence of diabetes in elderly men who are commonly impotent, or become so after the onset of the disease, and because obesity and diabetes are likely to be associated and obesity is likely to be a cause of impotence. The preparation was used in three elderly men with, he states, most satisfactory results; the sugar in particular becoming much less in amount and almost vanishing, and general marked improvement occurring, and in two cases that could be followed, this persisted for months afterward. The treatment was of no value in several instances in which it was used in young patients. [D.L.E.]

5.—Hofmann describes 11 cases which he subjected to suggestion, and decides from these that we must conclude that in not a few cases distinct results may be seen from **suggestion-therapy in hysterical cases.** He considers 6 of the cases cured as far as their complaints were concerned, 1 very much improved, 2 temporarily improved, and 2 uninfluenced. In one case in which there was pronounced habitual constipation and sleeplessness he thinks that the suggestion produced cure. The same is believed to be also true in another case—one of hysteric twitchings and neurasthenic headaches. In another instance dyspnea vanished. In one case in which no improvement was seen the hypochondriacal complaints had been of such long duration that there was no reasonable prospect of improvement. In the two that were but temporarily relieved better results might have been obtained if they had not left the hospital extremely early. Hofmann believes that if properly used, suggestion-therapy does not have bad effects. He does not agree with those who consider that there is always danger in its use, but considers that if other therapeutic measures have failed one should always make a trial of suggestion. [D.L.E.]

September 28, 1899. [25. Jahrg., No. 39.]

1. Concerning the Arrow-poison of the Wakambas. Brieger.
2. A Case of Double Invagination of the Intestine. R. v. Hippel.
3. Epidemiology and Bacteriology Concerning Cerebrospinal Meningitis. Hünermann.
4. Concerning a Case of Secondary Hydronephrosis following Bladder-papilloma. Krahn.
5. Concerning Drainage after Laparotomy with Serious Complications. L. Seligmann.

1.—Brieger was furnished by Koch with some Wakamba arrows and investigated the effects of the poison and its chemical constitution. Physiologically its action was like that of digitalis,—heart poison, as are many others of the

African poisons. Lewin and Paschkis have described similar effects from the **arrow-poison** of the Somalis, and the chemical constitution of the Wakamba poison was found almost identical with that of the Somali poison obtained from Ouabaio wood. The bark of the dawa is supposed to be an antidote to the Wakamba poison, but Brieger found it useless. He suggests that Wakamba poison should be studied from a therapeutic point of view, as it may prove to be an important substitute for digitalis. [D.L.E.]

2.—This case of **double invagination of the intestines** occurred in a child, 1¾ years old. At the operation, the gut in the region of the cecum was found invaginated, which invagination was easily reduced. But the reduction revealed a second invagination, which was the original and serious condition, and which it was found impossible to reduce, so that the invaginated portion had to be resected. The intestines, after a great deal of trouble, were gotten back into the abdominal cavity, and the wound closed, but the child died, 7 hours after the operation. [G B.W.]

3.—Hünermann replies to Jaeger's criticism of his work on the Mayence **epidemic of cerebrospinal meningitis.** He insists that it is not proven that the organisms usually described under the name meningococcus are identical, and that it is demonstrated that other organisms than the meningococcus may cause epidemics of the disease. In especial support of the latter point he refers to Jaeger's statement that France has recently been the source of infection for Germany in epidemics of this disease, and notes Netter's statistics. This investigator found the pneumococcus 7 times, the meningococcus 6 times, the streptococcus form of pneumococcus 4 times, the streptococcus pyogenes 3 times, and the staphylococcus once in the last 21 cases examined in Paris—the supposed source of meningococcus infection. Hünermann also notes the discovery of the influenza-bacillus in 2 cases by Fraenkel, and insists justly that the disease cannot be attributed to the meningococcus, even if it has been discovered, uuless blood-agar and other cultures have been made and have demonstrated the absence of other pathogenic organisms. [D.L.E.]

4.—Krahn reports a case of **hydronephrosis** occurring in a man 49 years of age, caused by a papillary tumor of the bladder. For five years previously he had had attacks of hematuria and for 3 years back had had a gradually enlarging tumor in the region of the right kidney. Cystoscopic examination showed a papilloma situated on the mouth of the right ureter and a tumor the size of a child's head was found at the level of the umbilicus. The bladder was opened above the symphysis, and a tumor about the size of a hen's egg was removed with a cautery snare from the mouth of the right ureter. The histologic examination of the growth showed a benign papilloma. The patient made a good recovery except for a slight cystitis. The tumor gradually but entirely disappeared after the removal of the papilloma, so that a diagnosis of hydronephrosis seemed most warranted. [G.B.W.]

5.—Seligmann gives the history of drainage, stating that Marion Sims was the first to practise and recommend it, using a rubber tube extending from the Douglas pouch to the lower end of the abdominal wound. Next is the method of Mikulicz, with iodoform-gauze, and its modifications by Schede, Frank and Bardenhauer. The writer reports 20 cases from his own practice in which he used with success Mikulicz's method alone, or with one or more of these modifications. Seligmann believes that in many complications, Mikulicz's method of gauze-drainage through the abdominal wound is not sufficient; that with the patient lying on the back, capillary attraction acting through the gauze may not carry off all blood, pus, or other secretions; that this principal must be abandoned, and drainage made through the Douglas sac and the vagina, as advised by Bardenhauer. In other cases he employed the device of either Schede or Frank for separating the operative field from the rest of the abdominal cavity. [W.K.]

Neurologisches Centralblatt.

October 1, 1899. [18. Jahrg., No. 19.]

1. Fear of Blushing. BRASSERT.
2. An Unusual Form of Gunshot Wound of the Brain, and the Degenerations in Posterior Columns Produced by it. G. BIKELES.
3. A Cortical Center for Unilateral Contralateral Contraction of the Pupils. (In Rabbits.) J. PILTZ.

1.—The patient, a man 38 years of age, had always been more or less nervous. In his youth he was struck upon the head, producing an injury, the scar of which was always painful. On one occasion, when 17 years of age, he noticed himself blushing, and this was accompanied by a disagreeable feeling. From this first time, he was never free of the **fear of blushing,** which occurred almost invariably in society, or when he met acquaintances, or even strangers, on the street. Whenever he was directly addressed, he became awkward, confused, and was apt to stammer, and blushed furiously over the whole head. As an associated complicating condition, he mentions flatulence. He was relieved by absorbing occupation, by remaining in the dark, or in artificial light. His condition is more severe in summer and warm weather than in winter. There were no signs of degeneration nor of vasomotor insufficiency, and he was recommended to take a hygienic cure. As a result of suggestion, however, he felt considerably improved. The condition in this case is one of pathological anxiety, somewhat similar to the forms described by Bechterew. The second case was described to the author by Windscheid. The patient was a young man of 25, and the symptoms were essentially the same. [J S.]

2.—The injury was produced by a **revolver bullet** which destroyed an area between the median and inferior frontal gyri about 2 cm. broad, and somewhat oblique. In the anterior of the brain, the channel of the bullet was considerably larger than at the cortex. It divided into two branches, one terminated in the anterior surface of the posterior central gyrus, and the other destroyed the surface of the posterior central or parietal and the occipital gyri. There was considerable pus in the wound. The patient had apparently died of hypostatic pneumonia and parenchymatous degeneration of the myocardium. Clinically the symptoms consisted in paralysis of the left arm, paresis of the left leg, diminution of sensation on the left side, particularly in the arm, and distinct allochiria in the arm. The case was unfortunately very imperfectly studied. Throughout the whole course, the patient had a desire to sleep, and complained of headache. Section through the upper portion of the spinal cord stained by Marchi's method, showed degeneration in the pyramidal fibers crossing to the left side at the decussation, and a distinct degeneration of the left posterior median column. This might be explained either by assuming increased pressure in the spinal canal or supposing the toxins acted upon the cord; the former explanation being apparently more reasonable. [J. S.]

3.—The center is situated upon the convex surface of the cerebral hemispheres, or 9 mm. from the occipital tubercle, and then the same distance laterally. At this point, electrical stimulation causes contraction of the pupil of the opposite eye. This can more readily happen in these animals, as consensual pupillary contraction never occurs in them. [J.S.]

Varicose Aneurysm of the Internal Carotid Artery and Cavernous Sinus.—A. E. Mills (*Australasian Medical Gazette*, September 20, 1899) reports tying the common carotid artery in the case of a woman who had been suffering for some time with exophthalmos with rushing noises in the head. The bruit, which could be distinctly heard before the operation. disappeared, the exophthalmos diminished, movements of the eyeball were more free, and paralysis of the external rectus disappeared. The patient remained in the same condition for 3 weeks, when she suddenly fainted and never regained consciousness in spite of all efforts. A necropsy was performed and on removing the brain the cavernous sinus was found bulging on the right side, and there was an opening between the internal carotid artery about the size of a peppercorn ; no other signs of disease were discoverable. It is thought that the ligature could have been of no very permanent benefit in this case, but the operation in no way hastened her death. [M.B.T.]

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.

Subcutaneous Injections of Saline Solutions.—Willoughby (*The Therapist*, London, October 16, 1899) gives a historical sketch of this method of treatment, and discusses its application. The apparatus required are a few fine and moderately long trocars and canulas, 2 or 3 yards of india-rubber tubing, and a glass funnel. Canulas and needles being such as are provided with Potain's or Dieulafoy's aspirators. The simple physiologic salt-solution of 0.6%—*i.e.*, 60 grs. to the pint—has been found by experience to do all that can be wished, though many more complex solutions have been proposed and used. The water should be boiled and strained through clean muslin or cotton-wool, and the vessel be perfectly clean. The solution should be cooled down—not mixed with cold water, unless this has been previously boiled—to the temperature of 104° F., or a little higher, when, being somewhat warmer than the blood after passing through the tubing, it will have a stimulating effect, and maintain the temperature of the body. The vessel containing it should be held about 6 feet above the patient's bed. In desperate cases, 800 to 1,000 cc. (28 to 35 ozs., or, roughly, 1½ to 1¾ pints) may be injected with advantage, for less urgent cases, in which collapse is only treated, 100 to 200 cc. (3½ to 7 ozs.) suffice; for children, 50 to 100 cc. (1½ to 3½ ozs.); and for infants, 20 to 50 cc. (¾ to 1¾ ozs). When the heart is fatty and dilated, or pulmonary edema is feared, the quantity should not exceed 100 to 200 cc. at one time, with intervals of 15 to 20 minutes between successive injections. The needle is inserted precisely as in ordinary hypodermic injections, but, from the larger volume of fluid to be introduced, the point selected must be one where the skin is loosest. Should the fluid not diffuse itself freely, gently massage of the part may be employed to aid it; but rather than allow the skin to be tense over the swelling, the needle should be withdrawn and the injection continued in other places; for, in patients whose vitality is low, abscesses or sloughing may follow the pressure on the surrounding tissue. When the needle is withdrawn, the puncture should be covered with collodion or an antiseptic dressing. These injections have proved valuable not only in hemorrhage, but they have been employed with the best results in cases of poisoning, especially from CO_2, CO, and coal gas. Under these circumstances, as well as in uremic poisoning, their action is greatly assisted by a preliminary depletory venesection, which acts in two ways—by the removal from the system of a portion of the poison with the blood withdrawn, and by the stimulus to elimination of the remainder by the kidneys, given by the increased arterial tension produced by the injection of so much additional fluid. Lenhartz and others have used them with encouraging though less palpable benefit in typhoid fever, pneumonia, dysentery, etc.; and Landerer, whose practice has been followed by others, has treated with the most satisfactory results many cases of wasting disease in infants, combining with the salt a small percentage of sugar, so as to produce a nutrient solution.

Injections of Gelatin in Aneurysm.—Fränkel (*Deutsche medicinische Presse*, June 9, 1899) reports a case of aortic aneurysm in which the size of the tumor was much reduced after 10 injections (1½ ounces each) of gelatin solution. The following formula is suggested:

℞.—White gelatin	15 grains.
Salt	7½ grains.
Hot water	26 ounces.

This mixture is sterilized and allowed to cool. When required for use it is warmed to fluidity and injected under the skin with antiseptic precautions. The injections may be given every few days, or even every day. After the injections the patient should remain absolutely quiet in bed.

The Treatment of Gout.—Bain (*British Medical Journal*, October 28, 1899), remarks that foods rich in nuclein and nucleoproteids should be forbidden unless further research proves them to be harmless. The most suitable diet depends upon the condition of the alimentary canal and its annexes, and the amount of exercise the patient can and does systematically take without fatigue. He believes it absurd to lay down the same hard-and-fast-rules for all cases of gout, and that it is certainly not necessary to abstain from meat of every description, seeing that muscle is comparatively poor in nucelo-proteid, and that vegetarians are sometimes victims. The efficacy of carefully regulated physical exercise in the prevention of gouty manifestations can not be exaggerated. This agent, considered by Sydenham of greater importance than diet or drugs, the author contends is underestimated, and too much attention is paid to the so-called uric acid solvents. As regards the use of sodium salicylate, Bain agrees with Luff, in believing it inadvisable, since the drug increases the excretion of uric acid at the expense of the leukocytes.

Chronic Eczema of the Hands.—Edlefsen (*Therapeutische Monatshefte*) recommends:

℞.—Iodin	1 part.
Potassium iodid	2½ parts.
Glycerin	125 parts.

To be applied once or twice daily.

The Treatment of Pulmonary Emphysema.—Campbell (*British Medical Journal*, October 28, 1899), urges that in treating emphysema we should endeavor to preserve the pulmonary elasticity, to prevent as far as possible overaction of the costal elevators, and to prevent the chest from becoming fixed. As a potent cause of loss of elasticity is overstretching of the alveoli from coughing, straining of all kinds, and the respiratory efforts of dyspnea, all causes which excite these efforts should be avoided as far as possible. In order to check the tendency to overaction of the inspiratory muscles, all causes of dyspnea must be carefully avoided, while at the same time the patient must be put through a course of expiratory exercises. The means adapted for preventing overaction of the inspiratory muscles are also useful in checking the tendency to fixity of the chest. Even in cases of extreme fixity much may be done to lessen it by educating the patient to use his expiratory muscles, properly and by subjecting the chest to external compression. Willock, of Croydon, has devised an instrument for compressing the chest, which, according to Campbell, only requires to be known to be widely used. In conclusion, the writer insists upon the importance of beginning the treatment of emphysema as early as possible.

The Treatment of Burns and Other Superficial Wounds.—Reid (*British Medical Journal*, October 28, 1899) recommends dressings which are not placed directly on the wound, but on a light wire cage or support, which, while permitting them to afford protection, prevents them acting as foreign bodies. If the wound be on a flat surface, a stout wire of suitable length is bent into a shape that when placed over a wound it surrounds the latter, but rests everywhere on uninjured tissue. On this wire as a basis, is woven a wide network of light wire, so that a shallow disk of wirework, shaped somewhat like the wound, but larger, results. If the wound be on a limb, a cylinder of similar wirework is made into two longitudinal parts, which are hinged. The circumference of the shallow disk and the ends of the cylinder are padded by wrapping carbolized wool around the thick supporting wire. When in place the apparatus may be covered by any appropriate dressing, and it is retained in place by strapping or bandages. It is essential that the surface of the wound should be kept absolutely clean. It should be sponged twice or thrice daily, or oftener if necessary, with some mild antiseptic fluid (boric acid, 1—40, or carbolic lotion). Otherwise the discharges form a cake more hurtful than any other foreign body. The author usually covers the cage with waterproof. The advantages claimed for this treatment are: It is rational in that it abolishes foreign bodies as applications while retaining them for purposes of protection; the apparatus is easily made; the wound is quickly, easily, and painlessly dressed; the dressing requires no particular skill; the method is almost ideally aseptic; and the wounds heal with a quickness as delightful to the surgeon as to the patient.

Asparagus as a Diuretic.—Hare (*Therapeutic Gazette*, September 15, 1899) reports 3 cases in which he used the fluid

extract of asparagus as a diuretic. The first case was a patient with cirrhosis of the liver, who passed during a period of 15 days, on an average, between 35 and 48 ounces of urine a day. After the administration of the fluid extract of asparagus in doses of a dram, thrice daily, the quantity of urine for twelve days was maintained at an average of between 55 and 65 ounces. On withdrawal of the drug the quantity of urine gradually fell to between 35 and 45 ounces. Under the treatment the dropsy disappeared. In a case of double mitral disease with edema, in which only 20 to 25 ounces of urine was passed in 24 hours, and in which digitalis, potassium bitartrate and infusion of juniper berries gave no increase, the asparagus caused an increase in the quantity of urine from 27 to 40 ounces. In a case of advanced atheroma with aortitis and probably fatty heart, no marked effect was produced by the asparagus.

An Inhalation of Formaldehyd in Phthisis.—Green (*Lancet*, No. 3964, 1899) states that since 1895 he has used with advantage a spray of formaldehyd in the treatment of catarrh and of early phthisis. He recommends the following to be used four times a day, each inhalation lasting 10 to 15 minutes:

℞.—Formaldehyd	1 fluidram.
Glycerin	4 fluidrams.
Distilled water	5 fluidounces.

Trikresol in Alopecia Areata.—MacGowan (*Journal of Cutaneous and Genitourinary Diseases*, May, 1899) states that he has cured 8 cases of alopecia areata within a period averaging 2½ months. After the part has been cleansed with benzine, the patch and surrounding zone are thoroughly rubbed with cotton swab saturated with trikresol. The latter is applied pure to scalp and in 50% dilution with alcohol to the face. The applications cause burning which disappears in the course of a few minutes. The applications are repeated in from 4 to 10 days.

Perchlorid of Mercury as a Gastrointestinal Antiseptic.—Carter (*Liverpool Medical and Chirurgical Journal*, July, 1899) in discussing the various uses of mercury states that there is one use that is not so well known as it deserves to be, and that is the employing of the solution of the bichlorid of mercury in half minim or minim doses in a teaspoonful of water every hour for 10 or 12 hours a day, in fermentative disturbances in the stomach and intestines. It controls vomiting more effectually than any other drug and will very often arrest diarrhea. As the drug is free from all odor and taste no one objects to it. Ringer mentions its employment, but in much larger doses, namely about $\frac{1}{80}$ of a grain instead of $\frac{1}{2000}$ to $\frac{1}{1000}$ of a grain. The large dose is quite unnecessary and may be harmful.

Failure of Operative Treatment in Tuberculous Peritonitis.—The *Journal of American Medical Association*, November 4, 1899, quotes Wunderlich as stating that 4 patients out of 10 thus operated on, died within 3 months; 3 grew worse, and only 3 were found in good general health when examined later. Of the 500 cases of peritoneal tuberculosis on record, there was effusion in 68.8%; fibrous adhesions in 27.2% and suppuration in 4%. Clinical recovery (3 years of observation at least) occurred in 23.3% of the cases with ascites, and in 9.8% with adhesions. Out of 20 cases with suppuration 9 were fatal. Anatomic recovery was established in 19.

The Treatment of Heart-disease by Inhalations of Carbonic Acid Gas.—Ewart (*British Medical Journal*, October 28, 1899) publishes the results of some clinical observations on the inhalation of carbonic acid gas in heart-disease. He observes that in a disguised form the inhalation of this gas is included in the Nauheim treatment by baths, but from the latter many patients are debarred. In using the gas the essentials are: A continuous supply of pure quality, free from all traces of CO; an efficient means of controling its delivery, and of ensuring the simultaneous inhalation of air; and a convenient length of rubber tubing provided with a glass mouth-piece. The inhalation is made by holding the mouth piece between the teeth whilst the lips remain open. This ensures a full supply of air. The following are the physiologic effects produced by the inhalations: A feeling of internal warmth; a strong desire to breathe, and particularly to breathe out; an excited state of the circulation; a slight giddiness and even headache. The effects in patients with cardiac symptoms, according to Ewart, have been as follows: Rapid diminution, and within a minute or two cessation of cardiac distress or pain; a feeling of increasing freedom of respiration; a visible increase in the depth of breathing; a marked improvement in the pulse; an obvious improvement both in the expression and in the complexion. Systematic repetition of the inhalations brings about progressive improvement in the patient's general condition. As regards the scope of the treatment, the writer finds that loss of compensation from any valvular disease admits of tentative treatment by carbonic acid, and will respond to it in varying degrees. True angina, which forbids the use of Nauheim baths, may be safely treated with the inhalation; and in the minor degrees of angina it has never failed to give relief. In the worst cases of mitral and aortic stenosis the inhalation treatment is a boon to the patient.

Sanatorium Treatment of Phthisis.—Clifford Allbutt (*British Medical Journal*, October 28, 1899) in discussing the subject observes that none of the elements of the hygienic treatment are new, but that the organization of these scattered elements into a system of government rigorously administered under continuous medical inspection is new, and to impose such a system needs indomitable generalship. It must be remembered in all movements at home to establish sanatoriums, a site is not enough, not the dry soil, the good water, the good and abundant food, the sunny chambers and balconies, the good nurses, the evasion of friends and gaieties, the vigilance of the physician—these things are not enough: the result will not be attained unless the general can be found who by a certain natural ascendancy over others, an inflexible will, and a clear grasp of his method, imposes his rule upon his inmates. Cure means not only that after 3 to 6 months' treatment the disease is stayed and that the patient has returned home, but that he has returned also to his work, and that for a reasonable time—a year or two—he has withstood the throng and stress and fatigue of it, much as he did before his attack. It should be known that patients in the third stage of phthisis are not certainly, but probably, incurable; that in the stage of physical signs of consolidation, the cure, if it is to be attained, can only be attained by, say, 18 months of a long and persevering discipline, and by absolute subordination of the individual will to an exacting system; and in the third, if recovery be possible not less than 2 or 3 years will suffice. For sanatorium treatment, cases in the incipient stage must be rigorously selected. It is in this stage only, that hope of anything like definite cure within 6 months can be held out. To send advanced cases to a sanatorium is to hide away our failures. After 30 years experience the writer remains of the opinion that for young and vigorous persons the Alpine resorts are far more potent than those at lower altitudes. He observes further that overfeeding can never be right, that probably high feeding rather than gorging is the means intended. Much harm results from indiscriminate stuffing of patients. High feeding, including codliver oil and other fats, and other dietetic means often shirked by phthisical patients, has, of course been a prominent feature in the treatment in the past. Too much is made of increase in mere fat—this is what horsemen call "soft condition." In the absence of fever regulated exercise hardens the muscles and the heart, and a hard condition is to be aimed at. A certain number of patients are naturally of a spare habit, and poor eaters. It is useless to force these people; they cannot endure it.

Arterial Tension and Abdominal Massage.—The *Medical Review*, October, 1899, quotes Cantru (*Jour. des Practic* August 12, 1899) as stating that the immediate results of abdominal massage consist in a lowering of arterial pressur and a diminution in the frequency of the pulse. A more o less abundant diuresis usually follows, and the improvemen in the circulatory organs brings about a general beneficia action in various functional conditions. Massage is therefor indicated when vaso-constricting influences have arisen fron toxic conditions of the blood or in conditions leading t arteriosclerosis. The writer's observations show that thi procedure may have a preventive as well as a curativ effect.

Original Articles.

REMARKS ON THE PRESENT MILD TYPE OF SMALLPOX; THE SYMPTOMS AND DIAGNOSIS.

BY WILLIAM M. WELCH, M.D.,
of Philadelphia.

Two or three years ago, smallpox of an unusually mild type appeared in the Southern States, and the disease, from a diagnostic standpoint, was variously regarded by the physicians. Some looked upon it as chickenpox, others called it impetigo contagiosa, a few thought it was a cutaneous affection of some new and strange variety, while a considerable number believed it to be smallpox. I have been informed that the profession was quite equally divided on the question of smallpox or chickenpox; about as many calling it the one as the other. The disease was recognized as infectious, as it was seen to spread from one person to another, and from town to town, until the epidemic was widespread and the cases numerous. But wherever the disease was seen it was of the same mild type, and rarely resulted in death. The strange thing about it was, apart from its mildness, that it seemed to attack negroes in preference to white people. Those who took the disease were, as a rule, confined to the house only during the initial stage. After the appearance of the eruption the patients would frequently go about their work as usual, feeling but little if any indisposed. Not infrequently they were employed gathering cotton and preparing it for market while the eruption was developing or the scabs falling off, and it is believed that the infection was spread to distant localities by this article of commerce. I saw a case of smallpox in this city last year in which the infection was believed to have been received from a bale of cotton brought from the South. The case occurred in a man employed in a mill where cotton goods were manufactured, and at a time when no cases of smallpox had been seen in the city for a period of between 2 and 3 years. The man had not been out of the city for a long time, and was constantly at his work. In seeking for the source of the infection in this case, I could arrive at no other conclusion than that it had been derived from a bale of cotton. This man, after falling ill, gave the disease to his brother, who roomed with him, and these two were the only cases of smallpox in Philadelphia until several months subsequently. The type in both cases was mild, though the disease was well pronounced. Recovery, of course, followed.

It is said that the disease was transmitted into the Southern States from Cuba, where it prevailed during the Spanish-Cuban war. In explanation of the mild type of the affection, it has been suggested that smallpox in the tropics is less severe than in a cold climate. I am not sure that this is true, but even if it is, I see no reason why the disease should not assume its old and familiar form when the infection is conveyed to the Middle and Northern States; but up to the present time it has shown no such tendency. What it will do when cold weather sets in remains to be seen.

From the South the disease spread to very many of the Northern States, and it was everywhere so mild and frequently so atypical that the same difficulty in the matter of diagnosis, as already referred to, was experienced by the physicians of these States. In several counties of our own State, as, for instance, Bedford, Somerset, Allegheny, and Philadelphia, the cases were so numerous as to almost constitute an epidemic. In all of these localities I feel sure that the earlier cases were not recognized, and the affected persons were permitted to roam about at pleasure. The diagnosis of chickenpox was, perhaps, the most common error made by physicians wherever the disease occurred. It was not uncommon in this city for patients to apply at dispensaries for treatment, take their position in the waiting-room, and, after an examination by a physician, be provided with a salve with instruction to apply it to the local lesions. I do not know what the diagnosis was in such cases, but the disorder was evidently regarded as some form of skin disease. Next to chickenpox, the most common error of diagnosis was, I think, impetigo contagiosa. According to Drs. Lee and Atkinson, this diagnosis was stoutly maintained by some of the physicians of Bedford, Pa. "Cuban itch" is another name which, I am informed, was given to the disorder. Some of the colored people who were treated in the Municipal Hospital called it "elephant's itch." If it were really itch this would seem to be, in view of the size of the vesicles, a very appropriate name. These colored people alleged that the disease originated at Norfolk, Va., by some of their own people sleeping on straw on which elephants had slept. But the most popular name for the disorder among the colored people was "the bumps."

Considering the rare opportunity of late years for physicians to study smallpox clinically, and the unprecedented mildness of the disease at the present time, I am not surprised at the frequent errors of diagnosis. We know the young physician begins his lifework with no other knowledge of smallpox than that which he has derived from books or the didactic lecture. The college is careful to provide for him almost every posssible variety of clinical instruction on diseases that are not contagious, but on the contagious variety he receives absolutely none. This is not the fault of colleges nor of the students, but of boards of health or civic authorities which control the hospitals in which contagious and infectious diseases are treated. If such hospitals were opened for clinical instruction, it would be impossible to estimate the benefit therefrom to the student primarily, and secondarily to the public. It is here that smallpox may be seen at once in its various stages, and in every possible type. The didactic lecturer, as a rule,

treats only of typical cases, but in the hospital both typical and atypical cases may be studied. If, therefore, clinical instruction was so comprehensive as to include all contagious and infectious diseases, mistakes of diagnosis would be much less frequent, and, in an outbreak of smallpox, the earlier as well as the atypical cases would more readily be recognized, and thus widespread and fatal epidemics might more frequently be prevented.

In an experience of 29 years of hospital work, which includes a study of over 5,500 cases of smallpox, I must say I have never seen cases present, uniformly, so mild a type as during the present year, nor have I been able to find in the vast amount of literature published on the subject any account of a similarly mild epidemic in this or any other country. It is true that not all cases are equally mild. You will notice from the photographs which I show you, taken by my friend Dr. Jay F. Schamberg, that the eruption was quite thickly set in some of the cases—so thickly as to show a considerable degree of confluence on some parts of the body, particularly the face, while in others the eruption was very sparsely seen. It was only the best-marked cases that were selected for photographing. Indeed, in some of the mildest cases, it was impossible to count as many as a dozen pustules, even on persons who had never been vaccinated. The vast majority of the patients would not remain in bed after the eruption appeared.



FIG. 1.—Mild form of smallpox in an unvaccinated adult, on the fifth day of eruption.

[This and the following illustrations are from photographs taken by Dr. Jay F. Schamberg.]

They would dress up in their clothing, walk about and indulge in various pranks, tricks, and games. It was a novel sight for me to see smallpox patients, negroes, unvaccinated, at about the eighth or tenth day of the eruption, engaging in a game of baseball. I have not seen more than 2 or 3 cases during the present prevalence of the disease which showed symptoms at all serious.



FIG. 2.—Mild form of smallpox in an unvaccinated child, on seventh day of eruption.

The number of patients who have come under my observation in the hospital during the present year is 128, without a single death occurring. Of this number 110 were unvaccinated and 17 were vaccinated in infancy, and one after exposure to the infection. Six were white and 122 black; 92 were male and 36 female. The quality of the vaccine marks of those who were vaccinated, and the ages of all the patients may be seen in the following tables:

TABLE I.

	Cases.	Deaths.
Vaccinated in infancy (good scar)	5	0
" " " (fair scar)	2	0
" " " (poor scar)	10	0
Postvaccinal cases	17	0
Unvaccinated cases	110	0
Vaccinated after exposure	1	0
Total	128	0

TABLE II.

Ages.	Cases.	Deaths.
Under 1 year	1	0
1 to 5 years	7	0
5 to 10 years	4	0
10 to 15 years	3	0
15 to 25 years	58	0
25 years and upwards	55	0
Total	128	0

The 17 cases of smallpox which occurred after vaccination are included in the age periods of the above table, as follows: Ten to 15 years, one; 15 to 25 years, eight; 25 years and upwards, eight. These patients had all reached the age when the prophylactic effect of infantile vaccination is frequently found to be diminished or absent. Of the total number of patients the vast majority was over 15 years of age and unvaccinated. They were nearly all negroes who had been born and raised in the South, mostly in Virginia. I have noticed that, for some reason or other, vaccination is greatly neglected in the Southern States, particularly among the negroes. The prophylactic power of vaccination is clearly evident from the fact that so few of the cases of smallpox occurred in persons who were vaccinated. Besides, it is believed that but for vaccination the disease would have become widespread and assumed an epidemic form of immense proportion, since so many of the persons affected were not ill enough to be confined to the house, but, on the contrary, mingled quite freely with the public by visiting dispensaries, riding on trolley and steam cars, walking and driving on the streets, and the like.

Previous to the present year, the last time that smallpox appeared in this city and spread to any considerable extent was in the years 1894-95. At that time the disease presented its usual clinical phenomena throughout its various stages, and was in many cases very severe, although not so generally so as in preceding epidemics. This is evident from the mortality rate, which was only about 18% in the unvaccinated, as against 58.38%, which was the average death-rate in the hospital of all previous epidemics as far back as 1870. In the extremely malignant epidemic of 1871–72, the death-rate in the unvaccinated cases was as high as 64.41%. While the death-rate of 18% was very low in comparison with my previons experience, it is not, however, unprecedentedly low, as has been the case almost everywhere in this country during the present prevalence of smallpox. Even before vaccination was discovered small outbreaks of the disease were occasionally met with in certain localities in which the mortality was not above 18%, while the average death-rate from natural smallpox during the eighteenth century was, according to available statistics, not less than 40%.

In order that the results seen during the present year may be contrasted with my previous experience, I will present the following tables:

TABLE III.—Showing Statistical Details of the Smallpox Cases Treated in the Municipal Hospital in 1894-95.

	Cases.	Died.	Percent.
Vaccinated in infancy (good scars)	57	0	0
" " " (fair scars)	34	3	8.82
" " " (poor scars)	32	6	18.75
Total number vaccinated	123	9	7.31
Unvaccinated cases	156	28	17.95
Vaccinated after exposure	24	2	8.33
Total	303	39	12.87

TABLE IV.—Showing Statistical Details of the Smallpox Cases Treated in the Municipal Hospital from 1870 until 1894.

	Cases.	Died.	Percent.
Vaccinated in infancy (good scars)	1,412	124	8.78
" " " (fair scars)	666	98	14.71
" " " (poor scars)	1,070	290	27.10
Postvaccinal cases	3,148	512	16.26
Unvaccinated cases	1,759	1,027	58.38
Unclassified cases	93	23	24.73
Total	5,000	1,562	31.24

The onset of the present mild type of smallpox does not differ greatly, except in degree, from that commonly seen in the severer forms of the disease. The patient is usually taken suddenly ill. A chill, more or less

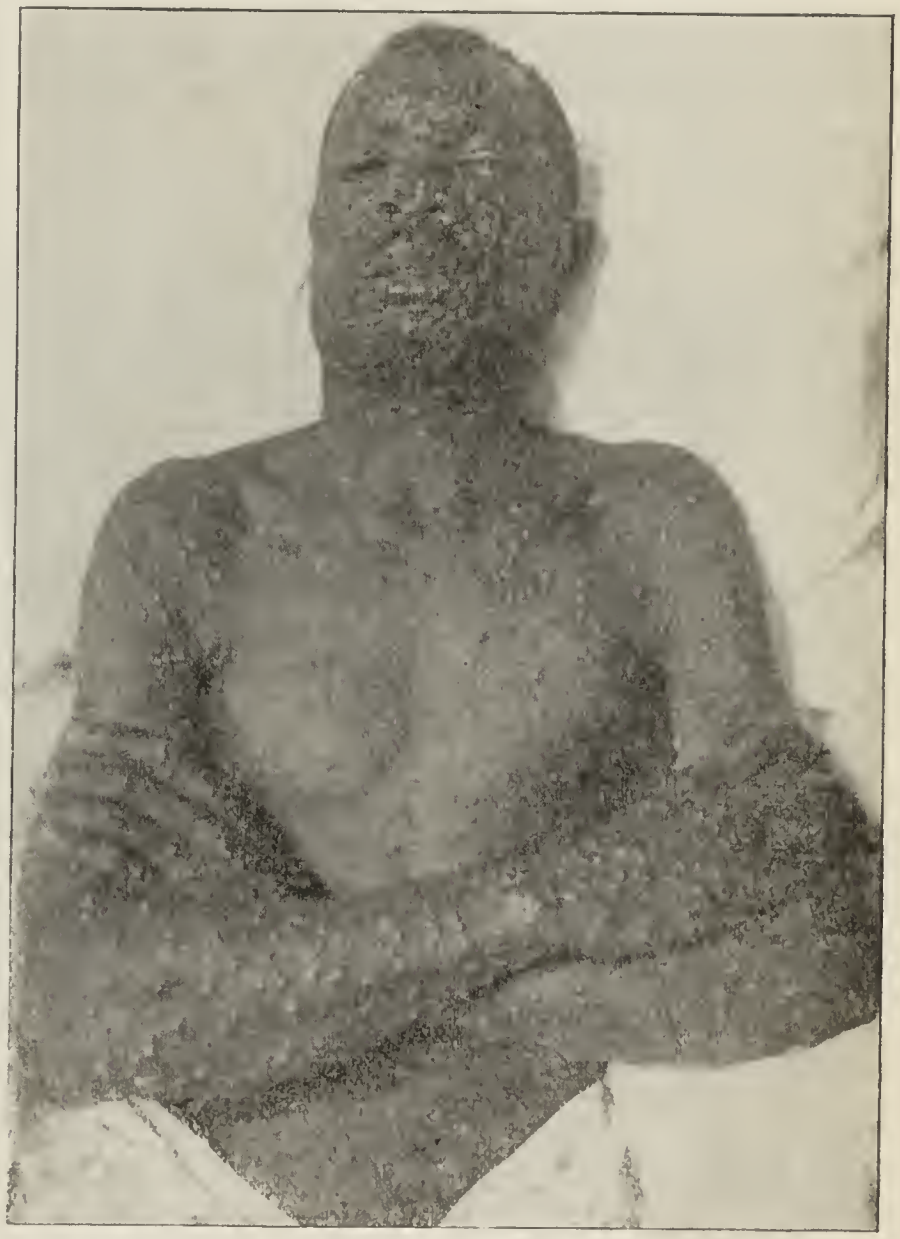


Fig. 3.—Moderately severe form of smallpox in an unvaccinated adult, on eighth day of eruption. Semi-confluent on face, discrete on trunk and extremities.

marked, is commonly an early symptom. It may be so mild as to constitute only a slight rigor, so slight indeed, as to pass quite unnoticed by the patient. This is followed by the usual evidences of pyrexia. The temperature may vary from 101° F. to 105° F. High temperature is apt to be accompanied by great restlessness. At the same time irritability of the stomach occurs, which may be only slight, but is often intense and distressing, and may continue throughout the entire stage of the initial fever. Lumbar pain is also very common as an early symptom, and this, too, may be slight or severe. Sometimes it is absent altogether. Encephalic symptoms very frequently accompany this

stage. In adults, headache is often severe, and when the temperature is high there may be delirium. In children there is apt to be somnolency, and convulsions often occur. The tendency to syncope, the marked dizziness on assuming the erect position, and the excessive prostration, so common in severe cases of smallpox, are often quite absent in the present mild type of the disease. Indeed, according to information obtained from many of the patients who came under my notice, the entire initial stage was so mild that they were not obliged to remain constantly in bed; some even stated that they had scarcely been ill at all, and yet on close interrogation I was able to learn that all had suffered to some degree from nearly all the symptoms I have described. In a few the initial stage was marked by its usual severity.

From 48 to 72 hours elapse from the chill or rigor to the first appearance of eruption. The temperature at this time, or very soon after the appearance of the eruption, drops to normal, and all the other symptoms improve correspondingly, leading the patient to believe that all trouble is over. In this he would be sadly mistaken if his disease were the smallpox of former epidemics, but as it prevails at present the initial stage constitutes, in very many cases, the principal part of the illness. The patient now frequently leaves his bed not to return to it again.

The eruption makes its appearance as minute papules, being first seen as a rule on some parts of the face, the forehead and the wrists. Two or three days usually elapse before the outbreak is complete. The papules are sensibly elevated above the surface of the skin, and as they develop they assume the peculiar dense and firm character so commonly described. They change into vesicles somewhat earlier than usual. Not infrequently on the second or third day of the eruptive stage, distinct vesicles are seen. The peculiar condition known as umbilication may be seen in some of the lesions, but not in all. Frequently as early as the fourth or fifth day the vesicles change into pustules, and almost immediately shrinking and drying begin on the face, and a little later on other parts of the body. In some cases the eruption runs a course somewhat longer than that described, but in no instance have I seen it as long and tedious as in what might be styled normal smallpox. In the majority of cases the lesions are discrete and sparsely set. A few, however, exhibit the lesions more copiously, even to the extent of their assuming the semiconfluent or confluent form on the face, and sometimes on parts of the extremities also. Even in these cases the course of the eruption is abnormally short.

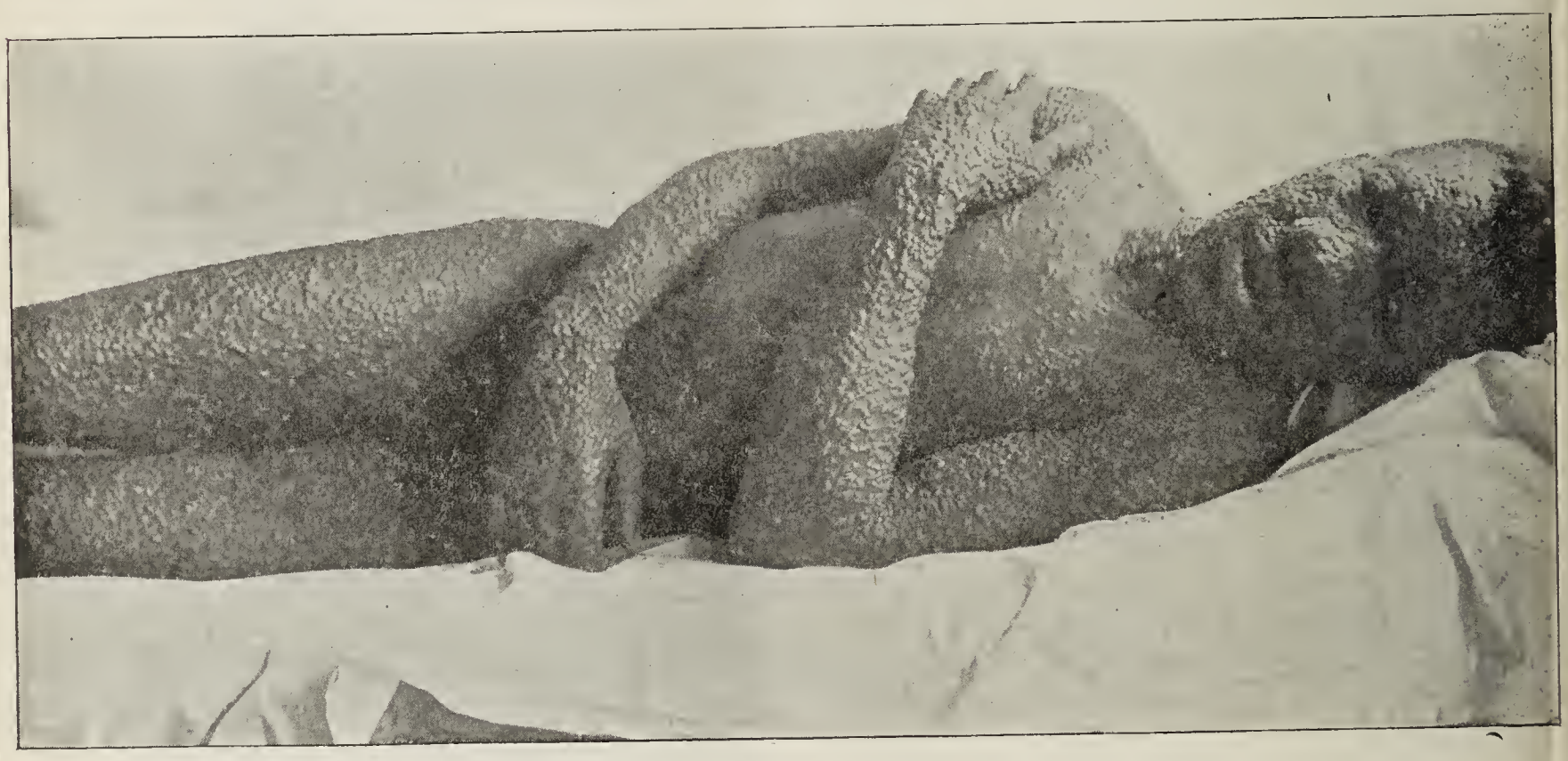


FIG. 4.—Severe form of smallpox in an unvaccinated adult, on eighth day of eruption. Confluent on face, semi-confluent on extremities.

In the mildest cases the eruption, instead of passing imperfectly through the various phases of development common to the disease, assumes an abortive form, and recedes at a very early period; or else it develops rapidly into more or less dwarfed forms. A very common phase for the eruption to assume is for the papules to develop into solid conical elevations with small vesicles at their summit containing sero-purulent fluid. When dessication occurs, which is always rapid, and the thin crusts have fallen off, the solid part of the pock remains for a long time, giving the appearance of warty excrescences on the skin. This unsightly condition is most frequently seen on the face, but it eventually disappears without leaving any permanent disfigurement.

It is evident from the behavior of the eruption that the most striking peculiarity of this mild type of variola is the comparatively slight changes that occur in the skin. The lesions, instead of actively involving

the deeper layers of the cutaneous integument, appear to develop between the outer epidermis and the layer of cells immediatcly covering the papilla, and in the later suppurative changes the true skin becomes only mildly involved. Hence, dermatitis and the consequent intumescence, so common on the face and head in variola vera, arc either absent or very mild, and the necrotic changes are, of course, greatly limited. The pustules, therefore, desiccate rapidly, forming comparatively thin scabs, which, when they have fallen off, leave pigmented spots, and but little or no pitting. Even in cases exhibiting a considerable degree of confluence on the face the eruption behaves in the same way. When such a case has reached the state of pustulation a wonderful transformation of the features of the patient is often seen in the course of three or four days by the speedy subsidence of swelling and rapid shedding of the scabs.



Fig. 5.—Severe form of smallpox in an unvaccinated youth, on eighth day of eruption, showing considerable degree of confluence with intumescence of features.

In consequence, therefore, of the mild character and short course of the pustular stage, secondary or suppurative fever is by no means a prominent symptom. Indeed, it is not seen at all in the vast majority of cases, and in those in which it does occur it is moderate and of short duration, lasting only a day or two. Severe implication of the mucous membrane of the nasal cavities, the mouth, pharynx, and upper air-passage, which during the pustular stage is often an accessory cause of secondary fever and of death, is not met with in the prescnt typc of variola. Thc phenomenal mildness of the symptoms as a whole, and especially during the suppurative stage when life is usually placed in greatest jeopardy, explains why the mortality from the disease in various parts of the United States for thc last two or three years has been practically nil.

Those familiar with smallpox will recognize in the description I have given a clinical picture of mild varioloid; and yct it must be rcmembered that in nearly all of the cascs which have come under my observation, and which I am describing, there was no known modifying influcnce opcrating, such as results from vaccination or a previous attack of the disease. Why smallpox in the unvaccinated should present itself so generally in the present exceptionally mild form is a question I shall not undertake to answer.

In view of the difficulty that has been experienced in recognizing the disease in its present type, I wish to say a few words on the diagnosis, more especially the differential diagnosis between it and some of the affections with which it has been more frequently confounded. Of these, varicella, impetigo contagiosa, and pustular syphiloderm espccially claim consideration.

The onset of varicella is very differcnt from that of variola. There is usually no distinct febrile stage preceding the eruption. Occasionally a rise of temperature prccedes thc cutaneous manifestations by a few hours, but far more frequently these two symptoms appear simultaneously. It is true, in many cases of extremely modified smallpox no rcliable history of an initial stage can be obtained, so that the diagnosis in such cases must be made from the appearance and bchavior of the exanthem alone. It is important to bear in mind the following facts: That the lesions of varicella make their appearance as distinct vesicles containing perfectly clear serum; that they are usually seen first on parts of the body which are covered with clothing, and espccially on the back, where they arc apt to be most abundant; that they make their appearance in successive crops,

and may be seen in every stage of development; that they vary very greatly in size; that they are unilocular, and have an epidermic covering so delicate as to be readily broken by the finger nail; that they are rather soft and velvety to the touch; that many of them enlarge to a considerable circumference by peripheral extension, while others are as small as millet seed; that they are not umbilicated, except by desiccation beginning in their centers; that they run their course to the formation of crusts in 2 to 4 days; that the crusts are



FIG. 6.—Same patient as Fig. 5, showing rapid shedding of crusts between eighth and twelfth day.

thin, brown and friable, and when they have fallen off red instead of pigmented spots remain; and that but few of the lesions are followed by permanent scars.

By way of contrast I would say that the exanthem of smallpox first appears in the form of papules, which are firm and dense to the touch, feeling somewhat like grains of sand buried in the skin; that they usually appear first on the face, and then on other parts of the body; that the papules slowly develop into vesicles with turbid or milky contents; that the vesicles in well-marked cases are umbilicated; that they are multilocular, and have an epidermic covering so dense and firm as not to be easily broken by the finger nail; that the eruption prefers the exposed parts of the body, such as the face, hands and arms, being often only sparsely seen on the trunk; that the vesicles are usually quite uniform in size; that they change into pustules; that the eruption requires in severe cases 12 or more days to pass through its various stages, while in extremely mild cases not more than 5 or 6 days are required; that the crusts which form are thick and very dark, and when they have fallen off there remain pigmented spots and more or less pitting.

While each group of symptoms just enumerated is descriptive respectively of chickenpox and smallpox, and while there should be no difficulty in differentiating between these diseases in any case in which either group is complete, yet it must be admitted that smallpox sometimes occurs, as at present, in a form so atypical as to make it difficult to decide to which category the symptoms belong. It may, however, be stated in a general way that a mildly febrile eruption appearing without prodromal symptoms, being distinctly vesicular from the beginning, and commencing to desiccate on the second or third day, should be regarded as chickenpox; and, on the other hand, an acute exanthem preceded by an initial stage of 48 hours, in which the temperature was distinctly elevated, beginning as papules and ending in vesicles or vesico-pustules, even though the period of evolution be short, should be regarded as smallpox. At any rate, it would be advisable for the safety of the public to regard such a case as suspicious, and surround it with such precautionary measures as are best calculated to prevent the spread of infection.

Impetigo contagiosa is an acute contagious disease of the skin rarely attended by rise of temperature. Unlike variola, it is not preceded by an initial stage, nor does it begin as papules, but appears at once in the form of vesico pustules, which spring up on an apparently normal skin. They are quite superficial, and enlarge by peripheral extension, usually attaining the size of a silver dime. They remain very flat in comparison with the conical appearance of the vesicles of variola. The crusts which form may either be thin or thick, varying from a straw color to a greenish-yellow or brownish hue. They are generally very friable, lightly adherent, and crumble off in small pieces. When the thicker crusts are forcibly removed a purulent surface is exposed, but no deep ulcer. After the natural shedding of the crusts there remain for a short time red spots but never any scars.

The infecting principle resides in the vesico-pustules and is communicated by contact or accidental inoculation. When the disease appears in an individual new lesions may be carried by the finger nails to any part of the skin which is excoriated. Whether considered

in part or as a whole, the nature and symptoms of impetigo contagiosa differ so widely from that of smallpox that it seems almost impossible for these diseases to be confounded, and yet one is sometimes mistaken for the other.

The lesions of pustular syphiloderm often resemble very closely those of smallpox, so that some care is necessary to distinguish between the two. The difficulty is increased from the fact that the eruption in either case is preceded by fever and various aches and pains, and that the lesions begin as papules and end in pustules. Instead of appearing all at once, the eruption usually comes out in successive crops. The papule progresses by the formation of a minute vesicle at its summit, and as this develops, its contents first become turbid and then pustular. Sometimes the pustule is limited to the apex of the papule, which latter, in the meantime having enlarged considerably, gives to the pustule the appearance of resting upon a highly indurated base. At other times, or in different lesions of the same case, the entire papule may become involved in the suppurative process, which, when attended by a good deal of ulcerative action, is sure to be followed by deep and rather peculiar scars. When the ulceration is not excessive, the pustules dry up and form dirty-looking crusts of a brown or greenish-yellow color, and are quite friable. After the crusts have fallen off, the indurated base gradually disappears, often, indeed, quite rapidly under treatment, leaving pigmented discolorations of a dark coppery hue.

Pustular syphiloderm may be distinguished from smallpox by the milder constitutional symptoms during the initial stage; by the absence of shot-like induration of the papules; by the formation of small vesicles at the summit of the papules; by the large, indurated base of each vesicle; by the lesions appearing in successive crops; by the absence of umbilication; by tendency to ulceration of some of the lesions; by the comparatively thin, brown and friable scabs; by discolorations of a dark coppery hue after the scabs have fallen, and by concomitant symptoms of syphilis.

In considering the diagnosis of this affection much valuable information may often be gained by inquiring into the whole history of the case as well as carefully observing the course of the cutaneous lesions. To those accustomed to the appearance of smallpox there is something noticed in the general aspect of a syphilitic eruption, however similar to that of the former disease, which at once excites suspicion that it is not variolous. If to this can be added a history of syphilis, suspicion may by converted into certainty.

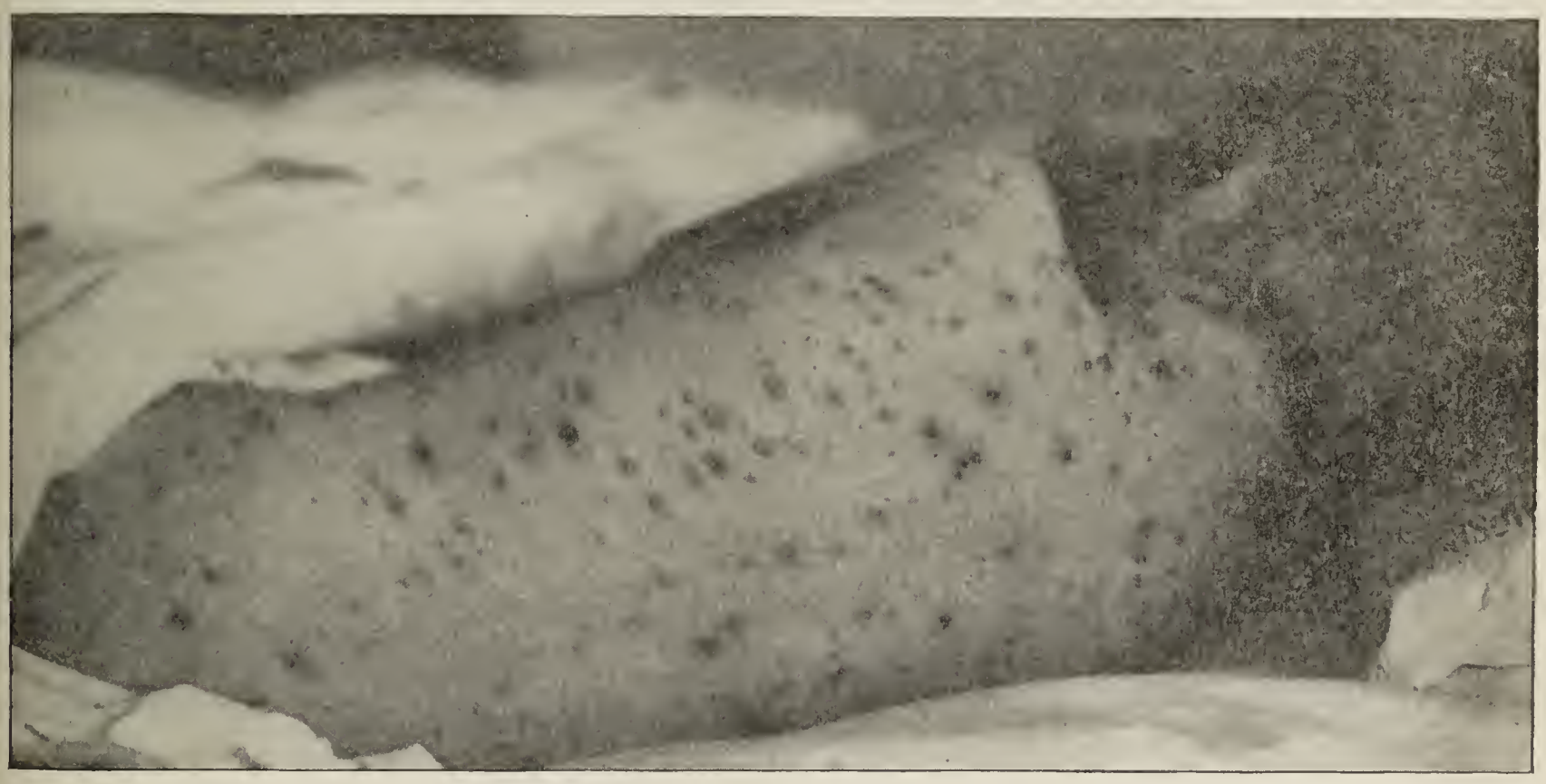


Fig. 7.—Well marked case of chickenpox, on fifth day, showing lesions in various stages of development.

A REPORT OF THE HOLGUIN EPIDEMIC OF SMALLPOX, WITH A BRIEF HISTORY OF ITS INCEPTION, PROGRESS AND METHODS OF CONTROL. EPIDEMIOLOGIC DEDUCTIONS OF 1,200 CASES ISOLATED.[1]

By R. S. WOODSON, M.D., U. S. A.

The sanitary condition of the province of Santiago immediately subsequent to the military occupation by American troops is yet fresh in the mind of the professional reader. A condition of affairs existed unparalleled in the history of modern civilization and is readily attributed to the cruel and relentless warfare to which the Cubans had been subjected for many years, and to the criminal negligence of the Spanish soldiery. Not the

[1] This report has been delayed from the fact that my field-desk containing all my data was lost en route from Holguin, and has only very recently been received, and has been materially abridged by sudden orders for the Philippines.

least of the afflictions to which these people had been subjected was the widespread epidemic of smallpox in the Holguin district, the distribution of which is shown in the plate accompanying this paper.

On October 20, 1898, I was ordered by General Wood to proceed to Gibara, Cuba, the port of entry of the Holguin district, to examine into the sanitary condition of that district and to select a camp-site for military occupancy. Up to this time no American officer had entered this region, and no information had been received of the frightful condition prevailing there. The following cablegram to General Wood will indicate the conditions found upon my arrival there October 27, 1898:

GENERAL WOOD, Santiago :—

Variola raging in Holguin and Gibara, 1,000 and 250 cases respectively; 2,000 ascertained cases in the district. Every house infected. No attempt has been made to control disease; 250 deaths in Gibara in past year from smallpox. Holguin in horrible sanitary condition; no civil government. Have seized all Red Cross supplies, established a 100-bed isolation hospital complete; have isolated 40 cases, marked all infected houses. Cable for vaccine virus for 10,000 people. Seize 1,000 lymph-tubes, consigned to me, at express office. Can control situation when given necessary means and authority.

WOODSON, Surgeon.

Upon my return to Santiago I was immediately ordered to the Holguin district by the following order:

HEADQUARTERS DEPARTMENT OF SANTIAGO.

Santiago de Cuba, November 5, 1898.

SPECIAL ORDERS, No. 72.

EXTRACT.

8. Captain R. S. Woodson, Asst. Surgeon, U. S. Army, and Medical Inspector these headquarters, is hereby charged with the general supervision of all sanitary matters in and about the district of Holguin. He will proceed at once to Gibara on S. S. *Reina de Los Angeles*, and upon arrival there carry out the verbal instructions given him by the Department Commander.

The travel enjoined is necessary for the public service.

By command of Brig.-Gen. Wood,

(Signed) JOHN H. BEACOM,
Lieut.-Col. and Asst. Adjt. Gen., U. S. V.
Adjutant General.

At this time the Cubans were occupying Gibara and Puerto Padre, while General Luque, with 12,000 Spanish soldiers, were quartered at Holguin, Auras, and Aguas Claras, very shortly afterwards being transported to Spain. The U. S. gunboat *Marietta* was anchored off Gibara, and had charge of the custom receipts, but no attempt had been made by them, the Spaniards or the Cubans, to control the situation.

The Red Cross Society had a large cargo of supplies in a warehouse at Gibara, in charge of their agents, Messrs. Warner and Conkling, who had systematically



PLATE I.—Showing Department of Santiago with the infected district of Holguin. The infected centers are Holguin, Gibara, Auras, Frey Benito, Puerto Padre, Mayari, Banas Caridad, and St. Gertrudes. The district extends from the Puerto Principe line to the Mayari River, and from the north coast to the Canto River.

and cruelly withheld relief from a starving and afflicted people. Their refusal to honor my requisition for supplies necessitated the seizure of the same by armed force, and its proper distribution throughout the district by the sanitary commission.

The disease was first introduced during the preceding winter into the seaport town Puerto Padre, and from thence by Spanish soldiers to Holguin and Gibara and Auras. The Cubans declare that the epidemic was maliciously introduced by the Spaniards as a method of extermination, and certainly their criminal negligence during its existence under their occupancy would justify this assertion.

The Cubans themselves, only very recently relieved from Spanish rule, seemed in a state of hopeless apathy towards the presence of the scourge. There are a few exceptions, however, to this statement pregnant with

nterest. The small towns Cantimplora on the line of ailway between Gibara and Holguin and San Andres vere never afflicted, although neighboring towns a few niles distant, such as Auras, had more than a thousand ases during the epidemic. I investigated this question ully, and found that almost none of the inhabitants of hese towns were protected by vaccination, but that a areful effort had been made towards the exclusion of he disease by quarantine, and prompt isolation of sus- ected cases, assisted by the nonoccupancy of Spanish roops. The adjoining town of Bocas was found free rom disease, but every inhabitant had been stricken, o that the disease had exhausted itself for lack of ma- erial. Its graveyard was full, and a large adjoining ornfield, extemporized into a cemetery, was horribly ignificant of the ravages of the epidemic.

On my first visit of inspection to Aguas Claras I was hown by the Spanish commander a house with 7 vic- ims; upon my return to transport the sick of this amlet to the nearest isolation hospital I inquired for his family, and was told that they had all died. The ause of the extreme virulence of the epidemic is easily ccounted for: first, during 30 years of almost constant varfare and political unrest, vaccination had been but ittle practised, in consequence of which a large, unpro- ected population had grown up; secondly, the extreme hysical depletion to which the inhabitants had been ubjected during the Spanish dominion; thirdly, mala- ial cachexia, from which nearly all suffered, and to vhich I attribute a large share of their susceptibility; nd fourthly, the extreme overcrowding, customary mong the natives, and their carelessness as to hygienic recautions. The Spaniards themselves suffered to ome extent. There were 17 cases in the Holguin Military Hospital, but poorly isolated. The disease ssumed epidemic proportions in March, 1898, and teadily progressed until it reached its acme, in Sep- ember and October, at which time, according to con- ervative estimates, there were 4,000 cases in the dis- rict, with 30 deaths a day.

The prevalence of the epidemic during the rainy eason and hot months is at variance with previous xperience. The climatic conditions, however, would xplain the latter, for overcrowding occurs principally luring the hot months, the people seeking shelter from he intense heat, whereas the winters are extremely mild.

The following methods of control were inaugurated:

1. The infected area, which is almost exactly com- mensurate with the district of Holguin, 200 miles long by 75 miles wide, was divided into subdistricts under charge of able executive officers as follows: Subdistrict Holguin in charge of Acting Assistant Surgeon Felipe Veranes, late Colonel Chief Surgeon Cuban Army. Sub- district Gibara in charge of Acting Assistant Surgeon Vincent Gomez, Alcalde of Gibara. Subdistrict of Puerto Padre in charge of Dr. Faustino Sirven, Alcalde of Puerto Padre and late Colonel of Cuban Army.

2. The establishment of isolation hospitals at centers of infection as follows: Gibara, 217 cases isolated, in charge of Dr. J. B. Massie, of Houston, Texas; Holguin, 501 cases isolated, in charge of Dr. Veranes; Puerto Padre, 75 cases isolated, in charge of Dr. Maceo; Auras, 211 cases isolated, in charge of Dr. Calixto Garcia; Mayari, 6 cases isolated, in charge of Dr. Rodriguez; Banas, 19 cases isolated, in charge of a trained nurse; Frey Benito, 106 cases isolated in charge of Dr. King, of Houston, Texas; Caridad and Santa Gertrudes, 36 and 29 cases isolated, respectively, in charge of Dr. Antonio Lopez.

Convalescent hospitals were established at each of the above places. Although only 1,200 cases were thus isolated and treated, yet a careful sanitary inspection elicited the fact that at least 1,000 more had eluded our vigilance by escape to the mountains. This seems incredible, but the Cubans' horror of a lazaretto under the vile sanitation of the Spanish regime is only akin to that of the infernal regions. This exodus of patients caused the widest dissemination of infection throughout the district and entailed untold labor.

3. The organization of a Corps of Inspectors: Acting Assistant Surgeon Meyer Herman, New Orleans, La.; Acting Assistant Surgeon Warren Stone, of Mississippi; Acting Assistant Surgeon D. D. Wells, of Texas; Dr. Humberto Manduley, of Holguin, Cuba; Dr. Reyes Zamora, of Santiago, Cuba; Dr. Rudufo Socarras, of Holguin, Cuba.

4. The organization of a Sanitary Corps of 200 men under Captain Charles Mueke; Acting Assistant Surgeon Guillermo Dolz, of Havana, afterwards Major and Brigade Surgeon U. S. V., now Civil Governor of Pinar del Rio, was appointed secretary of the commission.

The above plan of organization having been perfected, the work of house-to-house inspection, isolation, disinfection of infected houses, home detention of suspected cases, destruction of infected clothing and bedding, and municipal sanitation was pursued with the utmost vigor, while at the same time a low estimate of 20,000 naked, starving natives were vaccinated, fed, clothed, and treated professionally with the result that the entire district was free from infection and in an excellent sanitary condition on February 1, 1899, when the commission ceased to exist.

The epidemiologic deductions of the 1,200 cases isolated are exhibited in a series of tables as shown below.

The division of cases into discrete, semiconfluent, confluent, and malignant, was adopted as best suited to the general type of the epidemic. No cases of varioloid were recorded, and all discrete cases were beautifully marked. By semiconfluent are meant those cases in which the vesicles in numerous parts of the body had coalesced, presenting a much graver type of the disease than the discrete form. The malignant cases all exhibited hemorrhages and other severe symptoms.

TABLE I.

Showing the total number of cases, number of deaths, and recoveries, and rate of mortality.

No. Cases.	Recovered.	Died.	Mortality-rate.
1,200	1,094	106	9.6

The very low rate of mortality exhibited in the above table is attributed not to the mildness of the type or the influence of vaccination, the converse of which is true, but rather to the open-air treatment and the bichlorid baths, to be discussed later.

The mortality-records of the city of Holguin (10,000 inhabitants) for the few months previous to our advent show from 6 to 8 deaths a day from smallpox. No record, however, was kept of the total number of cases. The nearest approach to an exact rate of mortality prior to our advent is exhibited in Table II, the data of which were carefully gathered from the mortality-records of the town of Auras (2,500) by Dr. Calixto Garcia.

TABLE II.

From May 1, 1898, to November 1, 1898.

No. of Families Invaded.	Total Cases.	Recoveries.	Died.	Mortality Percent.
213	994	700	294	29.5

It must therefore be admitted that the difference in mortality between the two tables must be attributed to other causes than vaccination or mildness of the epidemic. Although the protective influence of vaccination was shown in a number of families where perhaps the oldest child having been vaccinated would escape the disease while nursing other members of the family afflicted, and with no previous vaccination.

TABLE III.

Showing relation between the sex of the patient, the disease, and the relative mortality.

Sex.	No. Cases.	Recovered.	Died.	Mortality-rate.
Male	570	516	54	9 47
Female	630	578	52	8.25

Table II exhibits a greater susceptibility of females with a less percentage of mortality. The susceptibility is explained by the fact of the greater domestication of the female, whereas the male avoids the disease by relatively greater open-air existence. The less mortality of the female is explained by the fact that she is more amenable to isolation and prompt treatment than the male.

The controling influence of vaccination over the fatality of smallpox is not exemplified in this table, from the fact that only 5.66% of total cases had been vaccinated, the mortality-rate, however, of those showing previous vaccination was nothing, and the majority of these cases were of mild type. The table exhibits the fact that the two extremes of life afford the greatest mortality, *i. e.*, 14.5% in children under 5 and 12.8% in adults over 30.

TABLE IV.

Showing the relation in the age of the patient and relative mortality.

Ages.	Total.	Percent at each Age.	Vaccinated.	Percent Vaccinated.	Died.	Mortality Percent.
0- 4	145	12.0	6	4.1	21	14.5
5- 9	317	26.4	10	3.1	26	8.2
10-14	256	21.4	10	3.9	15	5 9
15-19	176	14.7	2	1.1	14	7.9
20-24	119	9.9	12	10.1	10	8.4
25-29	62	5.2	11	17.7	4	6.4
30 +	125	10.4	17	13.5	16	12.8
Total . . .	1,200	100	68	5.66	106	8.83

The table further exhibits the fact that the greatest susceptibility exists among children from 5 to 14, with the relatively small mortality-rate of 8.2% and 5.9%, and the least susceptible among young adults with the like small mortality of 8.4% and 6.9%.

TABLE V.

Showing relation between the ages and sex of the patient and mortality.

Ages.	Total.	Male.	Percent at each Age.	Mortality Percent.	Female.	Percent at each Age.	Mortality Percent.
Under 5	145	71	48.9	12.6	74	51.1	16.2
5- 9	317	149	47.0	9.4	168	53.0	7.3
10-14	256	130	50.7	6.9	126	49.3	4.8
15-19	176	71	40.4	5.6	105	59.6	9.5
20-24	119	50	42.0	10.0	69	58.0	7.2
25-29	62	37	59.6	8.1	25	40.4	4.0
30 +	125	62	49.6	16.1	63	50.4	9.5
Total . .	1,200	570		9.47	630		8.25

Table V exhibits a comparatively equal susceptibility of males and females below the age of 14 with a slightly greater percentage of females below the age of 10. The mortality percent, however, of female babies below the age of 5 is noticeably higher, *i. e.*, 16.2% as opposed to 12.6% in the males. In early adolescence, 15 to 24, a much greater susceptibility is shown by females than by males with a greater mortality-rate from 15 to 19, *i. e.*, 9.5% as opposed to 5.6%, with a less mortality-rate from 20 to 24, *i. e.*, 7.2% as opposed to 10.0%. The opposite mortality-rates observed between the two epochs of life, 15 to 19 and 20 to 24, is attributable to the fact that in the latter epoch the male is less promptly isolated and treated. Above 30 the table shows a relatively equal susceptibility with a much greater mortality percent for males, *i. e.*, 16.1% as opposed to 9.5%, and for the same reason as above.

Table II shows the general type of the epidemic. It will be seen that a majority of cases were grave. Of the large number of discrete cases (505) only 9 proved fatal, mortality being 178%; of 448 confluent cases of a grave type, 62 proved fatal, mortality-rate 13.83%; while of 40 malignant cases, 28 died, the mortality-rate reaching 70%.

TABLE VI.

Showing the relation between the type of the disease and mortality.

Varieties.	Number.	Percent.	Recovered.	Died.	Mortality. Percent
Discrete	505	42.09	496	9	1.78
Semiconfluent . . .	207	17 25	200	7	3.38
Confluent	448	37.33	386	62	13.83
Malignant	40	3.33	12	28	70.00
	1,200	100.00	1,094	106	

The relative mortality-rate of the sexes in the first 3 types of the disease appears to be nearly equal. Contrary to the experience of other epidemics, the malignant variety gives a larger mortality-rate among males than among females.

TABLE VII.

Showing the relation between the sex of the patients, the type of the disease, and the mortality.

Sex.	Discrete.			Semiconfluent.			Confluent.			Malignant.		
	Total.	Died.	Mortality Percent.	Total.	Died.	Mortality Percent.	Total.	Died.	Mortality Percent.	Total.	Died.	Mortality Percent.
Male . .	204	4	1.9	108	4	3.7	235	30	12.7	23	18	78 2
Female .	301	5	1.6	99	3	3.0	213	32	15.0	17	10	58.8
Total .	505	9	1.7	207	7	3.3	448	62	13.8	40	28	70.0

The youngest patient recorded was 3 days old; a discrete case, but with fatal result. The oldest case was 80 years of age; a malignant case, also fatal.

The enormous amount of work to be done by our limited number, also the lack of laboratory facilities, prevented any scientific work being attempted. It was likewise impossible to record clinical data of individual cases.

The general plan of treatment adopted was daily scrub-baths, with 1-2000 mercuric chlorid and open-air treatment.

By the latter is meant the use of previously constructed Spanish Baracones built of the native palm-trees, affording the freest possible ventilation which was permissible in this warm, equable winter climate.

The baths and ventilation prevented the slightest odor so characteristic of lazarettos, and aborted and benefited the cases by overcoming the customary secondary infective fever. No attempt was made towards cosmetic treatment.

University Appointments.—BUDAPEST: Dr. Karl Schaffer has been appointed extraordinary professor of neurology, and Dr. Samuel Rona, extraordinary professor of dermatology and syphilography.

Professor Ehrlich, it has now been definitely determined, will assume the directorship of the newly established Institute for Experimental Therapy in Frankfort-on-the-Main, which it is reported will shortly be formally opened.

THE PATHOGENESIS OF APPENDICITIS.[1]

BY ALOYSIUS O. J. KELLY, A.M., M.D.,

of Philadelphia.

Pathologist to the German Hospital of Philadelphia, etc.

(From the Pathologic Institute of the German Hospital of Philadelphia.)

(Continued from page 930.)

THE blood-supply of the appendix and the pathogenetic relationship that the bloodvessels and the arterial supply may bear to inflammation of that organ have been considerably studied. It is unnecessary here to go into a detailed description of the blood-supply of the appendix, but I wish to make a few remarks upon the bloodvessels themselves. If I mistake not, it was Fowler and Van Cott who first directed particular attention to the important etiologic role of the circulatory apparatus of the appendix in inflammation of that organ. These authors believe that the appendix is peculiarly exposed to vascular and nervous, and hence nutritional, disturbances, and base their opinion upon an examination of 13 appendices sent by Fowler to Van Cott. The examination of these is said to have revealed in the vessels of the mesoappendix some form or other of obstruction to the blood-current, either paravasculitis, perivasculitis or endovasculitis; and these, it is believed, must have preceded the intense round-cell infiltration, the coagulation-necrosis, and the purulent foci that they detected in the walls of the appendices. They also state that in several cases they detected a distinct chronic interstitial neuritis with extensive atrophy of the nerve-fibers resulting from hyperplasia of the endoneurium and perineurium. They argue from these that the real cause of the locus minoris resistentiæ admitting of bacterial invasion is not to be sought primarily in a trauma of the mucosa, but in a trophic disturbance of the appendix, the result of chronic vascular lesion, or chronic nerve-lesion, or both, and that ulcerative processes in the appendix, while they may be increased by bacterial invasion, may nevertheless owe their origin to these trophic conditions. These opinions have been subjected to critical investigation by several observers, and have commonly not been confirmed. In particular, Breuer, at the instigation of Nothnagel, carefully examined 30 appendices, some of which had been removed at necropsy and some by operation, among the latter there being instances of acute and chronic appendicitis. By means of carefully performed injection of the arteries he first of all determined that the vascular supply of the appendix is not a terminal one, such as obtains in the brain, spleen, kidney, etc., but that a not inconsiderable collateral blood-supply comes from the adjoining cecal vascular area. Furthermore, it was determined that these anastomosing arterial branches course partly in the mucosa, partly in the muscularis, and partly directly beneath the serosa. But, as h

[1] Read at a meeting of the College of Physicians of Philadelphia, April 5, 1899.

pertinent result of his investigations, Breuer was unable to detect vascular alterations of the constancy and extent described by Fowler and Van Cott. In cases of chronic inflammation of the appendix the larger arteries of the mesoappendix were regularly intact, even when surrounded by hyperplastic connective tissue. Not only this, but the smaller vessels, the arteries and veins, of various areas of the wall of the appendix revealed but rarely pathologic alterations. For instance, in areas in which the entire mucous membrane was entirely converted into cicatricial tissue, there were evident but slight thickening, endothelial proliferation of the intima, etc.—changes that it is asserted are detectable in every cicatricial tissue and in instances of normal involution of the appendix. In cases of acute suppurative appendicitis the alterations of the vessels were more common, but they were limited to the acutely inflamed region and its immediate vicinity. As the result of my own investigations in this particular, I believe there can be no question that Van Cott is correct in asserting the presence of these vascular alterations in some presumably normal and in some diseased appendices, but I also believe that he erroneously interprets their significance and overestimates their importance.

In a considerable number of presumably normal appendices removed at necropsy the thickness of the vessel-walls of the appendix as well as of the mesoappendix impressed me forcibly. In many of these the deviations from the normal were almost exclusively confined to the muscular coat. In not a few instances, however, there was distinct proliferation of the intima. These alterations, particularly the endothelial proliferation, were more common in the diseased appendices examined. In some of the appendices that had been the seat of recurring attacks of inflammation the thickening of the vessel-walls was very apparent. In some of the acute cases the endothelial proliferation was equally conspicuous. In other appendices—those which for a greater or less time had been the seat of chronic inflammation, and which had more recently suffered an acute exacerbation—alterations of all the walls were evident. Some interstitial connective-tissue overgrowth was also occasionally detected in and about the nerves of the mesoappendix, but by no means as constantly and regularly as indicated by Van Cott. As a result of my investigations, therefore, I ascribe considerable pathogenetic significance to the condition of the arteries, but much less to that of the nerves. However, excluding instances of thrombosis and embolism of the chief appendicular vessels or their branches, and obstruction of the blood-supply by means of torsions, angulations, or contracting bands of connective tissue compressing the vessels, I do not believe that ulceration of the wall of the appendix can with reason be ascribed to arterial alterations. I believe, though, that the precarious blood-supply of the appendix may with justice be held at least partly answerable for the disastrous consequences to the appendix of causes there provocative of inflammation, but which in other portions of the intestinal tract remain inoperative. I believe, also, that in case the blood-supply of the appendix becomes very defective, by torsion, angulation, etc., conditions obtain in the appendix that render the common exciting causes of ulceration (to be referred to later) very prone to produce their deleterious effects.

The indications of involution of the appendix demand careful consideration, and the proper interpretation of suggestive alterations is frequently a matter for judicious discrimination. Particular investigation of this question has been made, among others, by Ribbert and Zuckerkandl abroad, and by Piersol in this country. Ribbert examined 400 appendices obtained at necropsy and determined that 99 (25%) presented evidences of retrogressive atrophic alterations without indications of previous inflammation. These alterations were, therefore, interpreted as evidences of involution. Zuckerkandl investigated 323 appendices and detected in 55 evidences of obliteration of the lumen—therefore in 23.7%. Of 100 appendices from persons over 20 years of age, examined by Rippert, 32 presented these evidences of retrogression. The obliteration of the lumen was commonly but partial; it was complete in but 3.5%. In one-half of the cases the distal quarter was closed; in one-half of the remaining cases the obliteration affected between one-quarter and three-quarters of the entire length of the appendix. In 14% of Zuckerkandl's cases the obliteration of the lumen extended throughout the length of the organ; in the remaining 9% the obliteration was but partial. There can be no question that these evidences of retrogression are common. In the presumably normal appendices removed at necropsy that I examined they were found in almost one-fourth of the cases. They were usually confined to the tip, and to a small portion of it. Exceptionally they implicated about one-fourth, or a little more, of the entire length of the organ. In these cases the remainder of the organ presented no recognizable histologic deviations from the normal. These indications of involution were also evident in appendices manifestly the seat of inflammatory disease. In these latter cases also these involuntary alterations were limited to the distal end of the organ. I cannot recall an instance in which they implicated as much as one-half of the appendix. In all of these cases, however, the inflammatory character of the associated alterations was beyond question.

[To be continued.]

Complimentary Dinner to Professor Virchow.—On October 25, the Physicians' Club of Berlin tendered a complimentary dinner to Professor Virchow in honor of the seventy-eighth anniversary of his birthday. Addresses were made by Professors Lassar, Ewald, Waldeyer, and Renault, of Paris, and were responded to humorously by Professor Virchow.

THE PATHOLOGY AND THERAPY OF CANCER, WITH SPECIAL REFERENCE TO CANCER OF THE STOMACH.[1]

By A. C. BERNAYS, A.M., M.D. Heidelberg; M.R.C.S. Lond., of St Louis, Mo.

Life Member German Surgical Society, Berlin; Mitglied der Anatomischen Gesellschaft.

(Continued from page 935.)

The question as to the curability of cancer is finally and completely settled. Cancer, being a local disease in the beginning and spreading in the well-known way through the tissues by way of the lymphatics and the bloodvessels, must be quite curable, when it is possible to remove all the offshoots from the primary nodule. Clinical evidence and the observations of all surgeons who have been in the work for over 15 years, bear out this truth. Formerly, when cancer was regarded very generally as a constitutional affection, the operations were done with a view to merely prolong the patient's life for a short time, and a cure by operation alone was looked upon as hopeless. Thus the operator did his work in a half-hearted way, and feeling that it could not achieve a complete cure, he did not feel justified in doing the extensive and formidable operations which we do nowadays. In the operation for the removal of the cancerous breast, as it has been developed by Billroth, v. Volkmann, v. Bergmann, Halsted and others, and as I do it in every instance, the wound is larger in area than the wound made for the exarticulation of the lower extremity at the hip. Some of our most careful and conscientious surgeons require as much as 3 or 4 or even 5 hours for the complete operation of a cancerous breast. In my opinion the surgeon must be prepared to do a complete operation no matter how long it may take to do so, because upon the perfection and detail of the extirpation of all the diseased tissues depends the result. In one case I removed the breast, all the pectoralis major muscle, all of the minor, a good part of the fascia of the external intercostal muscles, all of the contents of the axilla except the nerves and vessels and the clavicle, together with a large bunch of supraclavicular glands and soft parts. The lady has had no return. The operation was done over $6\frac{1}{2}$ years ago. In cases of cancer of the breast, I have seen slightly more than half free from return 3 years after operation in something more than 250 cases. Of the last 100 cases one over 3 years, I have evidence of only 21 recurrences. I may as well say here that a recurrence must be treated in the same manner as the primary tumor, by immediate and radical extirpation, and should there be a return, it is must be attacked in the same way until the case is cured or becomes plainly inoperable by the involvement of inaccessible parts. There again I am reminded that what to one surgeon might appear inaccessible to another might be perfectly within reach of the knife and scissors. Only he who has seen good results follow extensive and complete extirpation of whole regions of the body, large parts of the intestinal tract, etc., will have the inclination to do this line of work.

Each surgeon soon learns the limitations of his skill, if he is convinced of the usefulness of extensive extirpations of cancerous growths. Every once in a while he will have a facer when a patient dies of shock following one of his efforts to save a life. Deaths of this kind remind us of our limitations in such forcible and persistent manner that we are made to feel the responsibility of greatly endangering human life, even when that life is tainted by a destructive cancer. I remember it this moment, some sleepless nights spent in going over and over in my restless brain the steps of a fatal operation, trying to find in what detail of the work I might have acted differently, perhaps better; how I might have saved the patient a few drops of the impoverished blood, had I acted otherwise; how it might have been better if perhaps no morphin had been injected before the anesthetic was given. Thus thousand more or less fantastic ideas rack one's brain, keeping away sleep, while the body is tossed from side to side, until, the problem still unsolved, sleep finally comes to the relief of the exhausted organism. A few nights of this kind will dampen the ardor of even the most enthusiastic operator, and, unless nature has fitted him for the work by giving him strength, and such nerves and organs of sense as will enable him to stand the ordeal of hard work in the daytime and a sleepless night, now and then, he will abandon surgery and devote himself to some other line of work in the profession.

There seems to be no danger then that surgeons will often go too far in their operations for the extirpation of cancer by the knife. Until recent years, under the influence of antiseptic methods, operations were entirely inadequate, because they did not go far enough. But now we have arrived at a stage in surgery in which we actually operate for the cure and not for the amelioration of cancer-cases. Thus it will be seen that in recent years the object of operations for cancer has changed from a mere attempt at amelioration of suffering and prolongation of life to an attempt at radical cure. Let us now look at the limitations of the operative work. In examining a case of cancer, the first question we must answer is, whether or not there is any chance of curing the disease. The examiner will direct his attention to the lymphatics leading into and away from the diseased area with a view to detect any deposits or indurations in the same. He will also direct his attention to the lymphatic tissues some distance away from the cancerous growth, which may have become infected, though there be no visible or tangible change in them. Having determined these points you can see that before beginning the operator knows what he will have to do. It will be his duty not only to remove all the plainly visible infected tis-

[1] An address delivered before the Oregon State Medical Society at its annual meeting at Portland, June, 1899.

sues, but also as much more of the surrounding tissues as in his judgment may be the seat of microscopic nodules or cell-nests. If the operator deliberately sets out to cure a case of cancer, he will make up his mind to remove all of the diseased and suspicious tissues, and, as you can readily see, the operation will be a much more extensive procedure than was formerly ever undertaken. Just for example I will mention two of the most important points.

In a case of cancer of the breast, if the tumor has grown outwardly, so as to affect the skin, it will be necessary to remove a large area of it, because cancer is known to spread most rapidly in the subcutaneous lymphatic spaces. In a case of cancer of the tongue, or again of the breast, if the cancer has invaded one or more of the adjoining muscles, it will be necessary to remove all of the affected muscle, from its insertion to its origin, and even the fascia surrounding the muscles must be entirely removed. The cancer-cells are known to travel in the large lymphatics of the muscle and the perimysium with great ease and rapidity; and if there is to be anything like certainty of cure these structures must be carefully and entirely removed. It is a good rule rather to remove more tissue than less, even at the risk of leaving impaired and crippled mobility of parts involved. You will judge from what has been said that an operation performed with a view of curing a patient of a cancer will become a much more serious one than the operation which simply aims at prolonging a patient's life by getting rid of the main trouble.

If a radical operation is judged to be anatomically possible by the operator, the question arises, what is the prognosis, quoad vitam, in other words, what per-cent of chances has the patient to survive. The question as to the functional disturbance must also be taken into account, the surgeon must consult with the patient about the matter, both of them must consider the proposition and must answer the question: Is life worth living when certain functions are impaired or lost? In answering this question we must remember that we are dealing with a disease which is usually rapidly fatal, and if it involves certain localities, as, for instance, the throat, or the pylorus, or the bladder, is often the cause of extreme suffering before it produces death. Some of these cases are also not only offensive to their surroundings, but to themselves, by the intolerable odors which they emit.

My object in this paper is to advocate early and radical interference by operative extirpation, and to combat the tendency of some surgeons to operate only on quite simple cases. I cannot admit that the selection of only simple cases for operation is a proper point of view. No doubt, the only way to get good statistics is to avoid mortality after one's operations. This desire to avoid mortality always strikes me as a selfish and unprofessional; yes, even a mercenary aim. What are you going to do with the poor fellow who is not operated on because the surgeon fears the possibility of a fatal issue? Has he not a right to demand of you that you give him his only chance? I cannot see that we have a right to refuse an operation if the disease can be removed, unless the outcome would be a hopeless functional result, or almost certain death at the operation, or soon after it.

Knowing that cancer is curable, if totally extirpated, and knowing that it is fatal, if not totally removed, I have arrived at the following method of dealing with patients who seek aid from me when they are afflicted by a cancer:

1. When the disease is clearly curable and the danger is slight, then I feel it my duty to urge the operation and insist on an immediate performance of the same, and represent the prospects of a cure as highly probable.

2. When there is considerable involvement of the lymphatics, I do not strongly urge the operation, but tell the patient that the chance of a cure, though small, still exists and in fact feel it a duty to make the attempt at a radical extirpation.

3. When the danger of an operation is very great, but when I still think the removal of all involved tissues can be completed—I mean by that where the operation is anatomically thinkable—I present the grave dangers of an immediate death on the operating table and although holding out but little hope of a cure and only a probable prolongation of life, I still give enough encouragement to inspire the patient with some expectation of being benefited. As a rule I find that these patients will decide to have the operation done.

4. Finally, in anatomically impossible cases I do not think it is justifiable to refuse to operate in some fashion, if, after knowing the truth as to the hopelessness of the condition, a patient demands that an operation be done. In these cases the psychic effect of even a imperfect partial removal of the offensive cancer sometimes is very beneficial, and puts off for months the inevitable morphin-syringe which we are compelled to use during the last weeks.

[To be continued.]

AN UNUSUAL CASE OF ACUTE RHEUMATIC FEVER

BY JULIUS L. SALINGER, M.D.,
of Philadelphia.

Chief of Medical Clinic, Jefferson Medical College Hospital; Physician to Philadelphia Hospital.

IN the *Revue de Médecine* of January 10, 1899, Monteux reports an interesting case of erysipelas and acute articular rheumatism which occurred in a patient who had previously had an attack of acute articular rheumatism. He discusses the views of Achalme, who inclines to the belief that articular rheumatism is sometimes secondary and even due to the streptococcus of erysipelas. Monteux does not concur in this statement but asserts that there are well marked cases of erysipelas and acute articular rheumatism happening in t

same patient not due to the microorganism of erysipelas.

The following case from my ward in the Philadelphia Hospital substantiates the latter view and is in itself interesting on account of the manifold complications which occurred in this patient:

F. K., aged 28, white, a baker by occupation, was admitted to the Philadelphia Hospital, January 23, 1899. He is a married man, but has no family. His father died of "lung trouble" but his mother is living and well. He is a moderate user of alcohol and tobacco, but denies venereal infection. Two years ago had a well marked attack of rheumatic fever.

Upon admission the patient is seen to be a well nourished young man with good color. His pupils are normal, the tongue is coated and dry, but not fissured. The pulse is rapid, 120, full, and regular. Temperature 99.3° F. The chest and abdomen are negative to inspection. The apex-beat of the heart is in its normal situation, there is no thrill. On auscultation there is a mitral systolic murmur, soft in character, which is, however, not transmitted. The rest of the organs are apparently normal.

Six days prior to his admission to the hospital, the patient says his fingers began to swell and be painful. This was followed two days later by swelling of the knees, ankles, shoulders and elbow. The joints are seen to be swollen, red, tender, stiff and hot. The swelling in the fingers is at the phalangeal articulations. These joints were easily recognized as typical of acute articular rheumatism. Soon fever developed, the temperature on the second day reaching 102° F. To this was added irregular acid sweats, anorexia and constipation.

On January 25 a friction-sound is plainly heard in the precordial region at the base of the heart towards the median line at the fourth rib. The patient complains of considerable pain in this locality. Two days later an effusion was found present in the right pleural cavity, reaching to the fifth rib anteriorly and the sixth rib posteriorly, a plainly discerned friction-sound is heard higher up in the axillary region upon the same side. The precordial friction-sound is more distinct, and the patient complains of severe cardiac and pleural pain. There is marked dyspnea, the respirations are 44 per minute and the temperature has fallen to subnormal, ranging at 96° F. There is no cyanosis. The urine shows a trace of albumin, but no casts.

February 1, 1899. The temperature has risen to 102.3° F.; the pain persists. The next day delirium appeared, there was incontinence of urine and feces, some cyanosis showing itself.

February 4. The patient is considerably better, the temperature has fallen, the signs of pericarditis and pleurisy with effusion have disappeared, he is altogether very much more comfortable. There is, however, some pain with a sensation of heat in the nose. The part is red, swollen and glazed.

February 5. The inflammation had spread rapidly to the cheeks and forehead. The parts are fiery red, and swollen, with a well defined margin which is elevated and circumscribed. There could be no question as to diagnosis, and the patient was transfered to the erysipelas ward. The joint-condition has moderated considerably.

February 14. The patient has gone through a typical attack of erysipelas. The temperature has been elevated since the last note, the eruption has gradually faded and on the night of February 13 had nearly disappeared.

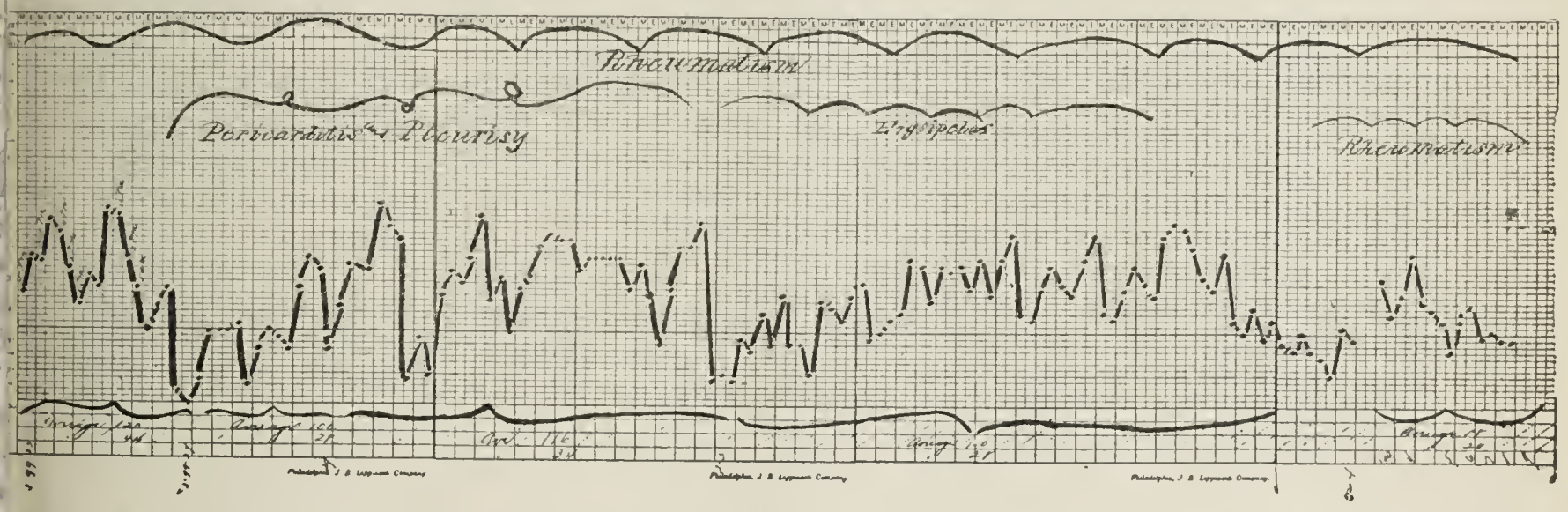
February 14. However, it again appeared upon the nose and invaded the eyelids and cheeks. A purulent discharge has appeared at the external auditory meatus of the right ear.

February 20. The patient has returned to the regular ward, his erysipelas having entirely disappeared. His temperature was normal and the pain and swelling had entirely disappeared from his joints. His pulse was regular and the signs of pericarditis and pleurisy had entirely disappeared. The systolic mitral murmur, however, remains. The patient was out of bed today for the first time. He is quite anemic.

March 3, 1899. Since last note the patient has been up and about the ward. Today he complains of pain in the phalangeal articulations of the right hand. The joints are swollen, red and painful. He was ordered to bed and the treatment resumed.

March 7, 1899. Patient was much better.

March 20, 1899. Patient is about again and has been well for nine days. He occasionally complains of slight pain in the right shoulder, but otherwise is in good physical condition.



The accompanying temperature-chart gives a good idea of the febrile range of the attack.

The treatment consisted in the administration of 20-grain doses of sodium salicylate. The pericarditis was treated by the application of an ice-bag and later by small blisters. It was not considered necessary to aspirate for the pleural effusion. Pleural effusions that are of true rheumatic origin rarely require aspiration, they are of comparatively common occurrence and readily yield to large doses of salicylic acid or the salicylates. During the painful periods moderate doses of Dover's powder were given. The erysipelas was treated by local cold applications and the otitis media by mild antiseptic washes. During convalescence the ordinary Basham mixture was administered. The diagnosis was clear, there was no possibility of an error. The multiplicity of the joints involved, the fever, the acid sweats, the pleuritis and pericarditis,—all pointed clearly to acute rheumatic fever and not to an arthritis of septic origin. There could be no question here of infection by the Fehleisen streptococcus causing the joint-affection, as the patient was in the ward 12 days before the erysipelas made its appearance, be-

sides having had the joint-pains and swelling 6 days before entering the hospital, making 18 days of rheumatic fever prior to the manifestations of the erysipelas. While the period of incubation of erysipelas has not been definitely determined, being variously estimated at from 2 to 14 days, 18 days would seem an exceedingly long time. Fehleisen in his experiments upon men (artificial inoculation) determined the period of incubation as from 1 to 3 days, which corresponds closely with experiments upon animals. Cases occurring in the ordinary way would seem to have a longer period than this, but it would hardly reach 18 days. It may be stated in this case without doubt that erysipelas was an intercurrent affection and had no etiologic bearing upon the acute articular rheumatism. Erysipelas as a complication of acute articular rheumatism must be an exceedingly rare complication and even the otitis media occurring during the course of erysipelas is rare. The erysipelas in this case was well marked. Its appearance was characteristic, its spread was typical. Albumin reappeared in the urine during the course of the erysipelas after it had disappeared during the attack of rheumatic fever. Taken altogether a case in which acute articular rheumatism occurs, complicated by pericarditis, pleurisy with effusion, erysipelas, and otitis media must be put down as rare and as of unusual interest in the history of medical literature.

The occurrence of acute facial erysipelas during an attack of rheumatic fever is, according to the literature on the subject, extremely rare. Pribram in Nothnagel's "Specielle Pathologie und Therapie," vol. v, part i, page 85, could report but 3 cases in which this complication occurred, and in all of them the erysipelas did not occur at the height of the disease, but some time after the acute symptoms had subsided. The association therefore of erysipelas during the acute stage of rheumatic fever is a clinical curiosity.

Polyarthritis occurring during an attack of erysipelas is not so rare, cases having been reported by Bourcy, Lapersonne and Traube. In such cases, according to Witzel, the knee-joint was always primarly affected. This polyarthritis, however, is due to septic infection in the greatest majority of cases, Gerhardt having found streptococci in the affected joints, so that these conditions cannot be said to have anything in common with true rheumatic fever.

PNEUMONIA FOLLOWING A CASE OF SPORADIC CEREBROSPINAL MENINGITIS.

BY FRANK H. MURDOCH, M.D.,
of Pittsburg, Pa.

THE Cavendish lecture recently delivered by Dr. Osler, has called the attention of the medical world to the subject of cerebrospinal fever. At this time the report of the following case may be of interest:

A healthy boy, 8 years of age, was taken suddenly ill, and when I saw him soon afterwards, his temperature was 101°, his pulse 120, his pupils were dilated, and he complained of pain in his head. The next morning his condition was practically unchanged, excepting that there was rigidity of the muscles of his neck, to such an extent that by placing the hand under the occiput, his whole body could be raised from the bed, without flexing the neck. A careful examination of his lungs showed them to be perfectly clear.

The case was diagnosed as one of cerebrospinal meningitis, and another physician who was called in consultation confirmed the diagnosis. On the third day pneumonia developed, which involved the lower lobe of the left lung. At this examination it was found that the stiffness of the neck-muscles had disappeared, the pneumonia ran i s course without anything unusual happening, and the boy made a good recovery.

That this was a case of meningitis complicating the pneumonia seems unlikely for three reasons:

1. The pneumonia did not develop until the third day of the boy's illness.

2. Stiffness of the neck-muscles is unusual in the meningitis of pneumonia.

3. Death in pneumonia complicated with meningitis is the rule, Nauwerck describing the complication as invariably fatal, and Osler never having recognized a case of recovery.

4. The bacillus present in this case was probably the pneumococcus, showing, as suggested editorially in the PHILADELPHIA MEDICAL JOURNAL for July 8, that sporadic cases are not all caused by one and the same organism.

Surgical Treatment of Appendicitis.—Joseph Price (*American Medical Quarterly*, September, 1899) deprecates the use of salts and calomel in appendicitis, since, in the purulent, gangrenous, and perforated forms of the disease, too often not differentiated by the general practitioner, such treatment is but temporizing with the malady, always fatal unless there is prompt surgical intervention. He considers the lateral incision in many cases mistaken; the median incision favors speedy freeing of all adhesions, a good clear toilet and general drainage. The lateral incision should only be used when symptoms are strictly local; the median incision should always be preferred when catharsis fails and obstruction in any form exists. In the method he prefers, the mesoappendix is transfixed and tied, then freed from the cecum, sutures are passed—above and below the appendix, including a portion of the muscular or resisting coat o the valve; the appendix is then clipped off flush with the cecum and the before-introduced sutures are tied. If the operation is done with careful rapidity there will be scarcely a bubble of gas or discharge of the least filth before all sutures are tied.

Functional Cardiac Murmurs.—A. Jacobi (*American Medical Quarterly*, September, 1899), concludes that the term "functional," applied to heart-murmurs, merely indicates lack of knowledge of the anatomic cause, and is only justifiable so long as the physical cause of the derangement i unknown. Only murmurs that are temporary, intermittent or variable in character should be so termed. They occur in anemic adults, neurotics and neurasthenics, sometimes in chorea minor or syncope, and occasionally in rheumatism but even here they should be recognized as myocardial o neurotic. It must also be borne in mind that the same disorders of the blood that cause heart-murmurs in the adul will not produce them in the infant, since in the latter the heart is proportionally larger, more robust and more powerful; its contractions are more uniform and effective, the ventricles equally muscular or nearly so, and the valve smaller. Hence the greater frequency of murmurs in the adult is attributable to the physical condition of his heart and should not be explained by a deranged function.

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The Organization of the Army Nurse Corps.—We learn that the Surgeon-General in his annual estimates to be submitted to Congress has provided for the salary ($1,800) of a Superintendent of the Army Nurse Corps. This will undoubtedly be approved by Congress and will insure the permanent organization of the corps, consisting entirely of women nurses. The temporary incumbent, Dr. Anita Newcomb McGee, chosen by Dr. Sternberg, has performed a difficult task in a most creditable manner. There are now about 230 good nurses in the service, and the nursing profession may be proud of the organization as perfected. The bill introduced last year and advocated by the American Medical Association can therefore be abandoned, as by General Sternberg's action and Dr. McGee's judicious systematization of the corps, there is secured all that was most desirable in the bill; Dr. McGee, according to her wish, can turn her office over to the permanent incumbent to be appointed, with the satisfaction of knowing that she has been of service to the professions of the nurse, of the physician, and of the soldier.

A National Therapeutic Association.—To cure his patient is the physician's function or business in life. All other parts of medical education are preparatory or ancillary, and yet there are medical organizations of every kind, and devoted to all the subordinate branches and all the specialties of medicine, except to this chief one of therapeutics. This fact seems unaccountably strange, and its unfortunate results are painfully evident. Some journals have made a desperate and not remarkably successful attempt to find some compensation for this therapeutic chaos by instituting departments in experimental or practical therapeutics; but, as a rule, the lay commercial manufacturers and agents are doing nearly all the work of any value in this branch of investigation. Some of it has been most commendable, and, of course, much of it is scientifically without value, not a little being false and pernicious. It is, at least, unsystematized and without authority; at its best, it emphasizes the pertinent question, Why should a work of such profound importance, the very primal duty of the medical profession, be left to non-professional men? We have learned that this somewhat shameful condition is being recognized, and that a movement may be started to organize a national therapeutic association, and we trust that it may be speedily realized. The best scientific men of the country—physicians, pharmacists, and chemists—should take an immediate and active interest, and endeavor to establish the organization on a durable scientific and ethical basis. If this is done, it must be of the utmost benefit to professional progress.

The Manufacturer More Honorable than the Doctor.—The manufacturer who hires unprofessional professional men to "write up" the praises of his product, thus stimulating lying reports, has frequently and most justly been scourged. But that he is by no means always the sinner is shown by the following letter written by one of our advertisers:—

> Apropos of your testimonial editorial in a recent issue. We received a letter, not long since, from a gentleman of many apparent titles, in Kentucky, telling of an article that he was going to write, detailing a number of cases that he had treated with marvelous results with our product. "It occurred to him that we might desire to have the article," etc., and for the labor involved he would charge us $15. As we knew without question that he had never seen our product, we did not answer his letter.
>
> There have recently, however, appeared several articles from his pen lauding proprietary remedies.
>
> You see, therefore, that "paid recommenders" are not all outside of the profession.
>
> Very truly,
>
> ——— ———

Of the utility of water-filtration ample evidence is afforded by the results obtained in Liverpool, as indicated by the correspondent of the *Lancet* (October 28, 1899, p. 1197). The total quantity of water supplied during the year ended September 30, 1899, to 168,348 tenants from the Liverpool Water Works was 9,564,514,000 gallons, an increase of 650,510,000 gallons over the quantity supplied in the previous year. Systematic bacteriologic examinations of the water were made by the official bacteriologist to the City Council, and in addition to the regular fortnightly examination special examinations were made during the year to test the working of certain filter-beds, and also to demonstrate the effect of storage in reservoirs. Examinations were made also of water standing in the dead ends of mains under conditions that did not permit of constant movement. These investigations have been of considerable value in affording information as to the efficiency of filtration and distribution under the varying conditions that obtain in practice. The general conclusions deduced

from the investigations of the year are to the effect that the water supplied to the citizens of Liverpool is unsurpassed in quality, and is throughout all seasons absolutely free from pathogenic bacteria. In view of facts like these no community, large or small, need supply its inhabitants with other than pure and uncontaminated water; nor need it go far from home. Such purity and freedom from contamination can further be obtained only by filtration.

The medical arrangements for the Transvaal War reflect considerable credit on the British War Office. Every conceivable thing for the comfort and nursing of the sick and for adequate medical attendance seems to have been provided. In addition, the War Office, through its medical division, has issued some timely hints to the Royal Army Medical Corps upon the prevalent diseases of South Africa, their etiology, prevention, and treatment, and upon the climatology of the whole region. Enteric and malarial fevers are most to be dreaded, and the War Office recommends the members of the Royal Army Medical Corps to make themselves familiar with the literature of these diseases, and also with the writings of Surgeon-General Sternberg in reference to the recent American-Spanish war. No expedition has ever left British shores about which such detailed care and forethought have been employed, and the bill which the country will have to pay will be proportionately large.

The Surgeon-General's Report.—Dr. Sternberg's report, which we print in this issue, speaks for itself so clearly and fully that little is suggested for us to say. The references to the medical service in the army are among the important items to which we call special attention. The number of medical officers in the regular army (192) was ridiculously small, and this fact was painfully brought home to the Government when the Spanish War broke out. To make good this deficiency in a grave emergency was one of the onerous tasks imposed upon the Surgeon-General and his advisers. Hundreds of surgeons from civil practice had to be hurriedly enlisted without adequate examination; and these newly-made medical officers, without preliminary military training, had to assume vast responsibilities. Among raw recruits, in hastily-prepared camps, these civil practitioners were put to work and expected to control the march of infectious diseases. The consequences, as we all know, were that typhoid fever and other disorders gained great headway, and the Surgeon-General and his assistants had to take the brunt of criticism. To those who read Dr. Sternberg's graphic report between the lines, it will be evident that it contains a severe indictment of the policy of Congress which insists on keeping the medical department of the regular army at a low standard of equipment and expects a high standard of work.

The health of the army is discussed fully. The high death-rate from disease (22.00 per thousand men) was certainly largely due to the infectious diseases, such as typhoid fever, that prevailed in the camps. These figures stand out in glaring contrast with the death-rate from injury (5.55). It thus seems that the camp is more dangerous than the battlefield. We commend a careful consideration of all these facts and figures both to critics and congressmen. The whole tenor of Dr. Sternberg's report is very properly to call attention to the evils of unpreparedness, and to enlighten the Government on the problems that are presented by sanitation in camps, hospitals, and armies generally. The report is admirably adapted to do this, because it abounds in important figures and statistics, and the story is told in an interesting way. It shows clearly how our responsibilities have widened in recent years, and how we must look largely to the Government and the Army for the solution of many sanitary and hygienic problems in Cuba, Porto Rico, and the Philippines. It must also increase the respect of the candid and intelligent reader for the medical officials who bear this great responsibility—a responsibility, however, which carries with it great opportunities for working for the public good. The medical profession is rightly concerned about all that concerns the welfare of the medical department of the Army, and will read with appreciation the valuable report of the able and distinguished Surgeon-General.

Physiologic Tides.—The comparison of an undulatory swing in the higher things in life to the tidal movements of the ocean, has often been made in prose and poetry, but the highest development in *all* things, whether mental or physical, is attained through such change, and variation; the sleeping hours are as necessary as the waking hours, rest as exercise, constructive as destructive metabolism. It would be well if this truth were more generally and thoroughly appreciated. What is it that is causing the nervous breakdowns among our business men, society women, and students? Does not everyone in this rushing modern life feel that there is more put upon him than he can possibly do; more work and play and engagements and cares? Yet the trouble in most cases is not that people are overworked, but that they work against physiologic law. The business man feels that there can be no pause in work if he is to win success, and it is the continuity of strain that is killing him; the scholar who studies night and day loses originality and insight and finds himself becoming a bookworm and a pedant. It is the old story of "All work and no play makes Jack a dull boy," which might well be reversed to fit the suffering from nervous exhaustion of pleasure-seekers whose lives are blighted by ennui and discontent. The best work of our lives is not done with the feverish, overwhelmed, and burdened mind which comes from continuous, unvarying strain, whether

physical or mental, whether from business or pleasure. We all need the ebb-tides of recreation, relaxation, and quiet thought in order that there may follow the flood-tides of health and strength for the real decisive efforts of life.

The Alcohol and Morphin Habit Among Physicians.—Apropos of Dr. Crothers' recent statements on this subject, which we noticed in these columns a few weeks ago, Dr. John B. Chapin, of the Pennsylvania Hospital for the Insane, has kindly furnished us with the following figures: Since 1884, a period of 15 years, there have been admitted into this hospital 31 physicians who were addicted to the use of alcohol or some drug. In many of these cases, as is often so, the habit was not confined to one poison; thus some of the patients used both alcohol and morphin, and several of them used alcohol, morphin, and cocain. According to this list, in fact, cocain is seldom used alone, but almost always in conjunction with morphin, and sometimes with alcohol in addition. Chloral and bromid figure but once each on the list. Of these 31 physicians, 7 were from Philadelphia, 16 from Pennsylvania outside of this city, and the others from several other States. The number of physicians in this city alone is said to be about 1,800. The Pennsylvania Hospital accommodates more than 200 male patients, most of whom come from the better classes, and is almost always full. In these 15 years it has received 1,023 men. On the other hand, being a hospital for the insane rather than a retreat for inebriates, it probably only receives those patients who have somewhat deteriorated by reason of their habits. In this connection, in fact, Dr. Chapin informs us that all these patients were men of unstable mental organization, and in whatever walk of life they might have been put, would have given some evidence of moral weakness in some form, even had they not become acquainted with the seductive properties of drugs. In other words, their moral shortcomings were not due to the fact that they were physicians. These 31 patients, however, were not so advanced as to require certification, but went voluntarily to the hospital. As Dr. Chapin says, the above percentage of hospital cases is certainly very small. It does not tend in the slightest to confirm Dr. Crothers' sweeping charges that from 10% to 20% of physicians are intemperate in the use of alcohol and drugs. In addition to the above cases in men, 1 female physician and 1 female medical student were admitted for the drug habit among 2,119 female patients. As statistics, of course, these figures from one hospital alone—even though it is a large and representative institution—can not be regarded as absolutely conclusive, but they are at least most significant, and do not support the conclusion that physicians in large numbers are peculiarly liable to ruin themselves with alcohol, morphin, and cocain, or are especially prone to use stimulants.

Shall We Eat Meats Raw, Rare, or Well Done?—The favorable opinion expressed by the experts sent from Germany to examine our meat products in accordance with a law recently passed in the Reichstag, leads us to consider the comparative value of raw, rare, or well-cooked meat as an article of diet, for the necessity for such careful inspection of meat in Germany comes from the custom of eating raw meats and the diseases which result therefrom. The prevalence of trichinosis in Germany is well known to physicians who have studied in the German clinics, and very serious consequences are not uncommonly seen. It seems improbable that parasitic diseases resulting from cating raw meat can ever be avoided even by the most careful inspection, from the fact that only a comparatively small part of the carcass can be carefully examined, and the sections which come under the field of the microscope are necessarily so minute that the possible disease contained, if not widespread, might very readily be overlooked; hence it seems best that meats, and especially pork, should be sufficiently cooked to kill all parasites. As to the comparative merits of rare-cooked and overdone meats, there can be no question that many people render their meats indigestible and destroy their nutritive value by cooking them until as dry as a chip. It is well known that the chief food-value of meat is in its albuminous constituents, which are coagulated and hardened by long-continued heating. The difference in digestibility can be easily shown if one will prepare two test-tubes under suitable conditions as to heat, with solutions containing pepsin and hydrochloric acid in suitable amounts, and adding to the one tube raw or rare meat, and to the other meat which has been dried up by long-continued cooking. Hence it is evident that in order to avoid the possibility of parasitic diseases all meats should be cooked, but cooked moderately, in order to leave them easily digestible and that they may have their full nutritive value.

Suggestions to Writers, No. 47. As to writing dates, the Stylebook of the Chicago Society of Proof-readers advises as follows:

When the year is given omit d, th, and st—as May 15, 1895.

Do not use r or n in dates, but March 23d, 22d of June, etc.

In giving a series of two or more years, express them thus: 1893–97; not 1893-7.

Do not shorten year, as '97 for 1897, except when referring to college classes, as "Class of '97."

Medical Sermonets, No. 11. Methods and Mistakes in "Advertising."—The following note was written by one excellent and well-meaning physician to another equally as reputable, resident in another city:

November 14, 1899.

My Dear Phelps:—Your advertisement in the *Chicago Daily News*, of November 9, has been called to my attention. Why don't you advertise in your own local papers? I should

think it would pay better, and it would certainly be less objectionable to some of your friends.

Yours truly, ————————.

To this Dr. Phelps makes the following answer:

62 East 34th Street,
NEW YORK, November 17, 1899.

MY DEAR DOCTOR:—I am in receipt of your letter of November 14th, and hasten to reply. I am much surprised at the coldblooded accusation of unprofessional conduct which you make. I was not aware that I had an advertisement in a Chicago or any other paper. Will you be so kind as to send me the paper to which you refer?

I enclose you a reprint of an article which I wrote for a reputable medical journal. In that article I mentioned different remedies which I used in the treatment of certain joint-affections. The drug people who happened to be interested in a certain remedy mentioned had 120,000 reprints made, and sent them to the profession over my signature. I could find no fault if they had not black-lined the margin of the page where the remedy is alluded to. It cost me $600 to fight the thing to prevent them from using the article, and I was beaten on the grounds that I had not copyrighted it. This reprint has damaged me thousands of dollars and I have no redress.

Other articles of mine have been used in a similar manner, and I have seen articles from the pens of eminent men, and I think from yours, handled in a similar manner. I know of no way to prevent it. Certainly the courts cannot or will not. I have had an experience with them and know.

Now, in regard to newspaper articles, and I presume your letter alludes to one, I have this to say: That newspapers as a matter of business, I am informed, employ doctors as reporters who write on medical topics for so much a line. Our clinics are largely public in every teaching institution, but even if they were private or open only to students or matriculates, who would have the audacity to exclude a physician who presented his card at the door, unless he was known to be a reporter? Clinics are posted on the bulletin boards of hospitals, colleges, and also of the Academy of Medicine of this city. When this is done not only the profession, but any layman can obtain a knowledge of the work done in the several clinics, a day in advance. The reporter is hired by the papers to keep posted on these announcements, and report to the papers such work as he thinks would be of interest to its readers. And then the medical libraries are accessible to him. He writes his articles for so much a line, and the paper prints them to increase its circulation. Can you tell me how to prevent it? I think you cannot.

Scarcely a day passes that I do not see in the lay papers a report of some clinic, important or unimportant, and the name of the surgeon who conducted it mentioned. I always feel sorry for the surgeon. I will tell you why. There are those in the profession who would believe that these men were a party to the article, but with an occasional exception, I know to the contrary. And then again medical students often pay their way through college by reporting to the papers interesting clinics. The teacher cannot possibly know of this because the student is sharp enough to keep his own counsel to save himself from expulsion. One student, after he had been graduated, told me he made $500 reporting clinics to the lay press, both to the Syndicates and the Associated Press, and many others have given me similar information. Teachers in public clinics are the most frequent victims.

Every surgeon or specialist depends upon the profession and not the people for his patients. Nine patients out of every ten who come to the specialist or surgeon are sent by physicians. Now, understanding this, and knowing that the profession stamps as dishonorable and contemptible newspaper advertising which leads to notoriety and not reputation, and knowing that physicians would ostracize such a surgeon or specialist and send their patients elsewhere—do you or any other member of the profession believe that a specialist would, if he could prevent it, allow any allusion to his work in the lay press? Understanding this question as I do, I cannot believe you do. Every article that ever appeared has injured the surgeon or specialist incalculably. If I had a hated enemy, which I hope I have not, and I wished to ruin him professionally and financially, I know of no way so safe or so speedy as to hire a space writer to report his clinic, and, if possible, his private operations to the lay press once or twice a week. In less than six months the profession to a man would ostracize him.

A few years ago, the newspapers followed a case of mine in the City Hospital for three months with daily "fake" reports in spite of my most strenuous efforts, and those of the hospital and my friends, to suppress it. It almost ruined me professionally, and financially a lucrative practice was almost wholly destroyed.

No! The specialist whose clinics and name appear in the daily lay print is to be pitied by his fellow practitioners, not censured. I have had the bitter experience and I know what it costs.

In justice to myself, I have taken the liberty to send your letter with this to a medical journal.

I am, dear Doctor,
Very truly yours,
A. M. PHELPS.

This letter of Dr. Phelps emphasizes the need of several most important and suggestive reforms. We would recommend:—

1. That all authors of medical articles that are likely to be quoted should protect themselves by copyright.

2. That manufacturing firms quoting an author without his permission, or in a manner displeasing to him, should be effectively punished by medical societies and medical journals and the influence of the whole profession should be exerted against the crime of unauthorized quotation for advertising purposes.

3. That medical colleges by thoroughgoing and stringent methods should root out the criminal students who secretly act as newspaper correspondents, and that more effective methods be devised for excluding newspaper reporters from clinics.

4. That members of the profession should not too readily believe evil of their brethren, but that a man should be held innocent of intentional advertising until investigation shall have proved him innocent, at least until he has had an opportunity of defending himself. In the case of a reputable man his innocence should certainly be assumed, because if he has any shrewdness whatever, he must know, as Dr. Phelps admirably proves, that a newspaper report or advertisement is the greatest misfortune that can befall a specialist.

The Lane Lectures of Dr. Allbutt.—We gave notice last year that the Lane Lectures by Dr. T. C. Allbutt would be published soon in the PHILADELPHIA MEDICAL JOURNAL. The delay in the publication has been due to the fact that the completion of Dr. Allbutt's *System of Medicine* has occupied him for a longer time than was expected. He now writes us that this task is finished and that the revision of the lectures is in hand. The reedited lectures are promised us one by one when completed, and will be published immediately upon their receipt. The many inquiries received concerning the publication testify to the exceptional interest of the profession in these lectures, and we are glad the delay is so soon to be over.

Congenital Malformation of the Heart.—A. Frick (*Correspondenz Blatt für Schweitzer Aerzte*, October 15, 1899). A male child, first seen when 10½ weeks old, was noticed to have a strikingly blue appearance of the hands and face. On listening over the chest a loud blowing systolic murmur was heard over the entire area of the heart. The child died, when 135 days old, from bronchitis. A necropsy was performed and it was found that there was a very narrow mitral opening with rudimentary development of the valves and a large defect in the wall of the left ventricle. [M.B.T.]

Correspondence.

PROFESSIONAL MISTAKES.

By D. H. GALLOWAY, M.D.,
of Chicago.

To the Editor of The Philadelphia Medical Journal:—

I have many times been a witness to the careless and off-hand manner in which *some* lecturers in medical colleges make statements which are at variance with the truth, and even on subjects which are easily verifiable by experiment or reference to the most elementary textbooks. This communication is not intended as a personal attack on any one, not even the lecturer so freely quoted, but is a criticism on the great number of unprepared lectures which are delivered by men who show an astonishing lack of familiarity with subjects they attempt to teach.

A famous lecturer on obstetrics once told the class, of which I was a member, that tincture of iron and fluid-extract of ergot were both indicated in a case under consideration, but warned them on no account to prescribe them together in the same prescription, as the combination would form ink. He said that he had known doctors to be dismissed from cases for prescribing such nauseating and unsightly mixtures. He then called on a student to explain why the mixture of these two drugs formed ink. The student, who happened to be a pharmacist, replied "it is due to the tannic acid in the ergot forming with the tincture of iron tannate of iron which is black"; but, continuing, he said, "fluid extract of ergot does not contain tannic acid and does not turn black when mixed with tincture of iron." The professor resented the explanation and insisted that the student was mistaken, and only dropped the subject when the statement was endorsed by several other druggists in the class.

A short time ago it was my fortune, or misfortune, to attend a lecture on anesthetics delivered in a medical college. This lecture was listened to by 30 or 40 men, all practitioners of medicine, and all but three or four seemed to accept the statements of the lecturer without question. Some of these statements were so wide of the truth as I understand it that I am unwilling to let them go unchallenged.

I took notes on the lecture, and some of the statements are here given verbatim.

(*a*) "*Only Squibb's chloroform and ether should be used; Mallinckrodt's is not good.*"

I have no criticism to make of the products of the one manufacturer, nor am I the champion of the other. Ninety percent of my work has been done with Squibb's anesthetics and I know them to be pure, but since the manufacture and purification of these anesthetics are chemical problems about which there is no secret, I have no reason to think that other manufacturers cannot, or do not, make an article which will conform to the U. S. P. standard. Probably 10% of my anesthesias have been produced with Mallinckrodt's anesthetics, and I have found them equally satisfactory with Squibb's.

(*b*) "*Mallinckrodt's ether contains 2% of moisture and that causes mucus.*" I am not prepared to refute the statement as to the cause of mucus, but do not think that stronger ether ever contains 2% of water, and I fail to see why moisture, with which the mucous membrane is familiar, should cause such an increased flow of mucus.

(*c*) "*Squibb makes his chloroform from methyl alcohol, while all other manufacturers make theirs from acetate of lime.*" Chloroform is not made from methyl alcohol, and probably all that is in the market is made by the acetone process.

(*d*) "*The common alcohol of the market, that which is given to you when you go to the drug store and ask for alcohol, is methyl alcohol.*" The common alcohol of the market, that which is always dispensed by the druggist when alcohol is asked for, is ethyl or grain alcohol.

(*e*) "*Mallinckrodt's chloroform contains arsenic, phosphorus and chlorin.*" Chloroform is composed of carbon, hydrogen and chlorin, about 96% of the last, but there will be no free chlorin unless the chloroform has decomposed, in which case it should, of course, not be used. Pure chloroform decomposes so readily that the pharmacopeia directs that it shall contain about 1% of alcohol, which retards, if it does not prevent, this decomposition. I have never found arsenic or phosphorus in chloroform, and have never heard of any one who has, except the lecturer. I do not see how it would be possible for chloroform to become contaminated with these substances.

(*f*) "*Mallinckrodt's chloroform always contains phosphorus.*" There is no process connected with the manufacture of chloroform which would make contamination with phosphorus possible, and if there were an appreciable quantity present, the cotton mask would spontaneously take fire when the chloroform evaporated.

(*g*) "*The druggists are all in the habit of removing Squibb's chloroform and ether from the bottles and filling them with Mallinckrodt's because this is cheaper.*" This statement is utterly senseless and malignant. It is senseless, for no explanation is given of what the druggists are supposed to do with the ether and chloroform removed from the bottles. It is Squibb's label which makes the contents more valuable than the commercial article, and when it is removed from the labelled container it ceases to have a value greater than that made by any other manufacturer. It is malignant because the lecturer condemns together all the members of a profession among whom you could hardly find a man but that could give him lessons in medicine and truthfulness, and surely in chemistry.

(*h*) "*Both drugs must be kept in the dark and in amber bottles and in hot weather in the ice-box. I keep mine so.*" Ether is seldom if ever dispensed in bottles. I have never found it necessary to keep mine in the ice-box, and I am a little skeptical about anyone else doing so, a skepticism which I think, considering the previous statements, is pardonable.

(*i*) "*After the patient is asleep, you may turn the chloroform over to any one, father, mother, or bright child.*" The lecturer here intended to convey the impression that the danger from chloroform was all at the beginning of anesthesia. How many of us believe that? Will such a statement as that, to men who may believe it, tend to increase the care with which anesthetics are administered or lessen the number of deaths from this source? A man who would act in accordance with that statement would probably allow father or mother or bright child to finish an operation for appendicitis after the abdominal cavity was opened.

(*j*) "*In giving chloroform, if there is contraction of the pupil at the beginning, patient is dangerous.*" The anesthetizer might provide himself with a club or a gun, or take to his heels.

There are altogether too many physicians who habitually impugn the motives and practices of others of their own and other professions and particularly do they on all occasions throw discredit on the pharmacists. The average pharmacist is far better equipped for the practice of his profession than the average physician is for the practice of medicine.

The pharmacist is the only professional man who must be proficient in practice before he gets his degree. In matters of ethics and morals he compares favorably with the members of any other profession, and charlatanry is far less rampant in that profession than it is in our own. There are altogether too many professors in medical colleges who are without the mental ability or educational equipment to fill creditably the positions they occupy and who attack the integrity and practices of the druggist whenever they run dry of ideas on the legitimate subject of their teaching.

In college, one of our teachers once delivered the following bit of wisdom. In discussing a case, he said: "Give subnitrate of bismuth; give it in large doses frequently repeated; not less than a dram at a time. Always go to the drug-store where your prescription is to be compounded and find out whose subnitrate of bismuth they use, for all in the American market, except that made by two manufacturers, is adulterated with white arsenic, and if the medicine is to be repeated several times, the arsenic is likely to cause trouble." There happened to be three graduates in pharmacy in the class, and one of them asked him what he understood by an adulterant? He said that an adulterant was something added to the drug to cheapen it. To the question as to how much adulterant was used in this case, he said he did not know exactly, but he was sure not less than 20%. It was then pointed out to him that 20% of 60 grains, the dose he recommended, was 12 grains, and asked how often that amount of white arsenic might be given before the patient would get any effect from the drug? The doctor took offense at our questions, and complained to the college authorities that we were disrespectful to him. The characteristic which impels children to exaggerate little things, or make up startling stories without any foundation whatever, often survives in men who attain positions of some importance.

A year or more ago, I was present with six other doctors to witness an operation. One of the number began the administration of chloroform, and at the end of 45 minutes the patient was not completely anesthetized. The anesthetizer held up a bottle holding 8 fluidounces, and said he did not believe that it contained chloroform. He smelled it, and then decided that it was chloroform, but that the druggist had diluted it with water to the extent of 50%. He took a small bottle from his bag, and by the aid of the chloroform it contained, and what the patient had previously received, anesthesia was soon complete. This confirmed him and some of the other doctors that the druggist had adulterated the chloroform with at least 50% of water, and they even discussed what the penalty ought to be for such scoundrelism, and talked of going in a body to the druggist after the operation, and charging him to his face with his perfidy. The only thing which prevented them from carrying out this intention was the disappearance of the bottle during the operation, and the contents afterward served me to anesthetize several patients. It was plain that the druggist had put the chloroform in a wet bottle, a thing he should not have done. The druggist would, doubtless, have explained to the doctors that chloroform and water would not mix in the proportion suspected (1% of water clouds it perceptibly), but I doubt whether that would have relieved him from the suspicion of having done it any way, in defiance of laws, both chemical and moral.

Every few days I receive a circular from some manufacturer, requesting me to specify his make of simple sirup in all my prescriptions, as all others are base imitations, and insisting that I must prescribe an original bottle, or the rascally druggist will substitute an inferior article. Such circulars are always torn up before they leave my hand and are consigned to the waste-basket. Then I make a mental note always to specify some other make of the article in question, if I ever have occasion to use it.

When I was employed as a prescription clerk, I stamped my initials on every prescription I dispensed, and every night I counted them and marked down the number. Out of 10,000 consecutive prescriptions compounded, I found eight which would have produced death if they had been dispensed as written and taken as directed. One called for 8 grains of corrosive sublimate to the dose, and one for 40 minims of tincture of aconite root. In my experience of ten years as a druggist, I dispensed about 15,000 prescriptions, and, so far as I know, made but one mistake, and that was in adding 2 ounces of water where 1 was called for. If substitution is so common as some manufacturers would have us believe, I think I should have known something about it, for, aside from my own experience, I have been personally acquainted with about 1,500 pharmacists. A short time ago, I wrote a prescription, which called for acetate of quinin; the patient took it to three drug stores, where they said they could not fill it for lack of that ingredient. The fourth druggist was able to dispense it. If substitution had been so rife, surely one of these three would have put in some other salt of quinin; and who would have been the wiser?

I once saw a prescription that called for 16 or 18 ingredients. At the bottom, the doctor had written for the instruction of the druggist, "If any of these things don't mix, just leave it out." If the relations between doctors and druggists were more cordial and confidential, it would result many times in great advantage to the physician, and many times he might be saved from giving his patients nauseous compounds and inert mixtures, for then the druggist would feel free to point out to him the pharmaceutic or chemic incompatibility of some of his formulas.

But to return to the subject with which this communication opened: Is it not time in all conscience that such medical lecturers should assume some dignity and infuse a little science and truth into their lectures, instead of descending to diatribes against professional brethren and other professions? Should it be the policy of medical colleges to require students to sift out and verify all the statements made to them by the lecturers? Have they not a right to expect that questions of fact at least shall be correctly stated? When students enter a medical college, are they not entitled to expect that every lecturer shall know at least as much about his subject as is contained in the most elementary textbook on that subject? Under the law of correlation, it is to be regretted that aphonia does not always accompany mental inanition. I do not think that lecturers, in such cases, deliberately set out to make false statements, knowing them to be untrue. It is simply looseness of speech, due to imperfect knowledge and lack of energy to acquire better, but it is none the less reprehensible, and the colleges should not tolerate it.

'VARSITY FOOTBALL.

BY J. WILLIAM WHITE, M.D.,
of Philadelphia.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

THERE is obviously much to be said on both sides of the football question, but in your editorial of last Saturday you have not fairly presented my position to your readers. My

article, from which you quote, distinctly stated that our own experiences of this season constituted an indictment of "football without physical preparation of the players," and to this kind of football after full opportunity for observation and comparison I am now as much opposed as you are to the game itself under all circumstances.

The sentence "The men who are thought to be slow in their studies are encouraged to spend a part of each day with their books," as quoted by you without the context, might seem to refer to football players in term time, when, of course, they are *obliged* to spend such time in their studies. As a matter of fact, it did refer to football men during a preliminary season, at which time, if they are not learning that game, no machinery exists at any university for encouraging and stimulating the slow students.

Finally, if you had understood that a "quitter" in football parlance is a man who pretends to play the game, but, although physically able to do so, shirks his share of its labor and its risks, and allows both to devolve upon his fellow-players, I am sure you would have agreed with me that he is "offensive," and not to be deferred to as to either his logical deductions or his university ideals.

PROFESSIONAL AND CIVIC PATRIOTISM. — AN APOLOGUE.

To the Editor of The Philadelphia Medical Journal:—

In the town of Langsam there grew up quite a rivalry among the school boys as to flag-raising. It was this way: The boys who were the sons of shopkeepers cliqued together, the lawyers' sons did the same, and so did the farmers' boys, and the workmen's boys, etc., until there were about a dozen of such "gangs." And each vied with the other as to raising in the Park play-ground the finest and tallest flag-pole, and in having the handsomest flag to fly from it. The "Shops," the "Spouters," the "Cabbages," and the "Smithies"—such were the nicknames given by the others—were all very proud of their flags, for they were very patriotic and ambitious fellows, each in his way. After a hundred or more years the doctors' boys became so numerous that they also formed a sort of a guild and they determined to have a flag of their own. But there seemed to be no very strong bond of union among them and their flag was not very big nor very beautiful. Their standard-bearer was not a strong boy nor was he very attentive to his duty in raising and caring for the flag. All the different boys, one after another, who had been put in office as standard-bearers also unaccountably "petered out," until the flag of the "Docs" became a thing of ridicule rather than of pride, and the Docs themselves became the laughing stock of all the other boys. In this sorry plight two or three boys from the other bands took pity on the juvenile medicos, and uniting secretly with a few, the more spirited of them, they gave them money to buy material, taught them how to manage affairs, and put new life into their organization. Of course, as of old, the aristocratic doctor boys would not help, and from one reason or another only a few could be made to do anything. At last by great exertion of two or three working loyally with the generous boys from the other bands, they raised a fine flagpole, and their flag was the equal of that of any of the others, and great was the delight and pride of all the doctor boys. But there arose a great hue and cry on the part of one or two boys who had taken no part in the last flag-raising. These got some powerful field-glasses, and, examining the flag, they valiantly declared that it had an imperfect star or two in it, a spot on one bar, and that it was a bad flag anyway. When asked if it was not far better than the Docs' flags in other towns, and the equal of any of those of the other local bands, this was reluctantly admitted; but—it was not perfect; it was a shame; perfect it should be,—as perfect as the flags which these perfect standard-bearers had once raised themselves. When asked where were their own flags, and why they were not now flying, they replied that they, the color-bearers, had failed, not because of egotism, crankery, selfishness, and "pure cussedness" as had maliciously been said, but because they were congenitally deficient in muscle, and some other things, and because they were too good for this bad world; hence they said no one should succeed where they had failed. The perfect boys then proceeded to make mouths at the boys who had come from the other bands and helped, and they formed a plot to tear down the flag, which they said was only an old advertising rag, anyway; they preached against the viciousness of vice, and vauntingly upheld the virtuousness of virtue, until all the boys of all the schools were thoroughly tired out and——

* * *

"AUDIATUR ET ALTERA PARS."

Being a Correction of Criticism by the Editor of "The Philadelphia Medical Journal," in the Edition of November 11, 1899, Page 889.

By JOHN C. HEMMETER, Ph.D., etc.

Professor in the Medical Department of the University of Maryland, Baltimore.

To the Editor of The Philadelphia Medical Journal:—

When an author finds it his duty to answer a criticism upon his work or methods—made editorially in a medical journal—he is in the disadvantageous position of being compelled to appeal to a court that has already committed itself to an adverse judgment upon his case.

In the answer of the Editors (Philadelphia Medical Journal, November 11, 1899, p. 889) the new procedure described in the *New York Medical Record* article, October 21, 1899, is continually confounded with the older procedure of the textbook, by both the editor and his collaborator, and the text of both publications unnecessarily commingled. In the reviews and criticisms, both on October 28, page 804, Philadelphia Medical Journal, and November 11, page 889, *l. c.*, the authors claim to be criticising my article in the *Medical Record*, October 21, 1899. In reality the points criticised are *not in that article*, but in the textbook (*l.c*) published two years ago, which the more modern article is intended to *supersede*.

I, also, consider the accidental *tearing off* of gastric mucosa deplorable, thereby agreeing with all who have any knowledge whatever of gastric diseases, but the method I employ does not "*tear off*" any pieces. It detaches necrotic areas already in the act of sequestration. For any one to consider the method dangerous, means that he has not seen it properly carried out.

The words curet and curettage do indeed occur in the article (*Medical Record*, October 21, 1899), being used to express the remote similarity to uterine and ocular curettage; but these words by no means justify the reviewer's insertion [Philadelphia Medical Journal, October 28, 1899, page 804), that I use a *sharp edged tool* for this purpose, when one of the main objects of the article in the *Medical Record* (*l. c.*) is to emphasize that a *soft* tube will answer every purpose, and the words "*sharp edged tube*" nowhere occur in said article, which he claims to be reviewing.

Gastric curage is available only for the *early* diagnosis of cancer—when there is a palpable tumor present there can be little doubt about the diagnosis, which, then, is not an early one; and the method has not been found necessary in those cases, nor in others where the diagnosis was clear from the chemical, microscopical and physical evidences. For this reason causation of hemorrhage, which Dr. Edsall cites and admits as a rare occurrence, has not been observed in our cases, nor reported in those of Cohnheim and others.

Special Article.

ANNUAL REPORT OF THE WAR DEPARTMENT.

Surgeon-General's Office.

To the Secretary of War:—I have the honor to submit herewith a summary of my report for the fiscal year ended June 30, 1899:

FINANCIAL STATEMENT, 1899.

Medical and Hospital Department, 1899.

Appropriated by act approved March 15, 1898	$ 115,000 00	
" " " " Jan'y 5, 1899	2,300,000 00	
" " " " March 3, 1899	350,000 00	
		$2,765,000 00
Refunded during the year		108 72
Total to be accounted for		$2,765,108 72
Disbursed during the year:		
Expenses of medical supply depots	$ 268 66	
Medical supplies	1,047,065 11	
Medical attendance and medicines	40,186 24	
Medical expenses of recruiting	11,165 06	
Medical expenses of muster out	3,316 40	
Pay of nurses	102,221 87	
Pay of other employees	64,357 64	
Washing at hospitals	35,306 36	
Exchange on funds in foreign possessions	576 91	
Miscellaneous expenses	571 71	
*Unclassified	11,685 39	
		$1,316,721 35
Balances on hand Jnne 30, 1899:		
In United States Treasury	$1,391,287 83	
In hands of disbursing officers:		
New York	24,680 12	
San Francisco	15,058 32	
Havana, Cuba	162 45	
Santiago, Cuba	3,071 39	
Puerto Principe, Cuba	130 71	
San Juan, P. R	1,499 02	
Honolulu, H. I	1,990 26	
Manila, P. I	7,232 95	
Hospital Ship "Missouri"	1,256 58	
Hospital Ship "Terry"	2,017 74	
		†1,448,387 37
Total accounted for		$2,765,108 72

Medical and Hospital Department, 1898.

Balance on hand July 1, 1898, act of March 2, 1897		$10,836 34
Refunded during the year		384 15
Total to be accounted for		$11,220 49
Disbursed during the year:		
Medical supplies	$ 10,563 75	
Medical attendance and medicines	215 70	
Medical expenses of recruiting	1 20	
Washing at hospitals	30 56	
Miscellaneous	43 10	
		$ 10,854 31
Balances on hand, June 30, 1899:		
In the United States Treasury	346 43	
In hands of disbursing officer at New York	19 75	
		366 18
Total accounted for		$ 11,220 49

Medical and Hospital Department, 1897:

Balance on hand, July 1, 1898, act of March 6, 1896		$ 29,487 22
Transferred to surplus fund		29,487 22

Medical and Hospital Department, January 1, 1899:

Balance on hand, July 1, acts of May 4, 1898, and June 8, 1898	$ 42,956 00	
Appropriated by Act approved July 7, 1898	504,000 00	
		$ 546,956 00
Refunded during the year		407 19
Total to be accounted for		547,363 19
Disbursed during the year:		
Expenses of medical supply depots	$ 95 79	
Medical supplies	458,280 96	
Medical attendance and medicines	8,461 19	
Medical expenses of recruiting	22,747 75	
Pay of nurses	28,614 50	
Pay of other employees	17,721 34	
Washing at hospitals	6,517 00	
Miscellaneous expenses	6 00	
		$ 542,444 53
Amount brought forward		$ 542,444 53
Balances on hand, June 30, 1899:		
In United States Treasury (net)	1,377 55‡	
In hands of disbursing officer, Philippine Islands	3,541 11	
		4,918 66
Total accounted for		547,363 19

APPROPRIATION FOR NATIONAL DEFENSE.

Act of March 9, 1898.

Allotment by the President, April 16, 1898:

Balance on hand, July 1, 1898		$ 35 61
Disbursed during the year	$ 30 10	
Balance on hand	5 51	35 61

Reallotment by the President, September 8, 1898:

Reallotment, September 8, 1898		$ 500,000 00
Refunded during the year		115 50
Total to be accounted for		$ 500,115 50
Disbursed during the year:		
Expenses of medical supply depots	$ 99 60	
Medical supplies	382,815 94	
Medical attendance and medicine	8,007 79	
Medical expenses of recruitings	9,440 87	
Pay of nurses	68,702 12	
Pay of other employees	12,680 94	
Washing at hospitals	16,481 46	
Exchange on funds in foreign possessions	100 00	
Miscellaneous expenses	107 00	
		$ 498,435 72
Balances on hand June 30, 1899:		
In United States Treasury	1,679 66	
In hands of disbursing officer at San Juan, P. R.	12	
		1,679 78
Total accounted for		$ 500,115 50

Allotment by the President, October 6, 1898:

Allotment, October 6, 1898		$ 500,000 00
Refunded during the year		141 00
Total to be accounted for		$ 500,141 00
Disbursed during the year:		
Expenses of medical supply depots	$ 7 40	
Medical supplies	326,313 98	
Medical attendance and medicines	31,296 10	
Medical expenses of recruiting	4,796 15	
Medical expenses of muster out	2,555 60	
Pay of nurses	54,909 20	
Pay of other employees	17,633 42	
Washing at hospitals	17,998 69	
Exchange on funds in foreign possessions	93 57	
Miscellaneous expenses	15 00	
		$ 455,619 11
Balances on hand June 30, 1899:		
In United States Trea ury	$ 38,508 20	
In hands of disbursing officers:		
Atlanta, Ga	4,877 27	
Havana, Cuba	1,136 35	
San Juan, P. R	07	
		44,521 89
Total accounted for		$ 500,141 00

Allotment by the President, November 22, 1898:

Allotment, November 22, 1898		$ 500,000 00
Refunded during the year		32 00
Total to be acounted for		$ 500,032 00
Disbursed during the year:		
Medical supplies	$371,699 78	
Medical attendance and medicines	36,398 81	
Medical expenses of recruiting	15,835 66	
Medical expenses of muster out	4,262 42	
Pay of nurses	29,710 07	
Pay of other employees	8,309 54	
Washing at hospitals	7,580 42	
		$ 473,795 70
Balance on hand June 30, 1899:		
In United States Treasury	$ 22,022 77	
In hands of disbursing officer Hospital Ship "Relief,"	4,213 53	
		$ 26,236 30
Total accounted for		$ 500,032 00

Artificial limbs, 1899:		
Appropriated by act approved July 1. 1898		$ 125,575 00
Disbursed during the year		122,953 91
Balance on hand, June 30, 1899		$ 2,621 09

* Being the amount disbursed by the Chief Surgeon at Manila, P. I., in June, 1899, for which itemized accounts have not reached this office.

† It is estimated that about $500,000.00 of this will revert to the Treasury.

‡ Actual balance, as shown by the books of this office, $9,174.16, of which $7,796.61 was pledged to honor drafts made by the disbursing officer of the medical department in the Philippine Islands on the Hong Kong and Shanghai Banking Corporation, under a letter of credit issued in his favor. These drafts were paid by the bank and the proceeds thereof are accounted for by the disbursing officer and in this statement as disbursed by him during the year or in his possession June 30, 1899. The bank was reimbursed by the Treasury Department in August, 1899.

Artificial limbs, 1898, act approved June 4, 1897:		
Balance, July 1, 1898		$ 23,224 73
Disbursed during the year		6,708 52
Balance on hand, June 30, 1899		$ 16,516 21
Artificial limbs, 1897, act approved June 11, 1896:		
Balance, July 1, 1898		$ 10,089 44
Disbursed during the year	$ 421 38	
Transferred to surplus fund	9,127 90	
		9,519 28
Balance on hand, June 30, 1899		$ 540 16
Artificial limbs, certified claims, 1896, and prior years:		
Appropriated by act approved July 7, 1898		$ 100 00
Disbursed during the year		100 00
Appliances for disabled soldiers, 1899:		
Appropriated by act approved July 1, 1898		$ 2,000 00
Disbursed during the year		1,277 89
Balance on hand, June 30, 1899		$ 722 11
Appliances for disabled soldiers, 1898, act approved June 4, 1897:		
Balance, July 1, 1898		$ 717 79
Disbursed during the year		127 25
Balance on hand, June 30, 1899		$ 590 54
Appliances for disabled soldiers, 1897, act approved June 11, 1896:		
Balance, July 1, 1898		$785 02
Transferred to surplus fund		500 00
Balance on hand, June 30, 1899		$ 285 02
Army Medical Museum, 1899:		
Appropriaeted by act approved March 15, 1898		$ 5,000 00
Disbursed during the year		3,363 69
Balance on hand, June 30, 1899		$ 1,636 31
Army Medical Museum, 1898, act approved March 2, 1897:		
Balance, July 1, 1898		$ 69 28
Disbursed during the year		69 28
Library, Surgeon-General's Office, 1899:		
Appropriated by act approved March 15, 1898		$ 10,000 00
Disbursed during the year		9,726 64
Balance on hand, June 30, 1899		$ 273 36
Library, Surgeon-General's Office, 1898, act approved March 2, 1897:		
Balance, July 1, 1898		$ 253 21
Disbursed during the year		253 21
Furnishing and fitting trusses for disabled soldiers, section 1176, 1178, R.S., Act of March 3, 1879:		
Expended during the year		$ 5,003 00
Providence Hospital:		
Appropriated by Act approved July 1, 1898		$ 19,000 00
Expended during the year		19,000 00

Artificial Limbs and their Commutation.—Under the provisions of the law relating to Artificial Limbs there were furnished during the year ended June 30, 1899, 27 artificial legs, 4 arms, 1 foot, and 1 apparatus for exsection. Commutation certificates were issued for 105 cases of amputated leg, 70 of amputated arm, 12, of amputated foot, and for 1,934 cases of loss of the use of a limb. These cases involved an expenditure of $125,038.91, from the appropriations available.

These benefits to disabled soldiers recur under existing laws every three years, so that the cases which matured and were paid during the year ended June 30, 1898, will again come up for payment if the beneficiaries are alive during the year ending June 30, 1901. There were in the files of the office 3,580 cases which matured during the year 1898. The commutation value of these cases was $182,755. Allowing for deaths during the past three years, I estimate that there will be 3,400 claims presented during the year ending June 30, 1901, and that the sum of $173,000 will be required to settle them. Estimates have already been submitted for this sum.

Appliances for Disabled Soldiers.—During the past year the sum of $1,309.89 was expended for 149 appliances issued to disabled soldiers.

Trusses.—The number of trusses issued and fitted during the year was 1,088.

Providence Hospital.—The Act of Congress approved July 1, 1898, appropriated $19,000 for the support and medical treatment of destitute patients in the city of Washington, D. C., under a contract to be made with this hospital by the Surgeon-General of the Army. The relief under this appropriation was as follows:

Patients in hospital, July 1, 1898	118
Admitted during the year	1,238
Total number treated	1,356
Average number admitted per month	113
Number remaining in hospital June 30, 1899	112
Total number of days' treatment afforded	38,758
Average number of days' treatment per patient	30
Average number of patients treated per day	106
Longest term of treatment (days)	365
Shortest term of treatment (day)	1
Number of patients in hospital during the whole year	21

Army and Navy General Hospital, Hot Springs, Ark.—During the year, 35 officers and 141 enlisted men were treated in this establishment. Of 106 of the latter, whose cases were completed during the year, 84 were returned to duty. Ninety-six ex-volunteers derived more or less benefit by a course of treatment at this hospital.

Army Medical Museum.—The total number of specimens in the Museum at the end of the fiscal year, June 30, 1899, was 35,039. Added during the year were 303, and discarded, transferred, etc., 289.

Library of the Surgeon-General's Office.—An addition of 3,924 volumes and 7,737 pamphlets during the year, raised the total number of volumes in the Library to 131,872, and the number of pamphlets and medical theses to 224,369.

Volume IV, second series, of the Index Catalog, includes the letter "D" and the letter "E" to "Emulsions," and forms a volume of 917 pages, which will be ready for distribution at the usual time. The manuscript of Volume V, second series, is in course of preparation for the printer.

Medical Officers.—The number of medical officers in the Regular Army (192) was barely sufficient for the needs of the service in time of peace, when the enlisted strength of the Army was limited to 25,000 men. The enlarged army now in service, and the large number of new posts which have been established upon the seaboard of the United States and in Cuba and Porto Rico have made necessary a very considerable increase in the Medical Department. Section 14 of Act of March 2, 1899, provided for the appointment of 34 Volunteer surgeons and after the muster out of the Volunteer Army and of the chief surgeons of divisions and brigades previously authorized these were the only available commissioned medical officers in addition to those of the regular establishment and the medical officers authorized by law for each Volunteer regiment in the service. It has, therefore, been necessary to employ a large number of contract doctors or acting assistant surgeons, who are appointed by the Surgeon-General, as their services are required, upon presenting satisfactory evidence of their professional qualifications and character. The number of applications for these appointments has been greatly in excess of the requirements of the service. Those selected have, as a rule, proved to be competent as physicians and surgeons and zealous in the performance of their duties. On the 30th of June the number of Acting Assistant Surgeons in the service was 393. During the year 140 medical officers of Volunteers were appointed by the President, 11 as lieutenant-colonels, and 129 as majors. Forty-five of the appointees were from the Regular Army and 95 from civil life. At the end of the year there remained in service 31 majors and surgeons, 12 of whom were captains in the regular establishment.

Contract Surgeons.—On July 1, 1898, 156 contract surgeons were on duty and 784 contracts were made during the year, making a total of 940. Of this total 546 contracts were annulled during the year, including 8 on June 30, 1899, and 9 contract surgeons died while in service, leaving 385 under contract on July 1, 1899.

The Army Medical School.—This school was closed during the school year, 1898–99, as the important duties imposed on medical officers by the existing war conditions made it impracticable to carry out the usual school program.

The Hospital Corps.—After the declaration of war with Spain the authorized increase of the Regular Army and the muster-in of Volunteer troops necessitated a corresponding increase of the hospital corps. To hasten this increase, authority was given to transfer men from the Volunteer regiments. By June 30, 1898, the corps had increased, mostly by transfers, to 3,245, including stewards, acting stewards and privates. November 30, 1898, it attained a maximum strength of 6,588, after which it became reduced to 3,368 mainly by the discharge of men enlisted for the war only. The total gain during the fiscal year was 6,185 men, 3,465 by enlistment and 2,720 by transfer; the loss 6,062, of whom 5,086 were discharged by order and only 201 by expiration of term; 101 died by disease, 4 were killed in action, 6 died of wounds and 158 were discharged for disability.

The number of hospital stewards provided by law (100) was increased to 200 by the Act of Congress, approved June 2, 1898. A later act, March 3, 1899, has been construed as reducing the number again to 100. It will not, therefore, be possible to appoint additional hospital stewards until the number in service is less than 100. This is to be regretted as it impairs the efficiency of the corps by preventing the promotion of men of merit and long service, and deters able and ambitious men from enlisting.

The number of acting hospital stewards, like that of the privates, is limited only by the necessities of the service. Paragraph 1397, Army Regulations, requires a private to serve one year in the Corps previous to detail as acting hospital steward. General Orders 20, A. G. O., January 27, 1899, reduced this period to three months, because of the need of a larger number of these noncommissioned officers and the desirability of utilizing in this capacity the services of privates qualified to perform the duties by virtue of previous training in medicine, pharmacy or nursing.

Systematic teaching in the Hospital Corps School of Instruction, at Washington Barracks, D. C., was practically suspended during the war. Recruits and transferred men received practical training at the general hospitals. Since the return of more settled conditions, systematic instruction at the school has been resumed. A similar school has been organized at Angel Island, California, with a view to give as much instruction as possible to hospital corps men collected there for transportation to the Philippines. Special attention is given in the school course to the preparation of food for the sick.

Contract Female Nurses.—The first contracts with trained female nurses were made as early as May 10, 1898. During June 21 women were on duty in the wards of general hospitals and on the hospital ship *Relief*. In July nurses immune to yellow fever were sent to hospitals in Santiago Province, Cuba, and during the prevalence of typhoid fever in our camps trained nurses were placed on duty, not only in the general hospitals, but in many division and post hospitals and even in some regimental hospitals. The number of nurses under contract reached a maximum of about 1200 in September, 1898. The number in service July 1, 1899, was 202. In all, 1563 women have been under contract between May 10, 1898, and July 1, 1899.

Hospital and Hospital Stewards' Quarters.—New post hospitals were completed during the year at Fort Hancock, N. J.; Fort Snelling, Minn.; Fort Point, Tex.; Fort Morgan, Ala.; and Tybee Island, Ga.; and temporary hospitals at Fort Williams, Me.; Fort Greble, R. I.; Fort Mott, N. J.; Morrowstone Point and Battery Point, Del.; Fort Caswell, N. C., and Egmont Key, Fla. Additional wards were provided for the hospitals at Fort Thomas, Ky., and Fort Wayne, Mich., and new hospitals were authorized for Fort Sloeum, N. Y.; Plum Island, N. Y., and the new post near Seattle, Wash. General hospitals, each with a capacity of one thousand beds, were completed at Fort Monroe, Va., and Savannah, Ga., and pavilion wards were erected in connection with the post hospitals at Washington Barracks, D. C.; Jefferson Barracks, Mo.; Fort Columbus, Fort Hamilton and Fort Wadsworth, N. Y. Quarters for a hospital steward were completed at Fort Washington, Md., and various repairs and improvements were made to hospitals and quarters at a number of posts.

In addition to those mentioned, general hospitals have been organized at San Juan, Porto Rico, and at Havana, Pinar del Rio, Matanzas and Santiago, Cuba, and in both islands hospitals have been constructed or improved at the many military posts that have been established. In Manila four hospitals have been outfitted, and at San Francisco a general hospital has been established for the care of the sick among commands going to or returning from the Philippines.

Hospital Ships.—The *Relief* and the *Missouri* have done excellent work between this country and Cuba and the Philippines. The *Alert*, formerly the *Bay State*, and the transport *Terry* proved unsuited for hospital purposes.

Medical and Hospital Supplies.—The operations of the Supply Department, which for some months were necessarily conducted under the pressure of

the emergencies of the war have gradually been brought into more regular and methodical action.

The regular Medical Supply Depots at New York, St. Louis and San Francisco have been kept up. That at New York has supplied the troops in the northern and eastern portions of the United States, and also in Cuba and Porto Rico. Increased facilities were required to properly conduct the business of this depot and a special building was hired for the purpose to the great advantage of the Government. The depot in St. Louis has supplied the troops and garrisons in camps in the Mississippi Valley and portions of the country most convenient to it. Medical supplies for the Philippine Islands, with the exception of the large amount that was sent on the hospital ship *Relief*, which left New York March 2, 1899, have been furnished from the San Francisco depot. Medicines and most of these supplies were purchased on the Pacific coast, only articles of exclusively eastern manufacture being sent from New York and St. Louis. The uniform report from the Philippine Islands has been that medical supplies have been ample.

It has been my endeavor that the sick and wounded of our army should be supplied with every comfort and restorative, and the surgeons with every appliance that modern science would suggest in the treatment of disease and injury. Not only have supplies of all kinds allowed by the Standard Supply Table been freely issued, but the individual preferences of surgeons have been indulged where there was reason to believe that benefit to the sick would arise from so doing.

Recruiting.—The total number of men examined for enlistment during the calendar year 1898 was 71,250; white, 66,237; colored, 5,013. The number accepted was 54,896, or 770.47 of every thousand examined. The ratio of accepted men was 770.79 for the white. and 766.21 for the colored. White men to the number of 22.74 and colored men to that of 16.75 per thousand declined enlistment. The rate of rejections on primary examination was 206.47 among the white and among the colored candidates 217.04, giving a mean of 207.21.

Of every thousand examined 60.35 were rejected on account of imperfect physique, including over height, under height, over weight and under weight, 34.81 for diseases of the eye, 26.37 for diseases of the circulatory system, 20.20 for diseases of the genitourinary system, 11.87 for diseases of the digestive system, 9.71 for venereal diseases, while 4.29 were rejected on account of bad or doubtful character or unsatisfactory references, 4.38 as generally unfit or undesirable, and only 1.75 on account of illiteracy, imperfect knowledge of the English language and mental insufficiency.

Among the recruits who fill up the ranks of our Regular Army, there is usually a considerable number of men who are not native born. A few years ago Irish and German recruits constituted one-fifthof the total number accepted, or 200 of every thousand men. Recently the proportion of foreign born has been decreasing. In 1895 the ratio for each of these two classes of foreign-born recruits fell for the first time below 90 per thousand. In 1897 Germany furnished 74.53 and Ireland 74.30. During the past year, as a result of the military spirit pervading the country, the ratio of native born rose to 770.47 per thousand, while the proportion of naturalized citizen of German and Irish birth fell, respectively, to 47.98 and 34.74 per thousand.

Identification of Deserters and Other Undesirable Men.—During the year ending June 30, 1899, 1,667 transcripts of the identification cards of 810 delinquent ex-soldiers were filed among the classified descriptions of undesirable men, an average of 2.06 per man, as compared with 2,19 for the antecedent period; and 193 transcripts were cancelled. On June 30, 1899, there remained 33,968 transcripts, an average of 2.35 each for 14,447 delinquent soldiers whose enlistment would be contrary to law.

June 30, 1898, 95,065 identification cards were on file for recruits, and 4,808 for released military convicts and soldiers discharged dishonorably or without honor. The receipts for the following twelve months were 66,147 and 7411 respectively, bringing the totals, June 30, 1899, up to 161,212 and 5,549. Od the 66,147 recruit cards received, 12,511 were made out at the soldier's second or later enlistment, and took their place at once with the previous card or cards of the men in the alphabetical file; 53,636 were for first enlistments, and ordinarily would all have been compared with the transcripts before going into the alphabetical file, but, as was stated in my last report, the rush of work incident to the late war, made it impracticable to compare them all.

From the time of the first identification (July, 1890, to June 30, 1899,) 1,475 identifications have been made; 18 in 1890, 111 in 1891, 215 in 1892, 104 in 1893, 110 in 1894, 121 in 1895, 108 in 1896, 68 in 1897, 347 in 1898, and 273 during the first half of 1899.

HEALTH OF THE ARMY.

On account of the failure of some of the regimental surgeons while in Cuba to furnish reports for July and August or to keep accurate and complete records of their sick for these months, many of the lighter cases treated in quarters until return to duty have necessarily been lost to the record, but the medical histories of the seriously sick whose cases failed to be entered on the regimental reports were found in the records of the general hospitals in which they were afterwards treated. A very fair representation of the sickness of the regular regiments has thus been gathered for tabulation in this report.

For pension purposes these medical records of the regular troops for the past calendar year are in excellent condition. Each entry on the various reports, regimental, field hospital, transport, hospital ship, and general hospital has been carded and the various cards relating to each individual have been brought together to show his medical history so far as reported by the medical officers who had charge of his case. To cover the medical history of the year over 100,000 histories had to be carded and are now arranged alphabetically in the files for ready reference.

I regret that I am unable to present a similar view of the statistics of the Volunteer Army and hence of the army as a whole (Volunteers and Regulars). The Act of Congress approved April 22, 1898, which authorized the President to raise a volunteer force required that at the close of the war the medical records of the Volunteers be turned over to the Record and Pension Office of the War Department. No opportunity was afforded me to tabulate the statistics of these volunteer troops, as when the war ended many of the reports had not been rendered, and subsequently when they were received they were immediately transferred by me to the Record and Pension Office in accordance with the requirements of the law. I trust, however, that arrangements may ultimately be made which will enable me to submit hereafter as a supplement to this report a full tabulation of the medical and surgical statistics of the Volunteer Army during the Spanish-American War.

The Regular Army.—The mean strength of the Army for the four months of the calendar year 1898 was only 26,198, but subsequent to this the strength was increased to 65,631 in December, the mean strength for the year being 46,635.

The admissions to sick report were equivalent to 2136.94 per thousand of strength, or to somewhat more than two entries per man of the mean strength present during the year. Although this is greatly in excess of the ratio of admissions in 1897, 1186.61, and of the mean annual ratio of the decade 1887–96, 1243.39, the actual rate was undoubtedly much larger, for, as already stated, some of the reports for July and August were not rendered or were evidently incomplete. This excess was due to various camp diseases which caused 1937.71 admissions per thousand of strength as compared with 896.53 in 1897. During the year 1898, in which so large a proportion of the regular army was engaged in active hostilities in Cuba the ratio of injuries was considerably less than in the previous years of peace. The ratio of admissions for injuries was 209.23 per thousand men present as compared with 290.08 in the previous year and 257.16 the mean annual rate of the decade immediately preceding. The explanation of this is no doubt that in the field no note was taken of the slight cuts and contusions which form so large a proportion of the medical record of a post in times of peace. The ratio of nonefficiency or of men constantly disabled from injuries was in 1898, 13.74 per thousand, while in 1897 it was only 9.12, and during the previous decade 8.62. This shows the greater gravity of the cases in 1898.

The total number of deaths from all causes was 1,285, equal to a rate of 27.55 per thousand men, while in the previous year the rate was 5.11, and in the years of the previous decade 6.99. The death-rate from disease was 22.00 and from injury 5.55.

The loss to the service by disability from disease and injury was equivalent to 30.23 days for each man of mean strength as compared with 13.08 days during 1897 and 13.14 days in the years 1887–96. It will be seen from the above that while the admissions during the year were nearly twice as many as in previous years the constant sickness was more than doubled and the death-rate equal to that of the previous year multiplied by 5 4.

The admission rate of the infantry, 2,513.06, and its death-rate, 39.31, were higher than those of any of the other arms of the service. The members of the medical department and hospital corps had a high death-rate, 22 74 per thousand, when considered in connection with their relatively low rate of admission, 1,245.85. This was undoubtedly the result of their intimate association with typhoid-fever patients. While the admission rate for this fever in the army as a whole was 88.56, the corresponding rate of the medical department was 193.41, and while the death-rate of the army from this disease was 9.74 that of the men who took care of the sick was 16.32, their rate from all other causes being only 6.42 per thousand men.

Malarial infection was reported to have been the cause of 32,393 admissions of nearly one-third of the whole number taken on the sick reports, equaling 694.64 cases for every thousand men enrolled. Diarrhea and dysentery contributed 14,166 cases, or one-seventh of the whole number taken sick; injuries 9,758, or nearly one-tenth of the whole, but only 1,547 of these were gunshot wounds, while 3,787 were contusions, only one of which was fatal; typhoid fever 4,130 cases, equal to 88.56 per thousand men; yellow fever 604 cases, or 12.95 per thousand; and venereal diseases 3,727 cases, or 79.92 per thousand.

The largest item in the death-rate of the army was 9.74 deaths from typhoid fever in every thousand of strength. Gunshot wounds occasioned 3.94; malarial fevers 3.24; diarrhea and dysentery 2.14; yellow fever 1.50; and injuries other than gunshot 1.61, leaving 5.38 for distribution among all other causes of fatality to make up the total rate, 27.55.

Only 19 cases of smallpox, 7 of which were fatal, occurred,

although our troops were exposed to this dangerous infection in all the islands. The number of men subjected to vaccination has not been reported, but in view of Army Regulations and orders calling special attention to the subject it is probable that the whole of the 54,896 men accepted as recruits were subjected to this protective operation. The reports show that 2,682 men were excused from duty on account of vaccinia, but no death is attributed to this cause. There were reported 1,170 cases of measles, of which 12 were fatal; 212 of mumps, none fatal; 32 of cerebrospinal meningitis, 14 fatal; 12 scarlet fever, 3 fatal; and 37 of erysipelas, one fatal.

The admission and death-rates in the Philippines, 2,070.62 and 22.74, respectively, did not differ much from those in the United States, 2,043.01 and 20.14; but the admission-rate was high in Porto Rico, 3,350.78, compared with the death-rate 41.45, and the death rate high in Cuba, 98.16, compared with the admission rate, 2,631.76, the last rate failing, as already explained, to give expression to the facts. In Cuba there occurred 374 deaths, 127 of which were the result of gunshot wounds, 67 of yellow fever, 54 of typhoid fever and 50 of malarial fevers. In Porto Rico a total of 80 deaths included 44 from typhoid fever and 11 from malarial fever. In the Philippines typhoid caused 22 deaths, smallpox 6, and malaria and diarrheal diseases 5 each in a total of 66. In the United States there occurred 334 deaths from typhoid fever, 85 from malarial fever, 53 from diarrhea and dysentery, 46 from gunshot wounds and 3 from yellow fever in a total of 765.

Mortality Statistics.—The total number of deaths in our armies, regular and volunteer, from May 1, 1898, to June 30, 1899, was 6,619. This is equivalent to an annual rate of 33.03 per thousand of strength, the rate for disease being 25.68. The death-rate from disease among troops in the United States was 23.81; in Cuba, 45.14; in Porto Rico, 38.15, and in Manila, 17.20; the absolute numbers being respectively 3,577, 928, 238, and 402. Deaths on transports en voyage, have been included in the total of the country from which the vessel sailed

Among the regulars in the United States there occurred 809 deaths from disease during the 14 months, among the volunteers, 2,768 deaths, equivalent respectively to an annual death rate of 17.43 and 26 67 per thousand of strength.

Typhoid fever was accountable for more than one-half of the deaths from disease. The total number of deaths from this disease was 2,774, equal to an annual rate of 13.84. Among troops serving in the United States the rate was 14.99; in Cuba 11.23; in Porto Rico 26.93, and in the Philippines 5.30. In Porto Rico the deaths from this disease (168) formed more than two-thirds of the total deaths from disease (238). In the United States the regulars lost 361 and the volunteers 1,890 from this fever, those numbers being equivalent to the respective rates of 7.78 and 18.21 per thousand of strength.

Malarial fevers are held accountable for 476 deaths, constituting an annual rate of 2.38. The rate of death from these fevers was highest in Cuba, 10 80, lowest in Manila, .64, 222 deaths having occurred in the former island, and only 15 in the latter.

Pneumonia caused 359 deaths. The death-rate from this disease was larger in the United States, 2.07, than in Cuba, 1.60, Porto Rico, .48, or the Philippines, .51.

Diarrheal diseases were the cause of 342 deaths, equaling a rate of 1.71. The mortality from these diseases was relatively heaviest in Cuba, the rate there being 5.69.

Yellow fever caused 185 deaths, 178 of which occurred in Cuba, 6 in the United States, and 1 in Porto Rico, and smallpox 98 deaths, 90 in the Philippines, 4 in Cuba, 2 in the United States, and 2 in Porto Rico. Many of the deaths, however, cannot be distributed among their causes until the medical records of the Volunteer Army are available for statistical study.

Sanitary Conditions.

The sanitary condition of the permanent military stations in the United States varied greatly during the year. Prior to the declaration of war with Spain they were all in excellent condition, or in the gradual progress to improved conditions as a result of the judicious distribution of the funds appropriated year by year for this purpose. Early in the year several new posts were established, and old and abandoned stations were regarrisoned chiefly with a view to coast defence. In May, 1898, many undisciplined troops were aggregated at Fort McPherson, Georgia, and other posts. The most insanitary conditions immediately prevailed and an epidemic of typhoid fever was inaugurated.

Again on the return of the regular troops at the close of the war, the quarters at a number of posts became overcrowded. This was particularly so at Columbus Barracks, Ohio, which was used as a recruiting depot. An epidemic of measles at this post was greatly increased in malignancy, and several deaths from cerebrospinal meningitis resulted from the overcrowding, and the bad conditions associated with it.

The Volunteer troops suffered severely from typhoid fever in the home camps during the months of July and August. By removing them from the infected camps to sites specially prepared for occupation in Alabama, Georgia, Kentucky, South Carolina and Tennessee, the prevailing sickness was materially lessened, although disease was again introduced into many of these commands by the coming of newly raised regiments seriously infected with typhoid fever.

In view of the difficulty experienced in learning through chief surgeons of corps and departments the sanitary condition and sick rates affecting individual regiments in the field, temporary garrisons and detachments, on December 31, 1898, I called on medical officers serving in the field, or at temporary stations, for a weekly sanitary report of the command with which they were serving, these reports to contain a reference only to existing insanitary conditions and to be forwarded through military channels to the Adjutant-General of the Army, after the manner of the monthly reports rendered from permanent posts under A. R. 1393. The object of these weekly reports was to obtain prompt action by local authorities on such conditions as lay within their jurisdiction. They effected this object admirably in securing the removal of many faults in the sanitation of the camps, which would otherwise have had a powerful influence in augmenting the sick list of the Army.

Since the occupation of Cuba by our troops in December, 1898, the percentage of sickness in the various camps and garrisons has been less than was anticipated, and, if we fortunately remain free from epidemic visitation, this percentage may be expected to diminish for some time to come, as the troops are now in barracks and have become somewhat accustomed to the climatic conditions. Measles, smallpox and cerebrospinal meningitis appeared at several posts, but generally the adoption of proper sanitary measures speedily controled the disease. A serious outbreak of typhoid fever occurred among the troops at Puerto Principe, and this disease prevailed to a considerable extent in some of the regiments at Camp Columbia, near Havana, Cuba.

It is with pleasure that I report the passage of the yellow fever season of 1899 with the occurrence of so few cases of this disease, although our troops have been stationed within easy access to towns which are more or less infected. Medical officers were required to observe all fever cases with the utmost care and to isolate any patient who had suspicious symptoms, and chief surgeons of departments were directed to select and recommend camping grounds, and to urge that the commands be kept in a state of constant readiness to move should it become necessary to depopulate garrisons on account of infection. Occasional cases were reported at Guanajay, Camp Columbia, Sancti Spiritus, Matanzas, and Manzanillo; but there is a doubt as to the correctness of the diagnosis in some of these. A number of scattered cases occurred at Puerto Principe. It is evident from the history of these cases that the disease was contracted in the city and that the barracks remained free from infection; but for greater assurance of safety the entire command was removed to camp. At Santiago the adoption of proper measures succeeded in suppressing the outbreak, but not until 128 cases, of which 29 were fatal, had occurred among the troops. Among the victims of the outbreak were Captain Paul Clendenin, assistant surgeon, U. S. Army (Major, U. S. Vols.), in command of the general hospital, and Acting Assistant Surgeon F. W. Fabricius, the pathologist of the hospital.

An epidemic of smallpox among the people of the Holguin district of Santiago Province, was promptly suppressed by collecting and isolating the cases in pest-houses, burning or disinfecting all dangerous articles, and systematically vaccinating the people. None of the troops engaged in guard

and police duty during the progress of this work became affected with the disease.

In Porto Rico the troops were scattered at a number of stations usually in the neighborhood of towns. At some of these they were quartered in barracks formerly occupied by the Spaniards; at others buildings more or less suitable were rented for their shelter. At those which are expected to be occupied for some time, improvements are in progress. Water-supplies have been improved and water-closets, baths, and sewers have been planned and constructed. Five military hospitals, turned over to us by the Spaniards, are in service at San Juan, Ponce, Mayaguez, Cayey and Aibonito, respectively, while temporary arrangements for hospital accommodations have been made at other stations. All are amply provided with the means for caring for the sick.

A most important sanitary work was undertaken and carried to a successful conclusion by the chief surgeon of this department. This was no less than the suppression of smallpox in the island by means of a general vaccination of the population. The work, begun in January, 1899, was carried on with energy and system until completed. The vaccine farm, which was established at Coamo Springs to provide the necessary lymph, was discontinued July 1, 1899.

That the sanitary arrangements on the transports which conveyed the Eighth Army Corps across the Pacific were in comparatively good condition, although hastily made, may be inferred from the fact that only 12 deaths occurred in the command of 22,462 officers and men during their long voyage, equivalent to an annual death-rate of only about 5 per thousand of the strength. These arrangements were greatly improved after the publication of the Regulations for the Army Transport Service, November 6, 1898.

After the capture of Manila the troops of this Army Corps were quartered in Spanish barracks, warehouses, public buildings, and private houses, all of which are represented in the reports as having required much labor to put them into satisfactory condition. Malarial fevers, venereal disease and intestinal affections increased in prevalence week by week until December when the heavy rains ceased. A notable improvement was then manifested, and, on February 4, 1899, when the insurgents' attack was made, the command was considered to be in as good condition as when it entered the city in August, 1898. During this time cases of smallpox appeared in many of the regiments and special care had to be taken in the vaccination of the men to suppress the threatened epidemic.

To care for the sick of the Corps, for large hospitals were established. The First Reserve Hospital in buildings formerly occupied by the Spaniards as a military hospital; the Second Reserve Hospital in a building formerly used as an academy; a small hospital at Cavite and one for convalescents on Corregidor Island; the whole having a capacity of 1,738 beds and being well provided with everything needful for the treatment and comfort of the sick and wounded. That these hospitals were fully competent to meet the demands made upon them is shown by the fact that during the progress of active hostilities, in February and March, 246 Filipinos were received and cared for in the First Reserve Hospital.

During the attack on February 4, and the subsequent advance of our troops, the ambulance company did excellent service in bringing the wounded to the dressing stations, from which they were promptly dispatched by rail to the First Reserve Hospital in Manila.

After the occupation of San Fernando, in May, the troops were reported by their medical officers as thoroughly exhausted by the hardships, exposures and deprivations of the campaign. The place had a local reputation as a health-resort, but the sick-lists continued to increase, and the sick failed to show signs of progress toward recovery. They were withdrawn to Manila, where a change for the better was speedily manifested.

Meanwhile, in anticipation of the return of the volunteer troops for muster-out, a model camp for their reception was constructed at the Presidio of San Francisco, Cal. This consisted of conical wall tents, floored, and heated by stoves, lavatories, bathhouses, and improved sinks kept in proper condition by hired labor. Similar camps were constructed for the accommodation of recruits and commands arriving en route for the Philippines, and the division hospital was expanded into a well-equipped general hospital of 1,000 beds. Suitable hospital provision was also made for a quarantine camp established on Angel Island in the Bay of San Francisco. Satisfactory accounts of the condition of these camps have been received from medical inspectors.

Water Supplies.—Speaking generally of these supplies I may say that our troops during the past year were amply provided in their various camps with water of excellent quality, and that in no instance was the rapid spread of typhoid fever in a command conceded to be due to infection in the general water-supply.

At the outbreak of the recent war, the purity of water-supplies for troops in the field was a subject to which much consideration was given. What was desired was a sterile water, a water free from all bacterial infection. Boiling is the readiest way by which a drinking water may be sterilized, but it is difficult without special facilities to provide boiled water for a marching command, and, moreover, many soldiers have a distaste for boiled water on account of its flatness from loss of the gases held in solution in the fresh water.

By a combination of an asbestos strainer and a filtering cylinder of compact infusorial earth, I hoped to be able to provide a means, at once portable and efficient, for rendering an infected water harmless. This combination was sent to some of the commands for trial. Those sent to Camp Alger were not used because the deep wells sunk about this time in that camp furnished a plentiful supply of pure water. They were afterwards brought into service at Camp Meade, Pa., not because the water there required this filtration, but with a view to familiarize the command with the method of using the filters. Some were used at Chickamauga Park, Ga., and a few were seen by my inspectors in company kitchens at Montauk Point, L. I. They answered their purpose very well when used intelligently and carefully handled. They were largely employed at those field hospitals which had to make use of surface waters, and occasional mention is made of them in reports from the temporary camps established on the occupancy of Cuba. Some time in August, 1898, the National Relief Commission of Philadelphia, Pa., sent to the troops in Porto Rico a number of utensils for boiling and aerating water, but no report was made on the practical value of the proposed system. In fact, nothing could be learned of the disposition made of the articles shipped.

After this I submitted the subject of the sterilization of water for troops in the field to a board of medical officers. This board reviewed the various methods, suggested and tested the apparatus presented by manufacturers and in its report described and approved of a rapid and economical method of sterilization by boiling, the apparatus being known as the Waterhouse-Forbes Water Sterilizer. The heat given out by the boiled water is utilized in heating the entering fresh water. The boiled and aerated water is delivered from the apparatus at a temperature only 4½° F. above that of the entering water. I have recommended that a number of these sterilizers be sent out for practical test by troops in the field.

Disposal of Excreta of Camps.—The danger of the propagation of typhoid fever and other infectious diseases from ill-conditioned and infected sinks or privy pits, was well recognized during the past year. In fact the sinks of our large camps were objects of solicitude before the camps were established. In a circular issued on April 25, I directed the attention of medical officers to the importance of this subject. On August 8 I again addressed these officers, and shortly afterward I made special publication of these paragraphs of the Manual for the Medical Department which give specific directions for dealing with infected sinks and cesspools.

As we now know the cause of typhoid fever and the physical and chemical agencies by which it may be destroyed, I had hoped that by making practical use of this knowledge we would have been able to avoid any great losses from this disease. That this hope was not realized I attribute to the inexperience of regimental medical and line officers in sanitary matters, and the want of discipline among the men.

During the movements of an active campaign, when a camp site is abandoned after an occupation of a few days, well cared for privy pits afford a simple and satisfactory means of disposing of the excreta of the command. When, however, the camp is one of some permanency, as is usual with camps of organization, recuperation, muster, or terri-

torial occupation, the danger from the use of this primitive system of conservancy is proportioned, other things being equal, to the size of the command and the duration of its continuance on the same ground. With cases of typhoid fever, dysentery, or camp diarrhea among the troops, the pits become foci of infection which make their influence felt throughout the whole of the camp. Disinfectants may and should be used, but experience has shown that a prompt and complete disinfection in these pits is difficult to carry out, and requires the most constant and intelligent supervision.

I am of the opinion that to avoid disaster in such camps and as an economical measure, money should be expended freely in their installation. I am confident that when a pure water is brought in, as it should be, in quantity to supply bath houses, as well as kitchens and quarters, it would be a wise policy to make provision for the removal of the impure, used, and waste water and to utilize its discharge for the removal of the excreta of the command.

If, however, there is objection on the ground of expense, or otherwise, to the construction of a sewerage system, some method of disinfection and removal of the disinfected accumulations may be used to advantage. With the view of improving the sanitary condition of the camps then in progress of establishment in the Southern States, and of those expected to be soon established in Cuba, I suggested the use of a galvanized iron receptacle to be placed beneath each closet seat, each receptacle to have a narrow trough 3 inches deep around the outside for the purpose of containing a disinfecting liquid, so that, when the cover is placed in position in the circular trough, the liquid will act as a valve to prevent the entrance of flies and the escape of foul odors, the discharges to be received into carbolic acid, quick lime, dry earth or ashes contained in the receptacle.

Meanwhile as I considered the possibility of some better means of disposing of the probably infected excreta of camps of some permanency not provided with a sewerage system, I submitted the subject to the consideration of a board of medical officers by whom a trough system with removal by pneumatic pressure was recommended.

This system is now in successful use in the camps established at the Presidio of San Francisco, Cal., at Camp Meade, Pa , and elsewhere, and the results attained are very satisfactory.

FOOD SUPPLIES.

The remarks of medical officers under the heading of Food Supply and its Preparation in the Monthly Sanitary Reports from the posts in the United States are of the most satisfactory character. Even from the troops in the field and those subsequently in garrison in Cuba and Porto Rico there have been few official complaints either of the character of the articles issued by the Subsistence Department or of the methods or results of camp cookery. At the time when the country was agitated over the quality of the canned roast beef and the refrigerated beef furnished to the troops in the field, there were on file in this office only two papers having a reference to the beef supplies. One was a statement concerning the poor quality of the native Hawaiian beef issued to troops at Honolulu, H. I , with request that refrigerated beef be provided instead. The second occurred in a report of a voyage made by the *Panama*, with sick and convalescents from Ponce, P. R., to Fort Monroe, Va. The medical officer stated, incidentally, that the 720 pounds of refrigerated beef, which he had received from the Subsistence Department, had proved of great value to him during the trip. Concerning the quality of the canned roast beef, which was called in question toward the close of the year 1898, nothing need be said here, as the subject has already been thoroughly investigated. It may be mentioned, however, that for a time in May, 1899, during the occupation of San Fernando, P. I., report was made that the troops had been for a long period on the travel ration and that their health had no doubt suffered thereby. This was remedied as soon as reported and no further complaint of this kind was made.

In fact, the general tenor of these reports is to the effect that the Subsistence officers were eminently successful in having everything ready for issue when required, even in the trenches and on the firing line. The reports from Cuba and Porto Rico show the troops in these islands to have been as well provided for as those in the Philippines.

The only criticism made by medical officers, so far as I can gather, from their sanitary reports, is that for use in tropical climates the ration provides more of the hydrocarbons or fats than is needful and that, therefore, these articles might with advantage be reduced in quantity, and the carbohydrates or starches and sugars to some extent increased. For my part, with our system of company fund, I see no reason for making any special change in the ration. Those articles not used are credited to the men and their money value can be used for the purchase of the articles that are found to be more desirable under existing conditions. Our present ration suffices for men under conditions of active service and extreme cold; it must therefore be sufficient under conditions which call for less heat-production and for the expenditure of less energy and thus give a company fund for the purchase of articles from the liberal supplies of the Subsistence Department, or from outside sources, that appear to be better suited for the occasion than the specified articles of the ration. I consider it wise, therefore, to be slow in suggesting alteration in the components of the ration until experience has shown just what changes are assuredly desirable.

But while it may not be advisable to make any change in the ration established by law, it is a matter of the first importance to determine what is the best *dietary* for tropical use, that medical officers may urge its adoption by company commanders and that Subsistence officers may have its components always on hand for issue.

This subject is now prominently before medical men serving with troops in Cuba, Porto Rico and the Philippines, and their observations when submitted will, no doubt, be of considerable value to company officers in managing the domestic affairs of their commands.

In hospitals the 60-cent allowance for subsistence enabled medical officers to provide freely of every delicacy desirable for the sick. At few of these was the whole allowance expended. At the general hospital at Fort Monroe, Va., the average expenditure per man during the months August to December, inclusive, was only 30 cents. At Columbus Barracks, Ohio, 38 cents provided sick diet—"ample in all its details." The present allowance of 40 cents will undoubtedly cover the needful expenditures in our hospitals generally, although in some exceptional instances where high prices prevail a larger sum may be desirable.

CLOTHING.

Most of the reference to clothing in the sanitary reports have come from commands in Cuba and the Philippines. The blue uniform used in the United States was universally condemned as too heavy, and the woolen undershirts as occasioning much irritation of the skin from prickly heat. Canvas suits were represented as so stiff and heavy as to chafe the wearer until they became softer and somewhat pliant after repeated washings. A similar complaint was entered against some of the khaki issues. The campaign hat was condemned at first as too heavy. It was argued that the helmet used by the British troops in India gave the best protection for the head in tropical countries, on the ground that were this not so, the British would have discovered the fact long ago. But a longer experience with the campaign hat, particularly after the rainy season set in, showed it to have advantages not possessed by the other forms of head gear.

As the result of general experience it may be said that a light weight woolen undershirt is regarded as essential to prevent chilling of the body when damp with perspiration. Drawers should be of the same material, although some medical officers consider cotton to be preferable as cooler. A white duck uniform is recommended for garrison duty and the khaki suit for field service. As no reference to socks or shoes appears in the sanitary reports, it is inferred that these have given entire satisfaction. The desirability of having rubber clothing for use during heavy rains was expressed by a number of medical officers.

RECOMMENDATIONS.

The medical corps of the army, which was scarcely adequate before the war with Spain for our army of 25,000 men, is now entirely inadequate and should be increased as soon as is practicable.

Physicians and surgeons from civil life, however well qualified professionally, as a rule are not prepared to assume

the responsibilities of medical officers charged with administrative duties and the sanitary supervision of camps. The proper performance of such duties cannot be expected from a physician without military training or experience, no matter how distinguished a position he may have held in civil life.

Many of the commissioned medical officers of the volunteer army, and of the acting assistant-surgeons have made rapid progress in acquiring a knowledge of their military duties and have demonstrated their fitness for the military service. In filling vacancies in the medical corps these gentlemen should in my opinion have the preference when they come within the established age limit and are able to pass a satisfactory professional and physical examination.

The value of the aphorism "In time of peace prepare for war," has received additional support during our recent experience. This preparation should include a corps of trained medical officers larger than is absolutely necessary for the army on a peace basis, and systematic instruction in military medicine and hygiene for the medical officers of the National Guard as well as for those of the regular army; also instruction of line officers in the elements of hygiene and especially in camp sanitation. It should also include the establishment of camping grounds in various parts of the country, having an ample supply of pure water, a proper system of sewers, etc. If our volunteers could have been assembled in such camps during the late war a saving in lives and money would have resulted, which would, without doubt, have demonstrated the economy of such preparation for war in time of peace.

CONCLUSION.

Before closing this report I desire to express my appreciation of the intelligent and zealous devotion to duty which, with few exceptions, has characterized the officers of the medical department, both regulars and volunteers, and including the acting assistant surgeons.

I have been ably supported in the administration of the affairs of the Medical Department by Colonel Charles H. Alden, Assistant Surgeon-General, in charge of the supply division of my office; Colonel Dallas Bache, Assistant Surgeon-General, in charge of the museum and library division; Colonel Charles R. Greenleaf, Assistant Surgeon General, chief medical inspector of the army; Lieutenant Colonel Charles Smart, Deputy Surgeon-General, in charge of the sanitary division; Major George E. Bushnell, Surgeon U. S. Army, in charge of the hospital corps division; Acting Assistant-Surgeon Anita Newcomb McGee, in charge of the army nurse corps (female), and by the Chief Surgeons of the various military departments. The Chief Surgeons on duty in the Philippines, in Cuba, and in Porto Rico, have occupied especially responsible positions and have discharged their duties in a manner most creditable to themselves and to the department.

The clerical force of my office has been working under the strain of enormously increased labor since the outbreak of the war with Spain, and has met the task with intelligence and fidelity. The Chief Clerk, Mr. George A. Jones, and the older members of the permanent force, generally have been indefatigable in their efforts to prevent the work of the office from falling behind, and by sacrificing leaves of absence due them and working out of the official office-hours, have to a great extent been successful in so doing.

Very respectfully,
GEO. M. STERNBERG,
Surgeon-General, U. S. Army.

The Plague in New York Harbor.—The steamer *J. W. Taylor*, from Santos, Brazil, October 24, arrived in New York harbor, November 18, with plague aboard. On November 1, the steward was taken ill and died at the end of 4 days. On the arrival of the ship off New York the quarantine authorities found that the captain and the cook were suffering from the disease, and had them removed to the fever-hospital in the lower bay. In a bulletin issued by the Quarantine Board of Consultation it was stated that there is no cause for general alarm, and that such thorough precautions will be taken as to prevent the possibility of further infection from the vessel, its cargo, or its passengers.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending December 2, 1899:

Monday, November 27—Neurological Society.

The new operating room of the Harrisburg (Pa.) Hospital, erected under the terms of the will of the late Mrs. Sara J. Haldeman-Haly, was formally dedicated November 14. Addresses were delivered by the president of the Board of Trustees, Dr. H. B. McCormick, Gov. Stone, Mayor Fritchy, Mr. A. F. Kelker, Hon. Robert Snodgrass, Dr. F. W. Coover. The room is fully equipped and endowed.

Jefferson Medical College.—At a recent meeting of the faculty a policy of self-government among the students was adopted, and the following letter was sent to the presidents of the several classes:

PHILADELPHIA, November 1, 1899.

To the President of the ——— Class —.

MY DEAR SIR:—You are requested to call a meeting of your class at once and urge them to comply with the following resolution of the Faculty, which was passed on the evening of October 30:

Resolved (1) That the classes be requested to form a Students' Committee, to be constituted of the presidents of the classes and associates elected by the classes, in number to equal the number of years of attendance, making the Senior Class to have five representatives, the Junior Class four, the Sophomore Class three, and the Freshmen Class two. (2) That the Faculty may refer to this committee for the adjustment of questions of disorderly conduct, damages to property, or other breaches of the rules.

Yours very truly,
J. W. HOLLAND, *Dean.*

The committees from the various classes have been elected, and the system will be given a fair trial.

Vital Statistics of Philadelphia for the week ended November 18, 1899:—

Total mortality		365
Diseases.	Cases.	Deaths.
Pneumonia 38, congestion of the lungs 8		46
Pulmonary tuberculosis		43
Apoplexy 16, paralysis 8, softening of the brain 5		29
Inanition 17, marasmus 7, debility 4		28
Heart-disease 26, inflammation of the heart 1		27
Diphtheria 24, membranous croup 3	169	27
Nephritis 9, uremia 11		20
Carcinoma		18
Gastroenteritis 10, cholera infantum 4		14
Inflammation of the brain 9, congestion of the brain 2		11
Casualties 7, burns and scalds 3		10
Typhoid fever	42	4
Scarlet fever	70	3
Convulsions 7, senility 6, cirrhosis of the liver 5, dropsy 4, hemorrhage 4, peritonitis 4, cyanosis 3, diabetes 3, bronchitis 3, abscess 2, laryngitis 2, pertussis 2, asphyxia 1, epilepsy 1, catarrhal fever 1, puerperal fever 1, influenza 1, poisoning 1.		

Pittsburg (Pa.) Academy of Medicine.—At a meeting held October 16, Dr. E. B. HAWORTH presented photographs of a **perineal crutch** devised for a patient with tubercular knee-joint. Its use enables the patient to go about without bearing any weight upon the sole of the foot, thus protecting the joint. The apparatus is composed of steel uprights, on top of which is a metal gutter carrying a heavy rubber tube as a cushion, which is inflated with an ordinary bicycle pump.

DR. E. G. MATSON read a paper on **Water-borne diseases,** which will be published in the PHILADELPHIA MONTHLY MEDICAL JOURNAL. In the discussion DR. J. H. ANDERSON referred to Finsen's method of treating lupus (recently published in the JOURNAL) and suggested the possibility of destroying

bacteria in water in the same manner. Dr. F. F. Simpson referred to an epidemic of typhoid fever, occurring only in those persons consuming water from a certain artesian well. Dr. Meyer asked if it was possible for Pittsburg to obtain water from the great lakes. Dr. Diller stated that the city of Pittsburg should not lose sight of the debt it owes Dr. Matson and the committee on investigation of water-supply, as well as to Dr. Koenig, editor of the *Pennsylvania Medical Journal*. Dr. Eaton referred to a town near Boston which is supplied by artesian wells. Beneath the beach sand is a layer of clay and under this is water-bearing gravel which gives an abundant supply of very pure water, but it is hard and contains a little salt. The country about Pittsburg, however, is extremely broken and it is hardly likely that such a supply could be had. Dr. Moyer asked for vital statistics of cities supplied by the great lakes; and what proportion of typhoid is found among people in the country using isolated wells. Dr. Pettit asked what is the most frequent cause of typhoid aside from water. Closing the discussion Dr. Matson said that in order to purify water by light of any kind, the water would first have to be clarified to permit of penetration. If clear water is exposed to sunlight a green growth develops which emits a very foul odor. Tapping underlying currents of water is only sufficient to give a very limited supply, and if we attempt to increase it by pumping it causes an infiltration of river water, which is practically the same as taking it from a crib in the river. Natural filtration may be more perfect than artificial, but the difficulty is that it cannot be controled and the supply is irregular. To obtain a supply from the great lakes would combine the expense of the gravity and pumping systems. The water itself is very pure as a rule. But the lakes are also receptacles for sewerage, and some years ago Chicago had an excessive amount of typhoid, about as much as Pittsburg. To be effectual, sand filtration requires careful supervision. Of course a pure water-supply is to be preferred, but in actual practice the results are about the same. Infected milk stands next in importance to infected water as a cause of typhoid fever.

Dr. J. K. Sterrett read a paper on **Business Methods of Professional Life,** which was followed by a general discussion upon the physician as a business man.

At a meeting Oct. 30, Dr. Erwin Fischer reported a well-marked case of **pulmonary tuberculosis which developed typhoid fever,** with many severe hemorrhages and thrombosis of the popliteal vein. The Widal reaction was present. The patient recovered from the typhoid infection and there has since been considerable improvement in the pulmonary condition. Koch's new tuberculin was and is still being used in the treatment of the tuberculosis, and it is believed that the tuberculous process has been limited by this agent. Klebs states that the toxins of the typhoid bacillus have an inhibitory action upon the growth of the tubercle-bacillus. Fischer urged the more general use of tuberculin for both diagnosis and treatment, and called attention to the fact that typhoid fever developed in this case while the patient was taking creasote and guaiacol carbonate in large doses. This would seem to be a powerful argument against the efficiency of the so-called intestinal antisepsis in typhoid fever. Dr. I. J. Moyer stated that typhoid fever is usually credited with intensifying a preexisting tuberculosis. He had used Koch's tuberculin in but 2 cases, but had not been able to follow them up. Dr. Fischer further stated that the patient was under tuberculin influence when typhoid infection took place. When speaking of the use of Koch's tuberculin for diagnosis he referred to the old product; for treatment, to the newer preparation.

Dr. S. N. Pool reported a case of **Congenital hydrocephalus and spina bifida.** Statistics show that in 43,000 births there were 15 cases of hydrocephalus, but he could find nothing as to the frequency of the combination. Labor was difficult. He also reported the development of 5 cases of typhoid fever in a country dwelling whose inmates used water from a spring on the hillside. There were no habitations near, and no case of typhoid fever within a radius of several miles. Milk-supply was from their own cows. Dr Mayer remarked that the combination of spina bifida and hydrocephalus was what might be expected from the nature of fetal development. He referred to a case of hydrocephalus which developed during the first 6 months of life in which a fall, striking the head, was apparently quite beneficial.

Dr. Williamson reported 2 successful cases of **hysterectomy for fibroid and early carcinoma.** Dr. F. F. Simpson reported a **salpingo-öophorectomy** in a woman who had been having repeated attacks of pelvic peritonitis for 15 years, operation being done 3 weeks after last attack. Pulse was less than 90 after operation. The abdomen became distended, vomiting ensued, no gas escaped, peristalsis was slight, but there was no pain. The culdesac was opened 48 hours after operation, permitting the escape of a little bloody fluid. No improvement followed. The following day the lower angle of the abdominal wound was opened and the cavity flushed down through pelvis with normal saline solution. On the fifth day, the condition remaining unchanged, and repeated enemas and internal medication failing to move bowels, the abdomen was again opened, and a complete obstruction found in the sigmoid flexure. This was relieved, but the patient succumbed in 6 hours.

Statement of Cases of Smallpox reported to the State Board of Health of Pennsylvania, from December 12, 1898, to November 1, 1899:

County.	Place.	Cases.	Deaths.	
Allegheny	Pittsburg	23		Jan. 31, 1899
	Gladden	1		May 9, 1899
	Woodville	2		May 9, 1899
	Hazeltine	11		May 16, 1889
	Nevill Island	6		May 4, 1899
	Homestead	1		Feb. 16, 1899
	O'Hara Township	1		Feb. 26, 1899
	McKee's Rocks	3		Mar. 1, 1899
	Sturgeon	2		April 4, 1899
	Carnegie	1		April 24, 1899
	Bridgeville	1		May 3, 1899
	Oakdale	5		May 3, 1899
	E. Pittsburg	6		May 3, 1899
	Mifflin Township	10		May 3, 1899
	Port Perry	1		May 3, 1899
	Emsworth	3	1	May 3, 1899
	Bower Hill	1		May 3, 1899
	Borland	8		May 3, 1899
	Brinton	9		Aug. 3, 1899
	Braddock	3		Aug. 10, 1899
	Beadling	3		Aug. 19, 1899
	Duquesne	12		Sept. 12, 1899
	Leesdale	6		Sept. 16, 1899
	Turtle Creek	8		Aug. 19, 1899
Beaver County	Beaver Falls	1		Mar. 25, 1899
Bedford County	Bedford, suburbs	13		Dec. 12, 1899
	Bedford	32		Dec. 12, 1899
	Bald Hill	1		Jan. 31, 1899
	Everett	3		Jan. 31, 1899
	Charlesville	15		Jan. 31, 1899
	Hopewell	3		Jan. 31, 1899
	Steelton	11		Jan. 31, 1899
	Brumbaugh	2		Feb. 11, 1899
	West Providence	1		Feb. 11, 1899
	Liberty Township	3		Feb. 11, 1899
	Six Mile Run	2		Mar. 4, 1899
	Coaldale	3		Mar. 17, 1899
	Lafayette	1		Mar. 5, 1899
	Imlertown	6		Mar. 17, 1899
	Bedford Township	3		Mar. 17, 1899
	New Enterprise	3		May 16, 1899
	St. Clairsville	2		May 16, 1899
	Broad Top	1		May 16, 1899
	Lapier Township	6		Mar. 20, 1899
	Sandy Run	3		Oct. 28, 1899
	Stahlstown	26		Oct. 25 1899
Blair County	Altoona	26		Feb. 11, 1899
	Claysburg	1		Feb. 11, 1899
	Eldorado	11	1	Mar. 5, 1899
	Hollidaysburg, (near)	3	1	Mar. 8, 1899
	East Freedom	1		Apr. 27, 1899
Cambria County	Johnstown	18		Apr. 8, 1899
	Ashville	1		July 20, 1899
	South Fork	6		July 20, 1899
	Lilly	2		July 20, 1899
	Glasgow	2		July 20, 1899
	Dunlo	7		July 20, 1899
	Llanfire	7		July 20, 1899
	Tire Hill	2		July 20, 1899
	Chest Springs	1		Oct. 1, 1899
	Puritan	1		Oct. 1, 1899
	South Fork	3		Oct. 1, 1899
	Ashville	1		Oct. 1, 1899
Centre County	Phillipsburg	1		May 1, 1899
Chester County	East Vincent Township	1		Jan. 31, 1899
Clearfield County	Smithmill	9		July 26, 1899
	Irvona	6		July 26, 1899
	Coal Port	4	1	July 26, 1899
	Ansonville	4		July 26, 1899
	Utahville	56	1	July 26, 1899
	Utahville (near)	31		July 26, 1899
	Beccaria	2		July 26, 1899
	Mahaffey	1	1	July 26, 1899
	Grampian	5		Aug. 19, 1899
	Wilderness	10	2	Aug. 19, 1899

COUNTY.	PLACE.	CASES.	DEATHS.	
Columbia County	Lime Ridge	1		Apr. 22, 1899
Dauphin County	Steelton	1		Apr. 27, 1899
Delaware County	Chester	1	1	May 9, 1899
Erie County	Erie	1		May 1, 1899
Fayette County	Oakdale	1		Apr. 1, 1899
	Dawson	1		Apr. 2, 1899
	Jimtown	1	1	Apr. 12, 1899
	Layton's Station	27		Apr. 17, 1899
	Brownsville Township	6		May 15, 1899
	Menallen Township	5		May 15, 1899
	Brownsville	5		May 15, 1899
	Red Stone	23		May 15, 1899
	Bridgeport	1		May 15, 1899
	Belle Vernon	1		May 15, 1899
	Morgan Station	4		Aug. 28, 1899
	Lower Tyrone	9		Aug. 28, 1899
Franklin County	Libonia	1		Jan. 31, 1899
Fulton County	New Grenada	7		Jan. 21, 1899
	Hustontown	5		Jan. 30, 1899
	Waterfall	1		Jan. 30, 1899
	Wells Tannery	1		Jan. 30, 1899
	Warfordsburg	1		Jan. 30, 1899
	McConnelsburg	1		Feb. 23, 1899
	Dublin Township	5		Aug. 19, 1899
	Fort Littleton	11		Sept. –, 1899
	Burnt Cabins	3		Sept. –, 1899
	Sheepskin Hollow	3		Sept. –, 1899
Huntingdon County	Saltillo	5		Mar. 4, 1899
	Dudley	3		Apr. 27, 1899
	Shade Cap	7		Aug. 16, 1899
Indiana County	Homer City	2		Jan. 31, 1899
Jefferson County	Punxsutawney	5		Apr. 29, 1899
	McCalmont Township	1		May 3, 1899
	Bell Township	13		July 11, 1899
	Big Soldier	1		July 11, 1899
Philadelphia County	Philadelphia	170		Jan. 23, 1899
Somerset County	Windber	201	3	Mar. 5, 1889
	Felix	30		Mar. 9, 1899
	Ashtola	20		Apr. 18, 1899
	Hooversville	8		Mar. 5, 1899
Washington County	Venice	1	1	Apr. 3, 1899
	Gradatim	1		May 15, 1899
	Gastonville	15		May 15, 1899
	West Brownsville	11		May 15, 1899
Westmoreland County	Donegal	21		July 18, 1899
	Penn Station	6		July 8, 1899
	Alverton	2		Aug. 18, 1899
	West Derry	4		Sept. –, 1899
	Bradenville	1		Sept. –, 1899
	Jones' Mills	10		Sept. –, 1899
	Harold	6		Sept. –, 1899
	Murryville	1		Sept. –, 1899
	Jeannette	1		Sept. –, 1899
	Delmont	1		Sept. –, 1899
		1160	14	

NEW YORK.

Measles Spreading in Buffalo.—It is reported that measles has become epidemic in Buffalo, 68 new cases having been reported in 3 days, and 237 since October 1.

Fair for a Hospital.—The Ladies' Auxiliary of the Harlem Eye, Ear, and Throat Infirmary held a fair, the proceeds of which are to go toward the payment of the mortgage.

Brooklyn Swedish Hospital.—A fair was held in the old Thirteenth Regiment Armory to raise money for the building fund of the Swedish Hospital of Brooklyn. The site has already been purchased.

Ambulance Districts in Brooklyn.—The health department has divided the borough of Brooklyn into 11 hospital districts, and has adopted new rules, having for their object the betterment of the ambulance service.

Anniversary of the Academy of Medicine.—The anniversary meeting of the Academy of Medicine was held on November 16, the occasion being marked by the delivery of a discourse by Dr. Lewis S. Pilcher, of Brooklyn, on the Surgery of the Kidney.

Reinstatement of Dr. Banta.—Dr. Francis M. Banta, the Fire Department Physician, who was removed over a year ago by Commissioner Scannell without any charges being preferred against him, has just obtained from Justice Mattice, of the Supreme Court, a decision stating that this removal was illegal, and directing that application be made for a peremptory mandamus for his reinstatement. Dr. Banta received the appointment after a competitive civil service examination.

Death Follows Prize Fight.—As the sequel to a prize fight the death of one of the principals in the fight, Henry Apfel, is recorded. It is stated that in the thirteenth round Apfel slipped and fell to the floor, fracturing his chin. On reaching his dressing-room he became unconscious, and was taken to the Norwegian Hospital, where he died four days later. By direction of the coroner an autopsy was held, and, as a result of this, it was stated that death resulted from laceration of the brain and cerebral hemorrhage.

The Charity Organization Society.—In its last annual report this society describes a plan which it has devised to enable families on the verge of making their children public charges to keep the family intact. The report also contains a description of new methods of meeting various emergencies in winter, and of certain tenement-house reforms. Most emphatic language is used in speaking of certain objectionable features of the new building code, which was rushed through in spite of protests from those who were deeply interested in the welfare of the tenement dwellers, and knew whereof they spoke. The number of contributors to the work of the society is said to be 2,500.

The Sailors' Snug Harbor.—The investigation of affairs in this institution continues. Recent testimony has, on the whole, been rather favorable to the accused commander. His cause has been warmly championed by Rear Admiral John W. Philip, lately in command of the battleship *Texas*. He spoke in the highest terms before the Investigating Committee of the character of Commander Delehanty, who had been attached to the *Texas* at the time of receiving his appointment as governor of the Harbor. The testimony of some of the hospital inmates was also favorable to the commander. One witness, Captain Armstrong, said that it seemed to be the opinion of the inmates of the Harbor that the Marine Society and the former Governor were primarily responsible for this attack on Gov. Delehanty. It is rumored that legal counsel is already engaged in preparing an appeal to the legislature to place the Harbor under State control.

The Food of Our Soldiers in the Philippines.—It will be remembered that last winter Dr. Louis L. Seaman aroused some criticism by his assertions that a part of the ill-health among our troops in Puerto Rico had been the direct result of adherence to an army-ration totally unfitted to such a climate. Dr. Seaman says that so much harsh feeling was engendered by this contention that he determined to go to the Philippines, at his own expense, and prove, if possible, the truth or falsity of his position. He has done so, and is now engaged in preparing a report for the Secretary of War and the Surgeon-General. He states that he has been in every hospital, and often on the firing-line with the troops, and has made many autopsies, and that all this new experience has only served to strengthen his belief that it is worse than folly to continue the present mode of feeding the soldiers there. He again asserts that by far the greatest number have died of intestinal trouble which could have been prevented by a sensible diet. Such a diet, he adds, is right at hand. If the men were made to subsist on rice they would be far better off than on the present diet of beans and salt pork. Fruit, the natural food of the tropics, was the one thing forbidden to the American soldier.

A Physician Tries Suicide.—Dr. Pliny W. Barber, the Medical Director of the Preferred Accident Association, was committed to the Tombs last Friday for examination on a charge of attempted suicide. On the morning of that day he

purchased 30 grains of morphin at a drug store, and hurriedly scrawling off a short note, asked that it be sent by the druggist to a friend in his office. Suspecting that something was wrong, the druggist opened the note, and learned that the doctor was about to commit suicide at a neighboring hotel. The police were promptly notified, but by the time they had reached his room in the hotel he was already unconscious. An ambulance surgeon resuscitated him, and he was able that afternoon to appear in court, where he was recognized by the magistrate. He would make no explanation at that time. He is said to be quite prominent in social circles in Arlington, N. J., where he has resided for the past 12 years. His family and intimate friends were astounded when informed of his act, and all professed ignorance of any motive for it. It was said that his business affairs were in a satisfactory state, and temporary insanity was the only explanation offered. He had been seen in Arlington the previous evening, apparently in the best of health and spirits.

Private Hospitals and Public Money.—There has been a good deal of discussion of late, both before the State Board of Charities and in the public press, regarding private hospitals receiving aid from the State or municipality. Recently Isaac Wallach, the President of the Mount Sinai Hospital, gave public expression to his belief that such aid should be granted only to hospitals bringing an appreciable measure of support to the city or State. He instanced the work of his hospital as a case in point, and added that not until last year had that hospital received municipal aid, whereas it had contributed, from private sources, over $4,000,000 to the support of the sick poor, thus materially assisting the municipality. To this statement Dr. Frederic R. Sturgis replies, in part as follows: "The Controller's report to the Board of Estimate and Apportionment for this year gives the amount received by the Mount Sinai Hospital from the city during the year 1898 as $14,414.80, but whether it received more or whether it received less is beside the question. The fact is, it received public assistance at a time when it had a cash balance of $18,813.22, as is shown by the report of the State Board of Charities for 1897. Nor is that all, for in the same year this struggling institution put aside for investment $104,000, having therefore as surplus over and above its expenditures $122,813.22."

Druggists Made While You Wait.—A "help wanted" advertisement in a daily newspaper has been the means of bringing to light a fake school of pharmacy of the worst kind. According to the published report, those who replied to the advertisement received a circular letter containing a glowing description of how a young man, by the payment of $50 to "Professor Novarine," and a little time at night devoted to study, could succeed in passing the Board examinations and secure a position as a licensed pharmacist at a compensation of $12 to $25 per week. It goes on to say: "Our system of teaching chemistry, pharmacy, materia medica and toxicology, according to the official program, is so perfect, being the result of years of experience, that we positively guarantee your success at the examinations of the New York State and City Boards, failing which we agree to be financially responsible for your failure (should it occur through any fault of ours), to the extent of the amount paid as tuition fee." A young man who answered the advertisement in person was told by the "professor" that a young man of moderate education could, with a fair amount of study, pass the Board examinations in 3 months, and that one of his pupils had succeeded in doing it in a little over 2. In view of the fact that the law of 1897 requires that every druggist shall have had at least 4 years' experience in a prescription pharmacy before he can be registered, it is not improbable that the officers of the law may feel called upon to check the career of this philanthropic and brilliant professor.

Adulteration of Food and Drink.—The United States Senate Committee, at its hearings in the Imperial Hotel, still continues to draw out much information which should be of interest to every one. It is reassuring to note, that while those who have had most experience in the study of this subject unite in saying that adulteration of food is practised to an enormous extent, only a small proportion of this fraudulent business is of such a nature as to be distinctly detrimental to health. Thus, Professor Chittenden testified that he had rarely detected the presence of antiseptics in articles of food, but he knew that much of what was sold as pure fruit jelly was composed of glucose and acetic acid, which, though a fraud, could hardly be considered as injurious to health when eaten in ordinary quantities. Dr. Edward H. Jenkins, an agricultural chemist, said that in an experience of five years he had discovered only one poisonous adulterant, and that was a coloring matter in a temperance drink. He had found in one glass of raspberry soda water enough anilin dye to color a piece of flannel five inches square. He had found borax used extensively for the preservation of meats, fish and poultry, and salicylic acid in beers, ales and many other liquid preparations. According to the experience of another expert, Mr. George B. Sadler, the Government was annually defrauded of at least $6,000,000 in duties because of the practice of putting spurious domestic liquor into bottles that had previously contained the true imported article, and then making use of fraudulent labels.

Buffalo (N. Y.) Academy of Medicine—Surgical Section.—At the meeting held November 14, Dr. G. N. Jack, of Depew, N. Y., presented a paper entitled **The hygiene of the asthmatic.** Asthma is a disease due to an abnormal blood biochemy, which impares its oxygenation, and the blood dyscrasias that figure most prominently, singly or collectively, in its etiology are the anemic, the leukemic, and the lithemic. The subjects that have immediate bearing on maintaining a normal blood biochemy are diet, baths, light, altitude, habits and location. Foods most rapidly and completely assimilated and readily oxygenated should be chosen. The food that has the greatest imaginable affinity for oxygen, is blood freshly drawn from the normal channels of a living animal, but as the affinity of normal living blood for oxygen is so great that it is instantly altered by its presence, which renders it impracticable to obtain it as a food for all asthmatics, fresh beef can be used instead. Foods rich in albumin, as fresh meat and fruit (?), not only generate a blood favorable to oxygenation, but also unfavorable to the osmotic outpouring of mucus so characteristic in the asthmatic. Cold-water baths increase the cellular elements of the blood, which are the carriers of oxygen and carbon dioxid, that give a decided therapeutic effect upon the dyspnea of asthma. He begins with salt rubs; saturates the towels in salt water and lets them drain dry. With this towel the patient rubs himself five minutes every morning for 10 mornings, then begins the cold-water baths. The chemical effect of sunlight on the blood is shown clinically by the fact that an asthmatic may suffer during the night with agonizing dyspnea that immediately disappears in the morning. Sunlight can be advantageously utilized in the hygiene of asthma. The friction rubs and baths should be taken in a room well lighted by sunlight and if possible directly under the solar rays. High altitudes exert a favorable influence over asthma, due to the immediate increase in the number of red corpuscles, and this polycythemia, he believes, increases

the higher one goes. Tobacco and alcohol are usually found as habits associated with asthma. They are only advantageously used during severe asthmatic seizures, but only by an extravagant expenditure of blood-recuperating power of which the asthmatic has none to spare. There is no disease more destructive to the cellular constituents of the blood or one that better paves the way for asthmatic seizures than malaria.

DR. J. H. PRYOR presented a paper entitled **Protracted pneumonia and slow resolution.** In the last few years, since the presence of grip and the severe forms of influenza, atypical cases of pneumonia, particularly of the croupous or lobar variety, seem to have become more frequent. In order to show the difficult clinical features which characterize pneumonia protracted in its course, the cases may be classified into: (1) Slight or no changes in the signs or symptoms of the disease, finally ending in recovery with complete or incomplete restoration. The illness lasts from 4 to 8 weeks, temperature from 101° to 102.50° for weeks, pulse rapid, cough and expectoration may continue or appear and disappear; after several weeks have elapsed the symptoms change gradually, the resolution may be rapid or long delayed. In many cases resolution is incomplete for a long period after recovery occurs. Tuberculosis is often suspected in such cases. There may be mixed infection in such cases, but, as a rule, the history and appearance of the person, character of fever and symptoms of toxemia are a safeguard when tubercular disease exists alone or in association with pneumonia. It is sometimes impossible to determine whether the condition is due to a mixed infection in which the tubercle-bacillus plays a part. Time alone determines the diagnosis. (2) Relapsing pneumonia. The same territory may be invaded twice within an interval of hours or days after a period of apparent recovery, or the disease may extend from one portion of the lung to another prolonging the duration of the attack. (3) Subsidence of symptoms with normal temperature in usual way, consolidation continuing, after a period of several days or weeks, the temperature rises, illness supervenes and resolution gradually occurs in the customary manner. (4) Pneumonia of a subacute variety involving a lobe or a portion of a lobe with temperature ranging from 99.5° to 101° daily from 3 months to 1 year. The patient presents the symptoms of phthisis, and the diagnosis is puzzling. (5) Pneumonia assuming a chronic form and terminating in fibroid phthisis. This form is simply a type of the disease with prolonged duration. Of the influences contributing to these prolonged attacks little is known, certainly the causative agency or the combination of agencies does not account for this alone. Complications, such as cardiac or renal disease or constitutional dyscrasia, may at times offer some explanation. In the way of medical treatment, he said, the most harm is done by overstimulation, which causes the heart to be confused or staggered. Pure air and sunlight are the best remedies for thoracic diseases. Fresh air must enter the diseased lungs. Methods must be employed to insure deep breathing. Aside from the advantages of deep breathing in protracted pneumonia, it is of great importance in preventing the dangerous troublesome and lingering effects of all forms of pneumonia. When patients are kept in heated rooms and deprived of open air so long constitutional weakness and mental and physical apathy delay recovery indefinitely. In the discussion, DR. B. G. LONG related a case of delayed resolution and recovery in pneumonia following appendicitis. Tuberculosis or abscess was suspected. Upon going into the open air in high altitudes in 10 days the lung had cleared and the patient made a rapid recovery. DR. C. S. JEWETT emphasized the necessity of the use of the lung in protracted pneumonia, and agreed with the warning against the excessive use of stimulating drugs. DR. PRYOR closed by calling attention to two points: that delayed pneumonia was common, and that recovery might be hurried and delay prevented by proper use of the lungs.

NEW ENGLAND.

Carney Hospital, Boston.—An addition of an estate containing 4,000 feet of land and a brick building has been made to the grounds of Carney Hospital.

Filtration of Water Supplies in Massachusetts.—Fourteen cities and towns in Massachusetts purify their water by filtration, and the State Board of Health report that the results have been highly satisfactory. The general method is the application intermittently to prepared beds of sand and gravel.

Boston Society for Medical Improvement.—At a meeting held November 6, DR. FREDERICK C. COBB read a paper on **Epistaxis.** He said that epistaxis should be regarded as a symptom of a local or general disease. The local lesions concerned may be said to be in the order of frequency, (1) Deviation of the nasal septum whereby crusts and scabs form on the cartilaginous portion and being removed by the patient give rise to ulcerations; (2) fracture of the septum or nasal bones or trauma due to nasal operations; new growths of the nostril, especially angiomas and angiosarcomas. The constitutional diseases leading to epistaxis in the order of frequency are any form of disease of the kidneys resulting in increased arterial tension, plethora and anemia, and syphilis, phthsis and alcoholism. Severe arterial hemorrhage without local lesions should always lead to examination of the general condition and especially of the kidneys. Prognosis depends upon our ability to treat the cause. Local lesions, where they cause irritation and ulceration can be controled, but general conditions should also be treated. All forms of epistaxis should be treated by location and cauterization of the bleeding point on the septum with the aid of a strong reflected light and a nasal speculum. In order to find the bleeding point the hemorrhage should first be controled by a pledget of cotton soaked in a 10% solution of cocain. The bleeding point, after carefully wiping out the nostril, should be cauterized with chromic acid or the galvanocautery point heated to a dull red. If cocain fails to stop the hemorrhage suprarenal capsule in a 10% solution may be used in the same manner, followed as before by cauterization. If no bleeding point can be found and if the hemorrhage persists, pack the nostril by means of antiseptic gauze, introduced by a pair of long forceps along the floor of the nose as far as the posterior nares, laid strip on strip until the nostril is occluded. Posterior plugs drawn up into the posterior nares are deprecated on account of the danger to the ear as well as the discomfort caused by them.

Suffolk District (Mass.) Medical Society.—At a meeting held November 15, DR. VINCENT Y. BOWDITCH reviewed the first year's work of **The Massachusetts State Hospital for Consumptives at Rutland.** The hospital was opened in October, 1898, and is the first State institution for the treatment of phthisis. The work of this State hospital is limited to such "as are deemed not too far advanced to admit of reasonable hope of radical improvement." The results of the first year's work are of special interest from the fact that they show what can be done for people of limited means even in the harsh climate of New England, which is considered so unfavorable for consumptives. The hospital stands upon the southern slope of a hill 1,200 feet high, protected on the north and west by a thick forest of pine, hemlock and hard wood. The water-supply comes from Lake Muschopauze, and the sewage is disposed of by means of filter beds on the northern slope of a hill about a mile distant. The buildings, one-story pavilion wards, spreading towards the south like the outstretched fingers of the hand, form the business part of the institution. Sunrooms, long piazzas, camps in the woods, and shelters on the grounds help to provide the maximum of fresh air and sunshine which is the chief means of treatment. The number of patients admitted was 214; discharged, 126; still under treatment October 1, 1899, 88. Of the 126 discharged, 11 remained less than two weeks; of the 115 others, 35 were rated as "arrested cases," 37 as "much improved," 17 as "improved," 24 "not improved," one died and one proved to be a simple case of bronchitis. The term "arrested cases" was applied to those in which all active symptoms, like cough, expectoration, and fever, have disappeared, and where the general symptoms would indicate complete restoration to health. On entrance 27 of these cases had slight signs in one or both apices, in 8 the signs were somewhat advanced in one or both lungs. Bacilli were found in 20 cases; 2 gave the tuberculin test; 9 without sputa gave undoubted symptoms

l physical signs of pulmonary disease, and 4 were very picious without definite signs in the chest. The tuberc- n test was not used in the last two groups of cases. e average gain in weight in these cases in an average stay 4½ months was 15¼ pounds. The percentage of the "ar- ted cases" out of the whole number of patients was 31%, l it is a curious fact, as Dr. Bowditch remembered, that s percentage was almost exactly the same as that noted in ıatoriums elsewhere. In a paper read before the American matological Association in New York last May, Dr. Bow- ch gave the subsequent history of 34 "arrested" cases. ated elsewhere by him, and the percentage of those that nained apparently well was gratifyingly large, and where symptoms returned it was, save in one case, due either the advanced condition of the disease when treatment be- ı or to the return of the patient to unhygienic surround- s and occupations. Constant effort at Rutland is made to uce patients to seek some form of livelihood other than one in which the trouble arose. Regarding the treat- nt at Rutland, Dr. Bowditch said: "Constant life in the en air, whether resting or exercising, is insisted upon. Ex- ot at the hours of rising or going to bed, the windows are open, varying somewhat according to the outside tem- ature during the 24 hours. Sponge and plunge baths, monary gymnastics, three hearty meals a day, with ches of milk, eggs or their equivalent, are essential parts he treatment. Little weight has been given to medicinal atment, except as an adjunct to the other more important ds. A certain serum treatment was tried on a limited mber of cases, but as the results were negative it was dis- ıtinued." Dr. Bowditch calls attention to movements in liana and New York for like State institutions, and recom- nds that the number of hospitals be increased in Massa- ısetts, his idea being that 200 patients are enough for one ce. The Rutland hospital has been crowded ever since vas open. Not the least among the public benefits of the spital is the promulgation of the gospel of fresh air and ısshine by the outgoing patients. The support of the Rut- d hospital by the profession in Massachusetts was asked.

CHICAGO AND WESTERN STATES.

Smallpox in Illinois.—According to the Secretary of State Board of Health, there can be no doubt that small- x is spreading throughout the State, notwithstanding the roic efforts of the State Board of Health to stamp out the ease. The Board reiterates its advice that all persons o have not been vaccinated in the last few years be so at ce.

Chicago Ophthalmological and Otological So- ety.—At a meeting, held November 14, DR. CASEY A. OOD showed two cases of **Methyl alcohol intoxication** which the fundus changes were typical. DR. HENRY ADLE thought that these two cases plainly showed that the uble is a post-neuritic atrophy. DR. WILLIAM H. WILDER orted a case of probable **Sarcoma of the choroid.**

Danger of Disease from Peddled Fruit.—Dr. alding, Chief Medical Inspector of the Chicago Health partment, says there is no question that chances are taken enever fruit purchased from peddlers is eaten without infection. It is certainly of greater importance that the blic be protected from disease than that a small portion of population who peddle fruit be protected in methods ich unquestionably spread disease.

The Medical Practice Act of Illinois.—The attorney the State Board of Health, Mr. Barnes, says it is ex- mely difficult to convict violators of the medical practice . He declares that such violators are numerous, that one ınot take a street-car ride in Chicago without observing ir signs on either hand; but he says that patients whom y treat "hide out" when subpenaed, and the juries are w to find verdicts of guilty even when the evidence is nclusive.

Institution for the Treatment of Tuberculous Patients.—The Citizens' Committee that undertook in September to raise $10,000 to assist the Sisters of St. Elizabeth Hospital to build an institution exclusively for the treatment of tuberculous patients, has now decided to raise all of the $150,000 necessary for the building. The building will accommodate 300 patients. The $10,000 has been raised already, and there is a probability that there will be no difficulty in raising $125,000 more.

Evanston Hospital.—The Eighth Annual Report of the Board of Directors has just been issued. It shows that the hospital is in a flourishing condition, and plans are in mind for the enlargement of the scope of the work for the future. The report of the Superintendent shows the number of patients treated from October 31, 1898, to October 31, 1899, as follows: Number of patients discharged cured, 95; discharged improved, 30; discharged unimproved, 1; number of deaths, 10; and number of patients not treated, 6.

Medical School-Inspectors in Chicago.—By a vote of 16 to 2, the Board of Education has adopted Dr. Christopher's plan to employ 50 medical inspectors in the schools at a salary of $50 each per month, to prevent the spread of contagious diseases. The changes recommended by the attorney of the Board are that the inspectors be employed only at such times as scarlet fever, diphtheria, etc., have obtained a hold in the city and threaten the pupils of the schools, and that children who have been absent more than 4 days be allowed to return to school unless they bear signs of some infectious disease.

Illinois Society for the Prevention of Consumption.—The formation of this society last summer is to be followed this winter by an active campaign seeking legislative aid for the care of consumptives. The organization by the City Council of a special milk inspection department, which shall prohibit the sale of milk not previously certified as nontuberculous, will be urged, and the State will be asked to erect a State sanatorium for consumptives. Pamphlets explaining the dangers of the various forms of tuberculosis will be distributed, in order to educate the public regarding the spread of the disease, first, among cattle, and subsequently among people. The last General Assembly instructed the State Board of Health to investigate the practicability of building a State sanatorium for consumptives, and the board has recommended the erection of a building and its maintenance. The cost of the building will be $200,000. Following the establishment of the sanatorium, legislation will be asked for providing for the compulsory isolation of consumptives in virulent stages.

Chicago Medical Society.—At a meeting held November 15, DR. ARTHUR D. BEVAN showed a patient, a woman, 32 years old, in whom he had **resected the rectum for a stricture** of about 10 years' duration. The entire rectum was removed and the sigmoid stitched down into the external sphincter.

DR. L. L. MCARTHUR reported a case of **urethroplasty in the female.** Some years during the urethral catheterization, preliminary to nephrectomy, the operator found it necessary temporarily to split the urethra back to the internal meatus. Subsequently repeated efforts to reconstruct the same failed for one reason or another, though all the recognized methods for closure were employed and by different operators. Tuberculosis, however, was suspected. The patient for years after this, while physically well and increasing in weight, had permanent urinary incontinence. On examination, March, 1899, by Dr. McArthur, there was found an

opening in the bladder base at about the location of the internal meatus of a size sufficient to admit the tip of the little finger. The bladder in the reclining position held a few teaspoonfuls of normal urine, acid, specific gravity 1018, which were thus collected for examination. There was some eczema of adjacent parts; no remains of a urethra to be seen; tissue in its former line, of a smooth cicatricial character showing site of former attempts at reconstruction. In the face of the histories of over nine attempts at plastic reconstruction the lines of sutures always gave way, and the intimate surgical knowledge in which the patient had acquired by research and experience, it became necessary to devise a procedure which should be of an entirely different character and which should be independent of sutures for its success. He therefore proposed the following: The construction of a mucous tubule for a new urethra from anterior vaginal wall flap; conversion of this flap into a tube by temporary sutures; perforation of the tissues beneath the symphysis by trocar or blunt dissection to a point as high or higher than the site of former external meatus; drawing through this tunnel the tubular flap and its fixation at the site of the new external meatus; locating the base of the flap at the fistula in the bladder so that when drawn through the tunnel, the fistula was covered in; and finally drawing together the edges of he denuded vaginal surface, thus closing the vaginal wound entirely, except at the point where a temporary vesical drain of small size, well back in the base of the bladder, was made. Recovery was uneventful, with the reestablishment of a perfectly formed urethra, of course, without a sphincter, but with a neck located high enough to permit the retention of urine for 2 hours, and the voluntary emptying of the bladder, which by its long nonuse had become extremely contracted. Reviewing the literature Dr. McArthur concluded: Clinical experience so far points to failure in majority of instances of heteroplasty, though the use of similar grafts from the accidentally killed human subjects may be a future successful method. Grafts without pedicle under these conditions are prone to slough. This method is equally applicable to cases of hypospadias and epispadias, utilizing similar tubules of skin. Failure in the usual operations results from the cutting out of stitches. In this operation one is not dependent thereon for success.

DR. J. RAWSON PENNINGTON presented a patient with a syphilitic history and a **tubular stricture of the rectum.** He reported the case of another patient who had had **chronic constipation for 21 years,** which developed during her first pregnancy. DR. EDWARD H. OCHSNER reported a case of **transverse fracture of the left clavicle** in a young man, which was sustained while playing football a year ago. The fracture occurred at about the middle third, a little nearer the sternal than the acromial end. DR. HENRY G. ANTHONY reported an interesting case of **blastomycetic dermatitis.** DR. JACOB FRANK related the history of a case of **carcinoma of the larynx** of several years' duration in which he resorted to laryngectomy. He exhibited the patient and showed macroscopic and microscopic specimens.

DR. A. E. HALSTEAD reported three cases of **perineal resection of the rectum for carcinoma.** This operation was first performed by Fäget in 1763, but did not attract much attention until 1833, when Lisfranc again employed it. Since that time it has been known as the Lisfranc operation. It can be employed in all cases of cancer of the rectum, situated below the peritoneal fold. Cancer of the rectum, beginning low down and extending above the level of the third sacral vertebra, is rare. This, with cancers of the lower sigmoid colon, wholly above the third sacral vertebra, should either be attacked through the sacral or abdominal route. The mortality from this operation is not so high, and the permanent results are better than by the sacral method of rectal excision.

Cleveland (Ohio) Medical Society.—At the quarterly meeting held October 27, the lecture of the evening was delivered by DR. HENRY W. BETTMAN of Cincinnati, and was entitled **Acute Dilation of the Stomach with Remarks on Dilation of the Stomach in General.** It will be published in a future number of this JOURNAL. DR. ROSENWASSER said the cases reported dated, in many instances, as far back as 1850, since which time our ideas of sepsis and of abdominal diseases have undergone a perfect revolution. Probably many of these old necropsies were very imperfectly made. He believed that the distended stomach is often purely secondary to a septic condition, and noted that in some of the reported cases septic foci had been found. Dilation may have caused death secondarily but not primarily. In the cases reported it seems that collapse preceded the distention, which then, of course, could not have been the cause of the collapse. Distention after collapse is very common in septic infection. DR. H. W. ROGERS noted the relation, in his experience, of distention of the stomach to cardiac disease. He noted a case of enlarged heart, with final death from rupture, in which the stomach was found greatly distended. He noted another case of a young man, addicted to the overuse of alcohol, who dropped dead immediately after taking a seidlitz powder. It is a common thing in the heart-disease of old people to find accompanying dilated stomach, and he wished to know if there was any relation between the two conditions. DR. C. J. ALDRICH noted a case of enormously distended stomach in a hysteric subject that was caused by the patient voluntarily swallowing air in large quantities. In this case he was able to persuade the patient to perform this operation while he was watching. He had seen another case in which he was sure the distention was produced in the same way. DR. N. ROSEWATER reported a case of gastric dilation occurring in a young woman 19 years of age, during convalescence from grip. Along with the dilation she had quite general tetanic rigidity. In all of these cases of acute dilation large quantities of fluid are vomited that contain a great deal of bile. As bile is very toxic the question arises if there is not a good deal of absorption of bile in those cases with consequent symptoms of collapse. He suggested that it is possible that in some of these cases there is suspension of the functions of the kidney and that the stomach tries to replace the kidney as an excretory organ. DR. N. STONE SCOTT said that dilation was always a symptom and was secondary to the hypertrophy of the stomach-wall that follows chronic stenosis of the pylorus. He questioned the possibility of discussing a symptom, as had been done in the paper of the evening, without taking into account the antecedent conditions. He regretted that the paper had not thrown more light upon the obscure forms of gastric dilation that are associated with regurgitation of bile. DR. L. REICH said that there were many cases of large stomachs which have not been preceded by a stenosed pylorus or hypertrophied gastric wall, as for instance the dilated stomachs of gluttons. In the case also of excessive beer-drinkers, as are to be found among Germans, this sort of dilated stomach is not uncommon. These cases can be remedied by reducing the amount of fluid taken and by insisting upon a dry diet. DR. R. J. WENNER reported a case of a young lady taken sick ten weeks previously with all the symptoms of typhoid fever, including positive Widal reaction and also the diazo reaction. During the fourth week, when she seemed convalescent, vomiting of large quantities of yellowish-green fluid began. This was out of all proportion to the quantity ingested. There was a distinct succussion sound over the lower part of abdomen. Lavage twice a day for a number of days brought relief until a distressing tachycardia set in, the pulse running from 140 to 170. Then the vomiting recommenced. The case is still in this condition and the stomach has been outlined at three fingers' breath below the umbilicus. He had seen another case of acute dilation in a patient upon whom he had operated for pelvic abscess. Of course in this case there was a profound septic condition. DR. BETTMAN, in closing, said that a few years ago he had shared the extreme view of the surgeons that gastric dilation must be preceded by stenosis of the pylorus and hypertrophy of the stomach-wall. The cases he had reported, however, had shown clearly that dilation of the stomach very frequently occurs without any antecedent stenosis. He said that we must have a clear conception of the criterions of a disease. He said this would be about as follows: First, that the conditions which the disease seemed to produce have not existed prior to the onset of the attack. Second, that at the necropsy evidence of the disease shall be manifest. Third, that the symptoms produced shall seem warranted by the postmortem findings. All these conditions had been ful-

led in the cases of acute dilation of the stomach that he d reported. As to the date, he placed almost as complete liance upon the postmortem findings described by Hilton gge in 1870 as he would upon a necropsy done before his n eyes. To say the condition is secondary throws no light on it any more than to consider diphtheric paralysis rely as a part of the antecedent disease. The regurgitan of bile into the stomach is by no means a symptom of lation and not infrequently occurs in a healthy individual er somewhat prolonged fasting, and he doubted whether had any special significance in relation to the conditions der discussion. A certain number of cases of dilation of e stomach have recovered after the operation of gastroplicion, which could hardly occur if there had been, as the rgeons maintain, a stenosis of the pylorus. The relation disease of the heart to stomach-dilation is not altogether ar. A number of cases of chronic dilation of the stomach ve been reported that lead directly to death, not a few of em occurring suddenly after partaking of an excessive al, and very often in these cases nothing is found wrong th the heart.

SOUTHERN STATES.

Physicians in Public Affairs.—It is worthy of note t the number of physicians who take an active part in airs of state is constantly increasing. At the last election Maryland 3 doctors were honored by election to high icial positions. Dr. J. W. Hering, of Westminster, was cted State Comptroller; Dr. J. B. Schwatka, Sheriff of the y of Baltimore, and Dr. Clotworthy Birnie will represent rroll County in the State Senate.

The Union Protestant Infirmary of Baltimore, ich has been closed during the summer for repairs, was pened 10 days ago and most of its beds are already occied. Rather extensive changes were made, so that the titution now accommodates a much larger number of ients, and the operating-room, which has been moved to top floor, is considered to be one of the best lighted and st thoroughly equipped in the city.

A new hospital will soon be erected in Richnd, Va., as the outcome of the well directed efforts some of the physicians of that city. A board of stees consisting of the following has been selected: S. Bosher, president; John L. Williams, vice-president; Randolph Williams, secretary; Fred. C. Nolting, treasr; and E. T. D. Myers, W. R. Twigg, John S. Wilns, E. L. Bemiss, W. M. Habliston, C. W. Tanner, Dr. rge Ben Johnston, Dr. Christopher Tompkins, Dr. L. C. her, Dr. H. H. Levy, and Dr. Ennion G. Williams. Aldy $150,000 has been collected, of which $100,000 was tributed by John L. Williams. The staff will be comed of the faculty of the Medical College of Virginia.

Johns Hopkins Hospital Medical Society.—At a eting held November 20, DR. OSLER exhibited some cases strating **pigmentation of the skin** from various ses.

ASE 1.—**Addison's Disease.**—An adult male who had nearly 5 years had progressive pigmentation of the skin, cks of abdominal pain associated with vomiting and tching of muscles, and spells of remarkable asthenia in ich for nearly a week he was unable to turn in bed. There s no pigmentation of the mucous membranes, no fever l no signs of pulmonary tuberculosis; 2 mg. of tuberin had not been followed by any reaction.

ASE 2.—**Hemochromatosis.** (?)—A boy of 12 had been he wards in 1896 with a tertian ague and a remarkable mentation of the skin out of all proportion to the length intensity of the malarial infection. In 1897 he again had laria, and an abscess which had healed had been opened he thigh. The pigmentation of the skin had deepened. was under observation in 1898 at intervals. In September, 1899, he returned with still deeper bronzing of the skin, pigmentation of the mucous membrane of the lips and enlargement of the spleen and liver. During all this period he had no gastrointestinal symptoms, no asthenia and no sugar in the urine. It was suggested that the case was possibly one of hemochromatosis, that remarkable affection characterized by bronzing of the skin, hypertrophic cirrhosis, enlargement of the spleen, and in the latter stages, diabetes from sclerosis of the pancreas. They had not been able to procure a bit of skin for examination, on which alone a positive diagnosis might be made from the presence of the ochre-yellow pigment containing iron and which differs entirely from that in Addison's disease.

CASE 3.—**Progressive Melanoderma in Chronic Myocarditis.**—The patient, aged about 45, had been in the hospital 9 times during the past 4 years, on each occasion with signs of dilated heart, shortness of breath, and edema of the feet. He had become progressively darker until he now resembled a case of Addison's disease. He had not had any gastrointestinal disturbance nor asthenia, though his pulse had often been very feeble and irregular. There was no pigmentation of the mucous membranes and no enlargement of the liver or spleen. A portion of the skin had been excised, but no report was at hand. Dr. Osler regarded the case as one of those remarkable forms of melanoderma seen occasionally in chronic renal, arterial or cardiac disease in which there might also be pigmentation of the mucous membrane.

CASE 4.—**Melanoderma in Splenic Anemia.**—A young man in the private ward with enlarged spleen and an anemia of a chlorotic type, had for nearly two years become gradually darker, chiefly about the face and hands. He could not be shown at the meeting as he had during the day an attack of hematuria. Dr. Osler remarked that this was the fourth case of splenic anemia that had been in the hospital with marked melanoderma. In one the pigmentation had been as dark as in any case of Addison's disease.

DR. MITCHELL exhibited some surgical cases which had been under treatment during the past few months.

CASE 1.—**Recovery after Very Great Shock.**—The man was admitted 10 days ago, about 6.30 P.M., in very bad condition with an injury of the right arm produced by machinery. The skin of the arm was torn from the shoulder down just as you might pull out a sleeve lining. His pulse was 80 and very weak, respiration 40, temperature 97°. He was put to bed with the feet elevated, infused with 600 cc. normal salt-solution under the breast and given a hot enema of coffee and salt-solution. Up to 10 o'clock that night he improved, but then began to fail rapidly and immediate operation was decided upon. A shoulder amputation was done, requiring only 5 minutes' time, and though he was under anesthesia less than 10 minutes his condition became so bad that no radial pulse could be felt and the heart was so weak that the second sound could not be heard. An injection of strychnia and another infusion of salt-solution were given, the patient rallied and made a rapid convalescence.

CASE 2.—**Complete Traumatic Section of the Nerves of the Forearm.**—This man was admitted on November 10 with an injury to the inner and posterior part of the left arm produced by a buzz-saw. There were three main cuts with numerous lesions extending from them. The upper one of the cuts exposed the musculospiral and the ulnar nerves and divided the internal cutaneus. The second cut divided the ulnar, made a large opening into the bone and divided the musculospiral just as it wound around the bone. The third cut divided the median nerve at the elbow, but did not expose the artery. Both the biceps and triceps muscles were extensively lacerated. The nerves were properly identified and sutured, the muscles brought together with buried silver and catgut sutures and the skin loosely approximated over the wound. The man made a perfect recovery, and everything healed per primum, except the portions where there was no skin, and these were covered by healthy blood-clot. A careful watch will be kept over the process of regeneration.

DR. MILLER exhibited 2 gynecologic cases, the first, of **abdominal tumor complicating pregnancy** in the second month. The diagnosis was an exceedingly difficult one, but was confirmed by operation when a multilocular

ovarian cyst was found together with a retroflexed pregnant uterus. The second was one of **prolapse of the uterus,** with necrosis of the anterior lip of the cervix and anterior wall of the vagina.

DR. FUTCHER reported a case that had presented numerous complications. The patient had suffered with **rheumatism** 7 years ago, and the physical signs showed a **chronic endocarditis,** probably the result of that illness. During his stay in the hospital they diagnosed an **acute endocarditis,** an **infarction of the lung,** and a **meningitis,** from which he died. DR. BARKER exhibited the pathologic specimens, and reported upon the bacteriologic findings in the case. There was very extensive pachymeningitis, the entire brain and spinal cord being covered with pus, a panophthalmitis of one eye, an abscess in the mitral, and another in the tricuspid valves, and an infarction of the right lung. Cultures showed the pneumococcus of Fraenkel.

Medical and Chirurgical Faculty of Maryland.—The semi-annual meeting held in Westminster, November 14, was called to order by the President, Dr. Clotworthy Birnie, and the address of welcome was delivered by DR. J. W. HERING, of Westminster. DR. E. F. CORDELL read a paper on **The medical and chirurgical faculty's contribution to the welfare of the State,** stating that the history of this faculty constitutes a very large part of the history of the medical profession of Maryland. He briefly reviewed the general condition of the profession and of the community at the time of the Faculty's birth, a century ago, and pointed out the services the society had rendered the State.

DR. WILLIAM OSLER presented a paper on **The home treatment of consumption,** prefacing his remarks with the statement that in 95% of the cases seen by physicians the patients are unable to afford treatment away from their homes. Arrest or cure of tuberculosis is a question entirely of nutrition and, of the measures by which the general nutrition of the body may be encouraged, the first and most important is fresh air. The quality of the fresh air in our large cities may not be very good, but it is the best that a large proportion of our patients can get to breathe, and it is a great deal better than the atmosphere of the overheated, ill ventilated rooms in which many of them live. He gives the following directions: take the almanac and count off the hours of sunshine. In winter cut off 2 hours in the morning and 1 hour in the evening, and for the rest of the day the patient must be out of doors. If there is no possible arrangement for life out of doors, the patient must be put in a room with southern exposure, and the bed moved into the sunshine, with the windows wide open. If there is a balcony or veranda with a good outlook towards the South it should be arranged for the patient; if not, a shelter can be put up in the yard at a very moderate cost. On a well padded lounge covered with a couple thicknesses of blankets the patient sits or reclines all day. Only on blustery, stormy or very rainy days is the patient to remain in the house. No degree of cold is a contraindication. This continuous open-air life at rest is the most powerful influence we possess today against the fever of tuberculosis. Secondly we must consider the diet. In any long series of cases the patients who do well are those who take plenty of food. Each case must be dealt with separately, but as large a quantity of food as possible should be given, even when possible, insisting on overfeeding or stuffing. For some time he has been urging patients to accustom themselves to take raw eggs, beginning with one 3 times a day, and increasing until they can take 20 to 24 a day. If broken into a cup and sprinkled with a little pepper and salt, the egg can be readily swallowed without breaking the yolk.

DR. C. S. MILLET, of Brockton, Mass., gave a most interesting exhibition of photographs, showing the outdoor sleeping-arrangements of a number of his patients. Platforms had been built out from the second-story windows and beds placed upon those, or in some cases beds or cots were placed upon the flat roofs of the first or second story. There were no roof-coverings to these beds, and Dr. Millet insists that there is no danger from dampness and drafts. Some of his patients occasionally awoke to find their bedclothes wet with dew, or even slight rains, and yet they never suffere any ill-effects therefrom. The improvement in 5 cases re ported in detail was very marked.

DR. H. H. YOUNG reviewed the recent improvements in th **Treatment of hypertrophied prostate by electro cautery,** and DR. JAMES H. BILLINGSLEA read a paper o the **Treatment of bladder-troubles in old men.**

After an elaborate luncheon served at the Westminst Hotel, DRS. SIMON FLEXNER and L. F. BARKER gave an a count of their trip to the **Philippines.** Dr. Flexner d scribed the hospitals in Manila, which consist of a gener hospital and a special leper hospital, under the direction the civil government, and three reserve hospitals under mi itary supervision. In addition to these there are the reg mental hospitals, which are now used virtually as detentio camps, and the hospital-ship *Relief.* He described the laboratory, which had been fitted up with an equipmer taken out from the Johns Hopkins Hospital, and briefly r ported on some of his work with tropical dysentery, whic is the most frequent cause of death among our soldiers. H work is as yet not completed, but an organism has bee isolated which he thinks may prove to be the causative fa tor in this disease. Dr. Barker described the general su roundings and conditions of the islands. He thought th the climate has been very much maligned as it is not subje to the extremes of this country. The extremes of temperatu recorded in Manila are only 66° and 91°, but the excessi moisture and the constancy of this high temperature ma it rather trying. One may retire early in the evening, wh the temperature is about 90° and awake in the middle of t night or in the morning to find that there has been a dr of only 2° or 3°. DR. BARKER made special reference to t work of Col. Burns, Surgeon U. S. A., in stamping out sma pox in Manila. Smallpox prevails in Manila as measl does in this country and almost all the natives bear t marks of its ravages. Soon after his arrival Col. Burns b gan to vaccinate and revaccinate the soldiers, and securi the services of a dozen Filipino physicians started to wo upon the natives. It was impossible to depend upon i ported vaccine virus, and not having a supply of calves hand, he started a vaccine-farm of his own, using the or available animals, the caribou or water buffalo. The disea was soon completely under control.

DR. JOHN S. FULTON, secretary of the State Board Health, read a paper on **Typhoid fever in country di tricts,** in which he said that while one-half the populati of the State of Maryland lives in Baltimore, only one-four of the number of deaths from typhoid fever are accredited that city. He spoke of the unsanitary conditions of t premises about many farmhouses and laid stress upon t physicians giving definite instructions concerning t methods of preventing the spread of this disease.

DR. V. M. REICHARD followed with a consideration of t **Treatment of typhoid fever by country docto** He spoke of the necessity of a country doctor being a nu and a cook as well as a physician, and insisted on the nec sity for giving explicit directions concerning the preparati of foods and medicines and of the care and disposition excreta, and of even actually doing these things for the fam at times until they are so thoroughly instructed as to be a to do the work themselves.

MISCELLANY,

Obituary.—DR. MATTHEW J. SMITH, of Jersey City, vember 16, aged 40 years.—DR. ISABEL MITCHELL, Philad phia, November 16.—DR. ALBERT FRICKE, Philadelphia, vember 17, aged 87 years.—DR. D. WEBSTER PRENT Washington, D.C., November 19, aged 56 years.—DR. FRA WEST, of Baltimore, for many years physician to the D Park Hotel, Maryland, died at Asbury Park, N. J., Nove ber 18.

Medical Legislation.—At a meeting recently of Legislative Committee of the American Medical Associat

Dr. H. L. E. Johnson, the Chairman, was authorized to communicate with the State medical societies looking to the appointment by them of two delegates each to meet in Washington in January or February to urge upon Congress legislation of importance to the profession. Among the matters to be brought to the attention of Congress are the establishment of a public health department, provision for a general license to physicians to practise anywhere in the United States, and a request for an appropriation for the publication of the *Index Medicus*.

Health Reports:—The following cases of smallpox, yellow fever, and cholera have been reported to the Surgeon-General of the U. S. Marine-Hospital Service, during the week ended November 17, 1899:

Smallpox.—United States.

			Cases.	Deaths.
District of Columbia:	Washington	Sept. 28–Nov. 11	5	
Illinois:	Chicago	Nov. 4–11		1
Louisiana:	New Orleans	Nov. 4–11	1	
Massachusetts:	Chelsea	Nov. 4–11	2	1
New York:	New York City	Nov. 4–11	1	
Ohio:	Cleveland	Nov. 4–11	6	
Pennsylvania:	Allegheny Co.			
"	Pittsburg	Sept. 25–Nov. 4	1	2
"	Cambria Co.	Sept. 25–Nov. 4	1	
"	Fulton Co.	Sept. 25–Nov. 4	3	
"	Indiana Co.	Sept. 25–Nov. 4	1	
"	Jefferson Co.	Sept. 25–Nov. 4	1	
"	Philadelphia	Sept. 25–Nov. 4	8	
"	Westmorel'd Co.	Sept. 25–Nov. 4	6	
Virginia:	Portsmouth	Nov. 4–11	2	1

Smallpox.—Foreign.

Belgium:	Antwerp	Oct. 7–21	3	1
Austria:	Prague	Oct. 14–21	4	
Egypt:	Cairo	Sept. 22–Oct. 14		2
Greece:	Athens	Oct. 14–21	5	2
India:	Bombay	Oct. 3–10		3
"	Madras	Sept. 23–29		1
Mexico:	City of Mexico	Oct. 15–29	13	
"	Vera Cruz	Nov. 2–9		1
Russia:	Odessa	Oct. 14–21	1	
"	St. Petersburg	Oct. 14–21	5	
"	Warsaw	Oct. 1–21	9	
Spain:	Madrid	Oct. 7–14		5
Straits Settlements:	Singapore	Sept. 8–16		3
Turkey:	Erzeroum	Oct. 7–14	1	
Uruguay:	Montevideo	Sept. 16–Oct. 7	2	

Yellow Fever.—United States.

Florida:	Key West	Nov. 6–11	6	
"	Miami	Nov. 6–14	24	2
"	Port Tampa	Sept. 4–Nov. 16	10	
Louisiana:	New Orleans	Nov 6–10	1	1

Yellow Fever.—Foreign.

Cuba:	Havana	Oct. 22–28		5
"	Santa Clara	Oct. 27		1
Mexico:	Tuxpan	Oct. 23–Nov. 6		9
"	Vera Cruz	Oct. 28–Nov. 3	7	2

Cholera.

India:	Kurrachee	Oct. 1–7	2	8
China:	Hongkong	Sept. 8–30	36	38
India.	Bombay	Oct. 3–10		133
"	Calcutta	Sep.. 23–30		50

Changes in the Medical Corps of the U. S. Navy for the week ended November 18, 1899:

Cleborne, C. J., medical director, placed on the retired list of officers of the Navy from November 10, 1899, under Section 1453, Revised Statutes, for incapacity incurred in the line of service, with the rank and three-fourths the sea pay of the next higher grade under Section 11, Navy Personal Law.

Young, L. L., passed assistant surgeon, placed on the retired list of officers of the Navy from November 10, 1899, under Section 1453, Revised Statutes, for incapacity incurred in the line of service.

Odell, H. E., assistant surgeon, appointed from November 8.

Taylor, J. S., assistant surgeon, appointed from November 10.

Brodrick, R. G., passed assistant surgeon, placed on the retired list of officers of the Navy from November 11, 1899, under Section 1453, Revised Statutes, for incapacity incurred in the line of service.

Rosenbleuth, J. C., passed assistant surgeon, sick leave extended two months.

Wilson, G. B., passed assistant surgeon, detached from the "Constellation" and ordered to the "Dixie."

Crandall, R. P., passed assistant surgeon, ordered to the "Constellation."

Changes in the U. S. Marine Hospital Service for the 7 days ended November 16, 1899:

Irwin, Fairfax, surgeon, department letter of June 16, 1899, granting Surgeon Irwin leave of absence for three months amended so that said leave shall be for two months only. November 16.

Carter, H. R., surgeon, to proceed to Port Tampa, Fla., for special temporary duty. November 10.

Magruder, G. M., surgeon, to rejoin station at Memphis, Tenn. November 15.

Blue, Rupert, passed assistant surgeon, department letter of September 28, 1899, granting Passed Assistant Surgeon Blue leave of absence for one month and eight days amended so that said leave shall be for 27 days only. November 11.

Clark, Taliaferro, assistant surgeon, granted leave of absence for 15 days. November 13.

Pylorectomy.—J. E. Allaben (*Virginia Medical Semi-Monthly*, October 27, 1899) reports the case of a woman, aged 28, who for 10 months had suffered with intermittent pain, gastric disorder, and loss of flesh. There was a tumor in the right hypochrondrium which gradually grew to the size, shape, and consistency of the kidney and became adherent under the umbilicus. Exploratory incision was made and on finding the condition the pyloric end of the stomach was resected. The greater and lesser omentum were cut between 2 rows of catgut ligatures, the duodenum was clamped and severed and the stomach emptied a little beyond the region of the neoplasm. The stomach was then closed from above downward to within an inch of the lower angle by 3 running Lembert sutures, taking in respectively the mucous membrane, the serous and muscular coats; the duodenum was united to the lower angle of the stomach with a Murphy's button. The patient recovered rapidly, leaving the hospital on the fourteenth day and continued well for nearly 2 months when peritonitis suddenly developed. Celiotomy was performed 5 days later and 2 quarts of fluid and pus evacuated, but death resulted 2 days later from exhaustion. The necropsy showed that perforation of the colon had resulted from ulceration caused by the Murphy's button which had been lodged in it. Microscopic examination of the growth showed it to be carcinomatous. [M.B.T.]

Left-sided Appendicitis.—W. E. Ground (*St. Paul Medical Journal*, October, 1899) reports the case of a woman, 20 years old, who had had occasional attacks of indigestion and constipation; she was suddenly taken with abdominal pain, nausea and vomiting. There was a tender spot 2 inches below the umbilicus, 1 inch to the left of the median line, with rigidity, distention and tympanites. Nausea and vomiting continued and the constipation became absolute. As the tumor was on the left side an incision was made in the median line below the umbilicus. Passing the finger downward to the left, a tumor consisting of adherent omentum and intestinal coils was felt. Separation of adhesions was followed by a gush of thick, fecal-smelling pus, and in the abscess-cavity was found a gangrenous appendix, 5 inches long, with 2 perforations and containing 2 large concretions. The appendix almost completely encircled a section of highly discolored gut, nearly occluding the bowel above the band of obstruction. A considerable section of bowel was entirely gangrenous. A piece of the bowel was brought out and stitched to the wall of the abdomen and opened and the abdominal cavity was thoroughly irrigated. The patient's condition became alarmingly worse, the peritoneal cavity was filled with hot salt solution and closed. Under active stimulation she rallied and continued to improve until the eighth day when abdominal distention and vomiting recurred. The condition became progressively worse and death followed. A postmortem examination discovered a perforation 6 inches above the artificial opening in the ileum and general septic peritonitis. The perforation is regarded as the cause of death. [M.B.T.]

Foreign News and Notes.

GREAT BRITAIN.

The Royal College of Surgeons of England, or rather the Council—for the Corporation as a whole has no voice—has decided that members shall have an academic gown to wear on public occasions. Opinion will be divided as to the value of this departure.

The Late Professor W. C. Arnison.—Professor William Christopher Arnison, who died November 4, aged 63, was professor of Surgery in Durham University and consulting surgeon to the Newcastle Infirmary. He was widely known in the north of England as a first-rate surgeon. His death was caused by an acute attack of pneumonia of short duration.

Incorporated Society of Medical Officers of Health.—Dr. Newsholme, the medical officer of health of Brighton, is the President for the year, in which capacity he delivered on the evening of November 19 an interesting address upon Epidemic Diarrhea, a complaint that in many parts of England during the summer is responsible for a terrible death-rate among children.

The Princess of Wales' Hospital-Ship.—The Princess of Wales has placed at the disposal of the Central British Red Cross Committee the balance of a fund in hand to be devoted to the equipment of a hospital-ship for South Africa. The *Midnight Sun*, of the Albion Line, has been secured and is to be renamed after Her Royal Highness, who intends to spend £1,000 in comforts for the sick and wounded.

Odontological Society of Great Britain.—Mr. Storer Bennett was elected president at the first winter meeting of the society. He gave an excellent introductory address from the chair, in which he urged upon the younger dentists the necessity for research work, reminding them that there were pathologic conditions in dental troubles which were not yet understood in the least by the medical (including dental) professions, and that fame and fortune awaited the investigator who could point out the way to progress.

Medical service in the wilds of Scotland leaves much to desire. A medical man there may have a radius of thirty miles within which to visit his scattered patients, and he is lucky if he is not compelled to cross the open sea or some navigable arm of it in his attempts to do his duty. The work is hard, so hard that it cannot be properly discharged in many districts, while the remuneration is beggarly. The only remedy that those versed in British medical politics can suggest is a state-subsidized service, and this is what may be expected in the near future.

The winter exodus to Egypt will soon begin, for of late Cairo has been the most fashionable of all the resorts to which English people fly to escape the cold and fog of winter. But it is possible that the occurence of a case of plague at Alexandria early in November will give some of the sun-worshippers pause, for recent events at Oporto (to say nothing of Bombay and Calcutta) have proved conclusively that Europeans run a grave, if not so grave a risk as natives, of contracting *pestis bubonica*. The medical authorities in Egypt attach no importance to the occurence of an isolated case, but the public may be less optimistic.

The health of Dublin, as evidenced by statistics, improved a little by the second week in November, the death-rate per thousand falling from 42 to 37, but 37 is double as high as it should be. Measles is fearfully prevalent, and the city, which is full of old, dark, insanitary buildings, and by no means clean or well-drained, possesses no adequate accommodation for the reception of fever cases with a view to isolation. It is likely that in view of the terribly high figure at which the death-rate has been standing this autumn the citizens will wake up and will help their medical men to restore and preserve the public health by building an isolation-hospital.

The Health of Aldershot.—A report has been presented to the Local Government Board on the general sanitary circumstances of Aldershot with special reference to the prevalence of fatal diphtheria. The report is of particular interest to Great Britain at the present time, as the camp at Aldershot is the largest home station for troops, and the health of the army is just now of great consequence to the country. Dr. Reece, the officer of the Local Government Board responsible for the report, speaks in plain terms with reference to Aldershot town of "an unsatisfactory sewerage scheme," "overcrowded houses" and "undrained stable yards," a condition of things so obviously perilous to the adjacent camp that we presume amendments may soon be expected.

The working of the new Vaccination Act has given some satisfaction to English official circles, as it has certainly increased the number of vaccinations; but the medical men entrusted with carrying out the act, *i. e.*, the public vaccinators, are by no means pleased with the duties entailed upon them. A large majority of them consider that the necessity of making calls upon the patients of other medical men, to offer to perform vaccination, a most unpleasant proceeding, savoring of touting and canvassing, and very apt to breed ill-feeling between professional brethren. Possibly, and only possibly, some small modification of the regulations will be made, now that they are found not to work quite smoothly; in that case a lay official will be sent to call upon the parents and point out to them the value of vaccination, leaving the parents to decide whether they will have the operation performed by the public vaccinator or by their usual medical attendant. Such a change would be grateful to the medical profession, but the medical profession do not make the laws.

The term ectopic gestation is very generally used as a synonym for extrauterine gestation, in fact we believe it is so used in every modern medical dictionary. Dr. Robert Barnes, the learned and well-known English obstetric physician, has written to the *Lancet* to say that he was the first author to use the phrase, and that when he used it it had not the significance now attached to it. He adopted the term "ectopic" as more accurate and comprehensive than the old term "extrauterine," because gestations taking place in the lower segment of the uterus are abnormal and out of their natural place, but not without the uterus. The line of demarcation between the lower third and upper two-thirds of the pregnant uterus was demonstrated by Dr. Barnes over 50 years ago both in the medical press and in the Lettsonian Lectures of the Medical Society of London, and in calling attention to the original meaning of the term "ectopic gestation," Dr. Barnes also mentions that this zone was rediscovered in 1872 as "Braune's *os internum*," and in 1876 as "Brandl's ring," and later as "Shrœder's contraction ring." Thus writes a regular English correspondent, adding

that "Dr. Gould is the very man to look into Dr. Barnes' claims and trademark them as sound or the reverse."

The Drainage of London.—For a long time it has been obvious to the medical profession in London as well as to those in a position to hear the numerous complaints of public bodies, that the main sewers in various parts of London are inefficient. Many cases of flooding by storm water and sewage have recently been brought to the notice of the London County Council, which body has deputed the making of exhaustive enquiry to a Main Drainage Committee. As a result of their enquiry the committee have informed the Council that a very heavy expenditure must be incurred to provide more sewer accommodation; and, backed by Sir Alexander Binnie, the engineer to the Council, they recommend that an expenditure of nearly three millions of pounds should be made at an early date. The following are the works, with their approximate cost, which Sir Alexander Binnie thinks should be carried out:

North of the Thames.	
(a) Barking to Old Ford—two new sewers and extra works at Barking	£725,000
(b) New sewer between high level and middle level sewers	270,000
(c) New sewer between middle level and low level sewers	500,000
(d) Extension of middle level sewer to Scrubs-lane	12.000
(e) Additional pumping machinery at Abbey Mills	120,000
	£1,627,000
South of the Thames.	
(f) Crossness to Deptford—new sewer (low level)	£500,000
(g) Crossness to Catford—new sewer (high level)	520,000
(h) Deptford to Battersea—new sewer	300,000
	£1,320,000
Total for both sides	£2,947,000

It will be a big bill even for London to pay, but medical opinion will be in favor of getting the necessary work done at once, despite the cost.

CONTINENTAL EUROPE.

The German Balneological Congress will meet at Frankfort-on-the-Main in March, 1900.

University Appointments.—Würzburg: Privat-docent Dr. Braus, of the University of Jena, has accepted the chair of anatomy; Dr. Matthes has been appointed professor of internal medicine and director of the medical clinic to succeed Prof. Krehl, who has accepted a call to Marburg. Tübingen: Dr. Martin Heidenhain, privat-docent in the University of Würzburg, has accepted a call to the directorship of the Anatomical Institute. Prague: Dr. Matthias Pesina has been appointed extraordinary professor of pediatrics in the Bohemian University of Prague.

The Hemostatic Effects of a Condition of Nausea.—At the meeting of the Society of Biology held on October 21, according to the *Lancet*, Dr. Onimus gave an account of some very original observations which he had recently made. A patient of his, a young man suffering from phthisis, had told him that he had found that the only way to stop himself from spitting blood was to go out on the sea when it was rough and that the seasickness thus produced always stopped his hemorrhage. Dr. Onimus compared this experience with the well-known effect of ipecacuanha, except, of course, in cases when the hemorrhage comes from a large vessel in the bottom of a deep cavity. He then determined to apply the treatment in cases of hemorrhage due to another cause. In the case of certain women who had no obvious organic lesion but who suffered from profuse menorrhagia he prescribed that they should take every two hours, until they began to feel sick, a cachet containing 10 cg. (1½ gr.) of Dover's powder with the addition of 1 cg. (from ⅙ to ⅛ gr.) of ipecac. During the interval between the periods the patients took every evening at bedtime a similar cachet. The results surpassed his expectations, for the periods became quite normal, a condition the patients had not experienced for years.

The new hospital in the Rue Etex, in Paris, which is just finished, is intended, together with that in the Rue Michel-Bizot, to take the place of the Trousseau Hospital. It is built on an extensive site bounded by the Rue Etex, the Rue de Maistre, and the Rue Carpeaux. The buildings consist of the laundry, the kitchens, and the dispensary, the mortuary, the offices, the consultation-rooms, the observation wards, four isolation wards, a block for nurses and other officials, the surgical, medical, and infants' wards, and the diphtheria wards. The waiting-rooms, the general offices, and the corridors are paved with stone, while the thickness of the walls averages 45 cm.; they are built of ashlar faced with brick. There remain only the interior fittings of this magnificent building to be completed. The architect is M. Heizeux, who received the prize at a competition in 1896. The total cost has been 2,920,000 francs, including a sum of 97,000 francs for drainage works. Finally, the hospital makes provision for 234 children, both boys and girls.

The International Congress of Medical Ethics, which is to meet in Paris from July 23 to 28, 1900, will be divided into sections, of which four have been up to the present arranged: (1) The relations of medical men to the State or to large bodies other than the State, municipalities, etc.; (2) relations of medical men to individuals, as patients, chemists, nurses, midwives, etc., including the subject of the illegal practice of medicine; (3) relations of medical men with colleagues, consultations, clinics, medical societies, and unions; (4) mutual assurance and medical defense societies. The opening meeting will be held in the Exhibition building, and the sections at the Faculty of Medicine. In addition to the papers to be read in the sections, there will be seven reports, printed and distributed in advance, which will be discussed by the Congress in general meetings. They are on the following subjects, and the names of the reporters are attached to each:

1. The Principles of Medical Ethics, M. Grassett, of Montpelier.
2. Illegal Practice of Medicine, M. Desconts, of Paris.
3. Medical Insurance and Assistance, M. Lande, of Bordeaux.
4. Medical Defence, M. Porson, of Nantes.
5. Relations of Medical Men with their Colleagues, M. Cuylits, of Brussels.
6. Organization of Medical Chambers or Unions and their Results, M. Pollak, of Vienna.
7. Organization of the Doctors' League of Hungary, M. Jendrassik, of Buda-Pesth.

These reports will be printed in French, and will be accompanied by summaries in English and in German. The President of the Congress is M. Lereboullet (Paris), the General Secretary M. Jules Glover, and the Treasurer (to whom the forms of adhesion, duly filled up are to be sent) is M. P. Masson, 120, Boulevard St. Germain, Paris.

MISCELLANY.

Dr. Nicolle has been successful in inoculating monkeys with soft chancre.

Drs. Auché and Hobbs have succeeded, in a very few instances, in inoculating fish with tuberculosis aviaire, but never with tuberculosis humaine.

Plague Intelligence.—Six thousand deaths from plague in one week is a bad record, and unfortunately the number is still rising. For the whole of India the deaths from plague last week were 6,727, to which the Bombay Presidency contributed 5,812. There is a very serious extension into the Nizam's Dominions also, as 592 deaths occurred there. An outbreak is reported from the Saran district in Bengal, where a large number of deaths above the average has been occurring for some weeks past. The Punjab is also reported to be again attacked, six cases having been discovered in Hoshiarpur. The general mortality in Bombay city is nearly 300 a week higher than it ought to be, and the plague figures are getting worse. Altogether the epidemic seems extending far and wide as well as reappearing in its old quarters.

Jail Hygiene in India.—According to the *Lancet*, great efforts are being made to reduce the high mortality in Indian jails. The Director-General has lately published an exhaustive note concerning the year 1898, and while generally there is some improvement he refers to many points which require to be more carefully investigated. The year 1898 seems to have been an exceptionally healthy one, and the comparative absence of cholera is remarkable. Malaria is still one of the chief causes of mortality. Dysentery and diarrhea give, perhaps, the greatest trouble to the medical officers. As Surgeon-General Harvey says: "There would be little exaggeration in saying that the prevention of bowel complaints is the beginning and end of jail hygiene." . . . "A common cause of bowel complaints, which perhaps does not always receive the attention that it deserves, is the presence of intestinal parasites. Probably the vast majority of prisoners are the hosts of at least one variety, and though no apparent harm results in many cases, in others diarrhea, if not ulceration of the intestines, is set up." The widely spread and fatal character of cholera, malaria, and dysentery among the natives of India certainly does not support the law laid down by Dr. G. Archdall Reid, "that the resisting power of any race is exactly proportionate to its familiarity with the disease." The year 1898 was perhaps exceptional, but the study of figures for recent years shows how much has been achieved by the earnest attention of the jail administration and by the honest work of the executive officers.

The Nasal Douche.—D. B. Kyle (*International Medical Magazine*, September, 1899). The nasal douche is used for its cleansing and local therapeutic action, and the solution should be allowed to flow through the nasal cavity, while under no circumstances should suction be used. Forcibly blowing the nose after using the douche produces irritation and should be forbidden. The fluid should be as warm as can be comfortably borne, and in no great quantities. If kept up too long, an irritating effect is produced on the surrounding healthy mucous membrane, and continued inflammation results. As a general plan it is best to discontinue the douche after 10 days or 2 weeks for 4 or 5 days to determine whether or not any inflammation is being kept up by its use. In cases of chronic inflammation, a solution containing 6 grains each of the bicarbonate, biborate and chlorate of soda, with the same amount of potassium bicarbonate to an ounce of water, is recommended. To allay irritation, aqueous extract of hamamelis and distilled water in equal quantities may be used. [M.B.T.]

Hepatic Tuberculosis.—F. C. Moore (*Manchester Medical Chronicle*, October, 1899). A man, 43 years old, was first seen after he had been suffering for about 18 months with symptoms of pyloric obstruction. He was pale, emaciated, suffered considerable pain in the epigastric region and vomited almost everything taken into the stomach, along with some blood and mucus. A hard, rounded mass could be felt in the region of the pylorus, but there were no indications of jaundice or disease of other organs. The patient died of exhaustion 2 months after admission. The necropsy showed a uniform thickening completely encircling the pylorus and causing almost absolute stenosis. The surface of the liver was occupied by 6 nodular growths varying from one eighth of an inch to an inch in diameter. The nodules were situated immediately under the capsule, they were very slightly raised, smooth and of pale-yellowish color; none of them extended deeply into the substance of the organ. They were each composed of a large, granular yellowish-white center and a narrow peripheral zone consisting of grayish-pink, semitranslucent tissue. The tissue from the pylorus was found, by microscopic examination, to be that of characteristic scirrhous carcinoma. The hepatic nodules consisted of a large central mass of necrosed and disintegrating tissue with a narrow peripheral zone composed of giant-celled tubercles, between which were numerous leukocytes. In the smaller nodules the caseous center was less marked. In none of them could be found any indication of secondary carcinoma. A small splenic nodule was of exactly the same structure, the celiac lymph-glands showed no trace of secondary carcinoma, but only those changes characteristic of rapidly caseating tuberculosis. An interesting discussion of the literature of the subject is given. [M.B.T.]

The Latest Literature.

British Medical Journal.

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1.—Dr. Brunton defined headache as a more or less diffuse pain in some part of the head. In dealing with the **pathology of headache** we have to consider first, the general condition, and second, the local condition. The general conditions which lead to headache are either imperfect or disordered nutrition; but in apparently perfectly healthy people we see headaches come on now and again which are probably due to a tendency to periodic attacks of altered nutrition. The cause of these periodic headaches is usually

attributable to either defective function of the liver or to overtaxing the function of the liver from the absorption of too much nitrogenous food, etc. Emotional disturbances greatly affect the absorption from the liver and frequently produce headaches. In addition to the toxins which reach the circulation as the result of failure on the part of the liver to destroy them, there are certain other substances connected with gout and rheumatism which are very likely to produce headaches, and these are usually recognized as in some way associated with uric acid. A good deal of the misery caused by headaches being due to the absorption of toxic products, they may be prevented by the use of cholagogs and aperients. The reason that these toxic products fasten upon the head and cause headache instead of causing pain in other portions of the body is, that in most cases there exists some local lesion which determines the pain to the head, the most common being either decayed teeth or defective eyes. Disturbances of the ears, throat, and more especially the nose and its cavities, are frequently active to this end. The type of headache known as migraine ordinarily depends upon some spasm of the vessels outside of the head, but not infrequently there may be spasms of the vessels inside of the head, and then the functions of the brain may be affected, as is shown by the occurrence of visual hallucinations and aphasia. In tumor of the brain the pain is probably due to pressure of the tumor upon some of the fibrous structures within the cranium. This form of pain is intensely severe, and is almost always accompanied by sudden severe vomiting unassociated with nausea. Immediately after the vomiting the patient feels well again. Associated with these two symptoms, there exists optic neuritis. Another form of headache is that associated with some of the fibrous tissues, such as inflammation of the periosteum from gout, rheumatic or syphilitic irritation. The first indication in the treatment of headaches is to supply the brain with healthy blood; to clear away any toxin that may be present in it by stimulating the organs of elimination. In addition to this, substances which may have the power of counteracting these toxins or producing elimination from the liver should be given. The easiest way of getting rid of toxins or counteracting their effect is by the persistent use of salicylic acid or soda salicylate. The coal-tar products, in order to give relief, should be given before the headache becomes too severe, as absorption from the stomach appears to be arrested after this has occurred. In some cases, when there is continued pain in the head lasting for a considerable time, cannabis indica should be given. In headache due to inflammation of the periosteum from gout, rheumatic or syphilitic irritation, potassium iodid is very useful. In cases of severe headache in which drugs fail to give relief, glaucoma should always be looked for. Dr. Grant called attention to the fact that **nasal disease** is a not uncommon **cause of headache;** of the forms which may give rise to headache the most common is adenoid vegetations in the nasopharynx. Hypertrophy of the middle turbinated body is another frequent cause. Septal outgrowths and divisions, polypi and inflammatory polypoid excrescences, etc., also cause headaches. If the application of cocain to the nose in cases of headache affords marked relief it is almost a certain demonstration that some local condition is the cause of the headache. Diseases of the ear, especially old-standing suppurations in the attic, or cholesteatoma, in which there may be little or no discharge, frequently cause headache and may be readily overlooked. Albutt thought that the **causes of migraine** were probably all **peripheral** if we exclude poisons circulating in the blood. This being the case, the mechanism of migraine must be looked for within the cerebrospinal arc. Herschell pointed out in addition to the defective action of the liver in admitting toxins into the general circulation that we may have their excessive production. He had frequently cured, within 20 minutes, headaches **dependent upon gastric dilation** by washing out the stomach. **Chronic fecal retention** occupying the enlarged sigmoid flexure is a common cause of headache. The appropriate treatment is complete evacuation of the sigmoid by continuous irrigation followed by faradism, one electrode applied internally and one externally, in order to restore tone. Thomson considered the headache of syphilis a diffuse headache, worse at night. If potassium iodid could not be taken in large doses rapid relief often followed mercurial inunctions. Mullick called attention to the influence of malaria, dysentery, and other tropical diatheses upon the production of headache. He strongly urged the use of galvanism in neurasthenic headaches. [S.M.H.]

2.—Haig, in discussing the **treatment of the uric-acid headache,** said that it depended upon clearing all the uric acid from the body and blood, which was best accomplished by (1) avoidance of animal foods, except milk and cheese, and of certain vegetable substances rich in alkaloids, such as tea, coffee, etc.; (2) taking enough albumin to produce from 3 to 3.5 gr. of urea for each pound of body-weight per day, but not more; (3) clearing out stores of uric acid already in the body by a course or courses of salicylates. When the diet is thus completely altered, one may expect instant diminution both of the frequency and severity of headaches in a few weeks. They will be reduced to $\frac{1}{10}$ or $\frac{1}{12}$ of their former number in from 12 to 18 months, and their severity will be much decreased. To take uric acid again in any form leads to a quick return. [S.M.H.]

3.—Eyre and Washbourn, as the result of further experiments with **Pane's antipneumococcic serum,** conclude that (1) the serum in doses of 1 cc. possesses for rabbits a considerable protective power against 4 out of 5 strains of pneumococci derived from different sources; (2) it has no protective power against one strain which in morphology, virulence, and cultural characteristics is a typical pneumococcus, and which was obtained from a fatal case of pneumonia; (3) there exist varieties of pneumococcus which at present can only be distinguished by the action of antipneumococcic serum. [S.M.H.]

4.—Brampton reports a case demonstrating the **toxicologic effect of sulfonal and trional.** The patient suffered from rather puzzling symptoms, the cause of which could not be determined. They consisted in weakness, loss of flesh, dyspepsia, amenorrhea, neuralgias, vomiting, nervousness, subnormal temperature, feeble and slow pulse. From the Weir Mitchell treatment there resulted a marked improvement, but after a few months the patient developed great pain in the left ovarian region, pain in the epigastrium, most obstinate constipation accompanied by vomiting which persisted for a week. The urine-examination at this time showed it to be claret-colored, containing hematoporphyrin, the deposit consisting of broken-down red blood-discs, epithelial and hyalin casts, calcium oxalate, and phosphate crystals. There was a considerable amount of albumin and a trace of sugar. She developed sharp, shooting pains in the thighs, followed by numbness in the legs and perineum, upon which supervened loss of power in the legs; the rapidly-spreading neuritis soon involved the entire body, causing complete paralysis, from which death took place on the seventeenth day. After death it was discovered that the patient had been secretly taking from 20 to 40 grains of sulfonal almost nightly for a year. Occasionally this was substituted by trional. Phenacetin and antipyrin were also used in large quantity to allay any kind of pain which might exist. The only treatment of any avail for sulfonal poisoning is the free exhibition of alkalies. [S.M.H.]

5.—Yeo considers the design and scope of **intestinal antisepsis** to be the prevention or neutralization of auto-intoxication proceeding from the alimentary canal. The scientific and experimental basis for the idea and practice of intestinal antisepsis is founded in the first place upon the universal admission that these septic and putrefactive processes occurring within the alimentary canal are dependent upon bacterial agencies. The medical idea of antisepsis is that of antagonizing an existing process and of limiting and diminishing its morbid energy. If we can diminish the virulence of a process, and so gain time for the conservative forces of the organism to do their work, much is accomplished. It is not necessary to kill pathogenic microbes in order to make them relatively harmless. Certain pathogenic microbes only elaborate their poison in the presence of those of putrefaction, and the same bacterium at one time perfectly harmless may at other times produce serious disturbances. Therefore, if we can, by changing the environment of the pathogenic organism, increase or stimulate its activities or augment its virulence, we may by analogous means hope to lower its activities and diminish its virulence. The idea of the usefulness of intestinal antiseptics, therefore, rests upon an experimental and strictly rational basis. The morbid conditions in which the use of

intestinal antiseptics are indicated are (1) for the arrest of morbid fermentations which occur in cases of gastric dilatation; (2) all morbid conditions which depend on abnormal decompositions within the alimentary canal and attended as they usually are with flatulence, painful distention, diarrhea or irregularity of the bowels, and offensive fermented stools; (3) mucomembranous colitis; (4) summer diarrhea or infective diarrhea of children. The various substances which have been employed as antiseptics are simple water, mercurial preparations, saline purgatives, chlorin, which the author has used as he believes with markedly good effect in typhoid fever, bismuth salicylate, carbolic acid, salol, which is of uncertain value; salacetol, useful for disinfecting the urine; eucalyptol, creosote, turpentine, thymol, menthol, and some others which are largely insoluble in the stomach and to some extent volatile, their influence being thus diffused into the gases in the intestine. Harley and Goodbody conclude a more or less experimental article as follows: (1) By estimating the quantity of aromatic sulfates eliminated in the urine one is able to gain an insight into the amount of putrefaction occurring in the intestine at any time, provided aromatic substances are not being administered; (2) washing the large intestine by copious enemas is capable of decreasing the aromatic sulfates in the urine, and therefore causes a diminution of intestinal putrefaction; (3) when a mild aperient is given, not sufficient to act as a purgative, but probably sufficient to cause a more complete emptying of the bowels, this acts as an intestinal antiseptic, decreasing the amount of aromatic sulfates in the urine not only when they are increased owing to increased intestinal putrefaction, but even when they are only small in amount; (4) when given in small doses so as to produce no purging it does not diminish the aromatic sulfates in the urine to a sufficient extent to say that it acts as an intestinal antiseptic when the aromatic sulfates at the beginning are small. When there is an undoubted increase in intestinal putrefaction small doses of calomel seem to act as an intestinal antiseptic. Herschell believes that the test for indican in the urine may be made of scientific value if applied as follows: The whole 24-hour quantity of urine should be diluted to 50 ounces, or evaporated down to that amount. The test for indican should then be applied, using 10 cc. of urine; 10 cc. of hydrochloric acid, and 2 cc. of chloroform. Then the color assumed by the chloroform should be compared with a color-scale which has been experimentally constructed to indicate known quantities of indican. Wild spoke of the value of **charcoal as an intestinal antiseptic** in putrefactive ailmentary processes. It introduces oxygen into the alimentary canal, and possibly acts by converting the anaerobic process of putrefaction, in which toxic and offensive substances are found, into the anaerobic process which leads to the formation of simpler and less objectionable compounds. Haig remarked that calomel lowered the blood-pressure by freeing and quickening the capillary circulation. Free circulation in the capillaries of the intestines favored digestion and antagonized putrefaction. Salicylates, he believed, sometimes did good in the same way. [S.M.H.]

6.—Sibley has found that the cases for which the **hot-air treatment** is especially indicated are all forms of arthritis, many injuries, especially synovitis and bursitis, all kinds of stiffness and adhesions, etc., hysterical joints, forms of neuritis, chorea, epilepsy, paralysis, especially late palsy and that due to injuries to the nerve-trunks, Menière's chronic bronchitis, many cases of chronic heart-disease, many of the true forms of skin disease, chronic ulcers and local inflammatory conditions, and amenorrhea, especially in young anemic girls. Very little is known at the present time about the effect of the various light-rays on the animal organism. [S.M.H.]

7.—Walsham believes that in **erythol tetranitrate** we possess a valuable vasodilator. He has used it with good effect in 3 cases of aortic regurgitation accompanied by cardiac pain. In two other cases amyl nitrite was more effective. In 3 cases of chronic interstitial nephritis two were benefited; the third could not be persuaded to continue treatment. In one case of Raynaud's disease the effect was quite happy. [S.M.H.]

8.—For therapeutic purposes Wild divides all forms of disease of the skin into 5 groups: (1) The cases in which the cutaneous lesion is symptomatic of a general disease. In these the treatment is that of the general disease. (2) Those diseases of the skin resulting from the absorption of toxic substances, usually from the alimentary canal, but occasionally from other parts of the body. Their treatment consists in the prevention of further absorption and the elimination of the toxic agents from the body by purgatives and diuretics. Where the functions of the alimentary canal are deranged or the nervous system atonic, proper treatment should be applied. (3) Purely local diseases of the skin. In these cases constitutional treatment has no place. (4) Parasitic diseases of the skin which require not only the presence of the invading organism but also suitable soil for its growth. Various constitutional conditions will modify the tissues and fluids of the body in such a manner as to render them a more favorable soil for the growth of parasitic organisms. In these cases constitutional treatment, by modifying the soil so as to render it less suitable for parasitic growth, aids recovery and makes local treatment more effective. (5) Many of the most important diseases of the skin in which our knowledge of the etiology is imperfect; both constitutional and local factors are combined in their production. In these both local and general treatment is required. The alteratives are especially useful in these cases. The author prints a long list of individual remedies which are chiefly used in the constitutional treatment. [S.M.H.]

9.—Taylor and Marshall, as the result of an experimental investigation, conclude that the **treatment of digitalis poisoning** must be symptomatic. Apparently all that we can do is to stop the administration of the drug, clear the alimentary canal of any impurities it may contain; increase elimination by diluents; allay sickness; reduce arterial tension when high; procure sleep if necessary, and treat other symptoms as they arise. Nitroglycerin or an ally is the best remedy for the reduction of arterial tension. If the blood-pressure is low, small doses of alcohol will probably prove of great service. [S.M.H.]

10.—Willock believes that by **mechanical means** we can obtain a considerable **therapeutic effect** in certain unhealthy states of the heart and lungs. Most benefit may be expected in emphysema with or without bronchitis; in bronchial asthma with emphysema, or spasmodic bronchial asthma without emphysema; in dilatation of the right heart, the result of impeded flow in the lung-tissue; in a limited number of cases of phthisis; in badly developed chests independent of the state of the lungs. In all such cases respiratory exercises are of considerable use, but their potential value is limited by the physical condition of the patient. To supply this lacking power, Willock has devised an apparatus which is applied to the chest and so constructed that when the hands, which grasp two handles placed at the side of the apparatus, are raised above the head the jacket expands. This movement should be accompanied by a deep inspiration. When the inspiration has reached its maximum the arms are lowered and the handles forcibly drawn down. This causes the jacket to contract and compress the chest. The diaphragm is at the same time drawn up and a deep expiratory effort made. The action of the apparatus is intended to supplement and not supplant the efforts of the patient, the object being to regenerate a condition that is reduced from the normal and by continued exercise to obtain what may be termed an exaggerated physiologic action. This exercise is especially useful in cases of emphysema. [S.M.H.]

12.—Washbourn claims that in studying the **pathology of the endocardium** it must be borne in mind, first, that the endocardium is devoid of bloodvessels, and that when inflamed it resembles inflammation as it occurs in other nonvascular structures. Bloodvessels may, however, be abundant in chronically inflamed valves upon which an acute endocarditis is likely to be engrafted. Second, when the endothelium is injured, clotting of the blood takes place, fibrin is deposited and thrombosis occurs. Thirdly, the endothelial cells of the vascular system are phagocytes, capable of englobing bacteria which have entered the circulation. We may assume that the endothelial cells of the endocardium possess similar functions, and they must be looked upon as forming with the endothelial cells of the vessels a protective agency in the destruction of bacteria. In the exercise of this function the cells may succumb and thus arises infective endocarditis. Infective endocarditis is an infection of the endocardium by bacteria which give rise to necrotic inflam-

matory changes. In all forms of endocarditis the endocardium covering the valves at the points of maximum contact during closure is the portion almost invariably affected. The bacteria may be conveyed to the valves either by the blood directly in contact with the endocardium or by means of the small bloodvessels, by the latter only when the valves have been previously chronically inflamed. As to the morbid anatomy of this condition, the first stage is the invasion of bacteria from the blood in the cardiac cavities directly into the endothelial and subendothelial layers. This invasion causes necrosis of the endothelial and subendothelial cells and, as a consequence, a thrombus, consisting at first of blood platelets and later of fibrin and leukocytes, is deposited upon the surface. These constitute the so-called "vegetations." Later, proliferation of the subendothelial cells occurs and leukocytes from the adjacent bloodvessels invade the necrosed tissues and the thrombus. This process appears earlier and is better marked on the mitral and tricuspid than on the aortic and pulmonary valves because of the closer proximity of bloodvessels to the former. Ultimately the vegetation may be converted into a granulation tissue with the formation of new bloodvessels, and sometimes the process passes on to abscess formation. Ulceration not infrequently results; thus may arise aneurysmal dilatation, or perforation of the valve and the ulceration may spread to and cause rupture of the chordae tendinae. The whole process sometimes spreads to the mural endocardium or to the intima of the aorta. Infective endocarditis, acute arterial thrombosis, and acute venous thrombosis are all due to similar infective processes, consequently their pathology is identical. The valves on the left side of the heart are more frequently affected than those on the right, but the latter are more often affected than in other forms of endocarditis. The explanation of the more common selection of the left side is, first, valves sclerosed from previous inflammation are much more liable to infective endocarditis than are healthy valves, and the right side of the heart is very seldom the site of old valvular disease. Second, the mode by which the bacteria are conveyed to the heart has some influence upon the part affected. The mode of entrance of the bacteria is either through the respiratory, digestive, and genitourinary tracts or through wounds in the skin. The lesions caused by infective endocarditis are: (1) Those due to the mechanical effect of the vascular disease; (2) those due to toxemia, and (3) those due to emboli. It is probable that almost any pathogenic bacteria may cause infective endocarditis, but the streptococcus pyogenes, the pneumococcus and the staphylococcus aureus, in the order mentioned, are the most common causes. The gonococcus, the tubercle-bacillus, the pneumobacillus, the Bacillus pyocyaneus, the typhoid bacillus, a diphtheria-like bacillus, with several bacteria not found elsewhere, less frequently produce the condition. Dr. Fullerton, in the discussion, said he did not think that the **incidence of ulcerative endocarditis** was markedly favored by a preexisting simple endocarditis. He had seen 5 cases of ulcerative endocarditis which showed a deficiency in the intraventricular septum. All were affected on the right side. One of these cases showed no evidence of bacteria in the blood-examination, but numerous streptococci were found in the granulations on the valves after death. In another case, not included among the above, a culture of streptococcus pyogenes was obtained from the blood. Dr. Pakes remarked upon the bacteriologic results in 21 cases which he had investigated. He found streptococcus only in 13 cases; streptococcus with staphylococcus in one; streptococcus with Bacillus coli in one; staphylococcus aureus in two; Bacillus pyocyaneus in one; pneumococcus in one; gonococcus in one; in one case in which the valve had the naked-eye appearance of malignant endocarditis no organisms could be discovered. In 4 of these cases the blood examined during life gave negative results. In one of these the heart-blood examined postmortem showed numerous streptococci. Abrams did not think it advisable in the absence of direct proof to assign **phagocytic properties** to the **endothelial cells** of the bloodvessels; the presence of microorganisms within them might be the result of a diminished rather than increased functional capacity. It seems more natural, therefore, to consider that the entry of such microorganisms betokens previous injury in the cells. In 11 cases which he had studied bacteriologically, no organisms were found in 2; streptococci alone in 5; staphylococci alone in 3; streptococci and staphylococci in 1. Both the failures occurred in cases following empyema of pneumonic origin. Lazarus-Barlow thought that **ulcerative endocarditis** was a better term than infective endocarditis since it is probable that all forms of endocarditis are of infective origin in the sense that they are caused by microorganisms. Bryant described the technic of a very valuable method of making a bacteriologic examination of the organs after death. [S.M.H.]

13.—Thomson reports a **fatal case of chorea major** in a girl aged 15 years. The autopsy showed recent acute endocarditis of the aortic and mitral valves. The brain examination macroscopically showed nothing except hyperemia and a few minute hemorrhages into the white matter. Microscopically there was shown a slight loss of chromatophile substance at the periphery of the cell bodies of the brain, together with some swelling and alteration in the shape of some of the cells. There were some varicosities of the cell processes which were likely artificial; there were no definite vascular lesions and there were no changes in the motor cells of the cord. The heart-muscle showed swelling and indistinctness of the fibers, and feeble staining of the nuclei. The probable cause of chorea is that it is due to a toxin circulating in the blood, but we have not sufficient evidence to conclude that such toxin is of bacterial origin. [S.M.H.]

15.—See abstract from the *Edinburgh Medical Journal* for September, published in the Philadelphia Medical Journal, November 18.

16.—Brodie, in studying the **physiologic action of diphtheria toxin,** found that in all cases observed the bloodvessels failed before any appreciable change in the heart's action could be detected. Up to quite a short time before death the vessels of the heart were apparently in nearly normal condition, and that the first signs of failure were very rapidly followed by complete paralysis and death. Therefore the chief cause of death following within 48 hours of an injection is due to a failure of the bloodvessels and consequent fall of blood-pressure. The experiments would indicate that the failure is due to the action of the toxin on the muscular walls of the arteries. [S.M.H.]

17.—Lazarus-Barlow reports a case of **gummata of the heart wall** in a man aged 40 years. The patient was dead before he reached the hospital. Postmortem showed the left ventricle dilated and hypertrophied. This muscle was normal except in certain areas, where there were small localized collections of white substance varying in size from about that of a hazelnut to that of a pea. The largest masses were in the wall of the ventricle near the septum, and they were chiefly about the base of the heart. They were mostly subpericardial, and none were directly subendocardial. In the three largest it was seen that the pericardium was congested so that a delicate network of capillaries was visible on the background of the white substance. The pericardium was somewhat thickened, and there was considerable deposit of fat about the heart. In the right ventricle immediately beneath the septal wall there was an agglomerate mass similar to those in the left ventricular wall. The chief change was a very diffused affection of the columnae corneae and the papillary muscles. They showed a diffuse mottling, and the presence of a number of ill-defined irregular white foci, many of which involved the whole thickness of the portion of muscle concerned. There was a complete absence of that vascularity about the white masses in the right ventricle which was evident in the left, and there was a corresponding difference in their nature which shows in the microscopic report. The pulmonary artery and aorta were atheromatous, the former to a phenomenal extent. Microscopically the white masses in the left ventricular wall consisted of well-formed fibrous tissue with relatively few round cells. In both cases there was marked destruction of cardiac muscle, minute portions of which with irregular edges lay between chains or rows of small cells in the one case and strands of fibrous tissue in the other. The cells and fibrous tissue stretched far into the macroscopically normal myocardium. Except so far as it was destroyed by the cellular growth, the myocardium appeared normal. Numerous well-formed giant cells were present throughout the masses in the left side of the heart. The white masses in the left ventricle consisted of young fibrous tissue, fibro-blasts, the round cells

being more numerous than is usual in a case of well-defined fibroid disease of the heart. The condition in the left ventricle is definitely inflammatory, so that it might be spoken of as syphilitic myocarditis. A small amount of congestion and the presence of many leukocytes with little or no tendency to softening, together with the presence of newly-forming fibrous tissue, are indicatious of chronicity. There was a complete absence of endarteritis obliterans which probably accounted for the absence of softening or caseation. The literature produces very few cases of a similar nature. [S.M.H.]

18.—Coles believes that given a specimen of sputum in which very minute bacilli are present and in almost pure cultures, which stain faintly when compared with other organisms present, which may show polar staining, and which do not react to treatment by Gram's method, the **diagnosis of influenza** may be satisfactorily made without cultures. It is a good idea to examine the film, after staining it with carbol-fuchsin, 1 in 20, for 10 minutes, with a low power before using the oil-immersion lens, when one may then pick out little groups or masses of bacilli. He believes that the examination of the sputum for the **influenza bacillus** will prove of great assistance in the diagnosis of some cases which clinically do not present very characteristic symptoms. In patients suffering from pulmonary diseases the influenzal infection, if superadded, is apt to be overlooked. Influenza may run a chronic course with periods of freedom from symptoms. The bacillus of influenza has been found in the sputum through long periods of time. [S.M.H.]

26.—Baskett reports a case of **xerodermia** occurring in a child in which he gave a minim of liquor glonoini (B. P.) with 5 minims of nitrous ether 3 times each day. At the end of three months, save for slight patches on the cheeks, the child's skin was soft and supple and perspired readily. At the end of this time the treatment was stopped, and after 3 months there was no perceptible return. [S.M.H.]

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2. The Treatment of Certain Forms of Neuralgia by the Injection of Osmic Acid. WILLIAM H. BENNETT.
3. An Acute Epidemic of Gastroenteritis Attributed to Food-poisoning. M. LOUIS HUGHES and C. W. R. HEALEY.
4. A Case of Infective Endocarditis Treated by Antistreptococcic Serum, Nuclein, etc.; Death. R. HINGSTON FOX and E. AUGUSTUS LERMITTE.
5. A Case of Pregnancy Occurring in a Patient with a Double Uterus and a Double Vagina. C. J. GLASSON.
6. Idiopathic Perforation of the Bones of the Nasal Septum. W. J. C. MERRY.
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10. An Unusual Injury to the Wrist. A. J. RODOCANACHI.
11. A Case of Emphysematous Gangrene. J. JACKSON CLARKE.
12. A Case of Rheumatoid Arthritis (?); Ankylosis of both Elbows; Excision. F. W. COLLINSON.

1.—There is one postmortem abnormity which is constantly found in patients that have died with **functional pulmonary murmurs,** which Foxwell considers the cause of the murmur, and that is dilation of the conus and pulmonary artery with a carrying up of the root of the artery so that in the supine condition it tends to lie directly over its bifurcation. Clinical evidence has satisfied him that this peculiar localized failure of the conus and pulmonary artery is produced by a certain sharp exertion in debilitated subjects. It is quite common for hearts of debilitated subjects, who are leading an active life, to give way altogether and allow tricuspid and mitral leakage, but these always show a large increase in the vertical dulness which is absent in the case of functional murmurs. This general giving way is in addition to the special and initial failure. The vertical dulness remains raised, but the right and left dulnesses become increased also. Allowing that the right ventricle is the first to yield it is easy to explain what part should first give way. We may consider the whole ventricle as half of a cone which has been bisected from apex to base, the stout septum ventriculorum forms the triangular surface of section, and as the left ventricle does not fail no more will this septum; hence, we may look upon the ventricle as a triangular board to which is attached a semicircular convexity of rubber; it is evident that this yielding rubber will stretch most where it is least restrained by the rigid triangle, namely, along the semicircular border of its base. Also that the portion of this border which will stretch most will be the conus, for the lowest part is held in check by the unyielding, rigidly fixed inferior vena cava and the middle portion by the chordae tendinae of the tricuspid valve and their stout musculi. Further, the direction of the blood-current is from the apex towards the pulmonary valves; the conus will tend to give, therefore, most in the direction where it is longest distended with blood. Given this dilation of the conus that of the pulmonary artery is easily explained. The dilating conus carries the valves upwards and thus shortens the distance between the two extremities of the artery. The artery becomes lax, and when distended with blood enlarges its transverse diameter so that its walls may occupy the same superficial area. It must be remembered also that the distensibility of the pulmonary artery is proportionately some 6 times that of the aorta. [S.M.H.]

2.—Bennett has used **injections of osmic acid into nerves** in cases of neuralgia which would ordinarily be treated by avulsion of the dorsal ends of the nerves or resection of the Gasserian ganglion. A 1.5% solution of osmic acid, freshly prepared, is injection by a sterilized hypodermic syringe into the substance of the nerve as far as it can be made to go. The total amount injected is about 10 mm., which is introduced at 2 or 3 separate times in order that the whole nerve may be soaked as far as possible with the solution. In the case of larger nerves several injections should be made, side by side. The pain disappears by degrees, and in a few days the patient is perfectly free from it. He has treated 10 cases by this method, and some of them have remained cured over a year. In two cases the pain returned, but it was not an actual recurrence, but a new development affecting a different area. [M.B.T.]

3.—Hughes and Healey observed an acute epidemic of **gastroenteritis.** The patients suffered from pains in their limbs, headache, anorexia, pain in the stomach, nausea, and vomiting. They were all constipated at first, but later had diarrhea with peculiarly loose, slate-colored stools. In some cases these were mixed with altered blood-materials. The temperature-range was from 101° to 104° F. The tongue was furred, dry, and brown in the center. There was abundant diaphoresis, great thirst, pain and tenderness of the abdomen, most marked in the epigastric and hepatic regions. In two cases there was hematemesis. The urine in most cases contained traces of albumin and granular casts. In the severe cases jaundice appeared in from 2 to 5 days, and some patients suffered from hypostatic congestion. Headache was persistent and was accompanied by drowsiness and mental confusion, restlessness and insomnia. The pulse was at first rapid and full, but later became slow, feeble, and intermittent, the immediate cause of death being heart-failure with a subnormal temperature. The treatment and dietary were chiefly symptomatic, aiming at the removal of the cause by the rectum, mitigating the intestinal symptoms, and keeping up the patient's strength. The postmortem appearances in the 3 fatal cases were intense congestion, inflammation and edema of the mucous membranes of the stomach and small intestines, in one case involving the stomach and the whole of the small intestine. Peyer's patches were unaffected, but the solitary glands were congested and prominent; there was no ulceration, nor visible entozoa, and the colon was unaffected. The liver was enlarged, bile-stained, and showed signs of fatty degeneration; the kidneys were enlarged and intensely congested. The muscles in various parts of the body were found free from trichina or other parasites. A carefully-detailed investigation of the cause of this epidemic was made without throwing any light upon its origin. A certain cheese which was used by many of the subjects was found to contain tyrotoxicon in fairly large quantity, and the symptoms detailed

were considered quite compatible with those induced in tyrotoxicon-poisoning. A difficulty about accepting this origin rests in the fact that not all of those affected had partaken of the cheese. The impression of the authors is that notwithstanding their negative results the condition was due to some form of food-poisoning. [S M.H.]

4.—Fox and Lermitte report a case of **infective endocarditis** treated by antistreptococcic serum, nuclein, and an eclectic German oil. The patient was a man aged 39 years. He gave a history of influenza with rheumatic symptoms a year prior to coming under notice. His urine contained some albumin and a few small casts. He had a small, rough, systolic bruit over the aortic orifice, and remittent pyrexia. He had frequent sweats, his heart became gradually dilated, and double aortic mitral bruits developed. Staphylococcus pyogenes albus were found in the blood, but no streptococci. Later signs of much effusion into the peritoneal and pericardial cavities, and some into the pleural cavities developed. The liver and spleen were enlarged; there was pain in the chest, shoulders and other joints. The patient died after being in the hospital for four months. The autopsy showed the heart much enlarged, the left ventricle distended and filled with serum, and dark clot. The aortic valves were distorted and covered at their edges and bases by abundant granulations, and there were some granulations also on the auricular surfaces of the mitral valves. The pericardium contained about 4 ounces of turbid fluid containing flakes. The right pleura was adherent throughout; the left pleural cavity contained some fluid. There was fluid in the peritoneal cavity also. The liver, spleen, and kidneys were enlarged. There was no point of suppuration found in the body. It was suspected during life that a suppurative lesion was present, in consequence of which the patient was given 15 doses of 10 cc. each of antistreptococcic serum. The local irritation was marked, erythematous lichen developed over much of the abdomen and arms, as well as bosses of erythema at the site of the injections. There was not the least improvement under this treatment. Nuclein was then tried —11 hypodermatic injections, each containing from 20 to 30 minims of a 1% solution, were given. The injections caused pain for a minute or two, and a very itchy rash developed in the abdomen and back. There was no good effect from the treatment. Dr. Lermitte then applied an eclectic German oil containing croton oil or some similar drug. In the course of two or three days a crop of innumerable small pustules had developed, and these in another day or two dried up and the scabs could be brushed away. Under the first application the temperature steadily declined for 4 days. The pulse dropped from 120 to about 90. The tongue cleaned, the urine increased in quantity, the general condition of the patient was easier. After the fifth day the conditions all relapsed. A second application was made at a later period of the disease, and it was without effect. [S.M.H.]

5.—Glasson reports a case of pregnancy occurring in a patient with a double uterus and a double vagina. Pregnancy occurred in the left uterus, and during labor the septum was held to the right side, and after considerable manipulation the head passed safely the obstruction. The patient made an excellent recovery. [W.K.]

6.—A woman, 40 years old, was suffering from **perforation of the nasal septum.** As there was no evidence of syphilitic infection, the condition is supposed to have arisen from repeated coryza, the nasal mucosa becoming swollen, and continued pressure giving rise to superficial necrosis. The ulcerative process once started extended and destroyed the deeper tissues, finally giving rise to caries of the bone. Antiseptic nasal douches, followed by spraying with menthol in liquid vaselin, were used, and in 6 weeks the mucous membrane regained a normal condition. There was no serious trouble from the septal defect [M.B.T]

7.—Atkinson and Bell report two cases of **death under chloroform.** The first patient was anesthetized for the purpose of making a uterine examination. The heart was examined beforehand and found to be normal; and she had taken chloroform before. The anesthetic was administered with Krohne and Sessemann's regulating inhaler, and the pulse observed during the administration. The conjunctivae were finally made insensitive without any disagreeable symptoms arising. When examination was begun, the muscles not being fully relaxed, the administration of chloroform was further continued, when, in a few seconds, the patient suddenly gasped, the mask was removed, the face found to be cyanosed and the pulse was not perceptible. The tongue was pulled forward, artificial respiration was begun and kept up for half an hour. Strychnia was injected, sponges placed in hot water were placed over the precordium, brandy was injected, but all without effect. Postmortem examination showed the liver to be very much enlarged, a tumor being caused by the downward prolongation of the right lobe. It weighed 6½ pounds. The spleen was slightly enlarged, weighing 10 ounces. The lungs were normal. There was some fatty infiltration about the heart. There was nothing abnormal, except the size, in the left ovary. The uterus was not impregnated. In all, not quite a dram of chloroform was used in the inhalation. The cause of death was attributed to the action of the chloroform on the cardiac ganglia. The second patient was a man, aged 35 years, suffering from necrosis of the thumb. He was an alcoholic and suffered at the time from syphilitic psoriasis. His heart was examined and found to be normal. Chloroform was given under Skinner's inhaler. He took the anesthetic fairly well, although he was inclined to be cyanosed from the beginning. In 4½ minutes, with the use of 4 drams of chloroform, the conjunctival reflex was abolished. The cyanosis increased at this stage and the inhaler was removed. The patient continued breathing for a second or two, when suddenly the pulse failed entirely. All of the usual remedies were without effect. The patient had had chloroform some time previously in an operation for radical cure of hernia. The postmortem examination showed the right auricle empty and the blood fluid. There was a slight fatty deposit in the heart and calcareous plates on the aorta at its commencement. Microscopically the heart showed marked fatty infiltration in both cases. [S.M.H.]

9.—Smith reports a case of **black water fever** in a patient who had been taking 10 grains of quinin every other day for a period of 10 months. On the third day of the fever hemoglobinuria appeared. On the following morning the blood was examined and a parasite was found which corresponded to the quartan intracorpuscular pigmented ameba. The parasites were few in number, and on the evening of the same day there were none at all. [S.M.H.]

10.—A bicyclist fell from his wheel, sustaining an injury which was diagnosed as dislocation forward of the carpus, triangular fibroid cartilage and styloid process. On the radial side the relation of the carpus was normal. [M.B.T.]

11.—A man, 43 years old, while standing on a ladder cleaning a window, slipped and thrust his arm through the glass, sustaining a deep cut. The wound was antiseptically treated. The ulnar and radial arteries were cut, also the median nerve. Three days after, the injury spreading, **emphysematous gangrene** appeared. Amputation at the shoulder-joint was performed, the temperature rapidly fell to normal and healing progressed rapidly, the patient leaving the hospital on the thirtieth day. [M B.T.]

12.—A woman, aged 22, had suffered for 11 years from joint-affection which began with a supposed sprain of the ankle; the pain continued, however, although there were no symptoms of rheumatism or rheumatoid arthritis. The joints gradually became much enlarged and, when admitted to the hospital, the case was diagnosed as **rheumatoid arthritis.** All the joints were more or less affected, with the exception of the interphalangeal joints. The shoulders and hips were slightly affected, the left ankle was completely ankylosed, as was also the right wrist; the right elbow was absolutely fixed and the left elbow could be bent only 8 or 10 degrees. Excision of the right elbow was performed and a short time afterwards excision of the left elbow. Both healed quickly. Before the operation she was scarcely able to feed herself, but 6 months after it she was well and earning her own living. [M.B.T.]

New York Medical Journal.

November 18, 1899. [Vol. lxx, No. 21.]

1. An Interesting Case of Syphilitic Leukoderma, or Dungeon Scurvy, Closely Simulating Anesthetic Macular Leprosy. Joseph A. Silverman.
2. An Unusual Accident. Ewing Marshall.

3. Further Experimental Researches on the Effects of Different Anesthetics on the Kidneys. ROBERT COLEMAN KEMP.
4. The Relation of Pathologic Conditions in the Ethmoid Region of the Nose and Asthma. Treatment. F. H. BOSWORTH.
5. The Sheldon Murder Trial. A Review of the Medical Evidence Relating to Pistol-shot Wounds of the Head. CHARLES PHELPS.

1.—Silverman had under his care a man, aged 52 years, who contracted syphilis in 1873. During the late Cuban Rebellion he was confined in a dungeon for 80 hours, during which time he had to stand with his legs sunk in sewage of very offensive odor. He was badly bitten by vermin and spiders. When released he had high fever; his legs were swollen and ulcerated and covered with varicose veins. Fever with delirium continued for weeks. When sufficiently recovered he walked nearly 300 miles, in short stages, to the coast. From there he sailed to England and in the latter place was very ill with symptoms of myelitis. At the time he came under Silverman's care he was convalescent from an attack of capillary bronchitis. He was anemic; the specific gravity of his urine was 1018 and it contained some albumin. Examination showed a **leukoderma** limited to the legs. There were also some old specific pigmentations. There was no swelling or anesthesia, but hyperesthesia of the soles of the feet which the patient thought congenital. Photographs of the condition are appended. [S.M.H.]

2.—A boy of 12, while standing near a revolving shaft, had his clothes caught on a bolt-head, and in trying to save himself thrust his right hand forward and was caught between the belt and pulley. The belt wound the hand and arm around the pulley, finally **tearing away the arm and scapula and over half of the clavicle** from the trunk. When first seen the patient was in an alarming condition; the mangled tissue was cleared away, a sharp projecting end of the clavicle was removed, with bone forceps, and the great bloodvessel, which was torn just whence it crosses the first rib, or just before it reached it, was ligated. The parts were thoroughly cleansed with mercuric chlorid solution and brought together with sutures as far as possible. There were also extensive abrasions about the face, body and legs. The patient recovered from the injury, sat up on the eighth day and is now quite well. [M.B.T.]

4.—Clinical observation has taught that certain cases of **asthma** are intimately associated with **nasal polypi.** The asthma is often relieved by removal of the polypi. As regards the latter, Bosworth believes that this is because polypoid degeneration of the mucous membrane of the nose is associated with disease of a similar character in the ethmoid cells, and in order to effect a cure this diseased tissue must be removed. This is best accomplished by the use of a burr which is attached to a dental engine or electric motor. In most cases all the polypi can be removed and the asthma relieved. Bosworth is confident that many cases have failed of relief because the source of disease was not sought deeply enough. [M.B.T.]

Medical Record.

November 18, 1899. [Vol. 56, No. 21.]

1. Tabes Dorsalis; Its Pathology, Diagnosis and Treatment. CHARLES L. DANA.
2. The Pathogenesis of Functional Nervous Diseases and their Prophylactic Indication. JOHN PUNTON.
3. Ophthalmic Contributions. DAVID WEBSTER.
4. The Necessity for State Aid in Pulmonary Tuberculosis. GEORGE W. GOLER.

1.—Dana considers that **tabes dorsalis is a primary atrophy of the cells,** and is not the result of a meningitis. Meningitis is not always present, and even if it were present it would not explain the Argyll-Robertson pupil. The atrophy is probably of the nature of an early senility. He insists that tabes is a result of syphilis, and indicates that in cases in which this disease cannot be determined to be present the disease has run a latent course. The only other factors considered of importance are neuropathic heredity and overuse of the spinal cord, as by excessive muscular exercise. In the diagnosis he considers the pupillary symptom the most important, while he says that loss of kneejerk with one other symptom is sufficient to establish a probable diagnosis. In discussing unusual methods of onset, which he says occur in about 10% of cases, he describes rectal crises, neuralgic crises, gastric crises, arthropathies, optic atrophy, laryngeal crises, and manifestations of secondary syphilis, which gradually merges into tabes. Amongst early symptoms of importance he mentions the areas of unsuspected anesthesia found upon careful examination, the symptom of Biernacki, or absence of pain upon compression of the ulnar nerve at the elbow, also the lack of sensitiveness upon pressure over the popliteal nerves, the two last symptoms not being of much value; presence of the abdominal reflexes, while the kneejerks are absent, and the existence of ataxia upon extreme tests, such as standing upon the toes. In considering the treatment, he insists that antisyphilitic drugs should not always be given at once. In the beginning, if there is distinct syphilitic history, mercury and potassium iodid should be administered, the former hypodermically, continuing this treatment for 6 to 8 weeks altogether. After this the patient is put upon tonics, such as iron and phosphoric acid, and is made to rest practically all the time, continuing this for about 3 months. The cases that have no definite syphilitic history should be put upon the tonic-and-rest treatment, and strychnia and morphia should be used in doses of $\frac{1}{60}$ of a grain twice a day, increased each week until, at the end of 5 weeks, the dose is $\frac{1}{15}$ of a grain. The tonic treatment and the mercury, if the latter is used, should be repeated once or twice a year. Other drugs he does not consider valuable. He has had useful results from Fraenkel's method, and he thinks that tabes is a disease distinctly amenable to treatment; that it is sometimes arrested and very often relieved. [D L.E.]

3.—Webster reports a case of **episcleritis with keratoiritis;** a case of tenotomy of the internal rectus for the cure of incomplete paralysis of the externus, and a case of operation for congenital cataract of both eyes, occurring in a clergyman, 37 years of age. [M.B T.]

4.—Goler notes the cost of **maintenance of the insane and the epileptic** in the State of New York, and draws attention to the fact that the public feels entirely content to have these cases looked after at the public expense, while consumption, which is a much more dangerous disease to the public health, causes far more deaths, and is much more preventable than either insanity or epilepsy, is unnoticed in most of the appropriations for public-health work. He furnishes figures to show the enormous loss to the public from consumption. In New York State, if half the subjects earned on an average but $200 per year, the yearly loss would be $1,300,000. [D.L.E.]

Medical News.

November 18, 1899. [Vol. lxxv, No. 21.]

1. The Treatment of Gonorrhea in the Female. A. RAVOGLI.
2. An Experimental Study of Aspirin, a New Salicylic Acid Preparation. F. C. FLOECKINGER.
3. Some Cases Bearing Upon the Peripheral Causation of Epilepsy. FRANK H. EDSALL.
4. Raynaud's Disease; with Report of a Case Resulting in Death. WILLIAM H. DUKEMAN.

2.—Floeckinger has studied **aspirin,** which is really **acetyl salicylic acid.** Doses of 75 grains caused violent headache, and tinnitus aurium, which persisted for about 16 hours. In guineapigs, the fatal dose is about 23 grains per kilo of animal weight. The symptoms were first increased, and then decreased, frequency of the pulse, diminution of hearing, Cheyne-Stokes respiration, and finally respiratory paralysis. The postmortem examination showed hyperemia of the abdominal organs. Apparently the salicylic acid is not liberated in the stomach, but is liberated in large quantities in the intestines. If, however, there is motor insufficiency of the stomach, the salicylic acid may be liberated in that organ. Tinnitus very rarely occurs as a result of physiologic doses, about 60 grains per day. The drug is apparently

effective in rheumatic conditions and chronic inflammations of the serous membranes. It has certain advantages over sodium salicylate, particularly its agreeable taste, the fact that it does not irritate the stomach, the absence of tinnitus, of cardiac depression, and of impairment of the appetite. [J.S.]

3.—Edsall reports 4 cases of **epilepsy.** The first, a girl, 12 years of age, without neuropathic heredity, had had attacks resembling epilepsy ever since she began to attend school. Increase in the amount of scholastic work always increased the frequency and severity of these attacks. Examination of the eyes showed a very considerable error of refraction without muscular insufficiencies. This was conceded and the attacks rapidly decreased, and, in connection with suitable hygenic existence, finally disappeared. The second patient, a girl of 10 years, had had several epileptic seizures in the previous year. These were growing more severe and frequent, she was found to have hypermetropic astigmatism, but active glasses produced temporary improvement. The patient subsequently relaped into her former state. The third patient, a man of 28, had suffered from nocturnal epilepsy for some years. He had myopic astigmatism, and glasses apparently cured the epileptic condition. Finally, he reports the case of a boy, 14 years of age, who had had pronounced epileptic attacks of moderate severity; examination of his eyes revealed hypermetropic astigmatism, associated with marked exophoria. Correction produced no improvement whatever. Edsall is inclined to believe that in all cases of epilepsy, there is some central lesion which may so exhaust the inhibitory cells that slight peripheral irritation may cause them to lose complete control altogether. Therefore, the relief of peripheral irritation may, if the case is slight, cause considerable improvement. He does not express himself positively, but is rather skeptical of the benefit of graduated tenotomies. [J.S.]

4.—Dukeman reports the case of a woman, 56 years of age, who had had an attack of acute indigestion after partaking of fish. From this time her health had failed, she grew weaker, had shortness of breathing and cough. The lungs and heart were normal, but the circulation seemed sluggish. The patient was profoundly prostrated. The disease commenced with slight numbness in the ring finger on the left hand which in 24 hours was swollen, cyanosed, and cold. The following day there were four symmetric cyanosed patches on the outer side of the calf of the right leg. The finger first affected finally underwent dry gangrene and separated at the second joint. The patches on the legs disappeared. She improved for some time, and then became again depressed, and one morning was found in a comatose condition with right hemiplegia with gangrene of the right ring finger. She finally became more comatose and died. An autopsy could not, unfortunately, be performed. [J.S.]

Boston Medical and Surgical Journal.

November 16, 1899. [Vol. cxli, No. 20.]

1. An Object Lesson in Military Sanitation. Charles R. Greenleaf.
2. Tentage for Tropical Service. Edward L. Munson.
3. The Treatment of Postpartum Hemorrhage. J. Z. Currie.
4. The Value of Urotropin in the Treatment of Certain Forms of Genitourinary Disease. J. M. Thompson.
5. Acute Hemorrhagic Gangrenous Pancreatitis; Operation on the Second and Twenty-eighth Days; Death. Charles L. Scudder.
6. A Case which Baffled Diagnosis. Benj. R. Symonds.

1.—Greenleaf describes the **organization of the military camps** at the Presidio, near San Francisco. The greatest pains were taken to have the sanitation as nearly perfect as possible, and as it was found that the volunteers could not be trusted to keep the camps clean, regular scavengers were employed, there being a day and a night shift. Everything was disinfected and scrupulous cleanliness enjoined. All cases of suspicious diseases were promptly segregated. [J.S.]

2.—Munson suggests the following **alterations in the hospital-tent** at present used in the United States Army. The tent-fly should be made 2 feet longer, 4 feet wider and raised upon a false ridge 1 foot above the true ridge. The tent-pole should be jointed, and provided at one end with a cuppling device, so that the tent can be arranged in line. The canvas forming the top of the tent beneath the fly should be replaced for a distance of 2 feet each side of the ridge pole by heavy rope netting. The tent-fly should be made of white canvas, and the tent of dark canvas. The object of these changes is to provide better ventilation and better protection from the heat of the sun. The new tent has 48 square feet of ventilating surface, while the regulation tent is less than 0.2 of a square foot. An experimental tent of this description proved to be, on the average, from 5° to 10° cooler than the regular hospital-tent, and somewhat cooler than the outside atmosphere in the sun. Similar principles can also be applied to officers' tents. In cold weather, the ventilating opening in the top can be covered by an extra fly.

3.—Currie, in a paper on the treatment of **postpartum hemorrhage** summarizes as follows: (1) A knowledge of the source of hemorrhage is necessary to ensure intelligent action. (2) All rents when easy of access should be repaired at once. (3) If the body of the uterus is contracted and bleeding excessive in all cases of hemorrhage following placenta prævia, the whole cavity should be tamponed at once. (4) If this is not successful, or if the hemorrhage is constant and not excessive, secure the bleeding vessels and, if possible, repair the injury. (5) If atony exists and hemorrhage is not excessive, use external and bimanual compression of the uterus, followed, if necessary, by hot water, vinegar or acetic acid. (6) If not successful, or if atony exists with excessive hemorrhage from the outset, tampon at once after using hot water. (7) Give morphia hypodermically to check the hemorrhage and stimulants, strychnia and autoinfusion, to overcome the effects of the hemorrhage. (8) To prevent anemia use saline solution, preferably by the rectum or hypodermically. Use saline solution by infusion also, if necessary. [W.K.]

4.—Thompson has used **urotropin** in various forms of **genitourinary** disease, particularly in 2 cases with enlarged prostates. In both, the results were very good. An efficient dose usually is 7½ grains twice a day. The drug is particularly effective in phosphaturia. It acts as an antiseptic, preventing the growth of germs, and as an acidifier correcting some of the injurious effects of cystitis, and acts almost exclusively upon the urinary tract. [J.S.]

5.—In this case of **gangrenous pancreatitis,** the symptoms which indicated operation were increasingly persistent vomiting, abdominal pain and obstruction, the peritoneal facies, poor pulse and absence of dejections. The operation, which consisted in the establishment of drainage down to the pancreas, was followed by improvement in the patient's condition for 12 days. At the end of this time, however, the vomiting returned and a second operation was done. This time there was an abscess and the pancreas was a gangrenous mass. The patient died 2 days after the operation. No autopsy was held. At no time was there any sugar in the urine. [G.B.W.]

6.—Symonds reports the case of a man, who, for some time after an attack of pneumonia, complained of pressure at the back of the neck, apparently directly beneath the occipital bone. He also had some hallucinations and delusions, but was able to continue working at his trade, that of a currier. Later, after a period of increasing discomfort, he complained that the pain had gone to the top of his head, and shortly afterwards was taken with violent vomiting, was delirious, and had a spasm, and then the physician was called in. The patient was found to be comatose, the limbs were slightly flexed, the pupils were widely dilated, and there was right conjugate deviation. The head was slightly drawn back, and from time to time there were spasmodic contractures of the muscles. A diagnosis was made of some cerebral lesion. His urine was examined and found to be normal. Then the spasms increased in frequency, there was considerable rise in temperature, and venesection failed to relieve his symptoms. He died in the course of a few hours, and an autopsy, limited to the head, failed to reveal any lesion, except congestion of the membranes. The title of this paper could, we think, have been made somewhat more definite with advantage. It must occur to many who are searching for some particular subject in medical literature to regret these obscure titles. We suggest with much diffidence "an obscure case with cerebral symptoms." [J.S.]

Journal American Medical Association.

November 18, 1899. [Vol. xxxiii, No. 21.]

1. The Antenatal and Intranatal Factors in Neonatal Pathology: An Attempt to Explain the Peculiarities of the Morbid States of the Newborn. J. W. Ballantyne.
2. Serous Cyst of Iris Following Discission for Milky Cataract. S. C. Ayres.
3. Case in Which Both Eyes Were Lost From Choroidal Hemorrhage Subsequent to Extraction of Senile Cataract. Albert Rufus Baker.
4. Some Ocular Manifestations of Arteriosclerosis. Charles H. Beard.
5. The Vegetable Neurotics. George Frank Butler.
6. Sulfate of Magnesia. J. C. Culbertson
7. The Preparation and Administration of Pills, Tablets and Capsules. H. Finkelpearl.
8. Treatment of Nasopharyngeal Adenoids. Louis J. Lautenbach.
9. Nature and Treatment of Cutaneous Cancer. A. Ravogli.
10. Recent Phases in Psychiatry. William G. Stearns.
11. Preliminary Report of Anterior Transplantation of the Round Ligaments for Displacements of the Uterus. Alex. Hugh Ferguson.
12. Case of Injury to Ureter. Torn End Grafted Into the Bladder. L. H. Dunning.

1.—In summarizing his paper on **neonatal pathology,** Ballantyne says that if the character of the diseases of the newborn infant is to be understood it is essential to take into account not only that the infant's organism has has just passed through a period of traumatism and is passing through one of readjustment to meet new requirements, but also that during the 9 months of intrauterine life which precede birth, it may have been the sphere of morbid processes which have left their impress on it. It may come into the extrauterine environment already diseased or malformed or predisposed to some pathologic development. Like pregnancy, neonatal life is an epoch which has a physiology in many respects peculiar to itself, and which borders very closely on the pathologic, tending very easily to pass over into it. In a certain sense the ordinary vomiting of pregnancy is to the uncontrolable form, as the ordinary "physiologic" jaundice of the newborn is to pernicious icterus neonatorum. Just as every woman brings with her into her pregnancy the results of her past pathologic history, so the newborn infant brings with him into his neonatal existence, the effects of any morbid processes which may have attacked him *in utero*. The peculiarities, therefore, of neonatal diseases are not inexplicable, but are the direct outcome of the action of the antenatal and intranatal factors on the organism at this period of life.

2.—See Philadelphia Medical Journal, Vol. IV, page 14.
3.— " " " " 14.
5.— " " " " 18.
6.— " " " " 19.
7.— " " " " 19.
8.— " " " " 17.

9.—Ravogli believes that a continuous irritation to any part of the skin is the starting point of the epithelial proliferation and of the consequent epithelial cancers. It seems that syphilis diminishes the virulency of cancers, but it gradually disappears from the scene, and cancer continues in its destructive activity. These diseases have nothing in common, but syphilis may cause cancerous productions on account of its long-standing, ulcerative process. In **treatment** the basal idea is to destroy the growth as soon as possible and to destroy it equally and at a certain radius of distance in order to surely remove the tissues where a potentiality of the development of the infiltrating cells can be found. Ravogli has used a great many caustics, but none have given the results he has obtained from formalin. He was led to use this from observing its effect upon the tissues in hardening microscopic sections. He uses from 4% to 8% and 10% solution, and finally the pure solution as it comes in commerce under the name of formaldehyd. He sometimes cocainizes the surface so as to lessen the pain, and then cauterizes the growth with a paste made out of starch, prepared chalk, and zinc oxid, equal parts, incorporated with formaldehyd to make a paste. In a case of nodular cancer formaldehyd from 1% to 5% was injected with the Pravatz syringe in the carcinomatous nodules. The injection caused the breaking down of the nodules and an abundant sloughing, but it was stopped on account of the resulting pain. In every case reported the results were excellent. Dr. Ravogli inclined to attribute the result of formaldehyd to its powerful bactericidal properties, in a measure a confirmation of the parasitic theory of the origin of cancer. Tests prove that formaldehyd penetrates the whole substance of cadavers and kills bacteria and anthrax spores in them. Thus it should be able to reach the nest of cells of the superficial cancer and reduce them to a hard mass; which is subsequently sloughed off from the normal tissues. In order to increase its action, when applying the paste it is better to cover the paste with a piece of rubber or of oiled silk, so as to prevent its rapid evaporation. In superficial epithelioma curetment followed by cauterization, even with thermocautery or formaldehyd, is excellent. Curetment alone removes the cancerous tissue on the surface, but many nests remain in the surrounding derma which the curet cannot reach; in consequence, unless cautery is used, relapse is at hand. In a deep-seated, nodular carcinoma, or in the papillary vegetating cancer, surgical exeresis is the best treatment. The removal of the whole growth at some distance from the healthy skin is the only means of destroying the growth and preventing infection. If the lymphatic glands are involved, they should be extirpated.

10.—The reflex act is recognized as the fundamental element in all action, voluntary or involuntary; conscious action is only a step higher in the progressive development of action. The disordered reflex act is the basis for the **study of disordered mental activity.** The methods of investigation that have been elaborated in the study of psychology in the school established by Wundt, are capable of being used to a large extent in the study of the insane, and of becoming a more important and essential aid to a correct understanding of abnormal states. Future research by the use of psychopathologic methods will give data that will finally serve as an enduring basis for a truly scientific classification.

11.—Dr. Ferguson claims as advantages for his operation of **anterior transplantation of the round ligaments for displacements of the uterus** the following points: The round ligaments and their portion of the broad ligaments afford excellent material together, while the round ligaments alone are too frail and elastic for reliable and permanent anchorage of a uterus. There are no sutures inserted into the uterus and no adhesions can take place between it and abdominal wall as in the ordinary suspension operation. The organ is suspended free in the pelvis, capable of motion sufficient to accommodate itself to a distended rectum or bladder, without inconvenience. On physiologic grounds it is conceivable that pregnancy would be interfered with by this operation, and for a hernia to follow is utterly impossible. It affords ample opportunity to suspend healthy ovaries, and to remove diseased ones. Many pathologic condition in the pelvis may be treated through the abdominal incisions. It is sure to hold the uterus in place without the annoyance of the dragging pains which so frequently accompany Alexander's operation and modifications of it. In the 22 cases operated on in 2½ years, by this method, ideal results were obtained, one woman becoming pregnant, the case going on to a normal termination.

12.—Dunning reports a case of operation for abscess of the right broad ligament, in which the **right ureter was completely severed** an inch from its insertion into the bladder. Fortunately the ureter was so displaced that it ran over the upper surface of the wall of the broad ligament abscess, and thus gave sufficient length to permit of an anastomosis with the bladder. A sound was passed through the urethra into the bladder, pushed against the posterior upper wall to the right of the median line. An incision was then made through the walls, meeting the point of the sound, which was carried through the incision into the pelvic cavity. The point of the sound was then carried into the severed end of the ureter, when this end was slipped along the sound through the incision in the bladder. The sound was withdrawn and the incision in the bladder-walls snugly closed around the ureter. The patient made an uninterrupted recovery. There was never any leakage of urine at the point of the graft.

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.

The Cough of Phthisis.—Knopf ("Pulmonary Tuberculosis," 1899) writes as follows concerning the treatment of phthisical cough: Painful coughs seem best relieved by small, repeated doses of codein in solution, but the dry cough, which is often the result of habit, and where there is really nothing to expectorate, should be suppressed by discipline. Sips of cold water, orange-juice, or milk, small pieces of ice, or tablets of Iceland moss (cetraria), will help to overcome tickling sensations in the throat until the patient has fully become master of the cough. Holding the breath for a few seconds will often help also. It is really wonderful how much it is possible to accomplish in this respect by discipline. In Falkenstein I have dined for weeks with a hundred and more consumptives in one large dining hall, and it was a rare occurrence to hear a single cough during the dinner hour. To relieve the not infrequent morning attacks of coughing, a glass of hot water with some lemon-juice, with but little or no sugar, or with 5 to 10 drops of ammoniated spirit of anise (liquor ammonii anisatus), often suffices. Occasionally it becomes absolutely necessary to give expectorants regularly to relieve a distressing cough and the tenacious expectoration. The following prescription has rendered me good service in most such cases:

℞.—Codein..... 6 to 8 grains.
Dilute sulfuric acid.....1½ drams.
Glycerin } of each.....1 ounce.
Cherry-laurel water }
Sirup of wild cherry.....2 ounces.
Sirup of tolu to make.....6 ounces.

A teaspoonful whenever the cough becomes distressing; more than six teaspoonfuls should, as rule, not be taken in 24 hours.

At times I change this prescription for Murrell's cough-mixture, which is also very good. It is as follows:

℞.—Codein.....4 grains.
Dilute hydrochloric acid.....30 minims.
Spirit of chloroform.....1½ drams.
Sirup of lemon.....1 dram.
Water to make.....4 drams.

One teaspoonful as occasion demands.

When the cough does not yield to these medications, or when there is a marked bronchorrhea, daily injections of 20 minims of the following liquid often give relief:

℞.—Guaiacol } of each.....10 minims.
Menthol }
Olive-oil.....1 dram.

If violent coughing spells cannot be repressed, to tie a wide flannel band around the chest will lessen the painful concussions.

Tuberculin.—Heron (*Lancet*, October 14, 1899) states that prior to April, 1891, he treated 37 patients with *old* tuberculin, 37 having phthisis and 5 having lupus. All the lupus cases improved, but relapsed. Of the 32 cases of phthisis, 8 subsequently died; 1, however, remaining well until 1897. Ten of the 32 cases were now fairly well and 3 had been lost sight of. During the years 1897–98 9 cases of phthisis and 1 of lupus were treated with Koch's *new* tuberculin. Two of these, hopeless from the start, died. Heron has not at any time seen a single instance of harm in consequence of treatment either with the old or new tuberculin. Over 2,000 injections had been given in his wards, and in no case had there ever been a superficial abscess at the seat of puncture. Concerning the remaining 7 cases, all improved in health to a remarkable degree. In the summer of 1899, 4 were still at work and in good health, the others had been lost sight of. The one case of lupus did extremely well, and 18 months afterwards the scar was still perfectly healthy. During the current years 10 cases of phthisis had been treated. In 2 the injections had to be discontinued, on account of high fever due to mixed infection. Of the remaining 8 cases, 3 were still in the hospital and were improving, 5 came to the hospital weekly and each received an injection of one bottleful of tuberculin. All had improved, and were still improving. The most suitable cases for this treatment, according to Heron, are those in which only a small portion of one lung is affected and in which the temperature has rarely or never gone above 99 4° F. Cases of mixed infection should be submitted to other treatment.

Herpes Zoster.—Schamberg (*International Medical Magazine*, October, 1899) states that the treatment of herpes zoster has for its object the relief of pain and the protection of the affected skin areas from mechanical injury and infection. For the relief of the severe neuritic pain one may employ the coal-tar anodynes, such as antipyrin, etc., either alone or in conjunction with bromids. When the pain is severe, however, it will be found necessary to resort to the use of morphin. A therapeutic measure of great value, both for mitigation of the pain during and after the attack, is the electric current, preferably the galvanic. This should be applied in weak currents once or twice a day over the affected areas.

Locally, dusting powders, lotions, ointments and paints are used. Collodion may be advantageously painted over the patches when they are conveniently situated and not too extensive. In mild cases it will suffice to use an antiseptic dusting powder, containing, if desired, a few grains of opium, and cover the area with absorbent cotton and a bandage.

Methylene-Blue in Cerebral Excitement.—Bodoin (*Klinisch-Therapeutische Wochenschrift*, November 21, 1899) extols the action of this drug as a sedative in various forms of insanity associated with great mental excitement. In 14 cases, including the different types of mania, paranoia with delirium, chronic alcoholism and hysterocpilepsy, the remedy proved very satisfactory. When injected into the gluteal muscles, in doses of 1 to 1½ grains, it exerted a quieting influence, within a few hours, which lasted from 1 to 4 days. No untoward effects were observed.

Hydroxyl in Surgery.—According to the *Medical Review*, October, 1899, Tissot (*Gaz. des Hôp.*, September 7, 1899) states that hydroxyl has marked antiseptic and deodorizing properties. It is not toxic and it rapidly arrests capillary hemorrhage. During the last two years Tissot has used a solution containing 12 volumes of oxygen in operations on the nose, pharynx and ear. The removal of nasal polypi is much facilitated, as hemorrhage is easily controled—a matter of some moment when several require removal. Hemorrhage following the removal of adenoid growths is quickly checked, and in cases of epistaxis it may be superior to cocain and antipyrin. The removal of a large polyp in the external auditory meatus was in one case followed by profuse bleeding which was promptly checked by applications of hydroxyl. Encouraged by these results Tissot has used hydroxyl with success in operations for acute and chronic osteomyelitis and cystic sarcoma of the breast. Its effects in deodorizing foul cavities are superior to those of carbolic acid and mercuric chlorid, and no fear of any toxic action need be entertained. It should be used freely in wounds caused by machinery and firearms in which septic and grangrenous sequels are so apt to follow. The following conclusions are drawn: (1) No local irritation, erythema or toxic effect follows its use; (2) its application is painless or nearly so; (3) a large amount of blood-stained froth is formed; (4) the wounds rapidly require a healthy appearance and healing proceeds more quickly; (5) it is hemostatic and deodorizing as well as antiseptic.

Stypticin.—*Merck's Archives*, September 1899, quotes Pranzynske (*Med. Centr. Ztg*) as having obtained excellent results with stypticin in 30 cases of climacteric hemorrhage and threatened abortion, its action in the latter being particularly good. The remedy exerts no pernicious effects, even on long-continued use, and is free from any and every by-effect. Among its advantages is its superiority to hydrastis and similar preparations as a sedative, its action being more prompt.

[Stypticin is the name given to cotarnin hydrochlorid, which appears in the form of yellow crystals, freely soluble in water. The dose for excessive menstruation is ½ grain, three or four times daily.]

Original Articles.

SOME EXPERIMENTAL STUDIES IN CEREBRAL LOCALIZATION.

BY GEORGE A. TALBERT, M.S.,
Chicago University.

INTRODUCTION.

THE experimental work of which this subject forms a basis was begun in November, 1898, in the laboratory of Professor Hermann Munk, of Berlin, and has been prosecuted without interruption to the present time. It is, therefore, most fitting that I should here acknowledge with heartfelt thanks my obligations to Professor Munk, who not only assigned the subject and offered the free use of his well equipped laboratory, but through his many years of experience in the study of brain functions was enabled to give me many valuable suggestions as well as an added inspiration.

Not in a less manner would I acknowledge my obligations to Dr. du Bois-Reymond of this laboratory, who has watched my experiments with intense interest, while furthermore by his excellent technical skill and frequent assistance he has aided me not a little.

HISTORY.

Since 1871, the time when Fritsch and Hitsig showed it possible to study brain physiology by electrical irritations, methods have not materially changed. However, in 1897, there appeared a short extract by Professor Richard Ewald, of Strasburg, in the *Verhandlungen des Congresses für innere Medicin*, Berlin, vol. 9–12. Also in 1898 he appears again with two shorter extracts, one in the *Vergleich. Neurolog. Centralblatt*, XVII, and the other in the *Deutsche medicinische Wochenschrift*. The first two appear incidentally in connection with another subject, and inasmuch as what has been given in regard to methods and results is brief, it seemed a most promising field for research. I have consequently adopted the general method as laid down by Professor Ewald with some modifications which will be discussed in their proper place.

METHODS.

The animals chosen for the study were dogs, in general small ones, as they are much easier to control both in operation and experiment; most of them were of a mixed blood, but as a rule some form of a terrier. Young animals, especially under one year, are not to be recommended; the reasons for this will become apparent later on in the discussion.

The operation was to place the dog under the influence of morphin by injecting subcutaneously about 3 cc. of a 3% solution, and after a half-hour, the administration of ether. After the hair was shaved from the top of the skull, there was made a median longitudinal slit in the skin, extending quite the entire length of same. This was followed by severing the upper attachment of muscles and removing the periosteum in the usual manner in order to facilitate the trephining. In every case two holes were bored of about 14 mm. in diameter, one for each hemisphere, sometimes in corresponding, while in other cases different relative localities. Although a general survey of the length and breadth of the skull as well as the location of the sutures in a measure serves one as guides in trephining, yet notwithstanding these facts it is not always an easy problem to predict exactly with what portions of the brain one will come in contact, for the reason of the great variance in the shapes of skulls.

It is needless to say that trephining itself is not unattended with difficulties; it is only necessary to throw out the hint that one must be quite as cautious as in similar operations for other purposes, for one cannot tell what mischief might result from laceration of the brain-substance.

After the trephining it is necessary to expose the surface of the brain by cutting away the dura. This operation is quite delicate, for, on account of the smallness of the hole it is necessary to exercise the greatest care to avoid piercing the brain and severing bloodvessels. There was used in this operation a very small and sharp pointed scalpel, a blade of about 6 mm. long. With this the dura was first pierced at a position removed as far as possible from veins. Then cut directly to the border and around the circumference, while holding the flap upward with the forceps. If it should happen that there is much bleeding from the bone, which is quite usual in young dogs, it is better to delay cutting the dura until this is stopped, which of course is easily done by packing in absorbent cotton. In cases when blood came in contact with the brain either from the bone or the severing of veins, it cannot be said that any appreciable evil effects were afterwards noted in the health of the animal, but it often made a tedious delay in the operation, and if a clot remained behind, it would act as a resistance to electrical currents that are used in the experimental work. This resistance would come too at a time when one should be obtaining the best results, for gradually there will grow over the hole where the dura was removed a cicatrix which will act as an additional barrier.

The next step is to screw into the hole an ivory ring with an outer and inner-threaded border, and further, a square top in order to fit a trephine handle. (Fig. 1.) *A* represents a vertical section, while *B* the same viewed from the top. In the center of the ring is screwed in an ivory plug, through the center of which run two wires, ending in platinum knobs, so that when put in position they will act as electrodes resting on the surface of the brain. (Fig. 1, *C*.)

One must be cautious in having the rings fit the holes exceedingly well and at the same time they must not be made too conical, or there will be experienced much

fficulty in screwing them into the bone, while, further, destruction of the threads is apt to take place.

In the *Vergleich. Neurolog. Centralblatt*, 1898, p. 619, I id the following description which Ewald gives of e ring and electrodes, as well as placing of the same: The operation consists in trephining hole in the skull er those areas which it is desired to stimulate and to these holes cones of ivory are screwed. The following day the electrodes are placed within these hollow cones."

He further says, in *Verhandlungen des Congresses für nere Medicin*, 1897, Berlin, vol. 9-12, p. 248: "Two ectrodes are introduced through the small skin-wound d are immovably fastened in the ivory plugs. It is

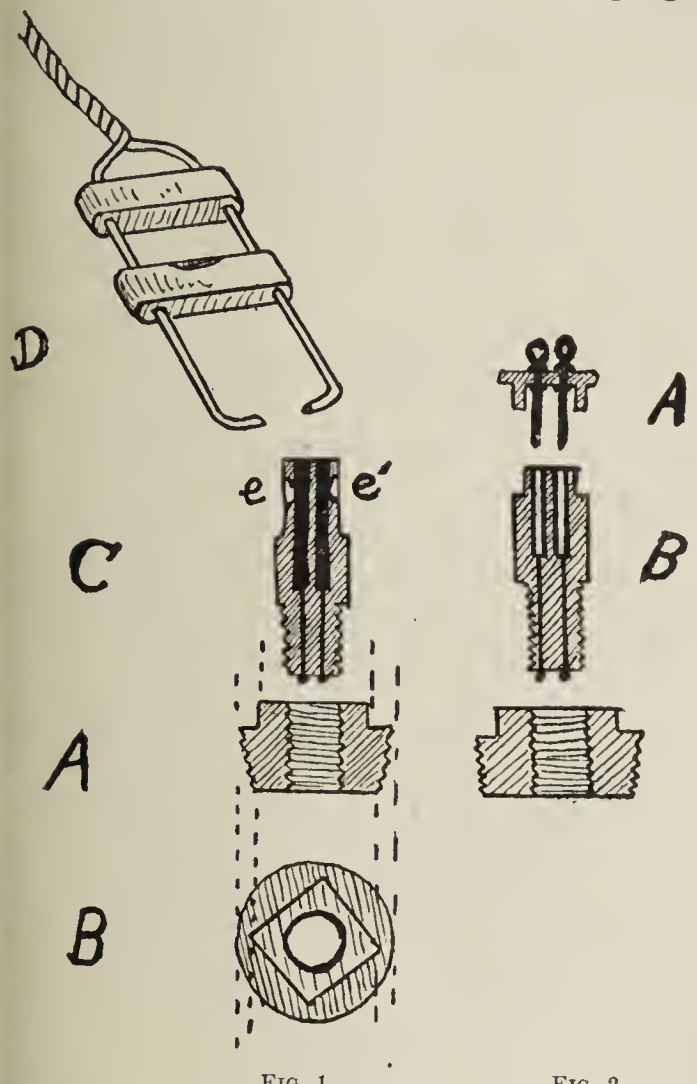


FIG. 1.

FIG. 2.

necessary for me to describe the method of fastening this time."

He does not tell us clearly when he makes the slit the skin for the introduction of the electrodes, ether at the time of the operation or on the day of experiment. Yet both were found open to objecns, for in the latter case the plug would irritate a gh wound, while in both cases the skin would soon ve a tendency to unite and thereby make it impossible extend experiments many days unless the skin was in cut open.

My experience soon taught me that it was far prefere to put the plugs into the rings on the day of the ration, and then sew up the muscles by one or two ches so that they may occupy, as nearly as possible, ir normal position, and in like manner the skin so o cover at first the plugs completely. This being finished, a slit was now cut in the skin above the plugs so as to allow them to protrude. Thus, on the day for experimentation, it is only a simple matter to attach the wires of the battery. While by this method there will be more or less irritation around the plugs, yet in most cases when the trephining was done over the cruciatus region, the wound was generally quite well healed by the second day. As much, however, cannot be said of the operation over the seeing sphere or facial region, the difficulty that is experienced with the former being due to the constant influence of the occipital muscle. A partial remedy seemed to be in making a large slit. As to the facial region, it is difficult to place the plugs in the midst of the thick muscles of the head, and the only remedy here is to use longer plugs. Therefore, one should be supplied with two lengths of plugs in order to meet the conditions.

While I have altogether employed the two pieces, ring and plug, it cannot be said to be necessary, for, inasmuch as one adopts the method of placing them both permanently at the time of the operation, I cannot see any serious objections to having them made into one piece, and, indeed, shall try this when I have occasion for new ones. They certainly could be made much cheaper, which is not an item to be overlooked in this investigation. The only virtue that seems to be offered for the two pieces is that in screwing the ring into the bone one can ascertain with greater certainty that the electrode knobs when put in place will rest on the surface of the brain.

Two methods were adopted for connecting the wires of the battery to the wires of the plug; the first as in Fig. 2 *A*, in which the wires from battery pass through a cap that fits into the metal tubes at the top of the plug *B*, thereby making connection. This did not prove altogether successful, as the dog would constantly be slipping it off. Later on, a connection was used in which the wires from the battery are clamped to the side of the plug; a representation of which is in Fig. 1, in which *D* represents the clamp to be brought into connection with plug *C* at the points *e* and *e'*. This was found to be very satisfactory.

Too much stress cannot be laid on the necessity for as perfect asepsis as possible. The operation is an extraordinary one for a dog, and one soon learns that it is necessary to exercise the greatest care. Boiling and carbolic acid were used for instruments and ivory pieces. However, caution is to be observed in not leaving the ivory too long in either, as it will soften, and consequently the threads will easily wear away when the ring is screwed into the bone.

Postmortem examination revealed the fact that the ivory rings that had been in the skull for some weeks were very much eaten away. In order to ascertain the cause they were put into the hands of Dr. Max David, of this laboratory, who has already published a recent paper on the subject: "Ueber die histologischen Vor-

gänge nach der Implantation von Elfenbein und todten Knochen in Schädeldefecten."[1] The results of his investigation show that the ivory first undergoes a process of dissolution which is afterwards followed by the growing-in of the bone-processes.

My experience was that rings that had not been in the skull longer than two weeks were not, as a rule, so badly damaged but that the threads could be remade and used a second and even a third time, but rings that had been in place for a month or more were useless.

EXPERIMENTATION.

There was used in the stimulation one ordinary Daniel cell connected with a du Bois-Reymond coil and short-circuiting key. So with such appliances one can conveniently estimate the relative strength of the currents employed by noting the distances the secondary coil is separated from the primary.

The dogs, as a rule, were not fit for experimental work until the second day after the operation, as it takes about that length of time to recover from the stupefying effects of the morphin. As Ewald speaks about experimenting the next day, I take it that the morphin is omitted. The operations were mostly confined to the cruciatus region, the second great fold just above the anterior suprasylvian fissure, the seeing sphere, and some intermediate points that have been considered unirritable.

When the electrodes rested in a position at the base and slightly to the rear of the fissure cruciatus, marked *C* in the diagram, as a rule foreleg movements of the opposite side resulted. There was one striking exception, however, in dog No. 2. Why there was this exception is not easily explained. The facts are that the dog was experimented upon not only every day for a week, but many times during a day, and as a result gave no other but hindleg movements of the opposite side. Furthermore, postmortem examination revealed a healthy condition save the fact of a very slight blood-clot. It might be urged that this would be of sufficient resistance to impulses reaching the foreleg center, and and consequently there was a spreading to the usual assigned hindleg center. Such an hypothesis would be negatived to a certain extent for the reason that the results were obtained at the strength of 100 mm. on the second day after the operation, which is as weak a current as any by which I have ever obtained leg-movements.

Another interesting case developed from dog No. 1. Notwithstanding the fact that the stimulus was applied on the left side, at position *A*, in front and half way down the cruciatus, there resulted foreleg movements of the opposite side at 55 mm., while two days later there were as good results at 70 mm. The reason of the increased irritability was no doubt due to the absorption of a bloodclot which resulted from the severi of a vein during the operation. The dog was in use days when he died as a result of an abscess on the rig side. The postmortem showed, however, the left si quite in a healthy condition, not even any diffusion blood was to be observed. Of course the fact that abscess occurred on the right side and that there w probably a clot for the first few days on the left si makes this case somewhat objectionable in drawi definite conclusions, but this much must be said in su port of the reliability of the results that a strength 70 mm. 5 days after operation has not been consider a strong current.

Operations in the occipital region so that the el trodes were placed at about position *G*, of the seco

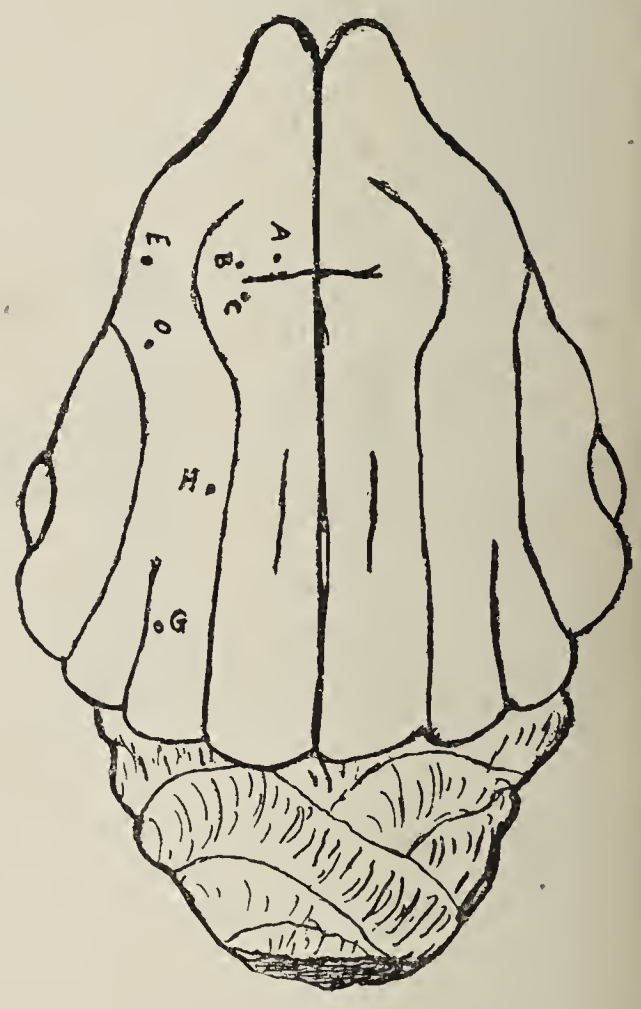


FIG. 3.

fold, gave some interesting results, inasmuch as a st ulus here of the usual strength brought about a mo ment of the eyeballs downward and to the opposite s If the current was increased slightly there was addition the turning of the head and even a walkin a circle to the opposite side to which stimulus applied. It was not an infrequent occurrence for general expression of observation, such as sniffing pricking up of the ears.

Quite the same results were obtained on one when the electrodes were at a position *H*, except t the eyes turned to the opposite side, but not downw This is interesting from the fact that it has not b considered an irritable region. The results were tained at an ordinary strength of current. Howe as it was only observed on one dog, I shall not furt dwell on it.

[1] *Archiv für klinische Chirurgie*, Bd. 57, Heft 3.

There was another experiment on a position intermediate to the last two. It is worthy of mention, inasuch as the movement was decidedly peculiar and ceptional. I offer no explanation, only to simply ate the fact that there was a drawing of the head ckward and to the side stimulated. It did not seem e a shock, but accompanying it was a peculiar stare at was significant.

On one occasion, when the electrodes were placed at position *B*, of the left side there was a contraction of e neck which caused the movement of the head wnward and to the opposite side. If the current was ghtly prolonged the head was brought back to the nt in extension, when gradually the forelegs, shoulrs, and entire front portions of body were in rigid tension with the final result of the dog being brought ck upon his haunches in a crouching position. The mple explanation of this would no doubt be due first spreading of current, followed by predominance of e extensors.

Use of the electrodes along the second great fold m *E* to *O* resulted in a variety of movements of the e, tongue and jaw. At the position *O* there seemed be simply a contraction of the lip over the canine th, giving, in other words, what is known as the arling expression; as one approaches *E* more mus-s of the face seem to be involved, while slight inease of the current brought about jaw-movements.

In the last operation the irritation was applied at sition *E*. Here there resulted movements of both ngue and lip with weak currents. It was most difficult to determine which center was irritated primarily, on one day by weakening the stimulus it was posle to obtain tongue-movements alone, while on the xt day opposite effects occurred. If the current was creased by about 10 mm. the mouth was opened with companying lip-movement, but the tongue remained rest.

Although there were found to be variations in the ength of the current needed to bring about results in e different groups of muscles, there can be said that a majority of cases the first experiments on the secd day after the operation demanded a strength of out 100 mm. The same conditions remained, as a le, until about the fourth day, when stronger currents re necessary. This demand was quite gradual, as, example, I had 2 dogs that gave good results for arly a month after the operation, at a strength of out 60 mm. The need of stronger currents is not to explained by the loss of irritability at this particular ot. If the localization theory is of sound doctrine ere are good reasons for doubting whether there is y appreciable atrophying of the cortex-cells, for in ses of experimentation over the leg-center there was weakness to be discerned in the walk, but, on the ntrary, the animals carried themselves quite in a nor-l manner. The explanation rests without doubt upon the formation of a cicatrix where the dura was removed, which in itself would be of sufficient resistance to call forth these stronger irritations. As a proof for this the postmortem examination on animals allowed to live over 2 weeks after operation showed a growth of cicatrix that was much thicker than the dura and often adhering to the surface of the brain.

In connection with the formation of the cicatrix there arose an interesting question whether its increasing density would not demand such an increase in current as to cause a spreading of the same and thereby localization be lost. There seemed very little indication of this except in one dog in the fifth week. This animal was giving foreleg movements at 50 mm., with an occasional accompanying of the hind leg. But the fact that the plugs had become quite loose, because of the absorption of the ivory, would not allow us to put too much stress on the importance of this exception, while it is true there were appearances in some cases of spreading of currents, but such occurrences were quite as frequent in the early stages when the membrane was thin, as at the later stages when it was much thicker; so that my observation has not shown that the cicatrix growth has in any particular measure influenced the localization of effect.

The spreading of the current among closely associated movements was not uncommon. A very nice example of this was brought out first in a casual observation of dog No. 3, when there was noted a difference in the character of the movement of the right and left forelimb. Closer scrutiny brought to light that in the lifting of the left limb there was quite a prominent shoulder-movement. Later, in weakening the current there resulted simply a shoulder contraction, which I was not able to bring about on the opposite side. Quite a similar observation was brought out on dog No. 4. It had been my custom to compel the animals to stand on all fours during the experiments, when on one occasion this dog was more inclined to lie on his belly; so taking him as he was, I turned on the usual strength of current and instead of obtaining a leg-movement, there was an elevation of the toes. A stronger current was now necessary to lift the leg. Whether this is to show, as seems as first sight, that the electrodes were placed directly over the toe-center, and the contraction of the whole leg is a result of a spreading, is not easily to be determined. For if that is the case, one with reason might suppose that when the leg contracted there would at the same time be an increased contraction of the toes. The observation on this point is attended with difficulties, for as the leg contracts it seems to overshadow the toe-movements to such an extent that one can not with certainty say whether there is any change in the toe-movement.

This led to still more important questions. To what extent does the position of the body influence the character of the movements, and what strength of the cur-

rent is needed to bring about similar results in the different positions of the body? Consequently there was begun a series of experiments with the animal placed successively in four different positions, standing, sitting, lying on the belly, and lying on the back. In order to have the conditions as nearly alike as possible, there was used a certain strength of irritation for each of the named positions before any change was made. In order to feel quite certain that not only was the same strength used, but that the stimulations were of equal duration, there was fixed in the circuit a metronome, so that with each beat the circuit was made and the pendulum on its return trip was caught by an improvised spring and thereby the circuit was broken.

There was generally employed in the beginning the weakest current by which results could be obtained in a standing position, this strength being taken as a standard for the other three. Afterward, stronger currents were employed and comparisons made in a similar manner as before. The weaker, however, proved the most serviceable, for in the stronger the contractions of the leg would be so pronounced that it was often impossible to discern any difference, not unless it was in the relative degree of the contraction. It was true at times that the weaker currents failed to show any appreciable differences, while at other times conflicting results were obtained, yet after a long series of experiments of this kind the table of comparisons shows that the irritation necessary to bring about the movements was in a measure influenced by the position of the animal. As evidence of this, I give below a table of results from the experiments on the right side of the dog No. 3. Electrodes were placed at the base and a little to the rear of the cruciatus:

Date.	Strength of Current in Number Mm.	Standing.	Sitting.	Lying on the Belly.	Lying on the Back.
Feb. 8	65	Shoulder.	Shoulder and leg.	Toes.	Shoulder and leg.
Feb. 9	60	Shoulder.	Shoulder and leg.	Toes.	Shoulder and leg.
Feb. 10	75	Shoulder.	Shoulder and leg.	Toes.	Shoulder and leg.
Feb. 11	70	Shoulder and leg.	Shoulder and leg.	Toes.	Shoulder and leg.
Feb. 13	55	Shoulder and leg.	Shoulder and leg. (Strong.)	Toes first, followed by leg.	Strong shoulder.
Feb. 15	60	Shoulder.	Shoulder and hip.	Toes and shoulder.	Shoulder and hip.
Feb. 16	60	Shoulder.	Shoulder and hip.	Toes.	Shoulder and leg.
Feb. 18	60	Shoulder and leg.	Shoulder and leg.	Drawing of leg.	Shoulder. fore and hind leg.
Feb. 21	50	Shoulder, fore and hind leg.	Shoulder, fore and hind leg.	Shoulder, fore and hind leg.	Shoulder, fore and hind leg.
Feb. 23	40	Negative.	Shoulder, fore and hind leg.	Leg (at least).	Shoulder, fore and hind leg.

These figures show, as a rule, that it required the strongest current while lying on the belly, next in standing, next in sitting, while without doubt the weakest was while lying on the back. It must be confessed that the last named position was the most difficult to study, as the muscles were then perfectly lax and in that respect quite different from the other positions. If these observations in a measure demonstr a law that the response to the stimulus is somew dependent upon the position of the body, there wo naturally arise the question of how this phenomen was to be explained. The only explanation that see somewhat plausible is that the contracted condition the limb or shoulder in sustaining the weight of t body may act in some way or other as a resistance motor impulses. The only direct evidence I have offer, which, however, seems quite convincing, is tha have tried to see that when the dog was in a sitti position, resting more on one foreleg than the oth whether he responded as quickly as he would when weight was evenly distributed. The results seemed show that he did not.

The investigation of this principle was extended the other movements, as, for example, the effects drinking during facial contractions. As a result first fact brought to light was that the animal invaria ceased drinking during the contraction. This be established it led to the comparison of strength nee both with and without drinking. The results in so cases were conflicting, yet there were cases that show quite regularly that the stronger currents were nee to bring about contractions while drinking, which wo be quite in harmony with the variation of the leg-c tractions in the different positions of the body.

As to eating, there seemed to be discerned no int ference whatsoever. However, in the study of the ne contractions there was entire interference in both ca and with a demand for stronger currents. In case tongue-movements the animals continued drinking a eating without any perceptible change.

CONCLUSIONS.

Although my investigations along this line are complete, yet as the method is new and nothing at has appeared in any of the physiological archives seems fitting that something should be published at present time, particularly since the work has been c ried far enough to show its virtues. Ewald truthfu says: "Up to the present time all experiments in stim lating the brain centers electrically have been carr out on dogs just recovering from anesthesia and wh lay more or less bound on the operating table. I such animals are entirely unsuitable for exact exp mentation."

It is not to be understood that this method will s plant the older, but it can lay claims to enlarging field for research, as it possesses peculiar advanta such as having the animal under normal conditions a the opportunity for oft-repeated experiments in same position, so that the work can be carried t greater detail.

Too much stress cannot be laid on the advanta that this method possesses as a means for lecture-ro demonstration. The older method is quite impracti

such purposes, while in this case it is quite a simple ːter to place the dog on a table and demonstrate a ɜt striking cxpcriment bcforc a hundred or more ɗents.

Ewald[2] arrives at two main conclusions as the result his experiments. They are as follows: "In the first ce the dog docs not directly appreciate thc stimula- ı and hc reacts only by muscular contraction and in ɔther way. As a sccond result of these experiments ould like to add that there is no point in the cere- l cortex from which it is not possible to obtain rely normal and frée muscle-response."

can say that my rcsults confirm his first conclusion eservedly, but I am unable at the present time to rm or deny thc second. I must confess, however, so far as my observations have extended that in a lthy brain I have not found any unirritable zones.

ut he furthermore says: "It has already been recog- d in a certain number of cases out of the observa- s on elcctrical stimulation of the cerebral cortex, occasionally muscles of the same side of the body tract and occasionally even muscles in no way con- ed with the area stimulated show contractions; thus ems that there is no absolute adherence to any fixed

All this appears in an exaggerated degree in the roved method of stimulation; from the middle of visual area ('Sehsphäre') one frequently obtains ractions of the foreleg, from the middle of the itory area ('Hörsphäre') movements of the jaw. musculature of the same side is always brought action if the strength of current is raised above minimum required for the full contraction of the cle of the crossed side, indeed in many cases I saw act to weaker stimuli."

rom these results he later comes to these conclu- s: "Hence we obtain in so many cases like results ectrical stimulation when the areas in the cortex ulated are considerably separated and we can easily erstand how with the loss of a given area of the ex the function may be assumed by some other ."

pon this point I shall be obliged to take issue, as I no such irregularities as he speaks of in his experi- ts, consequently there will be found no consolation is conclusions. On the contrary, I found whatever the result at first, remained quite the same, day day, and experiment after experiment, with no ations save the necessity of stronger currents, evi- ly as before said, because of the formation of the rix. It is of course true, as has been previously d, that there was a spreading by means of strong ents, to centers that were either in close proximity osely associated, as, for example, in the case cited, hich there was at times predominance of the move- ts of the lip and other times of the tongue. It is a well-known fact, as my experiments verify, that there are eye-movements brought about by the stimulations of the visual area, but this has generally been considered as an associated movement that is purely reflex. This has been well demonstrated by H. Munk in the extirpation of the visual area, through which there resulted total blindness, but the same eyeball-movements still prevailed. This does not in any way show why there should be leg-movements in the stimulation of the visual area or jaw-movements by the stimulation of the auditory area, for the reason that not only are these centers far removed, topographically, from the usually assigned centers for the leg and jaw, but because they cannot be considered associated movements. I have not experimented over the auditory area, but have had several experiments over the visual area, and not once have I obtained leg-movements, even when the current was strong enough to set the dog into an epileptic fit. In the course of the attack leg-movements were either absent or were late in coming on. Thus our wide divergence on this point must at present remain unexplained.

In conclusion I would say that, as a rule, my results on localization did not vary materially from what has been obtained by the older method.

[2] *handlungen des Congresses für innere Medicin*, 1897, Berlin, vol. 9-12, from 18.

CASE OF RECTOPERINEAL STONE.

By RAMON GUITERAS, M.D.,
of New York.

THE patient, an Italian laborer, age 26, entered the Columbus Hospital suffering from an attack of urethritis and epididymitis.

His father died of consumption, but the other members of his family are alive and well. The patient was well up to 8 years of age (18 years ago) when he was seized with an acute attack of retention of urine. After two days of suffering he was taken to the hospital, when the attending surgeon made a diagnosis of stone in the bladder, and performed a perineal lithotomy, relieving the retention, but failing to find the calculus.

The patient remained in the hospital for two weeks and was then discharged improved. After this he was up and about, but could pass no urine through the penile urethra, the entire amount escaping through the perineal opening. This condition continued for 6 years, that is, up to the age of puberty, when a few drops began to pass through his anterior urethra with each act of micturition. This amount did not increase and he has continued passing all the urine, excepting a few drops, through his perineal opening up to the date of entering the hospital.

During the last 3 years he has had on several occasions a painful swelling in the perineum, lasting for 2 or 3 days at a time, and ending in a discharge of pus. At the time of these attacks he has suffered from painful micturition, and has noticed that there was some blood in the urine. In the intervals he was free from any disagreeable symptoms, and his urine was clear and free from sediment. He has never had any venereal trouble prior to his present attack. He states that his genital apparatus seems to be unimpaired, that his erections are good, and that he has a desire for coitus which he gratifies from time to time. On these occasions he experiences a pleasurable orgasm, although it is unaccompanied by any perceptible ejaculation.

Present History.—Two weeks ago, a few days after coitus, he noticed a urethral discharge, followed one week later by a painful swelling in the left testicle, and a few days afterward by pain in the perineal region.

External Examination.—Revealed an acute urethritis, a subacute epididymitis on the left side, a brawny swelling in the perineum with a sinus opening from it, out of which some pus was oozing, and through which he emptied his bladder. A rectal examination was not made, on account of the exquisite perineal tenderness.

Examination of the Urine.—General appearance clear; color amber; sp. gr. 1026; reaction acid; albumin, a trace; no sugar. The microscope revealed some pus, no blood, a few squamous epithelial cells, and a few oxalate of lime crystals. An examination by instruments was not made on account of the acute urethritis present.

Treatment.—Internally, Lafayette mixture and salol; externally irigations of silver solution three times a day, and hot applications to the perineum.

His condition did not improve much under treatment, his discharge continued to increase, and the perineum became more swollen and painful. It was therefore thought advisable to open and explore the perineal region.

Operation.—The patient was anesthetized. The urethra was washed out with boric-acid solution by the meatus, a filiform bougie was with difficulty passed into the bladder, and a Gouley No. 6 tunneled catheter was forced down over it, after which the patient was brought down into the lithotomy position. The pressure of the convexity of the instrument on the perineum was sufficient to make this region more tense, and a grayish body resembling bone could be seen through the perineal sinus, although nothing had been felt on pressing the instrument through the urethra. On inserting the forefinger into the rectum a stone about the size of an English walnut was felt projecting an inch or more through the anterior wall.

An incision about two inches in length was then made from the base of the scrotum towards the anus in the median line, and as the tissues were cut through, a large stone presented itself, grayish in color, which had been the object seen through the perineal sinus. With some difficulty, pushing with the forefinger of one hand in the rectum, and pulling with the finger of the other hand hooked over it anteriorly in the perineal opening, the stone was forced out. It proved to be about 3 inches long and 2 inches wide. (For exact size see cut.) After the stone had been removed a grooved director was passed into the cavity until it came in contact with the catheter, along which it was passed into the bladder. The opening then was enlarged and a No. 32 French catheter inserted into the bladder for drainage. The forefinger in the rectum could be flexed and brought out through the perineal opening.

PROBABLE EXPLANATION.

The stone extracted from the perineum formed a complete wall between the rectum and the urethra. It had probably existed for a number of years. It was wedged so tightly in place that no urine had entered the rectum during this time, and no feces had entered the urethra. It is impossible to give any exact explanation of what had occurred, but simply to consider probabilities and possibilities. It is probable that the surgeon, when operating for his retention 18 years ago, left the stone in the urethra in front of the area operated on, or else it was lodged in the perineum during the operation. In case it was left in the urethra it probably sloughed through into the perineum, or else fell back afterward when he was up and about. In any event, the stone impinged on his urethra and shut it off, so that for 8 years his urine passed only through the perineal opening. The urine voided in this way must have always passed over the stone, depositing its salts, and thus increasing its size. At the age of puberty the organs were enlarged, and the size of the urethra consequently increased, thus allowing a few drops of urine to pass through the canal at each act micturition.

The constant growth of the stone and the increas tension evidently caused an atrophy of the anteri wall of the rectum by pressure and the consequent pr trusion of it into its lumen. The opening from th urethra into the perineal cavity containing the sto cannot be accurately estimated, but was probably abo the size of an ordinary grooved director. The perine inflammation that he had had from time to time du ing the last 3 years, and which had lasted for a fe days on each occasion, was evidently due to increas acidity of the urine, overexertion, a strain, or som thing of that nature.

The urethritis, when it occurred, was a culminati factor. It traveled down to the posterior urethra, deepest point, where it settled. It then caused an e didymitis, and the acute and continuous perineal i flammation and discharge. The prostate could not felt, although the seminal vesicles on both sides cou be detected. There is a possibility of the stone havi been a prostatic one, but the history would indic that it is very doubtful.

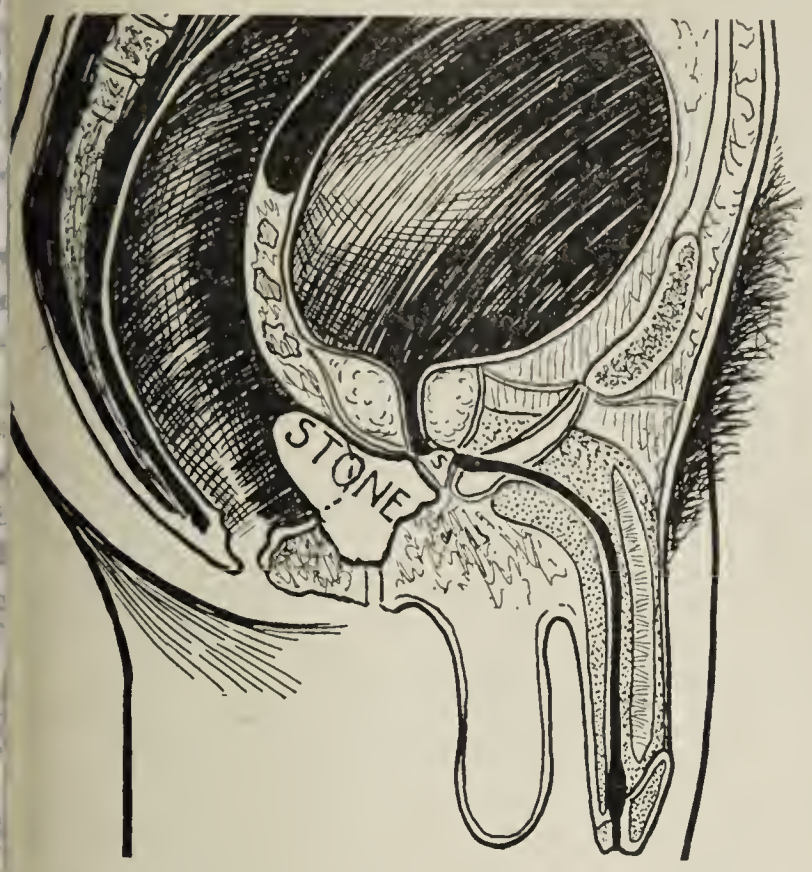
After-treatment.—The perineal tube was kept in the blad for 2 weeks, although it was removed every 2 days to all sounds to be passed through the urethra. During this ti the bladder was washed out by means of the tube twic day, and the dressing changed and, as a urethritis still isted, irrigations from the meatus were made twice a with a 1 to 2000 solution of potassium permanganate. T fluid of these irrigations entered by the meatus, flow through the urethra, and escaped by the perineal openi The bladder was washed out with the same solution. Un this treatment the urethral inflammation soon subsided, the size of the sounds used was increased until a No. French could be passed with ease.

After the urethra and bladder were in a healthy c dition attention was turned to the openings left after removal of the stone. They consisted of a communi tion between the rectum and the perineum, and anot between the urethra and the perineum.

The first of these openings was just above the sphi ter muscle of the rectum, and consisted of a wide the size of the stone, that is, about 2 inches long an of an inch in width. Two fingers could easily be serted through the rectum, and hooked out of the p neal incision. The communication between the p neum and urethra was about $\frac{3}{4}$ of an inch in length.

The perineal space into which the rectum and uret opened, and which had been laid open by the perir incision, was a concavity corresponding to $\frac{2}{3}$ of the of the stone in its thickest part. It was quite la with hardened walls covered with a sinus-like m brane, and before it had been opened into correspon to a small sac containing a stone not unlike a sec bladder. It was peculiar that the stone had bee wedged in that no urine had ever leaked into the and yet this perineal pouch had been constantly fi with urine at each act of micturition, bathing its w and also the stone.

The problem that confronted us was, how to close these rious fistulas so that the two great sewer openings of is region would be intact, and their functions re- ored in such a manner that there would be no longer



1.—This drawing shows the stone in situ. The word stone is written upon the main one and the letter S on the smaller piece,

y leakage from one into the other or from either ough the perineal fistula.

The most feasible plan seemed to be to first sew up e opening betwcen the rectum, and the cavity in the rineum, and then after this had closed to keep the ethra dilated by sounds, and to stimulate the walls of e perineal opening until this had filled and thus put end to the fistula.

After the operation feces came through the perineal ening, and some urine escaped into the rectum with h act of micturition.

Four operations in all were performed on the recto- ineal fistula. Any surgeon who has operated upon tovaginal fistulas knows how hard they are to cure, ecially if they are situated just above the rectal ncter, so the difficulty of this operation can be derstood as it corresponds to such a condition.

In the first operation the rectal sphincter was thor- ghly dilated, as in the operation for a case of fissure. e sides of the perineal opening were then well racted, and the rectal wall in the region of the fis- a was then pushed into this opening by means of fingers inserted into the rectum. The edges of the ula were pared off with scissors, and it was sewed by two layers of fine silk, care being taken not to through rectal mucous membrane. The patient's vels were not moved for 5 days. The sutures were moved in 10 days. The fistula remained closed for 5 s, and then broke open again. It was then only $\frac{3}{4}$ an inch long.

The second operation was the same except that the first layer of sutures was of chromicized catgut, and buried; and the second layer of silk. The bowels were again not moved for 5 days. The silk sutures were removed in 2 weeks, and the opening was patent again 10 days later.

The third operation was performed by the rectum, entering one suture through the anterior rectal wall; this also failed.

The fourth operation was performed through the perineal opening. In this case, after paring the edges I put in first a purse string of chromicized catgut, and then a close suture of silk. This held for 4 weeks and then broke down again, leaving an opening $\frac{1}{3}$ of an inch long. The patient refused to submit to further operative procedure.

During the time that these efforts were being made to close the rectoperitoneal fistula due attention was being paid to the perineal opening. This was first cureted. Sounds were passed every two days. The opening was washed after each micturition and packed with either balsam of Peru or iodoform gauze. Under this treatment the perineal opening gradually closed until the patient was able to pass about $\frac{3}{4}$ of his urine through the anterior urethra by the meatus, and only about $\frac{1}{4}$ through the perineal opening. In this condition the patient left the hospital one year ago, and although instructed to come to the dispensary twice a week he never put in an appearance.

On seeing the patient at his home recently (15 months after the original operation), I found that the rectoperi-



FIG. 2.—The stone is 7¼ cm. long, 4¼ cm. wide, and 2 cm. thick. On the top is a spur of stone, not attached to the main one, about 1½ cm. long, which extended up into the urethral sinus.

neal fistula was entirely closed, but that the perineo-urethral fistula was the main duct for voiding the urine, and that only a few drops escaped by the meatus, with each act of micturition. In other words, while the

condition which was thought to be the most difficult to cure was entirely intact, the other, which had been improving so rapidly had not only ceased to improve, but had lost everything that it had gained. The patient was advised to again enter the hospital to have his urethroperineal fistula treated.

THE PATHOGENESIS OF APPENDICITIS.[1]

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(Concluded from page 984.)

THE exact nature of these involutionary alterations is still a matter of more or less conjecture. Ribbert states that in the appendices undergoing these changes three zones can usually be recognized: A central zone, more or less rich in cells; from this there is a gradual transition to the second zone, which is poor in cells and made up largely of connective tissue. Third, the muscular coat.

The inner zone corresponds to the former mucous membrane; the middle to the submucosa. The former presents at times a small, narrow slit indicative of the former lumen. Careful examination of this, however, will often reveal a few strands of delicate connective tissue traversing it from side to side. These are readily torn, and thus likely to escape detection. Ribbert believes that the symmetry of the process, its progression from the distal to the proximal end, the absence of irregularities, of cicatricial tissue, and other indications of previous inflammatory conditions justify the assumption that the process is involutionary in nature. This is also indicated by the absence of degenerative alterations of the mucous membrane—the change being rather one of gradual atrophy. I believe, with Zuckerkandl, that the submucosa plays a most important role in these alterations, and that the changes in the other coats follow those of the submucosa. Piersol concurs in this opinion, stating that "changes within the submucosa inaugurate the process leading to the retrogression of the appendix and precede the alterations affecting the mucosa." Defective nutritive supply is doubtless the basis of the process. As regards the role that these involutionary changes play in the causation of appendicitis, it suffices for the present to state that they are to be considered as indicative of a locus minoris resistentiæ, which permits of the more ready operation in the appendix, than in other portions of the intestinal tract, of the exciting causes of appendicitis.

The foregoing, then, are the factors that predispose the appendix to attacks of inflammation. They acquire their pathogenetic significance because they interfe with the proper and thorough drainage of the organs because they reduce the capability of the organ to resi the influences of various morbific agencies; because the facility with which nutritional disturbances may b engendered, and because of the relatively large surfa presented for the absorption of the toxic products bacteria that find their exit from the appendicular lume retarded or prevented. Bearing in mind these fact when we institute a study of the pathogenesis of a pendicitis, it is immediately patent that no one fact alone can be held accountable for the development all cases of the affection. On the contrary, the abov mentioned anatomic and physiologic peculiarities of t appendix render that organ less resistant to the wel known morbific agencies provocative of inflammatic in other portions of the body. In individual instanc one or other or these peculiarities predominates ov the others, and thus assumes a pathogenetic significan disproportionate to them.

The exciting causes of appendicitis do not differ fro those that induce inflammation in other regions of t body. As is well known, the most common causes inflammation are mechanical and chemical irritati and bacteria. In a given case of inflammation it often difficult to distinguish sharply between the etiologic factors, particularly between the action chemic irritants and bacteria. In this respect what true elsewhere in the body is true also as regards t appendix. As a basis of a discussion of the pathogene role of bacteria in appendicitis the results of my b teriologic investigation of certain appendices remov by operation may be detailed. The total number appendices examined bacteriologically was 201, and were removed during 1898. The first inoculation each case was made from the lumen of the append after aseptic incision of its wall, and the inoculati was always made from the seat of most manifest disea At times, as above narrated, inoculations were alwa made from the exudate on the peritoneal surface of t appendix, from the free pus in the peritoneal cavi and from the drainage fluid subsequent to operati The results of these latter inoculations in no case differ from those of the primary inoculations from the lum of the appendix. Inoculations in the first place w made into bouillon or agar tubes, or both. Sub quently petri-dish cultures were made, and later vario other inoculations for the purpose of fully establishi the identity of the bacteria under investigation. times, also, cover-slip preparations were made direc from the pus or other contents, or from the exudate the peritoneal surface of the appendix. For ma reasons, however, these were not made as frequently is desirable. Of the 201 appendices examined b teriologically, 94 were instances of acute appendicit 107 of chronic appendicitis. The results of the exa nations may be tabulated as follows:

[1] Read at a meeting of the College of Physicians of Philadelphia, April 5, 1899.

Acute appendicitis:			
Bacterium coli commune alone	69	cases,	73.4%
Bacterium coli commune and staphylococcus pyogenes aureus	13	"	13.85%
Bacillus pyocyaneus alone	6	"	6.4%
Staphylococcus pyogenes albus alone	3	"	3.2%
Bacterium coli commune and streptococcus pyogenes	1	"	1.05%
Staphylococcus pyogenes aureus alone	1	"	1.05%
No growth	1	"	1.05%
Total	94	"	100.00

With reference to the various forms of acute appendicitis, the results of the bacteriologic examinations were as follows:

Acute catarrhal appendicitis:	
Bacterium coli commune alone	3 cases.
Acute interstitial appendicitis:	
Bacterium coli commune alone	11 "
Bacterium coli commune and staphylococcus pyogenes aureus	4 "
Bacillus pyocyaneus alone	2 "
Total	20 cases.
Acute ulcerative appendicitis without perforation:	
Bacterium coli commune alone	27 cases.
Bacterium coli commune and staphylococcus pyogenes aureus	3 "
Bacillus pyocyaneus alone	3 "
Staphylococcus pyogenes aureus alone	1 case.
Total	34 cases.
Acute ulcerative appendicitis with perforation:	
Bacterium coli commune alone	17 cases.
Bacterium coli commune and staphylococcus pyogenus aureus	4 "
Staphylococcus pyogenes albus alone	3 "
Total	24 cases.
Gangrenous appendicitis:	
Bacterium coli commune alone	11 cases.
Bacterium coli commune and staphylococcus pyogenes aureus	2 "
Bacterium coli commune and staphylococcus pyogenes	1 case.
Bacillus pyocyaneus	1 "
No growth	1 "
Total	16 cases.

The following were isolated from the cases of chronic appendicitis:

Bacterium coli commune alone	96 cases,	89.71%
Bacterium coli commune and staphylococcus pyogenes aureus	5 "	4.70%
Bacillus pyocyaneus alone	1 case,	0.93%
Staphylococcus pyogenes aureus alone	1 "	0.93%
Bacterium coli commune and bacillus prodigiosus	1 "	0.93%
No growth	3 cases,	2.80%
Total	107	100.00%

The results of these bacteriologic investigations present certain features of interest. It should be mentioned that in those instances in which cover-slip preparations of the contents of the appendix and of the periappendicular pus, etc., were examined, the results of such examinations did not differ from the results obtained by culture methods. In this respect my investigations are somewhat at variance with those of other observers. It has been asserted by quite a few investigators in this field that appendicitis is the consequence of a mixed infection; that it rarely results from a monoinfection. The reason that bacteria other than the bacterium coli commune are cultivated in cultures with difficulty is said to lie in the fact that the latter named proliferates much more luxuriantly than do the others, and thus outgrow them. Tavel and Lanz first directed attention to the frequent implication of several forms of bacteria in the production of appendicitis, and these authors were soon followed by Barbacci, and since then by many others, among them Welch and others in our own country. In but 20 of my 201 cases was such mixed infection demonstrated by the methods of investigation pursued. These comprised 14 acute cases (15%), and 6 chronic cases (5.6%). While I am free to admit that the systematic examination of cover-slip preparations of the contents of all diseased appendices, as well as of the exudate on the peritoneal surface of such diseased appendices, and of free pus in the abdominal cavity, might have resulted in the detection of the associated presence of two or more varieties of bacteria in a larger number of instances, I am nevertheless confident that the bacterium coli commune plays by far the predominant role in the bacterial origin of appendicitis. While this is but negative evidence as regards the possible presence of other bacteria, it is nevertheless suggestive that the bacterium coli commune was found in 185 (92%) of the cases. When to this we add the fact that the conditions in the appendix are most favorable for the sudden and rapid increase in the virulence of a bacterium, innocuous or almost so in other portions of the intestinal tract, it seems to me that the predominating importance of this organism cannot be gainsaid. It cannot be denied that the bacterium coli commune, under suitable conditions, proliferates most luxuriantly in culture-mediums. Nor, on the other hand, can it be denied that the appendix is a most appropriate test-tube and the contents of the appendix most suitable mediums in which to cultivate a virulent growth of the bacterium coli commune. I believe, therefore, that as this organism outgrows other bacteria in artificial mediums, so also does it, under suitable conditions, assume a predominance in the appendix. This organ as the intestine under normal conditions contains a variety of bacteria, but under conditions favorable for the development of appendicitis, the bacterium coli commune rapidly becomes the predominating and most virulent organism. These statements do not eliminate from consideration other bacteria as etiologic factors in inflammatory affections of the appendix. A number of other organisms have been found sufficiently often by various investigators as well as by myself, and their virulence has been repeatedly tested to indicate their importance in the production of appendicitis. Undoubtedly in certain cases these other bacteria do contribute to cause the disease; in other instances they are doubtless the sole etiologic factors. Admitting this, I wish in this connection merely to record my belief in the predominating importance of the bacterium coli commune.

In discussing the pathogenesis of appendicitis, particular attention must be devoted to the significance of foreign bodies and fecal concretions. It is well remembered that early in the development of our knowledge concerning appendicitis, the origin of the disease was commonly attributed to the presence in the appendix of various foreign bodies, such as cherry-stones, grape-seeds, seeds of various other fruits, pins, needles, hair, bits of bone, gallstones, and the like. Of recent years, as a result of more careful investigation, it has become

evident that many of the bodies considered seeds of various fruits were in reality but fecal concretions, the misconception as to their real nature being due to the resemblance that they bore in size and shape to the various objects for which they were mistaken. Undoubtedly foreign bodies other than fecal concretions do gain access to the appendix, and in the event of the organ subsequently being the seat of inflammation it is but natural to attribute an etiologic role to such foreign body. Of the foreign bodies found in the appendix a pin is, curiously, one of the most frequent.

While in the light of recent experimental and other scientific research the views formerly maintained with regard to the role of various foreign bodies in the production of appendicitis has largely been abandoned, the relation of what we now know to be fecal concretions to the development of appendicitis still demands careful consideration. That fecal concretions may be borne in the intestinal tract and in the appendix without inducing any important pathologic process is well established as the result of the investigations of a considerable number of observers, and is being constantly confirmed by all who have occasion to see much necropsy work. On the other hand, that fecal concretions are associated with a considerable number of cases of appendicitis is equally well established. They are found in the appendix more often when it is inflamed than when it is normal, and more commonly in cases of acute ulcerative appendicitis with perforation and in gangrenous appendicitis than in any of the other acute varieties. They are also rather frequent in cases of chronic appendicitis. They are noted in 74 (16%) of my cases. There can, however, be no question that they are more commonly associated with cases of acute appendicitis than these figures would indicate. It not infrequently happens in cases of ulcerative appendicitis with perforation, and in gangrenous appendicitis, that at the time of the operation the fecal concretion has already been discharged from the lumen of the appendix, and is not detected during the operative manipulations, or, being detected, is not preserved. I thus believe that in ulcerative and gangrenous appendicitis fecal concretions play an important role.

It is not pertinent to discuss at present the question of the formation and chemic composition of these fecal concretions. It suffices to state that in contradistinction to the older view, according to which these concretions were formed within the intestine, and, being formed, found their way into the appendix, it is now generally considered that they are formed within the appendix itself. Fecal matter becomes inspissated, and forms a nucleus about which are deposited in successive layers inspissated mucus, desquamated epithelium cells, at times leukocytes, etc.

Considering, now, the relative roles played by bacteria and fecal concretions in the causation of appendicitis, it seems evident to me that appendicitis is almost without exception an infectious process; that the inflammations of the appendix are the result of the activities of bacteria. The role played by fecal concretions is considered subsidiary to that of bacteria. Such being the case, the queries naturally suggest themselves, Why is it that bacteria normally present in the intestinal tract are provocative of such serious pathologic alterations in the appendix? And why is it that fecal concretions innocuous in the intestinal tract are associated with inflammatory affections of the appendix? The reasons for these are to be found in the anatomic and physiologic peculiarities of the appendix, of which mention has been made. These, on the one hand, decrease the capability of the appendix to resist the influences of various morbific agencies, and on the other, afford opportunities for the rapid increase in virulence of bacteria contained within the organ. Disease is due not alone to the virulence of the determining cause, be it bacteria, trauma, or other cause, but is dependent to a considerable degree upon the predisposition of the individual, upon the vitality, the power of resistance of the part attacked. Thus it is with the appendix. Because of the anatomic and physiologic peculiarities above detailed, morbific agencies readily overcome by the normal physiologic activities of the intestinal tract are capable, when present in the appendix, of inducing the most deleterious consequences.

To recapitulate, then: The factors that operate to render the appendix less resistant than other portions of the intestinal tract to the onslaughts of bacteria and other determining causes of inflammation are several. Of prime importance is the precarious blood-supply of many appendices. The blood-supply is defective not alone because of the manifest alterations frequently demonstrable in the walls of the bloodvessels, but also because of the liability of the occurrence of partial or complete obstruction of the blood-channels as a result of angulations, torsions, etc. Of importance in a limited number of cases is doubtless also alterations in the nerves supplying the appendix; but, as already stated, it is believed that they are not of such great importance as has been suggested by Fowler and Van Cott. Finally, in this connection the evidences of retrogression of the organ are not without significance. The factors that in the appendix give rise to increase in the virulence of bacteria normally present in the intestine are such as interfere with thorough drainage of the organ. Defective drainage may supervene when for any reason the appendix is so situated that it cannot be readily emptied; when its lumen is constricted either externally by bands of cicatricial connective tissue, tumor-formations, etc., or by cicatrices of its walls, or by obstructions within its lumen, as, for instance, by fecal concretions or foreign bodies; or when the muscular coat of the organ is no longer capable of

active peristalsis, as is likely to be the case when the appendix is itself diseased or bound down by adhesions. Congestive disturbances of the appendix or of the cecum may cause such swelling of the mucous membrane as to lead to approximation of the apposed surfaces in the appendix, or occlusion of the outlet of the organ, and thus effectually prevent drainage. Of considerable significance with reference to this question of drainage in the etiology of appendicitis are certain of the anatomic and physiologic peculiarities of the organ above alluded to. Of these I may mention the size and shape of the mesoappendix, the excessive length as compared with the caliber of the lumen of the appendix, and Gerlach's valve. As further conducive to imperfect drainage are the already mentioned torsions and angulations, which interfere not alone with the blood-supply, but also with thorough drainage. Fecal concretions are capable of at least a twofold action. They may not only occlude the lumen of the appendix, and effectually prevent drainage, but they may also by attrition, the result of constant or intermittent peristalsis, cause erosions of the mucous membrane, and thus reduce the power of the organ to resist the attacks of bacteria or their toxins. When of small size these concretions are doubtless often innocuous, but when they have attained a considerable size and are no longer capable of being extruded they may engender the most disastrous results.

The preponderating importance of defective drainage in the pathogenesis of appendicitis is sufficiently evident from an examination of a large number of diseased appendices, but it finds additional confirmation from the clinic and pathologic observation of analogous intestinal conditions and from some experimental investigations. Increase in the virulence of bacteria has been found not only in the appendix when its lumen has been obstructed, but also in cases of intestinal obstruction and strangulation and in various congestive and diarrheic conditions, and even in cases of marked and long-continued constipation. The experimental investigations of Roux, Roger and Josué, Dieulafoy, and Frazier are also corroborative of this. The last named states as a result of his experiments on rabbits that "of all the etiologic facts that enter into the pathogenesis of appendicitis imperfect drainage of the organ plays the most conspicuous part," and "as a result of the interference with drainage the innocuous bacillus coli communis is converted into a virulent organism." Lastly of importance is the relatively large extent of mucous membrane presented by the appendix and the large amount of lymphoid tissue, not only in the neighborhood of Gerlach's valve, but also scattered throughout the walls of the organ. The mucous membrane, particularly if it be eroded, thus presents a very large surface for the ready invasion of bacteria and the absorption of their noxious products. This latter is of special importance in the production of gangrene of the appendix, which is often the result of infective thrombosis or embolism, following erosion or ulceration of the walls of the appendix.

From the foregoing, therefore, it is evident that no one factor can be held answerable for the production of all cases of appendicitis. Although the disease is almost without exception the consequence of microorganismal infection, it is rather of complex pathogenesis, and no one morbific agent is provocative of all attacks. It is because of the anatomic and physiologic peculiarities of the appendix that factors innocuous in the intestine, or morbific agents capable of being successfully counteracted by the physiologic activities of the intestine, become in the appendix of heightened virulence and engender the most disastrous consequences.

TEMPERAMENT AND DISEASE, OR "THE NEW HUMORAL PATHOLOGY."*

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Doctrines of physiology and disease, like events of history, sometimes repeat themselves. So it comes to pass that from the evolution of medical thought and fact, the most recent knowledge of physical metabolism takes its origin. Today we speak of autointoxication, or self-poisoning of the individual—the outcome of sound scientific bacteriologic research—and it brings us dangerously near the theories of ancient medical philosophers, who with keen observation, but slight scientific explanation, taught a humoral pathology, at least so far back as Hippocrates (460–377 B.C.). The modern ideas about the animal alkaloids (ptomains, leukomains, and other organic toxins) and the therapeutic administration of the various animal extracts certainly substantiate this view. In many respects, therefore, what I am about to say, may be designated as "the newer humoral pathology."

Normal physiologic chemistry is the *art* of living—it is health; the abnormal is the *ab-art* of life, its aberration, and it is disease. The question then arises simply, what constitutes health, and whence arises disease? Health, the expression of normal animal economy, depends upon three conditions, namely, assimilation, reaction and disassimilation. (Lyman.) All matter serving as fuel to the organism must be taken up, must be converted from mere inert substance into living particles (assimilation), carried to the various body-organs and tissues where it exerts its functional purpose (reaction), and thence, with other useless products of the chemical changes, is conveyed to the emuncto-

* Read at the meeting of the Mississippi Valley Medical Association at Chicago, October 5, 1899.

ries, and reappears once more as nonliving excreta (disassimilation). This cycle is nutrition in its broadest sense; is the physiological chemistry of life. To its fulfilment certain conditions are necessary, comprising the material and spiritual elements of the organism. These two represent the body-constitution and the body-temperament, terms in use for ages, but vaguely understood. Notably is this true as regards temperament.

Philosophic tradition has handed down to us a temperamental classification, in vogue even at the present time, which has a certain justification, viewed exteriorly. In reality, however, it is founded upon a misconception of the term "temperament." The old classical distinction of temperament formed a quaternion, or group of four, to wit: (1) The choleric; (2) the melancholic; (3) the sanguine; and (4) the phlegmatic. These designations have maintained themselves, with slight changes, to our day, though they rest upon more or less groundless theory. It is true that from the study of the vast mass of individuals, some such grouping as the above seems correct, but its sole support is an outward manifestation of temperament, not the underlying force, or train of forces, itself. From time to time, other theories of temperament have been advocated (Cabanis, Paulhan, George, Wundt, Lotze), but all of them rest upon the erroneous foundation of external adornment. Wundt[1] accepts the fourfold group, but insists that all workings of the mind depend upon two factors, strength and speed. He, therefore, pairs the temperaments into fast and slow, and strong and weak, as follows.

	Strong.	Weak.
Quick.....	Choleric	Sanguine.
Slow	Melancholic	Phlegmatic.

Unfortunately here, too, the essential meaning of temperament is lost sight of.

Lotze[2] regards no single designation as aptly pertaining to ordinary individuals, but believes, each and every one of the quaternion may be manifested by the same person at diverse times. To him, childhood represents the sanguine with its precocious receptivity; youth shows the sentimental (melancholic), middle life, the choleric, and old age, the phlegmatic Here again, we find elements of truth, but the foundation is unstable and Lotze frankly admits that the doctrines of temperaments are vague and uudeveloped.

It seems to me that the reason of this uncertainty lies near at hand. The older writers understood not at all the correct conception of temperament, and many modern medical philosophers, too, had slight knowledge of its meaning. As a matter of fact, very little has been written upon this subject, even standard works on medicine, organic chemistry, physiology and philosophy, passing it by without mention. Men who have been epoch-makers in the world of thought and matter, like Darwin, neglected it almost wholly.

It remained for students of organic metabolism to bring a clearer light to bear upon the essence of temperament, and, in some measure, to distinguish it from other fundamental elements of health and disease.

The modern idea of this term is possibly best conveyed in the words of Bouchard. He defines "temperament" as "the dynamic characteristic of the organism." In other words, it is all that which concerns the individual variations of the nutritive activities. It is, therefore, wholly internal, yet has an external manifestation, which can, it seems to me, be best described by the word "disposition." It is this latter term which was formerly meant by temperament. Yet the two are by no means identical. Individual "disposition" is merely the outer visible mark, through the study of which, ofttimes approximate conclusions as to the nature of the fundamental internal processes of nutrition may be gained. Herein, I am, I believe, speaking advisedly, for it must have occurred to many of you frequently, that you have been able to form nearly definite ideas of individual conditions, by the movements, expression, manner and speech of individuals, conclusions which were possibly substantiated by subsequent physical examination. This statement is noticeably true as regards children's acts and thoughts.

Disposition is, then, the visible measure of temperament, of innate nutritive forces. That every individual seems to possess a certain "natural disposition" is an observation readily made by the study of the daily life, in thought and action, of those about us.

Sometimes, it is true, this natural trend seems to undergo marked changes, even to become totally lost, but close scrutiny usually reveals an innate tendency apparent to the demise of the individual in question. The changes merely mark the momentary effect of extrinsic causes acting upon the nutritional forces, the perception of which usually fades from the individual consciousness.

Whilst I am speaking of limits of meaning to certain terms, I desire to define two others, often used in this connection, sometimes erroneously, for temperament with which they may have much to do, but from which they differ markedly.

"Constitution" is a term which conveys to my mind the purely material factor of the organism. It deals wholly with the structure and framework of the body. It represents an individual anatomicophysical condition, whereas temperament is the physiologicochemical equivalent of the same organism. The constitution is the material expression of resistance offered by the body-tissues to the encroachments of disease, or any tendency toward disease.

Any inclination or predisposition to develop an aberration of nutritive functions constitutes a "diathesis." When this tendency shows itself fully developed

[1] Physiolog. Psychologie, vol. ii, p. 345, ff.
[2] Mikrokosmus, vol. ii.

we recognize conditions of abnormal nutritional activity, and then we justly speak of disease. No diathesis can be properly termed "disease" during the developmental stages, yet the existence of a diathesis, if it be but recognized, offers a valuable therapeutic standpoint, in that it becomes possible to prevent disease by leading the diathetic currents into normal channels.

By a proper comprehension of these three phases of the animal economy, "constitution," "temperament," and "diathesis," it seems to me that the various phenomena of life lose much of the mystery surrounding them. But it is not alone from the philosophic point of view that we should regard them.

We have still higher functions to perform as physicians, namely, to strive to maintain such individuals as fall to our care in a state of normal existence. To do so it is essential that we primarily recognize all the factors I have spoken of. All three are of great practical value, for the proper balancing of "constitution," "temperament," and "diathesis" makes up the diagnosis of every individual case. "Constitution" and "temperament" together form the prognosis, and the "diathesis," or its developed state, "disease," offers the only proper therapy.

The subject here under discussion covers a vast field, too vast even to attempt an adequate portrayal. Its beginning properly coincides with the earliest time of infancy, possibly is even antenatal, and its end is not reached until the living tissues become inert, dead matter. I shall, therefore, at the present time, be forced to limit myself only to certain phases of this doctrine of the temperament, namely, to such as I believe as practical physicians may feel a qualified interest in, leaving to the future the more elaborate development of this subject.

From a practical standpoint, then, it seems well to me that we recognize certain forms of innate temperament and diathesis, taking such only into consideration as I feel there are ample grounds of upholding.

Close observation and much study makes it probable that living tissues like those of inanimate creation, can be regarded chemically as either alkaline, acid, or neutral in their properties. (Gibier.)

[To be concluded.]

A CASE OF PRIMARY NONPIGMENTED SARCOMA OF THE LEFT UPPER LID.[1]

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The notes of the following case of primary sarcoma of the eyelid are presented both because of the infrequency of the affection and because of many points of similarity to a chalazion.

[1] Read at the thirty-fifth annual meeting of the American Ophthalmological Society.

A. S., a Polish tailor, aged 45 years, presented himself at the eye dispensary of the Philadelphia Polyclinic Hospital in September, 1898, for the examination of a small growth on his left upper eyelid. The growth had been observed first about four months before he presented himself for examination, and had been gradually increasing in size. At no time had there been any pain, nor was there any history of injury. No family history of tumors of any kind could be elicited.

At the time of the examination there was a small firm ovoidal growth extending upward and outward from near the middle of the lid margin about 12 mm. long and 9 mm. wide closely resembling a chalazion except in color. It was adherent to the overlying skin, but was freely mobile over the underlying tarsus, and its color was comparable to that of well diluted claret. It could be picked up with the fingers and lifted as far from the tarsus as the skin of the lid would permit, showing that there was no connection between the two.

The size, position and gradual growth made it to a certain extent resemble a chalazion, but the peculiar reddish color, so different from any other portion of the lid, caused me to suspect that the growth was perhaps of a different character.

An incision made in the long diameter of the tumor enabled the adherent skin to be carefully separated from it, after which it was dissected out without difficulty. The point of origin was apparently in the subcutaneous muscular tissue overlying the tarsus.

Macroscopically it was an exceedingly hard encapsulated solid growth of a light reddish color, measuring 10 mm in its long and 7 mm. in its short diameter, and on section consisting of several lobules. The surface of the section is smooth and hard. It was prepared in a solution of formalin and sections were made by Dr. J. Dutton Steele, who has kindly furnished me with the following description of the microscopic appearances:

"Half of the whole tumor was embedded in celloidin and the sections stained with Delafield's hematoxylin and eosin. When examined microscopically the growth is seen to have a capsule of fibrous connective tissue that sends processes into the body of the tumor but cannot be said to give it an alveolar structure, although these connective-tissue bands divide it into the lobules mentioned. The whole mass is seen to consist of spindle-shaped cells with oval and intensely staining nuclei that run in bundles in different directions and are cut at different angles by the plane of the section. The cross sections of these cells and their nuclei are round. There is a very small amount of intercellular substance. The only bloodvessels seen are large channels with walls formed by the cells of the growth with a lining of a single layer of endothelial cells. In several places the blood has escaped and infiltrated the surrounding tissue to form small hemorrhages. There are no areas of degeneration, and the cells everywhere stain evenly and well. The pathologic diagnosis is spindle celled sarcoma."

At the meeting in 1894 Dr. Wilmer recorded a case of primary sarcoma of the eyelid and briefly analyzed 35 cases that he had collected from the literature. I have found the records of 13 additional cases, most of them reported since the appearance of Dr. Wilmer's paper, making altogether about 50 recorded cases. These additional cases make but little change in the former analysis just referred to.

The youngest patient was 7 months and the oldest 76 years of age. The duration of the growth before operation varied from a few weeks to 13 years. The size of the growth varied from that of a pin's head to that of an apple. In a few all four lids were involved and in some it was necessary to remove the eye with the growth. In my own list of cases the situation of the tumor seemed nearly equally divided between the right and left sides, and again between the upper and lower lids, the preponderance of either if existing being very

slight. It was found somewhat more frequently in females than in males, and this corresponds to the conclusions reached in my analysis of 46 cases of primary sarcoma of the iris. In about 12.5%, mostly children, the disease was the cause of death. In about 30% of the cases recurrence was mentioned. It is impossible, however, to form any accurate data as to the frequency of recurring and non-recurring cases, as in many no mention is made of the matter.

Microscopically 38.5% were spindle-celled; 38.5% round-celled; and 23% mixed-celled. There was more or less pigment in 26%, and 14% were encapsulated, though in many the encapsulation was only partial.



Primary sarcoma of the eyelid.

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The Institute of Experimental Medicine of St. Petersburg has just finished the construction of a laboratory, for the study of the plague and for the manufacture of all antiproteus serum. This laboratory is situated in the fortress of Cronstadt, which is completely surrounded by water, the only communication being by boats with the village of Cronstadt. The laboratory is lighted and heated by electricity generated in the building. The stables for laboratory animals are the most extensive and complete in Russia.

THE PATHOLOGY AND THERAPY OF CANCER, WITH SPECIAL REFERENCE TO CANCER OF THE STOMACH.[1]

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(Concluded from page 987.)

THE time allotted to me will not permit of taking up different forms of cancer in different regions of the body, and I have chosen to present to you the rules that should govern us in only one special region. Let us consider now the management of cancer of the stomach, one of the most frequent and most surely fatal forms of the disease. In the management of gastric cancer two different objects are to be aimed at and two entirely different operations must be borne in mind in treating a case. If we can reasonably hope for a cure, then we at once contemplate the excision of the diseased tissue, because if there is a chance of a cure we have a right to undertake a dangerous operation.

The operation will be an excision or resection of the pylorus or of a larger part of the stomach or even of the whole stomach. If a cure is not thinkable, *i. e.*, the operation is anatomically impossible, then we must perform an operation which will ameliorate the patient's condition by overcoming the stenosis and by preventing starvation. The operation we will choose for this purpose is one of the forms of gastrointestinal anastomosis; gastrojejunostomy and gastroduodenostomy are the two operations which come into practice. I do not intend to discuss the various technical modifications of these two operations, but will speak of the diagnosis and indications for surgical interference. I regard it as most desirable that from time to time an accounting be rendered to the general practitioner about the results of the treatment of cancer by surgical operations.

I am of the opinion that it is the duty of every physician at the present time, to call his patient's attention to the possibility of a radical removal of his disease by an operation. Unfortunately the diagnosis of cancer of the stomach is not always easily made in the early stages.

We must not wait until a tumor can be felt. We must recommend an operation if there are symptoms of chronic stomach-trouble in persons above middle-age which point to ulcer or stenosis. An essential pointer is given us if we can detect malnutrition and indigestion accompanied by a perverted chemical action. I refer especially to the absence of hydrochloric acid and the presence of lactic acid in the gastric juice, together with coexisting signs of retention of contents in the stomach, which indicate pyloric stenosis. We dare not forget that even when the chemical action of the stomach is normal there may be malignant disease.

[1] An address delivered before the Oregon State Medical Society at its annual meeting at Portland, June, 1899.

In a case in which I made the first total excision of the stomach done in America the diagnosis of cancer had been made by the attending physician, although a tumor could not be plainly made out. The patient had been carefully treated for several months on the supposition that he had a gastric ulcer. He had a number of hemorrhages of almost pure blood. At the operation I found a most extensive tumor along the minor curvature. There was no stenosis, and the pylorus was entirely free from disease. In another case recently operated on, the diagnosis of cancer was made by competent physicians without the presence of a tumor, and there was no dilation of the stomach. At the operation I found an enormously large, very soft, far-advanced pyloric cancer, with narrow stenosis. The tumor was adherent to the pancreas and extended up towards the hilum of the liver and involved about half of the minor curvature. You see that it will not do to wait until a tumor can be palpated, and I regret that I sometimes did not operate early enough because I could not feel a tumor.

The exploratory incision is free from danger, and by its means we can make an early diagnosis, and sometimes render good service, even if we should find a non-malignant trouble. The only case in which harm can be done by the exploratory incision is when we make it upon paticnts too nearly dead from starvation and cachexia.

Persistent, progressive stomach-troubles in persons over 45 years of age are much rarer than is usually accepted by physicians, unless there is a mechanical foundation for them. This foundation will be found in an existing stenosis, or ulcer of a cancerous naturc, in the vast majority of cases. The "sympathetic" stomach-troubles due to gallstones, floating kidney, Bright's disease, or some form of constitutional disease having been excluded, nothing remains for us but the diagnosis of gastric cancer.

The trouble which most commonly is confounded with cancer is simple ulcer. But here, as a rule, we have hyperacidity and hyperchlorhydrosis. But we may console ourselves about this matter, because, even in benign ulcer, operative therapy is often the only correct, the only successful, course. In this direction, in recent years, good work has been done by Leube, of Würzburg. In 1897, at the Congress of Surgeons, he threw much light on the subject by giving his large experience in 1,000 cases of gastric ulcer treated by internal medication. Leube found gastric hemorrhages in 46% of these cases, and still there was only a mortality of 4%. In a series of 556 cases, 6 died of uncontrolable hemorrhage, and 6 from perforation and peritonitis. In three-fourths of all his cases of benign ulcer, Leube achieved a completc and permanent cure by means of a dietetic and medical treatmcnt lasting 4 or 5 weeks; 1.5% remained unimproved, and 2.4% died. Lcube thinks that the remaining 21% would have been cured by a repetition or continuation of the treatment.

Leube, who is not a surgeon, recognizes the following indications for surgical treatment:

1. Repeated hemorrhages.
2. Severe pain and frequent regular vomiting which persists after medical treatment and dieting.
3. Perforation of an ulcer of the stomach.

We are glad to record the fact that a most compctent medical authority recognizes that surgery is indicated even in benign ulcers, and I hope you will agree that surgery must not be appealed to as a last resort. The rank and file of the profession must give up the idea that surgery is a last resort and familiarize themselves with the idea of calling the surgeon early. It is just as easy to prescribe a surgeon for a patient as a dose of morphin.

Billroth said that there must be more surgery in the practice of medicine, and when correctly understood this thought is entitled to great weight. I am perfectly willing to be used as a tool by the physician and I think all normally constituted surgeons will recognize that the physician's calling is more arduous than that of the surgeon, because really the diagnosis of internal diseases postulates a much more scientific education and training than is essential to the surgical specialist.

The most important indication for surgical intervention is a suspicion that the case is one of cancer. Even when the suspicion of cancer is not pressing, the exploratory operation is indicated. The smaller the cancerous tumor the more chances we will have of a radical cure by its removal. I should consider it a most urgent indication to open the abdomen if a competent physician suspected cancer in a patient whom he had carefully examined and treated for a month or two. Should we find a simple ulcer, after opening the abdomen, no harm will have been done, and the case will have been cleared up and either medical or surgical treatment can be rationally and satisfactorily carried out. *When in doubt operate.*

In looking over the statistics of operations in gastric cancer the important fact is found that we can now furnish the proof that patients, from whom we have removed parts of the stomach, yes even the whole stomach, for cancer, are enabled to digest and assimilate food and keep well nourished.

I will quote the statement made by the great surgeon Kocher in summing up his entire experience in the surgical treatment of cancer of the stomach by resection. Up to the summer of 1898 he had done 57 excisions of cancer of the stomach. There were then 12 of the persons living. Four others had lived in a good state of health over three years. One man was drowned while bathing, and in perfect health. One woman died of a cicatricial stenosis, and Prof. Langhans, who made the autopsy, could find no trace of a return. One man died after a year's good health, in an insane asy-

lum. One woman died four years after the operation from an unknown cause, but Prof. Kocher thinks it possible that she had cancerous glands somewhere in her abdomen. Besides these four cases there are five permanently cured patients. These are in the enjoyment of perfect health. One of them was operated on in 1888, one woman in 1893, one man and one woman in 1895, and one man in 1896. These patients are in excellent condition, well nourished and contented.

My own experience, though very large, does not show results as good as that of Kocher. My work was done in St. Louis, Mo., and in private practice to a large extent, and the cases were not in as good condition as those of Kocher, whose work was mostly done in a public hospital, in Bern, on patients who were under good control. Out of 21 resections I have only two deaths following immediately upon the operation. All the others survived the operation, and I may say all of them were benefited to some extent, and one lives today from whom I removed a pyloric cancer as large as a child's head, 7½ years ago. The man is now 60 years of age and works a 40-acre farm. Thirteen died within one year from a return of the cancer, and 7 lived from one and a half to four years. (Of these, two are still in good health.)

From Kocher's statistics it is clear that the time has come in which we may speak of permanent cures in cases of cancer of the stomach, the most dreadful of all the forms of cancer that we know of, because if left alone, in many cases, the patient is condemned to actual and hopeless starvation. A decided improvement in the mortality is also noticeable. Krönlein lost 3 out of his first 4 operations, and only lost 2 out of the last 20. The same can be said of almost every surgeon who has kept up the good work of trying to cure cancer of the stomach in the face of an early appalling mortality. If the general practitioner will send his cases for early operation we may expect a mortality of less than 10%. If, however, the extreme skepticism about the success of operations prevails and the unfortunate patient seeks surgical relief after cachexia has begun, we will have a high mortality and bad results.

I have made it a rule in recent years not to attempt a resection on weak patients, and limit my operation to a relief of the stenosis by a gastroenterostomy. In patients who are comparatively strong, and in whom there is a localized and movable tumor, the radical operation is indicated.

Since Schlatter, in Zurich, successfully performed his total excision of the stomach, a number of these operations have been done by others, but the results prove that suitable cases for this operation are probably not common.

In conclusion let me say to you that if as a result of this address some sufferers from cancer will be driven to seek relief by the only rational means we have to offer, namely, by careful and complete surgical eradication, I shall feel that my effort has been rewarded. Should a few cases be radically cured and twice as many killed by the operation, all will have derived more benefit than if none had been operated on. For those who are killed by the operation are saved from a most horrible slow death. I am perfectly conscious that in thus strongly advocating operation not only in simple, but in advanced cases of cancer, I shall meet some adverse criticism. I am consoled by the thought that a valuable victory cannot be gained without first having a fight.

The Mercurial Vapor-Bath.—H. A. Robbins (*Maryland Medical Journal*, October 21, 1899) believes that the treatment of syphilis by means of steam and the vapor of mercury is far quicker, more certain, less frequently followed by relapses, and more efficient in obstinate cases than any other. The ordinary apparatus sold for this purpose is almost valueless. He has had a box constructed, made of triple thickness of seasoned wood and lined with oilcloth. The steam is generated by a pan of water over a small gas-stove, while the mercury is vaporized by a Bunsen burner. The heat is increased until the thermometer reaches 110° to 120° F., when the patient is allowed to put on all his clothes without rubbing off. [M.B.T.]

The Antiseptic and Disinfectant Properties of Soap.—J. O. Symes (*Bristol Medico Chirurgical Journal*, September, 1899) has carried out an extensive series of investigations with a view to determining whether ordinary soap may not be a medium in which germs could flourish and whether it would be of advantage to use a disinfectant soap. The following soaps were tested: Brown Windsor, 4% izal oil; toilet carbolic, 10% scrubbing carbolic; Parke, Davis & Co's. 2% biniodid of mercury; and a soft soap containing 20% of lysol. It was found that all these soaps possessed antiseptic properties in a greater or less degree. Fragments taken from the center of a cake of soap by means of a sterile cork borer and incubated in nutrient broth were, in all cases, found sterile. The hands were washed in hot water with each soap and the cake was placed on a clean surface and cultures were made after 3 minutes, those from the biniodid and scrub carbolic soap were sterile, while the others showed growths of various organisms. Slabs of each soap were moistened and carefully inoculated with a culture of staphylococcus aureus and kept in a moist hot temperature for 2 days. At the end of this time the surface of the Brown-Windsor, lysol and biniodid soaps was sterile, but scrapings from the others gave rise to a growth of the organism first inoculated. In no case was there any apparent increase of growth. For practical purposes the second point, with regard to the disinfectant value of the soaps, is more important. To test this 5 cc. of a 1% solution of each soap (which was judged to be about the strength of the solution which comes in contact with the hands) was taken and to this was added a drop of fresh culture of staphylococcus, the tube was shaken and allowed to stand some time, then 5 drops of the mixture were added to a culture tube which was incubated 48 hours. It was found that a 1% solution of the biniodid soap killed the staphylococcus in one minute while the other soaps failed to do so in 3 hours, but all were sterile at the end of 12 or 14 hours. The cholera vibrio, typhobacillus, the coli and streptococcus were killed much more quickly. From this source of experiments it is concluded that for practical purposes most of the disinfectant soaps have no value, but in the combination of biniodid of mercury with soap we have a useful means of disinfecting hands, instruments, surfaces, etc. It has been thought that the germicidal action of soaps is due to their alkalinity, but after a careful analysis it was found that the difference in the amount of alkali contained in the various samples was infinitesimal, so that that could not account for the difference in disinfecting power. [M.B.T.]

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"**Guilty of murder**" should be the legal verdict in many instances of malpractice and criminalty occurring every day all over the United States. The silly claim that "no treatment is at least harmless," must be crushed by law. Here is an instance lately coming under our notice, one only out of thousands as pernicious and as criminal: A woman was found by a scientific man to have carcinoma of the uterus. Immediate operation was advised to save life, and, owing to the still localized nature of the disease, success was almost certain. At the next visit the woman informed the physician that before operation she was going to visit one of the legally allowed institutions in which carcinoma is cured by prayer and faith. When she comes out of this humbuggery it will be too late for any operation to help her. We would ourselves pray our legislators, judges, prosecuting attorneys, and the legal advisers of medical societies (where are they?)—to consider well their duty to the community in the presence of the appalling growth of modern quackery, greed, and delusion. The planting of humbug is the degradation of civilization, and the harvesting of ignorance is death.

The Depopulation of New South Wales.—New South Wales appears to have become a competitor with France in the race for depopulation, and its preeminence in this respect is thought to be due to the blighting effects of abortion and baby-farming. Other influences also would, however, appear to be at work. From recent official statistics it appears that the number of births during the year 1898 was 32,222, the lowest since 1885, when the population was some 400,000 less. In 14 years the birth-rate has declined from 37.79 to 27.13 per 1,000 living, while that of illegitimate children has increased until it is now 6.93 per 100 births. The death-rate for the year was 12.47 per 1,000 of population, being slightly greater than that for the preceding four years, but about equal to the mean death-rate for the last 10 years. The death-rate for children under one year of age was 121.9 per 1,000 births, the highest since 1887, 37.50% of all the deaths occurring in children under the age of 5 years.

Osteopathy Not Medicine.—According to the *Cleveland Journal of Medicine* the Supreme Court of Ohio, in rendering a decision, has upheld the decisions of lower courts that osteopathy does not come under the provisions of the law regulating the practice of medicine. The words of the law are: " . . . for a fee prescribe, direct, or recommend for the use of any person, any drug or medicine, or any other agency, for the treatment, cure or relief of any wound, fracture or bodily injury, infirmity or disease." This decision will suit nobody. While gratifying to the profession to know that osteopathy is not medicine, it still leaves the members of that sect free to practise their—what?—without legal restraint. But what mean the words "bodily infirmity or disease"? and, "or any other agency"? It will not please the bonypaths, because it contradicts the fundamental principle of the Columbian School of Osteopathy, Kirksville, Mo., which is "devoted to the science (not the sciences) of osteopathy, medicine, and surgery."

Salaries of Medical Inspectors of Schools.—The action of the Board of Education and of the Bureau of Health of Philadelphia in seeking to secure the services of physicians without pay as medical inspectors of schools is highly unjust. The community already has a hundred times the amount of gratuitous service from the medical profession that would be asked or given by any other body of trained men. Do the schools get unpaid a fourth or a tithe of the time and labor of lawyers, electricians, tailors, school-book makers, etc.? Because such service—of a kind, be it noticed—can be had without pay, is it just, wise, and politic to ask or to take it? It is not wise, and it is both unjust and impolitic.

The Medical Examination of Pupils in Public Schools.—About two years ago a deputation of members of the Board of Education of New York City came to Philadelphia to investigate the medical department of the High School for Girls. They found a system of medical supervision which had been in successful operation, established by Dr. Thomas G. Morton. In view of the discussion now in progress in professional and secular journals of New York and Chicago and elsewhere, regarding the value and practicability of such examinations, it may be of interest briefly to state what has already been accomplished in one of the largest schools in the country.

The High School for Girls of Philadelphia was organ-

ized in 1892 in the building formerly occupied by the Girls' Normal School, at 17th and Spring Garden Streets. Previously the services of any physician in the neighborhood were depended upon in cases of emergency, either of sudden illness or of accident among the pupils. In this way it was found that much time was lost and there was much uncertainty about finding any physician, no matter how urgent might be the need. At this time, Dr. Katherine Kollock, a graduate of the Woman's Medical College of Philadelphia, after conference with Dr. Thomas G. Morton, chairman, offered to attend the school free of charge, for an hour or two each morning. The offer was accepted, and Dr. Kollock entered upon her duties in January, 1893. From that time until the present she has faithfully attended to the duties of the position. In June, 1897, the Board of Education, on the request of the committee on the school, acknowledged the value of the faithful services rendered and attached a salary of $750 per annum to the position. The duties of the attending physician have gradually increased during the past three years, and Dr. Kollock now remains on duty each school-day from 9 to 2 o'clock.

The services of the medical officer are varied. At the beginning of the annual session, she examines the vaccination-marks of all the new pupils and vaccinates those who are not protected. In a number of instances, scholars have brought certificates stating that repeated vaccinations had failed to take and she has, on revaccination, succeeded in each case in getting typical results. At the commencement of each day's session, all pupils suffering with sore throat or other acute illness are sent to the medical room for examination. The infirmary contains 5 beds at the service of the students for sudden illness. If the patient is too ill to go home by herself, Dr. Kollock takes or sends her at once in a carriage to her home, where she is left in the care of her own physician, as Dr. Kollock in no instance attends scholars after they have left the school. In order to protect the health of the school, on stormy days, all students with wet clothing, skirts, stockings and shoes are requested to go to the medical room where they are made to exchange them for dry garments, obtaining their own again after they have been dried, at recess or later in the day. In this way, during the last term, 382 girls were provided with dry garments. Permits are issued (by the doctor) for the use of the elevator for those scholars who are not able to endure the fatigue of climbing the stairs. A pupil is not allowed in classroom with wet clothing or shoes.

During the last school-year, the total of 3,543 girls were sent to the sick-room. Among the surgical injuries were fractures, sprains, dislocations, wounds, etc., and among those sent to the sick-room there were found 130 cases of diphtheria, 7 of scarlatina, 4 of measles, 5 of mumps. Following is Dr. Kollock's report for September:

THE PHILADELPHIA HIGH SCHOOL FOR GIRLS.

SEVENTEENTH AND SPRING GARDEN STREETS.

Medical Department.
Report for the month of September, 1899.

To PROF. WILLIAM D. RORER, Principal.

Headache	23	Accidents:	
Sorethroat	12	Fractures	0
Toothache	16	Dislocations	2
Dysmenorrhea	18	Sprains	1
Epistaxis	2	Burns	0
Dysentery	0	Scalds	0
Diarrhea	4	Splinters	7
Earache	1	Contused wounds	4
Indigestion	7	Lacerated "	9
Nausea	5	Incised "	2
Hysteria	2	Punctured "	0
Grip	0	Poison "	0
Contagious diseases.		Foreign bodies in eye	6
Diphtheria	0	" " " ear	0
Scarlet fever	1	" " " nose	0
Ringworm	0	" " " throat	0
Pediculi	1	Teachers, 18.	
Itch	0		

82 certificates for use of elevator examined.
103 examined for vaccination certificate.
6 revaccinated.

Head of the Department,
KATHERINE KOLLOCK, M.D.

The High School for Girls, with a daily attendance of about 2,500 pupils, with 85 teachers, has found daily medical service absolutely essential to the success of the school and the health of the scholars. It is evident, however, that the success of the plan depends very much upon the medical officer, and other schools may be less successful in obtaining such faithful and skilful service than in this instance.

The St. Luke's Hospital of Niles, Michigan, has at last been given a long needed showing-up by our brave contemporary, the *Cleveland Journal of Medicine*. All who wish to see to what extremes commercial medicine may go should read this exposition given in the last issue. We trust our mails may soon be free from the avalanche of literature originating in this remarkable institution.

Civilization and the Duration of Human Life.—Dr. Bozzolo, of the University of Turin, chose as the subject of his recent introductory lecture, the influence of civilization on the duration of human life. The question often recurs how far the modern man bears comparison with the medieval or ancient man in physical and moral energy, and with respect to longevity. It seems to us it would require, to properly answer this question, an abundance of statistics such as are not available for the middle ages and ancient times; nevertheless Prof. Bozzolo is nothing loath to attempt an answer. Ease of communication tends to spread the infectious diseases in modern times more than formerly; but we are not prepared to regard alcoholism, with Bozzolo, as a "modern" vice. Quite the contrary, we think the an

cients could give points to the moderns on the subject of bibulous rites. Wars, famines, and pestilences were more common, according to Bozzolo, in the middle ages, and certainly more destructive. Science and philanthropy have both done much to lessen their severity in modern times. Vaccination is taken as one example of the control which modern science has gained over the most devastating diseases. Bozzolo believes that mortality in modern society is steadily declining. In Italy, for example, though in the last few years population has increased by 5,000,000, there were 132,000 fewer deaths in 1897 than in 1872, while in Turin itself within the last 25 years the mortality has sunk to within a fraction over 11 per 1,000. This diminishing rate holds good in all countries: hence the chances of individual longevity are increased. This holds true the more the individual country is civilized. In Italy the mean life for the entire population has been prolonged by about seven years. In spite of this good showing, civilivation makes for the development of a certain number of causes of death. Thus suicide increases, and alcoholism, which is a potent cause of suicide, spreads in civilized States. The neuroses also increase, but this is in part only apparent, due to the increased knowledge which leads to the detection of these obscure conditions. A dark side of the picture is presented by the fact that the mortality-rate among the poor is almost double that among the well-to-do. This is still one of the unsolved problems and responsibilities of modern civilization. Bozzolo, in his peroration, appeals to his hearers to strengthen in every way the hands of science, in which potent force he apparently sees the most hopeful means for the complete regeneration of mankind.

Fish and Leprosy.—Sir Jonathan Hutchinson is the most prominent opponent of the theory that leprosy is contagious. His opinions on medical subjects are always interesting, and often valuable, but sometimes erratic and occasionally quite unacceptable. His recent paper, therefore, on the Prevention of Leprosy (*Archives of Surgery*, April, 1899) is worthy of notice. As a specimen of special pleading, in which an advocate takes what suits him and rejects what injures his cause, it is a truly remarkable document.

Hutchinson's opinion, in brief, is that leprosy is caused by a diet of fish—especially fish that is poorly cooked or partly decomposed. In support of this argument he makes the claim that the disease is disappearing all over the world before the advance of agriculture; but he gives no adequate proof of this, for apparently he despises statistics as applied to leprosy. By use of a globe, which he paints in spots, he demonstrates that leprosy prevails near the sea; and when he is reminded that in the interior of India the disease spreads among people whose religion forbids them to eat fish even if they could obtain it, he flatly refuses to believe such tales. He thinks leprosy was more prevalent in Europe during the middle ages because the church enjoined the use of fish on fast days, and consequently the Reformation helped to put an end to this disease. The bacillus of leprosy has no terrors for Sir Jonathan Hutchinson; he merely says that it is only another form of the tubercle-bacillus, and that its activity depends upon the character of its food. Give it fish, and it assumes the role of a bacillus of leprosy. The exact relationship of the microbe to the disease is a subject he simply ignores, and contents himself with reiterating his opinion that the disease is not contagious. Finally he utterly scouts the idea of isolating lepers, except as a means of adding to their comfort, and keeping them from offending the public eye.

From all this it may be seen that on the subject of leprosy, Sir Jonathan is reactionary to the last degree.

Clinic and Experiment.—The difficulty of properly organizing a medical clinic has occupied the attention of medical teachers the world over, nor does it seem at all likely that the problem is in a fair way to be settled, for year by year, indeed, almost day by day, the changing conditions, due either to improved mechanical devices, altered hospital management, or advancing knowledge, that confront the chief of the clinic, raise new problems that demand new methods of solution. The day has long passed when all that was necessary was a bed, a patient, and perhaps a clerk to take notes. The practice of medicine no longer involves only inspection of the tongue or palpation of the pulse, and in addition a certain amount of skill, largely derived from personal experience, in the interpretation of the changing expression or the alteration of the color of the skin; nor is it sufficient, as perhaps it was not so many years ago, to provide a few test-tubes, a spirit lamp, and some half a dozen reagents to test the urine and perchance the stomach-contents; nor will it do nowadays to have only a microscope, a few stains, and a blood-counting apparatus. In fact, the modern clinic can no longer be a simple organization consisting of a head and a number of graded assistants who do their work with a hope ultimately of advancing step by step to the top, but it must include men not merely masters of clinical medicine, and their assistants hoping to become so, but others, who care only for the purely scientific side of medical knowledge, and intend to devote their lives to that. To such a conclusion, Krehl, than whom there is probably no better judge in all Germany today, has arrived after considerable reflection. In a recent article he emphasizes the necessity for the presence in the medical clinic of expert experimental pathologists. The tendency of all mere observers has been to lay an excess of emphasis upon theoretic speculation. Naturally, man is not satisfied with a mere knowledge that certain facts exist, he desires to be informed or to guess what their interrelations with each other may be,

and, in the absence of exact knowledge, he has a fatal tendency to invent more or less plausible hypotheses. Then having these, he adapts all future observations, if possible, to them. To control this tendency, it is necessary to resort to experimental science. It is true that clinical medicine itself is thoroughly an experimental science, and therapeutics almost purely so, but unfortunately in neither of these is it possible, in the great majority of instances, to determine what the results of the experiments have been, and although it is likely, as objectors have urged, that the pathology of the rabbit or frog is very different from that of human beings, there is no question that many of the results can be transferred from one to the other without loss of accuracy. The organization of a medical clinic for scientific study is complex, but not difficult; that is to say, there must be the clinical observer provided with all the knowledge of his branch, familiar with symptoms, not only as a result of personal observation, but because he is master of the literature of each one; and his series of assistants capable of taking notes, of studying the cases, and of relieving him of all the routine work that can be done by the ordinary trained intellect. This is half, perhaps. The other, and not less important section, would consist of the pathologist, not the mere carver of the dead, nor even one familiar only with the microscopic appearance of diseased tissues, but a man, or group of men, capable of performing the most difficult tasks of physiologic chemistry, and thoroughly acquainted with bacteriologic diagnosis and experiment. Nor is it sufficient to have in this department men that are only able to return to the clinician accurate reports, for they should be gifted with sufficient genius to devise experimental methods for the solution or control of clinical problems and theories. Such clinics actually exist now, not only in Europe, but also in the United States. Notably, in Boston, the pathologic departments of some of the hospitals are conducted by men equal in dignity to staff physicians, who have turned out a considerable amount of most excellent work. In Philadelphia at least two of our larger hospitals are more or less satisfactorily equipped with the means and apparatus for pathologic research in the largest sense of the term, and in others, attempts are being made in the same direction. Unfortunately, it has been impossible as yet to provide sufficient inducement to encourage young men of superior abilities to undertake pure pathologic work, because at present the remuneration is wholly inadequate. But even this seems not unlikely to be changed in the very near future.

Suggestions to Writers, No. 48. Badly Chosen Words.—It is somewhat dangerous to advise against the use of even the most foolishly chosen words, because no one can foresee with what illogicality Lord Demos may be pleased. If it suits his whim he will pick up the most arrantly nonsensical word and use it in the most whimsical way until even the aristocrats of linguistics are compelled to fall into the habit; the word thus becomes perfectly legitimized and "received into the best society." But at worst one may in the meantime give his language strength and perspicuity by using the right words in the right places, or at least by avoiding their employment in the wrong places. We purpose listing a few of the words most frequently misused in medical literature:

Apt, instead of **liable, likely,** or **probably.** Apt refers to an inherent tendency, the having an aptitude, and should not be applied to conditions in which we mean likelihood or probability. "The tissues may be apt to heal," but the leg is not "apt to be broken."

Where, instead of **in which,** *e. g*, as "a case where" for "a case in which."

Where, instead of **when.** If we mean a time-relation it is manifestly absurd to use an adverb of place. Not *where*, but **when** the stomach is perforated, etc.

Alike; two, or both things, cannot be **alike.**

Couple, instead of **two.** Two things may be coupled, *i. e.*, bound together, but not necessarily nor generally.

Get, instead of, or, in addition to **have.** Get and got, commonly used, are superfluous.

Expect, for **think, suppose,** etc.

Observe, for **say.**

Reliable, for **trustworthy.**

Section, or *quarter*, instead of **place, country, neighborhood,** etc.

Witness, for **see,** is one of a hundred examples of newspaper English, or highfalutin.

Recuperate instead of **recover.**

Notable instead of **noteworthy.**

Extend an invitation, instead of **ask,** or **invite.**

Above and *below*, instead of **foregoing, following.** When printed, *above* may prove to be **below,** etc.

Bad cold, for **severe** cold.

Beside, instead of **besides.** The first means **by the side of,** the second **moreover, in addition to,** etc.

I do not doubt but that, for **I do not doubt that.**

Each other is said of two, **one another** of many.

Bad health, instead of **feeble,** or **delicate health.**

Had I have known, instead of **had I known.**

Ought to instead of **should,**—a very common error.

Healthy, for **wholesome,** or **healthful.** Exercise is healthful, food is wholesome, a person healthy.

In respect of / *In regard of* } instead of **in respect to.**

Nicely for **well.** *I am nicely* has been called the "quintessence of popinjay vulgarity."

As far as / *As soon as* } instead of **so far as,** etc.

Whether or no, instead of **whether or not.**

No fewer than, instead of **not fewer than.**

No one of them, instead of **not one of them.**

I propose, for **I purpose.**

Previous to, instead of **previously to.**

Those who, instead of **they that.**

En passant, for **in passing.**

Avocation, for **vocation, calling,** or **business.**

Accident, instead of **wound** or **injury.** We have seen the expression "the accident was cured."

Once in a while, instead of **occasionally, sometimes,** etc

Aetat, for **of age, old,** etc.

Can, instead of **may,** an irritating and common error. "The specimen can be seen in the laboratory," "the operation can be performed in the private room," and similar ones may be found in every page of medical writing.

Met with, instead of **met, found,** etc., is another exasperating expression, requiring the poor editor's blue pencil about 100 times a day. "Such accidents are often met with and the operator can expect," contains three most common errors. "Begin with," is analogous blundering.

Arrived at, instead of **reached, concluded,** etc. "The following are the conclusions arrived at."

Correspondence.

COMMERCIALISM VS. ETHICS.

By WM. S. THOMAS, M.D.,
of New York City.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL :—

YOUR interesting exposé of some of the commercialism which is battering down the wall of medical ethics came to mind yesterday when I was visited in my office by a purveyor of oxygen for therapeutic use. Although we were quite alone this man whispered softly to me that if when in need of oxygen in my practice, I would telephone orders to him personally, he was ready to share his profits with me to the extent of $2 on each can of the gas sold to my patients. My remark that I was not in the oxygen business didn't make him turn a hair, and he surprised me when he triumphantly rolled off a list of well-known physicians here who patronize him. The antemortem oxygen-contract rather rubs elbows with the post-medical contract, doesn't it?

"HOME REMEDY" FOR LEG ULCER.

By G. V. BUEHLER, M.D.,
of Boston, Mass.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL :—

ABOUT a year ago my attention was called to a home remedy for the treatment of varicose leg-ulcers, consisting of black oxid of lead and camphor. Within the last few months I have used this paste on a great number of very sluggish ulcers and it has given me very good results. In one case in which the ulcer remained open and running for over 2 years, and on which every known local remedy was used, the ulcer healed very rapidly and now at the end of 5 weeks is entirely well.

The good effect is noticed from the first application, this causing the hard indurated edge to soften, and promoting healthy granulation with a very steady healing process about the edge of the ulcer. Another very commendable feature of the ointment is that it relieves the pain which is so common in this class of patients.

NAPOLEON'S HEART.

By JAMES F. E. COLGAN, M.D.,
of Philadelphia.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL :—

IN an article entitled "Medical Bricabracology" published in issue September 2, the writer asserts that the heart of Napoleon was eaten by rats and was replaced by one of a sheep. The following, copied in the *Morning Herald* from Campbell's *Foreign Magazine*, Vol. V, 1844, may be of interest in connection:

"When Bonaparte died, it is well known that his heart was extracted, with the design of being preserved. The physician who had charge of it deposited it in a silver basin, in water, and retired to rest. He felt so nervously anxious, as the custodian of such a deposit, that though he reclined he did not sleep. While lying thus awake, he heard, first a rustling noise, then a plunge among the water in the basin, and then the sound of an object falling with a rebound on the floor. Dr. A——— sprang from his bed, and the cause of the intrusion on his repose was soon explained—it was an enormous rat dragging the heart to its hole. A few moments more, and that which before had been too vast in its ambition to be satisfied with the sovereignty of Continental Europe would have been found even in a more degrading position than the dust of Cesar stopping a beer barrel—it would have been devoured as the supper of a rat."

From the tenor of foregoing article it is evident that if there was any truth in the assertion the newspapers would only have been too pleased to publish it; besides all the histories of Napoleon, favorable and otherwise, that I have read assert that his heart was preserved in spirits.

SIMPLE AND COMPOUND ANASTOMOSIS FORCEPS.

By JOHN A. McKENNA, M.D.,
of Philadelphia.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL :—

IN the JOURNAL of November 18, I note with interest a letter from Dr. A. J. Downes, of this city, in which he again calls attention to his invention, so-called, of a "simple" anastomosis forceps, which he presented to the Philadelphia County Medical Society in May, 1898, as an improvement on the Laplace anastomosis forceps, the use of which Dr. Laplace demonstrated at the same meeting that Dr. Downes presented his modification. I was Dr. Laplace's resident physician during 1897 in one of the hospitals with which the doctor is connected, and assisted him in the development of the forceps and the technic of their use. In the fall of 1897—two years ago—I modified the Laplace forceps in precisely the same manner as did Dr. Downes some six months later, and I still have the forceps which were then made. These forceps I experimented with and showed to Dr. Laplace, and of their existence Dr. Laplace told Dr. Downes at the meeting of the County Medical Society (see report May, 1898).

The forceps which Dr. Angus McLean describes and illustrates in the PHILADELPHIA MEDICAL JOURNAL for October 21, 1899, is the same style of instrument I devised with the trifling changes of detachable handles and the openings of the incomplete rings on opposite sides of the shank.

I, of course, understand the difficulty of establishing for myself, at this late day, a priority for having devised such forceps, but you will agree with me, I think, that it would have been rather presumptuous in me to have published an account of an "improvement" on the original forceps while acting as Dr. Laplace's resident physician and assistant. Nevertheless, if Dr. Downes and Dr. McLean think they see advantages in this style of forceps which Dr. Laplace's instrument does not possess, I must respectfully ask for a share in the credit that may be given to the inventors or rather the "modifiers" of the original forceps. I feel sure that Dr. Laplace will substantiate my claim, as will the record of the procedings of the Philadelphia County Medical Society for 1898.

THE SCHLEICH MIXTURE IN GENERAL ANESTHESIA.

By WALTER LATHROP, M.D.,
of Hazleton, Pa.
Superintendent and Surgeon, State Hospital.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL :—

IN the issue of November 4, *Journal American Medical Association*, I read the article on the Schleich mixture, by Dr. R. M. Stone, presented at the meeting of the Association in June last. I agree perfectly with all he says about the qualifications of the anesthetist, and how very important it is to have a man who is thoroughly competent to administer the drug, and not a mere tyro. I read a paper on the Schleich mixture before the Luzerne County Medical Society, and had an article on the same subject in the *University Medi-*

cal Magazine, in both of which I lauded this anesthetic to the skies, and believed there was nothing like it for safety, rapidity of action, and pleasant effect. After an experience of nearly 250 cases, in which it was used, I abandoned it and have used nothing but ether, or chloroform for the past four months.

I believe the Schleich mixture to be unsafe and decidedly dangerous. Dr. Stone says that the "function of respiration has been practically normal," in his experience. I believe the great danger is the *sudden stoppage of respiration,* and that the chief action of the mixture is on the respiratory centers, while the heart does not seem to be affected at all. Recovery from the effect of the anesthetic is rapid, but I have found that there was, as a rule, much greater depression following the use of the Schleich mixture than from either chloroform or ether. Much that Dr. Stone states is true, such as the small amount needed, the pleasant effect, comparative absence of vomiting, etc., etc.; yet I believe that the use of this mixture will be attended by many unpleasant, not to say dangerous, results.

If we want rapid, pleasant anesthesia, we can get it by using chloroform alone. If we want a reliable and comparatively safe one, we have ether, which has stood the test of time. I have been a most ardent supporter of Schleich's mixtures, and have given them, I believe, a fair trial, and have reached the conclusion, before stated, that the danger is great, and apt to be sudden. I have had no fatal cases, but have had so many that required hard work to *restore breathing* that I feel justified in warning against its use.

SOME NEW LIGHT ON CANCER STATISTICS.

BY LAWRENCE IRWELL, M.A., B.C.L.,
of Buffalo, N. Y.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

THE *Medical News* has now returned to the increase of cancer. In an editorial, published on October 21, it says: "A number of letters were written by those who could not bring themselves to believe that cancer is really on the increase, in which they endeavored to show that the apparent increase is really due to better methods of diagnosis."

I challenge the accuracy of this because, while many writers have denied that there has been any *remarkable* increase of cancer, I cannot find a single letter by an American writer containing the assertion that cancer is not increasing. My own letter, which appeared in the *News* on April 15, expressed my inability to believe that Dr. Park's English figures were accurate. My incredulity seems to have been very well founded, as anybody can see by consulting your JOURNAL for September 2.[1] That point, however, is not of special importance.

When we realize that constitutional diseases generally cause more deaths than they did prior to 1860—I mean in proportion to the population—the idea of cancer remaining stationary seems quite improbable. If the *Medical News* has only just discovered that there has been *some* increase in the cancer death-rate, it is certainly behind the times. Perhaps I may be permitted, without excessive egotism, to quote from a paper which I read before the American Public Health Association,[2] in 1896.

"It is not my intention to weary you with many statistics; but I venture to assert that the reports of the English Registrar-General demonstrate that the deaths from constitutional diseases, in which heredity plays so important a part, are undoubtedly on the increase. Let us glance at a few figures. The test is absolutely fair because disorders of the nervous, circulatory, and respiratory systems, cancer and diabetes are all included.

"Annual death-rates in England from constitutional diseases per million persons living:

1861-5	1866-70	1871-5	1876-80	1881-5	1886-90
6056.3	6311.4	7199	7636.4	7531.2	7929.4."

The *Medical News* has now secured a copy of the English Registrar-General's Report for the year 1897. In order to demonstrate the fairness with which the question of cancer-statistics is treated in certain quarters, I append, side by side, excerpts from the *News* and from Dr. Tatham's report:

Medical News, October 21, p. 530. "Dr. Tatham in the introduction to the Registrar's Report does not accept the view that the increase of cancer in recent years is only apparent. . . ."

Registrar-General's Report for 1897, p. 25. "It is impossible to ascertain the exact proportion of the recent increase in cancer-mortality that is justly attributable to improvement in medical diagnosis. . . ."

Comment from me would be out of place.

The comparison made by the *News* between the death-rate among females from cancer and from phthisis does not demand much attention. The beneficent process of Natural Selection has been causing a gradual decrease in the phthisis mortality-rate for a great many years. Indeed, English statistics do not go far enough back to enable me to tell when this disease was steadily increasing. The only question of very serious importance connected with phthisis-statistics is, Has there been any marked *increase* in the *rate of decrease* of the disease since the discovery of the Koch bacillus in 1882? I am afraid the answer to this question must be an emphatic "No!"

Postmortem-examinations are not exactly popular in England, and when no such examination takes place after a woman has died of some internal disorder, while the one word "cancer" may satisfy the medical profession, it will not satisfy any competent statistician. It will, however, greatly augment the nominal cancer death-rate. The writer of the editorial in the *News* has evidently forgotten that, in England, "cancer" has now, to a great extent, taken the place of "old age" in death-certificates. (In the United Kingdom, cancer appears to be equivalent to "malignant disease," not to "carcinoma" alone).

Concerning "external cancer," I want to mention the following facts, although I have not made up my mind as to their significance. They certainly throw some new light on the subject. The German town of Frankfort-on-the-Main has for a long period of years kept an accurate record of deaths from all causes, in which deaths from cancer are classified according to the parts of the body primarily affected. "Taking a general view of the Frankfort figures, the one result of surpassing importance to be derived from them is that *in those parts of the body in which cancer is easily accessible and detected there has been no increase in the mortality from it between 1860 and 1889.*"[3]

The London correspondent of the *News*, in his humorous reference to the newly-formed British Cancer Society, wrote (July 8) of "the usual melodramatic statistics." He is apparently the one man on the staff who is able to use figures with discretion, for the editorial ends with the oft-repeated fallacy, "we are surely in the presence of a highly increased mortality from cancer . . . . . due to actual heightened incidence of malignant affection." As no new evidence is adduced in favor of the "highly increased mortality," one wonders what ulterior motive there can be

[1] PHILADELPHIA MEDICAL JOURNAL, p. 409.
[2] *Journal of A. P. H. A.*, Vol. xxii, p. 264.
[3] King and Newsholme: Proceedings of the Royal Society, Vol. liv, p. 227. The italics are in the original.

in repeating an assertion which has been disproved, and which was never supported by reliable figures. Instead of making statements, why does not the *Medical News* reply to Dr. Newsholme's article tn the *Practitioner* for April? Why are Dr. Pryor's arguments, published in the *News* of May 22, ignored? Five months have elapsed, but not one word in answer to either paper has appeared in print, so far as I can ascertain.

With great respect I submit that the eminent surgeon who wrote the original article (which appeared in the *News* of April 1), for whom I have the highest regard, is unaccustomed to dealing with statistical questions, and he accepts figures and conclusions without sufficient investigation or consideration. The editorial now under discussion is, in reality, based upon his article, although that fact is not stated.

My interest in this matter is a desire to disseminate the truth, and to counteract the attempts now being made, both here and in England, to create a cancer-scare. For anything I know to the contrary, cancer may be due to excessive meat-eating, to a microorganism, to tomatoes, or to reading the *Medical News*. Not being a physician, I am incapable of forming an opinion upon any medical subject; but I am very confident that the disease which is now on the increase more than any other—and this is merely a question of statistics—does not come under the heading of either carcinoma or sarcoma.

On September 2, you published my letter in which I said that the English Registrar-General had written me that he could not give the cancer death-rate prior to 1858. Nevertheless, in your issue of October 14, Dr. Ferguson compares the same old figures for 1840 (Dr. Park's, I suppose) with those for 1896. Again, in your JOURNAL for October 28, Dr. Rodman, not satisfied with repeating Dr. Park's absurd prophecy as to deaths from cancer "catching up" phthisis, etc., in 10 years, which has been disproved quite a number of times, and as long since as May 22 (*Medical News*), quotes the English cancer mortality-rate for 1840, in spite of the absence of the Registrar-General's figures. I am told that Dr. Hemmeter, in the *Record* for October 21, is guilty of the same offense. Whether any English statistics for the year 1840 exist I cannot say; but no competent statistician would compare figures obtained by the crude methods of those days with the death-returns for 1896. Moreover, surprising as it may seem, a reference to page 29 of the Registrar-General's report for 1897 will convince any person of ordinary intelligence that the general heading of "Cancer" in that report includes not only "carcinoma," but "malignant disease" and "sarcoma."

"SCIENCE DEGRADED BY MEDICAL MEN."

BY M. V. BALL, M.D.,

of Warren, Pa.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

IN the August number of the *Keystone*, an optical trade-journal, Mr. Charles F. Prentice takes the medical profession to task for invading his special domain and especially for declaring in the resolutions adopted at Columbus that "the application of lenses is a part of the practice of medicine and that it requires a knowledge of pathology and therapeutics to treat errors in refraction." Mr. Prentice acknowledges the deep sense of gratitude he owes toward the medical profession for unselfish recognition of his optical skill and in a little pamphlet called the "Opticist" praises himself to the skies and gives all the letters and review notices and textbook comments ever written about him by medical men, and on the second page of this advertisement states: "It is merely our contention that *in the absence of disease* there can be no need for medical skill in the choice of spectacles, because skill in optometry depends exclusively upon expert ability in optical science."

"Ability in optical science involves a knowledge of mathematics and mechanics, which is entirely foreign to medical learning." In the present article he goes into a diatribe concerning the lack of optical knowledge in those who proclaim themselves oculists, and says that the "science of optics is as foreign to medicine as astronomy is to pill-making."

Mr. Prentice has rendered some service to the science of optics, but his resolve to no longer make known his discoveries in medical journals will not fill the ophthalmic world with gloom or empty the sea of thought. He will simply dig his own grave. Optics is a part of physiology and is taught by most professors of that subject in medical colleges. Optometry is taught all students who desire special instruction in the branch of ophthalmology. So much for the charge that oculists are not qualified. Now, as to the statement that there is no need for medical skill in the actual choice of spectacles because for five hundred years the public has been in the habit of selecting its own glasses or relying on traveling opticians and drug stores. The mere quoting of this charge shows its absurdity. Glaucoma, retinitis in all its forms, and a number of other diseases have been allowed to go unrecognized because the world was ignorant of them and relied for vision on its still more ignorant spectacle-peddlers and opticians. Astigmatism was first noticed by a medical man—Dr. Young—and its importance as a factor in nervous troubles could only be demonstrated by persons qualified in medicine.

That a better understanding of optics is desirable there can be no question, and the man who is an able physicist will certainly determine the refraction of an eye better than one who is not; but no man who is not blinded by his own material interests—and Mr. Prentice with all his scientific attainments shows by the manner of his advertising that the material forms a pretty large part of his make-up—no man, I say, can show any good reason why a knowledge of general medicine is not most essential to the proper treatment of errors of refraction. Mr. Prentice acknowledges that there are very few competent opticians, and he is anxious to establish colleges of optometry. I suppose besides Mr. Prentice there is no competent opticist in this country—that is, in his own estimation. But the medical profession will go on adding to the general knowledge of ophthalmology and optometry through such men as Donders, Loring, and a host of others long after the self-laudatory Prentices are sunk in oblivion. A quack that will thus use the recommendations a generous profession has given him deserves to be ignored by all future writers.

The opticians are uniting for an attack upon the eye specialists. At the annual meeting of the New York State Association of Opticians, a per capita tax of $1 per year was set aside in order to secure favorable legislation and to prevent members from being prosecuted. In Indiana the State Optical Society secured the insertion of the following clause in the Medical Practice Act:

"This law shall not be construed to apply to nonitinerant (why non I cannot say) opticians, engaged in the practice of

optometry, nor to any optician who shall hereafter engage in the practice of optometry." If the ophthalmologists do not look to their rights soon something of a similar clause will be inserted in the medical acts of other States. The resolutions adopted by the American Medical Association should be put into force as speedily as possible, and local as well as itinerant "opticists" and "doctors of refraction" compelled to confine themselves strictly to this business, namely, filling and fitting prescribed lenses just as apothecaries and chemists attend to the prescriptions of medical men for the drugs that they desire compounded. The real scientific optician will be the gainer by such action, as it will divorce him from the host of spectacle swindlers, ignorant and incompetent optician professors and other optical deluders whose business it is to prey upon the public to the detriment of the honest optician.

THE GENESIS OF A MIRACLE CURE.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

IT is probably within the experience of many of your readers to have been forced more or less willingly into a discussion of the various forms of faith cure and mind cure now so popular; though perhaps the situation is more likely that of being obliged to listen to peans on some of these topics under circumstances in which politeness prevents the expression of opinions in exactly the language most consonant with feeling. Every observing and candid physician knows and willingly admits the enormous therapeutic value of psychic influences, but he is obliged also to admit that this value is very much greater in some cases than in others; that it may vary from nothing at all up to all that is necessary to produce a cure.

In the situation just suggested and in this frame of mind he is very likely to manage his side of the case by agreeing to the statement of the facts and explaining them according to his correcter theories.

Such a concession is not always necessary, and a preliminary retreat may not strengthen the final position.

Great as the value of psychic agencies may be in advancing not only the mental and moral comfort of the patient but also his physical well being, they are by no means the most efficient promoters of careful observation, correct memory, or precise reasoning.

The following narrative, although it may appear almost trivial, is an illustration of these remarks and affords an interesting opportunity for psychologic analysis.

Mr. H. H. Goddard, of Clarke University, after careful and laborious inquiry, has recently published in the *American Journal of Psychology*, for April, 1899, a very interesting study upon faith cures. Among the letters received by him from cases of this kind one was referred to me from a patient who for nearly two years was under my immediate observation and of whom I have heard from time to time since, both personally and by letter and report.

She has evidently been a weakly child and young girl. When about nineteen she had a severe fall and for "11½ years was confined to the bed most of the time, suffering from a complication of diseases." "M.D.'s have said that there was not a sound organ in my (her) body."

In 1891 she "went to another private hospital and remained 23 months, when the doctors told her that they had done everything in their power and she went home with no hope whatever of being any better."

"After 2 years she was taken to Mr.——'s home, March 24, 1896, on a cot in a helpless condition."

"I could sit up only long enough to have my bed made and had not walked during *all these years* of illness." She received benefit from the first treatment and soon walked. She has since that time reported to me by letter and in person. The last time I saw her some months ago she was employed or ready to be employed as a nurse. "'My restoration to health is said to be as wonderful as the Bible miracles.' I cannot say enough in favor of Mental Philosophy."

"No material remedies whatever were employed and my recovery was clearly the result of mental treatment both silent and by explanation."

The affair looks upon its face like a very strong and straightforward piece of evidence in favor of a cure, claimed by friends as miraculous and likely to be explained by the less credulous as a purely psychic one which required a piece of mysticism to accomplish.

But let us see what really happened.

It is impossible to deny that she may have been told that "there was not a sound organ in her body;" but if any such statement was made the 'M.D.'s' who made it were as weak in their diagnosis as they were (according to her) in their therapeutics.

She speaks modestly of "displacements" which the eminent gynecologist under whose care she was for 7 months and whose certificate accompanied her to the institution says nothing about. The "severe heart disease" was at its worst purely functional, even if that. There was no reason to suspect disease of any organ except the cerebrum and some disordered nutrition of the lower limbs due to disuse; not even the sclerosis of the cord which has been seen in some cases of this kind of very long standing. When she entered the institution at which she stayed 23 months she was unable to walk, the legs being extended and the feet and toes dropped. The joints were stiffened, and the feet shiny and swollen. She could hardly move her legs in bed by will-power, but the muscles responded readily to faradization. The kneejerks were normal and there was no ankle clonus.

On trying to make her walk it was found that she could sustain hardly any weight upon her legs and could scarcely move them at all when in the upright position, although when lying she could draw them up. All attempts to make her step were attended with much pain in the back and on one occasion by fainting. She could not bring her foot to a right angle, and even after some weeks' practice could not bring both heels to the ground at the same time.

To make a short story of what was in reality a very long and tedious one, by constant practice, massage, mechanical support, gymnastic apparatus, reinstruction with the utmost care and minuteness, together with encouragement and exhortation, she improved constantly but very slowly, with every appearance of entering heartily into the attempts to make her walk unassisted.

At the end of the 23 months, which were granted her somewhat unwillingly by the managers of the institution, she was able to walk, awkwardly it is true but still to walk.

The evening before she left she walked with a nurse through a covered passageway into another building to make a farewell call upon the nurses. When she left the institution she went to the elevator "leaning on the arm" (in the ceremonious sense) of the physician.

Letters from the matron of the institution and from the

nurse of the patient not only assure me of the fact of her walking, but speak of her great improvement in general condition which, being a less definite and decisive fact, is more easily forgotten and is accordingly explicitly denied in her subsequent letter of explanation.

Soon after her going home there was a fire in her immediate neighborhood, from which she received a fright, but no injury, and in consequence of this, as I have understood, something like her condition on entrance returned. It must, however, at first have differed in the very important particular of the absence of contraction.

Two years of failure of health brings us to the era of the miraculous recovery.

The case might be described in short as astasia-abasia of many years' duration with resulting contracture greatly improved but undergoing a relapse under purely psychic influences. Whether in the first instance there may have been any actual lesion can be only conjectured. The fall appears to have been a severe one.

It might easily be supposed that the recent memory of her first incomplete but decisive recovery would have been an important element in her psychic condition, and hence have contributed materially to her second one, but her letter discloses no such influence at work "above the threshold of consciousness."

Pain, distress, fatigue, mental depression, feebleness of will are susceptible of no accurate numerical expression. and the estimates and recollections based upon them in the consciousness of the sufferer may easily change within a few years under the influence merely of time or more rapidly under new and more striking impressions; but how so distinct a reversal of conditions as being brought to a hospital unable to walk, with stiffened limbs, and going out able to walk some distance could escape the attention so completely as not to be mentioned even in the most slighting manner in a letter purporting to give a careful description of the case, puzzled me and I wrote to the patient for an explanation.

If I had thought that she bore a grudge against the hospital which made her unwilling to give it any credit I should not have thought it worth while to write this letter, but should simply have put down the whole affair to the account of ingratitude, which is altogether too old a story to physicians to possess the slightest interest or to deserve to be recorded. This, however, I can hardly believe in face of her repeated recognition of the care and attention which were given to her, as she represents, almost in vain.

Her recent visit to me was purely voluntary and only on a remote and roundabout invitation.

Neither do I doubt her sincerity and desire to state the circumstances accurately as they now appear to her.

And it seems to me that no ordinary failure of memory can be invoked, for her recollections of many details of treatment are perfectly correct. The only point she ignores is its result, that instead of being bedridden she could walk. In fact in her letter of explanation she virtually admits that she remembers the fact which she does not mention, but she thinks that among so many cases, etc., etc., I must have forgotten how badly she walked, "as if I thought she walked as well as any one;" as if we "spoke of her poor attempt at walking" simply to encourage her.

Her exact frame of mind can of course be only conjectured, but it seems as if such pale, feeble and uninspiring motives as gratitude and the desire for truth and accuracy, both of which are apparently present, were completely overshadowed by the enthusiasm of the past martyr and present prophet. It might be called a sort of voluntarily acquired failure of memory from a constant intensification and dwelling on the marvelous side of the story at the expense of the commonplace. It seems somewhat like the instinct and habit of the raconteur who seizes upon and dresses up the picturesque incidents, getting a story infinitely more interesting than the actual occurrence, and ending by believing it himself. The craving for a dramatic effect, the desire to say something interesting, is probably present in all minds, but in some, usually not of the highest order of intelligence, it becomes a controling motive. Unfortunately for literature, fortunately for science, the dramatic impulse is not always accompanied by the power of dramatic expression.

Of course, it must be acknowledged, in such a case as this, that the change in the mental attitude of the patient, which was not complete the first time, and was wiped out by the mental shock of fright, is of enormous benefit to her, and that it may confirm a cure for which the substantial foundation has been laid by other means. Instances are not uncommon where the last treatment gets the whole of the credit simply because it is the last.

The very interesting question comes up here, whether it is practicable and advisable for the physician who is trying to cure such a patient, and is supposed to be doing so by the well-known methods, including the most vigorous "suggestion" addressed to the upper consciousness, to attempt to go "below the threshold," and to inspire the feelings of mystery and novelty which are sometimes necessary to clinch the cure. Can he well be at once the man of science and the magician? The answer to this seems to be that it depends altogether upon his own personality and that of the patient, and upon the relation between them in each particular case, whether the patient looks upon the physician merely as an expert or as a savior. The line of morbid ideas which form the intrenchments of a psychic paralysis is to be broken—sometimes by a direct assault in front, sometimes by a flank movement, and sometimes by a stratagem.

A homely comparison may be drawn between the administration of advice, explanation, and encouragement; and that of codliver oil. If the digestion and powers of assimilation, physical and mental, are sufficient, then the crude medicine is the best. But as fastidious tastes and sensitive stomachs may call for dilution and disguise in the fashionable emulsion, so plain common sense and scientific psychology may need to be disguised in the jargon of a cult, and their everyday vulgar flavor heightened by what appeals to the sensitive neurotic spirit as "new truths" and "higher planes of thought," but which appears to those of a more earthy mould as either meaningless verbiage or very stale humbug.

This is a long talk upon what appears a simple matter, Mr. Editor, but it seems to me that it is wise in inspecting a somewhat shaky scientific structure in which we all have to be more or less interested, to examine carefully a specimen foundation-stone as well as the completed edifice.

Italian Red Cross Society.—From the report of the Italian Red Cross Society, which has recently been published, it appears that the membership of the Society is 23,428. The total amount of its property is valued at 6,262,187 lire (£250,487). The organization of the Society comprises a Central Committee, 359 subcommittees, 98 ladies' sections, 559 communal delegates, and 49 delegates to foreign countries. The administrative *personnel* numbers 1,058, the Executive rather over 2,000. The Society has 49 field hospitals, 22 mountain ambulances, 15 hospital trains, 2 river ambulances, 2 outfits for hospital ships, and 40 railway aid stations. The medical and pharmaceutical *personnel* numbers in all 786.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending December 9, 1899:

Monday, December 4—Academy of Surgery.

Wednesday, December 6—College of Physicians.

Thursday, December 7—Obstetrical Society.

Friday, December 8—College of Physicians,. Section on General Surgery.

The James Hogg Memorial for Nurses and Training School of the Presbyterian Hospital, of Philadelphia, was formally opened and dedicated on November 28. The building, which is a gift of J. Renwick Hogg, as a memorial to his father, one of the original trustees of the hospital, is a three-story building, and provides accommodadation for about 70 nurses.

Vital Statistics of Philadelphia for the week ended November 25, 1899:—

Total mortality		386
Diseases.	Cases.	Deaths.
Pulmonary tuberculosis 50, intestinal tuberculosis 1		51
Heart-disease 34, inflammation of the heart 1, neuralgia of the heart 2		37
Pneumonia 39, congestion of the lungs 2		41
Inanition 18, marasmus 6, debility 11		35
Apoplexy 17, paralysis 10, softening of the brain 4		31
Nephritis 17, uremia 7		24
Diphtheria 24, membranous croup 3	136	27
Carcinoma 14, tumor of the lung 1		15
Gastroenteritis		11
Casualties 7, burns and scalds 3		10
Typhoid fever	43	4
Scarlet fever	72	4
Cerebrospinal meningitis	1	0
Bronchitis 9, dropsy 6, septicemia 6, abscess 5, convulsions 5, remittent fever 4, peritonitis 4, pleuritis 4, senility 4, epilepsy 3, alcoholism 2, asphyxia 2, parturition 2, fatty degeneration 2, cystitis 2, poisoning 2, asthma 1, anemia 1, aortic aneurysm 1, congestion of the brain 1, cirrhosis of the liver 1, cyanosis 1, diabetes 1, disease of the brain 1, disease of the liver 1, drowned 1, erysipelas 1, puerperal fever 1, fracture of the larynx 1, gangrene 1, hemorrhage 1, hernia 1, laryngitis 1, tonsillitis 1, adenitis 1, intussusception 1, pyemia 1, rheumatism 1, sclerosis 1, shock 1, suicide 1, ulceration of the larynx 1, pertussis 1.		

Berks County (Pa.) Medical Society.—At a meeting held November 7, DR. F. W. FRANKHAUSER read a paper entitled: **The optician and the general practitioner.** Speaking of opticians who attended 6 weeks or less at some optical school, in which possibly eyes were being fitted with glasses from a trial-case, without any pretense as to the cause of the error; then they come back to the city or town full-fledged opticians, willing to examine eyes *free of charge*. Others only bought a cheap outfit of spectacles and eyeglasses, and then were opticians. He also spoke of the amount of intelligence that was lying dormant until this wonderful transformation and an optician came forth, offering his services, not only to the masses, but also to the profession at large. Department stores that are selling spectacles and eyeglasses by skilled opticians with many testimonials, also received attention. Some opticians even offering percentages to physicians for cases referred to them, for glasses, etc. The general practitioner was in a measure responsible for those conditions, often only telling his patients to get a pair of glasses, and even referring them to some optician, as in that way they would save an occulist's fee. He could not believe it was due to want of respect of the oculist, but simply to carelessness, as many physicians think anyone can fit a pair of glasses to an eye. In cases of grave medical or surgical diseases the best skill is called in consultation, but when the eyes want attention a pair of glasses are good enough.

After endorsing the resolutions passed by the American Medical Association, and by the State of Pennsylvania Medical Society, the following resolution was unanimously passed:

"*Resolved*, That the members of the Berks County Medical Society shall make an effort to have their patients having eye-troubles referred to physicians who are able to treat them properly."

Philadelphia Pediatric Society.—At a meeting held November 10, DR. T. M. ROTCH, of Boston, read a paper on **Some difficulties in prescribing and in modifying milk for infant feeding.** The proteid in cow's milk has a higher nutritive value than the proteid of human milk; this ingredient should be of a lower percentage in the milk-mixture than is found in human milk. Analyses of some of the infant-foods were given, one corresponding closely with that of baked flour, the main difference between the two being in the price, $1 for the food and 5 cents for the flour per pound. The impossibility of any dried food being a good substitute for mother's milk was emphasized. The importance was pointed out of knowing the percentages of composition of the milk employed, as otherwise variations in the ingredients might oocur, ranging from 1% to 1.5% for the proteid, with even greater variations for the fat. These percentages are not known in the ordinary home-supply of milk, but in the laboratories such as exist in a number of the larger cities, a modified milk can be furnished with exact percentages; if indigestion results in the artificial feeding of an infant it is thus easier and possible to determine the ingredient at fault and to remedy it, than is the case in home modification, where it might be impossible. The value of properly modified milk was shown in the ability to start milk-feeding very early in cases of gastroenteritis, after starvation for 24 hours with cleansing of the alimentary tract, good results being obtained in the Boston dispensaries during the past summer. In the discussion, DR. F. A. PACKARD referred to the encouragement which Dr. Rotch unconsciously gave to the attempt of the Society to establish a milk commission in order that it would be possible to have a milk-supply for infants in Philadelphia, which would be of definite composition and purity, thus ensuring greater accuracy in the home modification in milk. DR. GRIFFITH spoke of the value of Dr. Rotch's work, and of the necessity of educating the laity up to the importance of having a pure milk-supply. DR. E. P. DAVIS thanked Dr. Rotch for the great aid furnished to obstetricians by modified milk which is often of use during the puerperium when the mother's milk, through lack of exercise on her part, is too rich for the infant; modified milk can be used with great satisfaction until the mother is allowed to get up out of bed. DR. WESTCOTT thought that if the laboratory would use the methods of home modification, the milk would agree better in cases of chronic indigestion. DR. R. C. NORRIS gave the results of his use of laboratory-milk during one summer in the foundling department of Blockley, the children thriving for about 3 months and then apparently ceasing to gain in spite of careful changes in the modification.

College of Physicians of Philadelphia—Section on Otology and Laryngology.—At a meeting held November 15, DR. D. HUDSON MAKUEN exhibited 3 cases of children with **defective speech,** to illustrate the dependence of certain forms of speech-defects upon bad habits of voice-formation acquired in early childhood, owing to the presence of adenoids in the nasopharynx. The removal of the adenoids is the first step to be taken in the successful treatment, by voice training.

DR. CHAS. H. BURNETT read a paper entitled **A case of suspected typhoid fever shown to be acute catarrhal otitis media, without pain.** (To be published in this JOURNAL.) In the discussion, DR. B. A. RANDALL urged the more frequent examination of the ears of patients suffering with infectious disorders, with attention to cleansing the nasal chambers and pharynx by antiseptic sprays, in order to prevent gentle middle-ear involvement. DR. GLEASON advocated the use of a politzer bag in relieving pain in acute cases. When the attic is invaded an incision into the attic

will be required. DR. J. S. GIBB recalled a case seen at the Episcopal Hospital of a man with many of the symptoms of typhoid fever, but in which after a few days, a discharge appeared from one ear, followed by signs of mastoid disease. An operation gave immediate relief. DR. FRANK WOODBURY referred to the nasopharynx as a culture-ground in the infective diseases and mentioned two cases of children with the grip, and a temperature of 104° which fell to 101° after irrigation of the pharynx with Dobell's solution. DR. BURNETT, had never relieved pain by the use of inflation in these cases, but had always found that it increased the pain; he also spoke of the danger of forcing infectious matters from the pharynx into the eustachian tube and middle-ear by this procedure. In inflammation of the throat the first thing noticed almost is that the eustachian tube becomes closed; he thought that this was an attempt of nature to shut off the ear from the affected part. He considered it injudicious to force the tube open in such cases. The incision in the ear-drum is painless, and he had not had any cases of syncope following it, probably because he does not operate with the patient sitting upright, but always with the head low.

DR. E. B. GLEASON read a paper entitled **Treatment of deflection of the nasal septum, complicated by traumatic deformity of the external bony and cartilaginous framework of the nose,** and exhibited 3 cases of adults operated upon by his method. He noticed that the ear was likely to become affected upon the side of the larger nostril. He operates, with cocain-anesthesia, for deflected septum by making a U-shaped incision with a saw and forcing the flap through to the concave side of the septum. No tube is introduced. DR. GIBB preferred a 10% eucain solution to cocain for operating in the nose. DR. DONELLAN uses a weak solution of cocain applied for a greater length of time, as strong solutions contract the bloodvessels and interfere with absorption. DR. GIBB mentioned two cases of cocain-intoxication that had occurred in his practice, which had led him to use eucain for the nose, but he still employs cocain for the larynx as being less irritating. DR. RANDALL mentioned a case of a boy with swollen turbinals, who, after cocain had been applied, became wildly delirious and remained so for several hours, as if he had had an overdose of a mydriatic. DR. GLEASON said that he had seen only one case of this kind in 25 years' experience, and that was a case of rhinitis and not an operative case.

Philadelphia County Medical Society.—At a meeting held November 22, DR. G. HUDSON MAKUEN presented two boys with **defects of speech.** The elder, aged 11, had pseudolalia, to which there was a strong hereditary predisposition. The treatment was begun by the removal of a pharyngeal tonsil. The second, 8 years old, had acquired stammering of 3 months' duration.

DR. HENRY TUCKER reported a case of **rheumatoid arthritis treated with hot air.** The patient was a woman, aged 27 years, who had had rheumatism in early life, and who during 5 years prior to treatment had been afflicted with rheumatoid arthritis of almost all her joints, and considerable atrophy of the muscles. The body machine had been employed and after 3 months' treatment, she could walk without assistance and perform various delicate manipulations with her hands. It is important to continue the treatment even when the first 10 or 12 applications seem of no avail.

DR. W. S. NEWCOMET read a paper on the **Use of x-rays in the study of the lung.** By the use of the x-rays he had been enabled to detect consolidation of the lung, pleuritic thickenings, overconsolidations, cavities, asthma, emphysema, etc., and he believed that this method of investigation was of considerable importance in establishing a diagnosis in certain cases.

DR. T. MELLOR TYSON, in a paper **The practical use of the fluoroscope and radiographs in lung-diseases,** reported a number of cases in which the x-rays had proved of great value in arriving at a correct diagnosis of diseased conditions of the lung, particularly tuberculosis. In several instances he had been enabled to recognize consolidation when there were as yet no physical signs of such condition. It was stated that the fluoroscope is preferable to radiographs for most of these examinations.

DR. H. B. ALLYN gave a detailed account of the various forms of **dilation of the heart,** of their causes, the modes of recognition, the differential diagnosis, and treatment. He gave histories of a number of cases to elucidate various points.

College of Physicians of Philadelphia—Section on Ophthalmology.—At a meeting held November 20, DR. WM. F. NORRIS presented a case of **chancre of the lower eyelid** in a man aged 45 years. He gave an exceedingly obscure history of infection, and he had no other symptoms of syphilis. The patient said that some days before the symptoms appeared he was struck in the lid of the right eye by a splinter of wood, which was removed by a fellow-workman, who was syphilitic. The symptoms differed from the typical symptoms of chancre in the marked swelling of the lids and the high degree of the chemosis and ecchymosis of the conjunctiva, and were similar to them in that the ulcer was deeply excavated, limited by indurated and steep edges, and by the presence of secondary involvement of the glands of the neck.

DR. G. ORAM RING exhibited a case of **sarcoma of the orbit,** in a boy of 10, who received a slight blow on the orbit. The eyeball became extruded from the orbit and was enucleated by Dr. Ring. The orbit was filled with a sarcomatous mass which, after enucleation of the globe, grew with great rapidity until now it has reached enormous proportions. Dr. Ring decided that the tumor was inoperable.

DR. C. A. OLIVER reported a case of **melanosarcoma of the choroid** in a man 64 years old, which had its origin probably 26 years previously. There was extension of the tumor into the orbit, destruction of the orbital contents, and protrusion forward in the form of a fungus, the anterior surface of which was ulcerated.

DR. RING described a case of **chronic iridocyclitis** and loss of vision from exudation into the pupil, which he ascribed to **sympathetic disease.**

DR. G. E. DE SCHWEINTZ related the history of a case of **gumma of the iris and ciliary body,** and demonstrated the specimens from the enucleated eyeball.

Among **the ocular findings of the study of 23 cases of epidemic cerebrospinal meningitis,** DR. B. K. CHANCE reported (by invitation) lessening of central vision, photophobia, diplopia, ptosis and facial paralysis. The marked and characteristic changes were found in the optic nerves in which was seen early and progressive neuritis attended with hyperemia, edema, and swelling of the papillae with constriction of both arteries and veins.

Pathological Society of Philadelphia.—At a meeting held November 23, DR. ARTHUR V. MEIGS read a paper on **Morbid cavities in the liver,** illustrating it with microscopic slides and sketches. The cavities are most frequently found in high degrees of passive congestion and have been hitherto attributed to the fatty degeneration or dilatation of the veins. In Dr. Meigs' opinion, however, neither of these theories explains the condition satisfactorily. The cavities in some instances resemble cysts, and are probably connected with fatty degeneration.

DR. J. P. ARNOLD presented a **mediastinal sarcoma** weighing 3,540 g. that had pushed the heart into the left axilla and the liver far down into the abdominal cavity, and had invaded the lower and middle lobes of the right lung. Aspiration removed some bloody fluid from what was at the autopsy found to be a sac at the posterior lower portion of the pleural cavity, and with the history, this had led to the diagnosis of tuberculous pleurisy. There were no metastatic growths. The tumor, like the majority of mediastinal growths, was a sarcoma, and probably originated from the lymph-glands. DR. MEIGS referred to a case of his own reported by Dr. Westcott, in which the most striking feature was extensive metastasis, involving even the brain and the ocular, motor, and optic nerves. DR. FLEXNER recalled a case of Dr. Osler's in which the superior vena cava was compressed and in which metastasis had occurred to the pericardium. DR. STENGEL spoke of the unreliability of the older statistics on mediastinal tumor in which the word "carcinoma" was used in the larger number of cases for "sarcoma."

DR. SIMON FLEXNER discussed the subject of **experimental**

pancreatitis. He had found the production of pancreatitis in animals was possible, and by the introduction of chemical and other irritants into the pancreatic ducts of dogs, had duplicated every form of pancreatitis found in man. The most efficient agent was hydrochloric acid, which gives some support to Hlava's theory that pancreatitis in man is due to the entrance of the gastric juice into the pancreatic duct. Fat-necrosis was produced to a varying extent in the animals. In the areas of fat-necrosis he had found, as in some previous experiments on the subject, a fat-splitting ferment, proving that the fat-necrosis was due to the action of the pancreatic juice. DR. SCOTT referred to the fact that in man acute pancreatitis usually comes on shortly after meals, suggesting that the changes in the pancreas might be due to altered intestinal secretions. The death in acute cases was probably connected with the action of toxic digestion-products. DR. SAILER had found fat-necrosis in a case of mercuric-chlorid poisoning. The pancreas showed necrotic areas in the midst of healthy tissue. He thought that the fat-necrosis might have been due to the disease of the pancreas or to the action of the poison. DR. WOLDERT asked for the symptoms in the dogs, having in mind their bearing in diabetes. DR. RIESMAN spoke of the studies of Warthin on the pacinian corpuscles. DR. F. PACKARD recalled that in a case of hemorrhagic pancreatitis presented by Dr. Osler to the Society the pacinian corpuscles had been very edematous; fat-necrosis had been present. DR. FLEXNER, in closing, said that the pacinian corpuscles were easily found in ascites and were edematous. He believed that the early death of the dogs was due to profound intoxication, not of bacterial origin. The exact cause was not known, but some light might be thrown on the question by study of the toxicity of the blood.

DRS. WADSWORTH and SPILLER reported the case of a young girl of 16, in whom, at autopsy, a **tumor filling the entire posterior horn of one lateral ventricle had been found.** The symptoms had been failing vision, squint, diplopia, headache, vomiting, and convulsions. There had been optic neuritis eventuating in atrophy, and peculiar striations of the retina, which had hitherto been seen only in frontal and cerebellar tumors. The occurrence of convulsions was interesting, in view of the deep, subcortical position of the tumor. Histologically, the growth was a perithelioma, with extensive calcification.

DR. J. P. ARNOLD showed 3 **frogs presenting congenital anomalies**—one with transposition of the viscera, another with a double hand, and another with only one eye.

NEW YORK.

Women's Aid for Hospitals.—At a recent meeting of the Woman's Auxiliary of the Hospital Saturday and Sunday Association of New York it was decided not to hold the usual entertainment this year, but to make an extra effort to secure increased annual subscriptions.

A Physician Takes Too Much Opium.—Dr. Aaron Rosenthal was found unconscious in a bath tub in a bathing establishment. He was found to have been poisoned by opium, and was removed to the Gouverneur Hospital, where it was said it was doubtful if he would recover. There is no known trouble that would be likely to lead him to attempt suicide.

The Skin and Cancer Hospital.—At the annual meeting of the directors of this hospital, the following officers were elected: President, J. Cleveland Cady; vice-president, William C. Witter; secretary, Dr. L. Duncan Bulkley; treasurer, Edward Winslow. Over 3,000 patients were treated during the past year, or more than one-third more than ever before.

Forty-fourth Anniversary of the Woman's Hospital.—On November 23 there was a large gathering of the friends of the Woman's Hospital to celebrate its forty-fourth anniversary. The annual report of the Board of Governors showed that 863 patients had been treated in the indoor department, and 4,713 in the outdoor department during the past year, and that the expenses had amounted to $79,536.86. Mrs. Russell Sage, in an address, eulogized the pioneer work done by Dr. Marion Sims, ably assisted by such good women as Mrs. Thomas Doremus, Mrs. Codwise, Mrs. De Witt and Mrs. William Astor. Dr. Joseph D. Bryant said that in the past 10 years the hospital had treated no less than 9,170 persons, of whom 5,248 had been cured.

The Sale of Carbolic Acid.—The Board of Health has set itself the task of throwing proper safeguards around the sale of carbolic acid, and one of the druggists' leagues has announced its intention of cooperating with the Health Department in this matter. The league asserts that responsibility for the nonenforcement of existing laws regarding the sale of poisons should rest with the Board of Pharmacy.

Hebrew Infant Asylum.—Last Sunday Mme. Nevada, assisted by a number of well known musicians and an orchestra of 60 pieces, gave a concert at the Metropolitan Opera House for the benefit of the Hebrew Infant Asylum. Alterations and improvements in its new building had made a heavy drain on its resources, and it was hoped that the proceeds o f this concert would materially reduce this debt.

Overlaid Her Child.—Mrs. Thomas Lawlor, an intemperate woman living in an east-side tenement, was committed to the Tombs last week by Coroner Bausch, charged with being responsible for the death of her infant of 6 weeks. The complaint was made by the husband, who declared that she was intoxicated on going to bed, and that in the morning the baby was found dead. He added that this was the third child that had died as a result of her wilful negligence.

Death from Tetanus.—A man, 46 years of age, employed in the wine-room of a New York theater, while trying to go up in a freight-elevator, was suddenly carried up with the elevator to the third floor. In sliding down the rope to the second floor his hands were abraded and blistered. A physician who happened to be near by at the time of the accident, dressed the wounded hands hastily with cotton. He was subsequently taken to the Presbyterian Hospital, but tetanus set in, and he died.

Jubilee of St. Vincent's Hospital.—This week the St. Vincent's Hospital, the first private hospital in the city of New York, celebrates its fiftieth anniversary. The ceremonies will extend over 3 days. On the last day the community of the Sisters of Charity will celebrate, as at that occasion Sister Antoinette will have been for 50 years a member of the order. The hospital was established in 1849, under the auspices of Archbishop Hughes, the only other hospitals being Bellevue and the New York.

An Argument for a National Quarantine.—The appearance of the bubonic plague in New York Quarantine has already led to a clash of authority between the Marine-Hospital Service and the local quarantine officials. Dr. Henry B. Geddings, a surgeon of the Marine-Hospital Service, acting under orders from the Surgeon-General at Washington, endeavored, on November 20, to make an inspection of the plague-steamer, but was prevented from doing so by Dr. Sanborn, Deputy Health Officer of the Port. Judge Lacombe, of Manhattan Borough, granted a temporary injunction restraining the local quarantine officials from interfering with Dr. Geddings, and since then Judge Thomas, in the United States District Court, has issued an order directing Dr. Alvah H. Doty, the Health Officer, and his deputy to appear on December 2, and show cause why the injunction should not be made permanent.

New York Lying-in Hospital.—J. Pierpont Morgan has added $350,000 to his original gift of $1,000,000 for a new building for the Lying-in Hospital. The new gift will be used to defray the cost of equipping the building. Mr. Morgan has also made over to the hospital two adjoining lots, which will give the institution a total building-site of 21,750 square feet.

Doing Business under Difficulties.—A Long Island farmer, while driving in to the market, was severely injured by his horse running away and causing his wagon to collide with a trolley-car. Bystanders thought he had been crushed to death, but he climbed up again on his load, and went on his way. After disposing of his produce he started for home, but on reaching St. Catharine's Hospital, felt so ill that he applied there for relief. Examination showed that his sternum and two ribs had been fractured, and that the fragments had perforated the lungs. He died before his wife could reach the hospital.

A Naval Apothecary Turns Forger.—Edwin Dantes who was apothecary on the flagship *New York* during the late Spanish war, forged a check for $25 in a drug store in Plainfield, N. J., where he was employed. He committed a similar forgery in a drug store in New York. After he had left Plainfield the druggist there discovered that not only had a check been forged, but his diploma from the New York College of Pharmacy had been stolen. He alleges that Dantes removed his name with chemicals, and by substituting the name Dantes secured the position in New York. Dantes is now in the Tombs awaiting the action of the Grand Jury.

Dr. Barber Denies Suicidal Intent.—Dr. Pliny W. Barber, who was found unconscious from an overdose of morphin under circumstances which pointed very strongly to attempted suicide, when arraigned in the Center Street Police Court declared that he had not taken the morphin with suicidal intent, but had taken less than one-quarter of a grain in the hope of relieving an insomnia induced by business troubles. He stated to Magistrate Mayo that when he wrote the letter to his friend he was evidently in a condition in which he was not responsible for what he did. The "trouble" referred to in the letter was probably the fact that a few days before he had severed his connection with an insurance company. He was paroled for 10 days in the custody of his lawyer.

The "San Juan" Malingerer Again.—Some months ago a man, claiming to be one of the heroes of San Juan, swindled a number of the charitably disposed people of New York, and made a practice of going from one hospital to another, feigning to have heart-disease. He is at his old tricks again, but as he has been promptly detected, it is not improbable that he will return to his old haunts in Philadelphia. This time he was found on the steps of the New York Hospital moaning from an imaginary pain about his heart. He was taken into the hospital, but before the physicians could examine him, or any great interest could be excited in his case, the night watchman recognized the swindler, and quietly passed the word along. He had been in that hospital in January, 1898, and, it is said, had then attempted to steal some medical books, in addition to trying to get free board for a time.

Food-Adulteration and National Legislation.—In the matter of the adulteration of liquors, and the alleged defrauding of the Government of $6,000,000 annually, at the Senatorial investigation into food-adulteration, a letter was read from a manufacturer, Sigmund Hochstadter, challenging George B. Sadler to substantiate this statement which he has made before the committee. Mr. Hochstadter said that the Government was getting less money from the importation of foreign liquor than formerly, but this was because of the increase in local production. He advocated a law prohibiting the importation of adulterated liquors, and expressed the hope that some way would be found of punishing those importers who brought to this market food and drink which would not be accepted in the home markets. A representative of the Fruit Importers' Union of the State said that his organization desired a national law which would compel manufacturers of fruit-sirups to give on their labels the component parts of their goods. Dr. William Frear, professor of agricultural chemistry at the Pennsylvania State College, said that he favored a federal law that would punish by fine and imprisonment those who sell goods under a false brand. At the adjournment of the last session of the United States Senate Committee, Senator Mason expressed himself as fully satisfied with the work done by the committee, and added that he believed that it had been the means of creating a public sentiment that would lead to the enactment of a national law capable of accomplishing three things, viz., (1) Prohibiting the importation into this country of articles manufactured abroad, the sale of which is prohibited in the country of manufacture; (2) prohibiting the use of deleterious adulterants, and (3) when adulterants are used to cheapen, thus deceiving the purchaser, compelling the manufacturer and dealer to mark the package for what it actually is.

Buffalo Academy of Medicine—Pathological Section.—At the meeting held November 21 DR. C. S. BUTLER presented a paper entitled **Pathological Dentition.** At the same time that changes are taking place in the teeth there are changes going on in the remote organs of the body, which have a marked bearing on the teething process. Preponderance of the spinal nervous system is especially marked in the infant, and it is owing to this fact that the sympathy of distant organs with one another is much greater in infancy than in adult life and produces in them a special tendency to reflex nervous disturbance. The teeth in infancy are made up largely of nerve-tissue. At birth the child has not only the 20 deciduous teeth advanced toward calcification, but also the germs of the 24 permanent teeth. It is plain to be seen that the future condition of the teeth may be jeopardized by any circumstance affecting the health of the mother during this period. At present it is the opinion of a vast majority of authorities that teething is frequently the only assignable cause of some of the diseases occurring during the dentition period. In several cases children suffering with fever, diarrhea, anuria, paralysis, and convulsions, were cured by lancing the gums, when other treatment had failed to relieve. DR. IRVING W. SNOW said that about the sixth or seventh month is the time of much sickness among children, and more die at that time than at any other time. He thought the vast majority of illness with children is due to other causes than dentition. He never saw a case of convulsion that was not excited by another cause. DR H. R. HOPKINS believes that dentition plays an important role in causation of disease. DR. DELANCEY ROCHESTER stated a case of a child of about 18 months that had a nervous disturbance and cough followed by convulsions which remedies did not relieve, while lancing the child's gums caused in 24 hours the symptoms to subside. DR. E. H. LONG stated that he thought when either extreme was adopted in reference to the developmental disturbance of infancy, we were taking a fragmentary view. There are diseases that could not be assigned to teeth. DR. BUTLER closed the discussion by saying that more attention is given to the question of dentition as it relates to any period of life and to the general system in Europe than in this country. He related a case of a woman

who went to a hospital in Hamburg to be treated for paralysis, and the first question she was asked was if her teeth had been examined.

NEW ENGLAND.

Infectious diseases in Massachusetts, and especially Boston and its vicinity, are unusually numerous. In Boston there are twice as many cases of diphtheria as a year ago; four new cases of smallpox have been added to Chelsea's long list; typhoid fever is epidemic at Collinsville, and scarlet fever at Hardwick, Mass.

Boston's Insane Hospital to be Enlarged.—Two-thirds of the insane of Boston are cared for in institutions outside the limits of that city. They are quartered in the State institutions at Danvers, Worcester, Taunton, Westfield, Northampton, and elsewhere. The arrangement costs the city directly a larger sum than if they were cared for in Boston, and is expressive, indirectly, in the cost to relatives. It is now proposed to correct this state of affairs by greatly enlarging the Boston Insane Hospital. It will be one of the best institutions of its kind in the country.

Boston Society for Medical Improvement.—At the last meeting DR. WALTER E. PAUL discussed **Epilepsy, its etiology, diagnosis, prognosis, and treatment.** He thought it very unlikely that a special toxin or class of toxin was solely or even in a large measure responsible for epileptic seizures. The central nervous system of every individual was subjected to practically the same metabolic processes and products, but there was on the contrary a wide variation in neural endowment. The milder attacks were the most difficult to recognize; night attacks might be discovered only by accident. The principal difficulty was to differentiate between epilepsy and hysteric convulsions. Statistics show that 80% to 90% of epileptics are helped by treatment. Dr. Worcester, of Danvers Insane Asylum, has demonstrated that epilepsy in its severe forms is a deadly disease, with a mortality of 19.33 due directly to the disease. The difficulty of obtaining employment is forcing epileptics into the ranks of the discouraged shiftless class. The essentials of treatment were: Daily sponge bath, regular habits, outdoor exercise; eggs, fish and milk instead of meat in diet; correction of errors in refraction, nasal obstructions, and aural disturbances is made in the hope of palliation, not of cure. Bromin is the most efficient drug at the Massachusetts General Hospital; the sodium salt is used with an initial dose for adults three times a day.

CHICAGO AND WESTERN STATES.

The Lawrence Hospital for Women is the name of a newly chartered hospital located in Columbus, Ohio. The hospital is named in honor of Dr. F. F. Lawrence, despite his objection, and in testimony of the excellent work that he has done for sick and poor women.

Epileptic Colony in Illinois.—A bill for the establishment of an epileptic colony in Illinois has passed both Houses. It calls for the appropriation of $25,000 to be expended under the supervision of the State Commissioners of Public Charity, to defray the necessary preliminary expenses of establishing such a colony, the object of which is to secure humane, curative and scientific treatment and care of epileptics.

Correction.—In our notice (page 1007, issue of November 25), of a case of **urethroplasty in the female** reported by Dr. McArthur at the meeting of the Chicago Medical Society, November 15, the impression obtains from the wording that "the operator" who "found it necessary to split the urethra back to the internal meatus" was Dr. McArthur, whereas in reality it was another surgeon, whom Dr. McArthur considered it unnecessary to name. The reparation was done by Dr. McArthur.

Practice of Medicine in Illinois.—Judge Tuthill, of Chicago, gave a decision, Nov. 25, holding that the Illinois State Board of Health, under the act of 1899, regulating the practice of medicine in the State, has no authority to inquire into the actions of medical men who received certificates prior to the passage of the 1899 act, entitling them to practise in the State. The interpretation of the law was made on the issuance of an injunction to restrain the State Board of Health from proceeding further in its steps to revoke the certificate of Dr. W. Frank Ross, of Champaign, who was summoned before the Board to answer charges of unprofessional conduct.

Proposed State Health-officer in Illinois.—Dr. A. C. Corr favors the appointment of a State Health-officer, who shall be President of the Board, with salary enough to justify him to spend his entire time in the study and practical application of etiology, State medicine, hygiene and epidemiology, who shall, and with the assistance of the secretary and the associate members, execute the laws of the board and those regulating the practice of medicine. The associate members shall be distributed in such a way over the State that their services may be most available in cases of emergency at the various important points in the State; and that a per diem compensation be expressly provided by formal enactment for such services as he may render in this capacity and other service as a member of the Board.

Chicago Medical Society.—At a meeting held November 15, DR. HORACE M. STARKEY presented a paper on **Accident insurance,** in which he dwelt at first upon insurance in general, and then special insurance, of which one department is insurance against personal injuries. Reference was made to organizations for accident or personal injury insurance; stock companies, mutual companies, so-called mutual companies, and accident insurance offered as a "chromo." He pointed out the various accidents for which insurance is offered. Risks were classified. The physician as a risk and his rating by different companies was considered. He gave a result of his studies of the policies issued by some companies doing business in Chicago, and closed his paper by narrating personal experiences.

DR. JACOB FRANK demonstrated **vesicorectal anastomosis** upon a live dog. He said that vesicorectal anastomosis was devised by him for the relief of exstrophy of the bladder, and consists in anastomosing the bladder to the rectum by means of the Frank decalcified bone coupler. In this operation the ureteral openings in the bladder are not anatomically interfered with, hence a fortification against ascending infection. DR. MAXIMILIAN HERZOG made the pathologic and bacteriologic examinations, and the results were far more satisfactory than those of ureteral implantation, in which kidney-infection resulted in every case. The conclusions drawn were (1) that the recovery of the dog and the macroscopic appearance of the tissue do not necessarily signify absence of infection. (2) Thus far, in dogs killed the operation of vesicorectal anastomosis can be performed without a resulting kidney infection. Dr. Herzog also made a postmortem examination upon a dog operated upon 24 weeks ago, and showed the condition of the urinary tract.

Chicago Pathological Society.—At the latest meeting of this Society, DR. DANIEL N. EISENDRATH exhibited specimens as follows: 1. **Two renal tumors,** one belonging to the variety of **endotheliomas,** or, as they are frequently called, perivascular sarcomas, involving chiefly the lower half of the kidney, especially towards its anterior aspect. The predominating clinical symptoms had been those of a tumor the size of a child's head at term, felt in the right hypochondrium, distinctly movable with respiration; hematuria, and some chills, with rise of temperature. The kidney had been extirpated by Dr. E. W. Andrews. Patient was a man, about 50 years of age. The other renal tumor, one of **spindle-cell sarcoma,** was removed by Dr. L. L. Mc-

Arthur, and was a little larger than an adult head. Recurrence in both cases is certain to occur, as in one there was extension by continuity along the vessels, and in the other into the surrounding connective tissue. 2. **Empyema of the gallbladder,** operated upon by Dr. Greensfelder, in a girl 17 years of age, with no symptoms prior to a few days before operation, and even when first examined the clinical picture and local findings greatly resembled those of appendicitis. The gallbladder was sutured to the abdominal wall, and after two days opened. Seven gallstones and a large amount of pus containing the colon-bacillus in pure culture were evacuated. Shortly after the operation the patient became jaundiced and died within 48 hours with all the symptoms of cholemia. Autopsy showed a gallstone impacted in the opening of the cystic duct, a plug of mucus at the duodenal orifice of the common duct, and a most extensive yellowish discoloration of the liver which microscopically showed coagulation necrosis in the center of the lobules; considerable round-cell infiltration along the smaller bile-vessels. The production of the cholemia in this case was in all probability due to two factors, obstruction to the common duct, and the infectious cholangitis, etc. There was no evidence of postoperative infection. 3. **Multiple abscess of the liver** in which the primary focus gave rise to no clinical symptoms, and in which the first abscess, which was operated upon, was situated in the left lobe, which was rather unusual, also due to the colon-bacillus, and had its primary seat in all probability in the large intestine. 4. An enormous tumor of the neck, which was operated upon by himself, the case having been kindly referred to him by Dr. Letourneau. It was almost the size of a child's head when first seen, at the age of 6 days. Diagnosis made before operation was confirmed, which was a **cyst lymphangioma** of congenital origin. The child was operated on when 18 days old on account of threatened breaking down of some of the cysts, and pressure symptoms on the trachea. Such large congenital tumors are extremely rare, and operative treatment is almost hopeless, as in this case. 5. **A pyosalpinx and cystitis,** showing a right hydronephrosis due to a valve-like condition of the orifice of the ureter into the kidney, so that under certain conditions, that is, when the pressure in the pelvis was greatly increased, it would empty itself, then rapidly refill. The kidney showed the typical condition of surgical kidney, namely, groups of multiple abscesses, and was chiefly interesting on account of the fact that it was strictly unilateral, the other kidney being normal.

Cleveland (Ohio) Medical Society.—At a meeting held November 10, Dr. C. J. Aldrich presented 3 cases of **hemidiaphoresis of the face,** 2 of which had pupillary symptoms and paralysis of Müller's muscle. Dr. G. W. Crile mentioned a case of **laryngectomy** in which he had irritated one sympathetic nerve so that the patient had sweating on the same side of the face as the irritated nerve. There were also changes in the circulation of that side of the face and marked pupillary phenomena. During the healing by granulation of this wound these symptoms could be caused by pressing a pledget of cotton on a probe down into that part of the wound where the nerve was exposed. Dr. Aldrich said that 2 of the cases he presented had marked scars on the neck caused by abscesses, but he inclined to the belief that the affection was spinal and suggested it was possible that there was an involvement of the upper cord, in the nature of a syringomyelia.

Dr. John L. Hess read a paper on **the use of disinfectants,** in which he reported the methods taken by the health office to combat the spread of smallpox in the winter of '98 and '99, and particularly some experiments to determine the disinfectant efficiency of formaldehyd and other antiseptics. Dr. W. T. Howard spoke of some experiments that had been made at Lakeside Hospital to determine the true value of formaldehyd. Dr. Hess, in closing, said that the formalin did not have any irritating effects, and that no other disinfectant was used. It was found, however, that the dry gas was of no use whatever, but that if the fabrics were first sprayed with a 15% or 20% solution and then impregnated with the gas, disinfection was very thorough.

Dr. A. J. Pressey read a paper upon **Chronic morphinism complicated with alcoholism.** Dr. I. W. Bard said that lupulin with the bromids was the most efficient remedy in producing sleep which is of some importance. Dr. Hunter Robb mentioned the case of a lady addicted to morphin, who in one month consumed $500 worth of champagne. Dr. Aldrich said that the home treatment of morphinism was usually an absolute failure, and even with institutional treatment the majority of cases relapse sooner or later. He reported a case in his own experience, illustrating the danger of writing prescriptions for opium, of a woman for whom he prescribed opium suppositories, who without his knowledge in 2 years had had the prescription refilled 135 times. Dr. C. F. Hoover said that he had been very successful in the use of pilocarpin in treating morphinism at the City Hospital. It was used especially with the idea of relieving the intense thirst that the patients suffer during the withdrawal of the morphin. The drug was used hypodermically in doses of ¼ grain two or three times a day. Dr. R. D. Fry said the largest quantity of morphin he could remember any patient using was 30 grains, taken usually but once in 24 hours. He had noted that the effect of the drug when taken by the stomach usually seemed to continue longer than when it was taken hypodermically. Cases are not alike, and in each it must be decided by trial whether the rapid or gradual withdrawal is the better. Dr. Pressey said he rarely used potassium bromid and that his theory of curing the morphin habit was mainly to restore tone to the nervous system. His rule for reducing the quantity of morphin is to stop when it comes to the point of producing too much discomfort. If the patient becomes irritable he never hesitates to slightly increase the dose of morphin. He had little trouble in getting his patients to sleep, but thought that lupulin was very useful. He does not use much chloral, but sometimes does use cannabis indica. The number of physicians suffering from the morphin habit is very much greater than it should be. More than one-half of his patients in the last 7 or 8 years have been physicians, but that does not represent the proportion of the whole profession that is so affected. The number of morphin habitues, who have also the alcohol habit is quite large. He quoted the case of a physician, 60 years of age, who at the time treatment was begun was taking 90 to 120 grains of morphin every day, often as much as a gallon of whisky in the same time, and also 60 grains of cocain hypodermically. He does not think there are true cases of periodic morphinism.

On adjourning the meeting the President announced that Dr. Nicholas Senn, of Chicago, had consented to address a special meeting of the society on December 22, and to hold a clinic for the profession at one of the hospitals the following morning.

SOUTHERN STATES.

The University of Maryland Medical Society has resumed its regular meetings, and Dr. Francis T. Miles is elected its president for the ensuing year.

Maryland Ophthalmological and Otological Society.—Dr. B. Alex. Randall, of Philadelphia, was the guest of this society at its November meeting, and delivered an address on "The Tests of Sight and Hearing."

Presentation to Dr. W. W. Johnston.—A deputation from the Association of American Physicians waited on Dr. Johnston on behalf of the president and members and presented to him a service of silver for the table of his consulting room. Dr. Johnston served as treasurer of the association from its organization until last meeting.

Clinical Society of Maryland.—At the last meeting, Dr. Hugh H. Young exhibited some patients showing the **value of hydraulic dilation in the treatment of contracture of the bladder.**

Dr. W. B. Platt showed a number of children who had been under his care at the Children's Hospital; one, a case of **marasmus,** that was progressing very favorably, and one an imbecile child whose condition suggested **cretinism.**

Dr. J. C. Hemmeter read a paper on the **Dietetics of anemia and the absorption of iron.**

MISCELLANY,

Complaint of Army Surgeons.—It is reported that the acting assistant surgeons of the United States Army are organizing a complaint to Congress against discriminating treatment and alleged breach of faith toward them since they entered the service, two years ago. The agreement, they claim, at the time of their becoming army surgeons, was that they were to have the rank and pay of first lieutenants. This has been withheld from them, and they are uncertain as to their position and rank in the army. They will ask Congress to secure to them the right of appointment to permanent places in the army in preference to those who have had no service. These acting surgeons claim, with good effect, that they endured as severe hardships and risked their lives as often and as freely as any part of the army.

To Observe the Plague Abroad.—Upon the recommendation of the Secretary of the Treasury, the President has directed the detail of the following named officers of the Marine-Hospital Service to serve in the offices of the United States Consuls at the ports named:

Surgeon G. M. McGruder, London, England; Passed Assistant Surgeon A. C. Smith, Hamburg, Germany; Passed Assistant Surgeon Rupert Blue, Genoa, Italy; Passed Assistant Surgeon J. H. Oakley, Queenstown, Ireland; Passed Assistant Surgeon E. K. Sprague, Antwerp, Belgium; Passed Assistant Surgeon A. R. Thomas, Rotterdam, Netherlands; Passed Assistant Surgeon H. W. Wickes, Glasgow, Scotland; Passed Assistant Surgeon J. B. Greene, Bremen, Germany; Assistant Surgeon H. S. Matthewson, Liverpool, England; Assistant Surgeon S. B. Grubbs, Havre, France; Assistant Surgeon W. C. Hobdy, Southampton, England; Assistant Surgeon G. M. Corput, Marseilles, France.

These details are made because of the continued prevalence of plague in the far East, its gradual spread, and the danger of its transmission to ports of the United States.

These officers will advise the Consuls upon sanitary matters, keep the Marine Hospital Bureau informed as to the prevalence of plague or other epidemic diseases, and together with the Consuls, will issue bills of health to vessels leaving their respective ports for ports in the United States, Cuba, and Porto Rico.

Obituary.—D. WEBSTER PRENTISS, A.M., M.D., was born in Washington in 1843. He received the degree of Master of Arts in 1864, and that of Doctor of Medicine in the University of Pennsylvania in 1864, and soon after engaged in the general practice of medicine in the District of Columbia. Since 1879 he has been professor of materia medica and therapeutics in the medical department of the Columbian University. He was a member of the Board of Health in 1864. He was lecturer, dean of the medical faculty, in charge of eye and ear service in Columbian Dispensary, visiting physician to Providence Hospital, commissioner of pharmacy and president of the board, a member of many societies of medicine and affiliated sciences and was a delegate to the International Medical Congress at Copenhagen in 1884, and to Berlin in 1890. He has contributed a great deal to medical literature, most of his articles being on unusual and rare cases.—DR. ADELINE MARTIN REA, York, Pa., November 23, aged 27 years.—DR. J. P. MILLER, Little Britain Township, Pa, November 22, aged 63 years.—DR. L. M. JOHNSON, Storm Lake, Ia., November 21.—DR. WILLIAM C. MCDUFFIE, Fayetteville, N. C., November 3, aged 70 years. DR. ISAAC MARTIN, Elliot City, Md., November 17, aged 40 years.—DR. M. A. MCLAUGHLIN, San Francisco, Cal., November 20, aged 65 years.—DR. HOWARD M. MCFALL, of Mattoon, Ill., at Galena, Kan., November 10, aged 39 years.—DR. HENRY HODGEN MUDD, a leading surgeon of St. Louis, Mo., died November 20, a few days after returning from a trip to Europe. He was born in Pittsfield, Ill., April 27, 1844, and had lived in St. Louis for more than 40 years. He was a graduate of the literary and medical department of the Washington University of St. Louis, and early in his professional career he became associated with his uncle, Dr. John T. Hodgen, remaining with him until Dr. Hodgen's death, and inheriting his enormous practice. For 20 years he was professor of anatomy and special surgery, and for 10 years dean in the medical department of Washington University. Dr. Mudd was a prominent member of leading societies, a well-known writer and teacher, and was widely respected and loved.—DR. J. H. HASENPLUG, Philadelphia, November 25, aged 72 years.

Health Reports:—The following cases of smallpox, yellow fever, cholera, and plague have been reported to the Surgeon-General of the U. S. Marine-Hospital Service, during the week ended November 24, 1899:

			Cases.	Deaths.
SMALLPOX.—UNITED STATES.				
ILLINOIS:	Chicago	Nov. 11–18	2	
KENTUCKY:	Louisville	Nov. 8–16	1	
LOUISIANA:	New Orleans	Nov. 11–18	1	
MASSACHUSETTS:	Chelsea	Nov. 7–14	3	
OHIO:	Cleveland	Nov. 11–18	1	
VIRGINIA:	Portsmouth	Nov. 11–18	3	1
WASHINGTON:	Seattle	Oct. 7–Nov. 4	5	
SMALLPOX.—FOREIGN.				
BELGIUM:	Antwerp	Oct. 21–28	5	
AUSTRIA:	Prague	Oct. 21–28	9	
ENGLAND:	Bradford	Oct. 28–Nov. 4	1	
GIBRALTAR:	Gibraltar	Oct. 22–Nov. 4	2	
GREECE:	Athens	Oct. 22–Nov. 4	7	2
INDIA:	Bombay	Oct. 1–24		9
"	Madras	Oct. 14–20		1
ITALY:	Messina	Oct. 28–Nov. 4		1
JAPAN:	Osaka and Hiogo	Oct. 1–14	1	
MEXICO:	Chihuahua	Nov. 4–11	11	
"	Vera Cruz	Nov. 2–9	7	
RUSSIA:	Odessa	Oct. 22–28	9	2
"	St. Petersburg	Oct. 2–Nov. 4	27	5
"	Warsaw	Oct. 16–22		7
STRAITS SETTLEMENTS:	Singapore	Sept. 23–Aug. 7		5
TURKEY:	Constantinople	Oct. 31–Nov. 6	1	
YELLOW FEVER.—UNITED STATES.				
FLORIDA:	Key West	Nov. 11–20	2	2
"	Miami	Nov. 15–22	25	2
YELLOW FEVER.—FOREIGN.				
BRAZIL:	Bahia	Oct. 15–22	1	1
COLOMBIA:	Barranquilla	Oct. 22–28	1	1
CUBA:	Havana	Nov. 4–11		5
"	Nuevitas	Nov. 14	1 death on U. S. Transport "Ingalls."	
MEXICO:	Vera Cruz	Nov. 2–9	4	3
CHOLERA.				
INDIA:	Bombay	Oct. 17–24		1
JAPAN:	Osaka and Hiogo	Oct. 7–14	1	
PLAGUE—UNITED STATES.				
NEW YORK:	New York City	Nov. 18	Quarantine—1 suspected death on British S. S. "J. R. Taylor," from Santos, at sea; 2 suspect-cases on board.	
PLAGUE—FOREIGN.				
BRAZIL:	Santos	Oct. 28–Nov. 17	23	10
"	Sao Paulo	Oct. 17–Nov. 17	2	
ENGLAND:	Plymouth	Oct. 9	1 case on S. S. "Peninsular" from Bombay.	
INDIA.	Bombay	Oct. 10–24		188

Changes in the Medical Corps of the U. S. Army, for the week ended November 25:

SMITH, CHARLES L., hospital steward, will proceed from Matanzas to Cardenas, Cuba, for duty.

WOODSON, Captain ROBERT S., assistant surgeon, is assigned to temporary duty at the U. S. general hospital, Presidio, awaiting transportation to the Philippine Islands.

ASHFORD, First Lieutenant BAILEY K., assistant surgeon, is granted leave for 1 month from December 4, with permission to return to the United States.

WILKINSON, H. B., acting assistant surgeon, now at U. S. military hospital No. 1, Havana, Cuba, will proceed to New York City, reporting by telegraph to the Adjutant General of the Army for further orders.

CRAMPTON, Major LOUIS W., surgeon, is assigned to duty with troops on the transport "Hancock." Upon arrival at Manila he will report to the commanding general, department of the Pacific, for instructions.

MAUS, Major LOUIS M., surgeon, is assigned to duty with troops on transport "Hancock" during the voyage of that vessel to the Philippine Islands. Upon arrival in Manila he will report to the commanding general, department of the Pacific, for instructions.

RAYMOND, Major HENRY I., brigade surgeon, is granted leave for 1 month, on surgeon's certificate, with permission to apply for an extension of 1 month.

GREENLEAF, Colonel CHAS. R., acting assistant surgeon, will stand relieved from further duty in the department of California, to date from November 16, and will proceed to the Philippine Islands on the transport "Hancock" and report in Manila to the commanding general, department of the Pacific and Eighth Army Corps.

The following-named officers are assigned to duty with troops on the following-named transports during their voyage to the Philippine Islands: "City of Sydney"—Major Wm. F. De Neideman, surgeon; Major Wilfred Turnbull, surgeon; Captain Robert S. Woodson, acting surgeon; Acting Assistant Surgeons Herbert T. Thornburgh, R. M. Bonar and Donald P. McCord. "Senator"—Acting Assistant Surgeon Wiley L. Athey. "City of Puebla"—Major Henry P. Birmingham, surgeon, and First Lieutentan Louis P. Smith, assistant surgeon. Upon arrival in Manila the medical officers named will report to the commanding general, department of the Pacific, for assignment to duty.

STEINEL, LOUIS, hospital steward, will report at Vancouver Barracks, Wash.

KENNEDY, JAMES S., acting assistant surgeon, is granted leave for 30 days.

FISHER, Major HENRY C., surgeon, will proceed by the U. S. transport "Logan," sailing from New York, November 10, to Manila, P. I., and will report to the commanding general, department of the Pacific, for assignment to duty.

ARWINE, JAMES T., acting assistant surgeon, and the detachment of the hospital corps, will take station at Fort Sam Houston, upon withdrawal of the garrison from Fort McIntosh.

INGRAM, THOMAS D., acting assistant surgeon, will proceed from Washington, D. C., to Fort Mott for duty, to relieve Acting Assistant Surgeon Henry H. Brown.

BROWN, HENRY H., acting assistant surgeon, will proceed to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

LONG, CLARENCE H., acting assistant surgeon, will proceed from New York City to Washington, D. C., and report to the Surgeon-General of the Army for further instructions.

ERCK, PHILIP F., hospital steward, now at Camp Meade, Pa., will, when his services are no longer required at that station, be sent to Fort Monroe for duty.

LONG, CLARENCE H., acting assistant surgeon, will proceed from Washington, D. C., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

FARR, CHARLES W., acting assistant surgeon, will proceed from Elmira, N. Y., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

BANNISTER, Captain WM. B., assistant surgeon, will proceed by the U. S. transport "Logan," sailing November 20 from New York to Manila, P. I.

REYNOLDS, Captain FREDERICK P., assistant surgeon, is granted leave for 1 month, with permission to return to the United States.

Changes in the Medical Corps of the U. S. Navy

for the week ended November 25, 1899.

HENEBERGER, L. G., surgeon, ordered to temporary duty, November 23, in connection with the recruiting rendezvous, Detroit, Mich.

HARRIS, H. N. T., passed assistant surgeon, ordered to New York, N. Y., December 4, for examination for promotion, and then home and to wait orders.

SIMONS, M. H., medical inspector, ordered to the naval recruiting rendezvous, 177 Main street, Buffalo, N. Y.

PRICE, A. F., medical inspector, ordered to be examined for promotion at Washington, D. C., November 28, and then to wait orders.

LUMSDEN, G. P., surgeon, detached from the naval recruiting rendezvous, Buffalo, N. Y., and ordered home to wait orders.

DICKINSON, D., medical inspector, detached from the naval hospital, Washington, December 1, and ordered home and to wait orders.

PRICE, A. F., medical inspector, ordered to the naval hospital, Washington, D. C., December 1.

HANCOCK, F. B., assistant surgeon, resignation accepted to take effect from November 25.

Changes in the U. S. Marine-Hospital Service

for the 7 days ended November 23, 1899:

CARTER, H. R., surgeon, to report at Washington, D. C., for special temporary duty. November 18.

CARMICHAEL, D. A., surgeon. Leave of absence for 30 days granted by Bureau letter of August 23, revoked. November 17.

MAGRUDER, G. M., surgeon, relieved from duty at Memphis, Tenn., and directed to report at Washington, D. C., for special temporary duty. November 23.

GEDDINGS, H. D., passed assistant surgeon, to proceed to New York, N. Y., for special temporary duty. November 18.

SMITH, A. C., passed assistant surgeon, to report at Washington, D. C., for special temporary duty. November 20. To rejoin station at Norfolk, Va., November 22.

GRUBBS, S. B., assistant surgeon, relieved from duty at Cienfuegos, Cuba, and directed to report at Washington, D. C., for special temporary duty. November 23.

ROBINSON, D. E., assistant surgeon, relieved from duty at Mobile, Ala., and directed to proceed to Memphis, Tenn., and assume command of the service. November 23.

THORNBURY, F. J., assistant surgeon, relieved from duty at New York, N. Y. (Immigration Depot), and directed to proceed to San Francisco, Cal., for duty and assignment to quarters. November 20.

BREADY, J. E., acting assistant surgeon, granted leave of absence for 7 days. November 23.

CLARKE, F. M., acting assistant surgeon, granted leave of absence for 10 days from November 20. November 21.

DUDLEY, D. E., acting assistant surgeon, Department letter of October 31, granting Acting Assistant Surgeon Dudley leave of absence from November 1, amended so that said leave shall date from November 16. November 21.

SMYTH, F. R., acting assistant surgeon, granted leave of absence for 4 days. November 20.

ACHENBACH, JOHN, hospital steward, relieved from duty at Port Townsend, Washington, and directed to report to the Port Townsend Quarantine Station, Washington, for duty. November 18.

BROCK, G. H., hospital steward, relieved from duty at New Orleans, La., and directed to proceed to Cincinnati, Ohio, for duty and assignment to quarters. November 18.

MCKAY, M., hospital steward, relieved from duty at Boston, Mass., and directed to proceed to New York, N. Y. (Stapleton), for duty and assignment to quarters. November 18.

ALLEN, G. C., hospital steward, relieved from duty at New York, N. Y. (Stapleton), and directed to proceed to the Delaware Breakwater Quarantine station for duty and assignment to quarters. November 18.

PECK, F. H., hospital steward, relieved from duty at Baltimore, Md., and directed to proceed to New Orleans, La., for duty and assignment to quarters. November 18.

OLSEN, E. T., hospital steward, to rejoin station at Wilmington, N. C. November 18.

TROXLER, R. F., hospital steward, relieved from duty at San Francisco, Cal., and directed to proceed to Port Townsend, Wash., for duty and assignment to quarters. November 18.

Double Traumatic Aneurysm of the Brachial Artery.—W. Whitehead (*Manchester Medical Chronicle*, October, 1899). A man, 31 years old, while throwing a stone for his dog to follow, thrust a knife, which he held in his other hand, into the inner side of his right arm about 3 inches above the elbow. Profuse hemorrhage was checked by pressure, and healing resulted within a few days. Complete loss of sensation in the parts supplied by the median nerve soon developed and a swelling appeared in the course of the brachial artery. Two months after the injury, operation was undertaken for traumatic aneurysm which had then caused almost complete paralysis and anesthesia in the area supplied by the median nerve. On exposing the aneurysmal sac the median nerve was found spread out on its surface; the sac connected with the anterior surface of the artery by a small aperture while connecting with it by another aperture was a second larger sac imbedded, for the most part, in the substance of the triceps muscles. The second sac was about 2 inches in length and an inch in diameter. The anterior sac was removed, the artery was tied above and below and the posterior sac was laid open, and the blood-clot, which nearly filled it, was evacuated. Collateral circulation was speedily established, healing resulting by first intention and considerable, although not full, power and sensation have been restored. It is evident that the narrow-bladed knife completely transfixed the vessel, inflicting 2 wounds, one on the anterior and the other on the posterior wall, and at both places the arterial wall had subsequently given way and in consequence two aneurysms had formed. [M.B.]

Foreign News and Notes.

GREAT BRITAIN.

Dr. T. W. Nicholson, whose death recently occurred at Glasgow, was medical superintendent of the Victoria Infirmary, in which position he had won the approval of all by services of 5 years' duration.

Enteric Fever in Dublin.—An inquiry has been opened in Dublin by Dr. Edgar Flinn, an inspector to the Local Government Board of Ireland, into the circumstances attending the recent outbreak of enteric fever in the city to which we made reference in the PHILADELPHIA MEDICAL JOURNAL among our rather frequent comments upon the public health of the capital of Ireland.

A Silly Masquerade.—A military concert is announced to take place in London, at the Albert Hall, early in December, the proceeds to be dovoted to certain of the relief funds in connection with the South African war. It is said in the preliminary announcements of the function that over 100 of the foremost actresses of the day will be present in the garb of nurses to sell programs. We think that this is a great mistake. The uniform of a nurse ought to imply that the wearer is engaged upon a most serious task, and should not be used in masquerade.

The University of London and Early Medical Studies.—The scheme for the reconstruction of the University of London into a teaching university has led to a report from some of the principal teachers of elementary medical subjects, such as anatomy, physiology, and pharmacology, recommending a centralization of instruction in such studies, in place of their being taught by separate believers in a dozen or more different schools. There is much to be said for the scheme, but we doubt if the medical school will readily see their influence pass from them to the central institute.

At the annual meeting of the Fellows and Members of the Royal College of Surgeons of England held on November 16, and presided over by Mr. H. G. Howse in the absence of Sir William MacCormac at the seat of war, a resolution was passed by 42 votes against 6 calling upon the Council to make some provision in their contemplated new charter for the proper representation of members on the Council. Resolutions to this effect have been frequently adopted with no result; but reform is in the air, and it may be that the members are nearer obtaining their just demands now than they have been for some time.

Queen Victoria at Bristol.—On November 15, Queen Victoria visited Bristol in order to open a convalescent home which has recently been erected in commemoration of her Diamond Jubilee. It is 65 years since Her Majesty was in the western capital of England. On the first occasion she was a child of 16 who had recently become heir apparent to the crown; on the second she had been Queen of England for 62 years. In spite of her advanced age Queen Victoria made the long journey to Bristol and back from Windsor quite comfortably, and furnished thereby another proof of her strong constitution.

Inoculation for Typhoid Fever.—Owing to the prevalence of typhoid fever in Natal, every man ordered for military service in that colony has been given the option of being inoculated with antityphoid serum, and 70% of the troops have accepted the offer. As presumably the 30% uninoculated will be subjected to the same risks as the 70% inoculated, for military service has exigencies that will not permit a commanding officer to inquire into the therapeutic antecedents of his men before allocating them to their duties, and as 20,000, perhaps 30,000 British soldiers are now fighting in Natal, the campaign should prove an excellent working-test as to the efficacy of the antityphoid serum.

A somewhat serious **epidemic of smallpox** has broken out **in Hull.** On November 16, 34 cases were notified, bringing the number up to 100 for the week. The inhabitants of the city are being vaccinated and revaccinated wholesale, and the disease has not yet shown itself in a virulent form. Hull, or Kingston-on-the-Hull, to give the city its ancient name, is one of the busiest seaports in England, doing in particular a great trade-traffic with St. Petersburg and the Baltic ports. Its docks are among the largest in the kingdom and its population is about 200,000. Because of its intimate communications with Russia, Hull has always been closely watched by public health authorities as a possible inlet for cholera or plague, and the city possesses all the machinery for coping with the present troubles.

Cremation in Great Britain.—Cremation is taking a strong hold upon the British public, and the efforts of certain medical men in its behalf probably count much for the increasing popularity. It is true that a very well-informed section of medical men and scientists hold cremation to be a mistake as calculated to deprive the soil of materials badly wanted by it; these consider that what is required is a reformed system of burial, and the abolition of such costly iniquities as leaden caskets and seasoned oak coffins lined with metal. However, it is notoriously easier to do away with a thing than to reform it, and it is possible that cremation would be much commoner than it is in England—for though much more frequently employed than formerly it remains quite an exceptional way of disposing of the dead—if the process was cheaper. Crematories are gradually being built all over the country, yet there is no decrease in the high fees exacted for the ceremony. Until cremation becomes at least as cheap as earth burial, which is itself costly enough, the task of the cremation society in converting the country will be arduous.

CONTINENTAL EUROPE.

Obituary.—DR. PESTANA, director of the Bacteriologic Laboratory of Lisbonne, died recently of plague. At the outbreak of the disease at Oporto, Dr. Pestana was among the first physicians sent to study the epidemic, and in view of the fact that he was vaccinated against the plague, he felt no concern about the slight scratch he received while making a necropsy on a subject dead of the disease. Dr. Salembini, of the Pasteur Institute, however, administered the antiplague serum, but without avail.

Treatment of the Plague During Former Times.—The museum of Frioul, situated opposite the city of Marseilles, contains a curious collection of instruments employed in the treatment "of cases of plague." The lances and bistouries that served to open the bubos are as long as a common saber. The last sacrament was administered by means of a silver pole over 2 yards in length, and finally after the death of the patient, a kind of mechanical pallbearer was introduced. This formidable engine consists of two large claws, like those of a lobster, that grasped the cadaver and then dragged it to the Mediterranean; the jaws of the machine were opened and the body dropped into the sea.

The Latest Literature.

British Medical Journal.

November 11, 1899. [No. 2028.]

1. The Relation of Science to Experience in Medicine. J. BURDON-SANDERSON.
2. Primary Tumors of the Suprarenal Gland and their Removal by Operation. HENRY MORRIS.
3. The Pathology of Milk. G. LESLIE EASTES.
4. A Case of Anemic Infarct in the Liver. W. S. LAZARUS-BARLOW.
5. A Case of Dissecting Aneurysm of the Right Ventricle. W. S. LAZARUS-BARLOW.
6. Infective Sarcomata in Dogs. W. G. BELLINGHAM SMITH and J. W. WASHBOURN.
7. A Case of Primary Carcinomatous Cyst of the Liver, with Secondary Deposits in the Lungs and Bones. CHAS. POWELL WHITE.
8. Heredity in Relation to Disease. G. ARCHDALL REID.
9. Bacteriology of Rheumatic and Allied Diseases. A. S. WOHLMANN.
10. Some Points in the Pathology of Plague. FREDERICK PEARSE.
11. The Influenza-Throat. W. FLEMING PHILLIPS.
12. The Local Distribution of Tubercle in Various Species, with Reference to the Channel of Infection. WOODS HUTCHINSON.
13. Some Sources of Infection in Cutaneous Tuberculosis. ROBERT B. WILD.
14. Demonstrations on Tumors of Gigantic Size. W. ROGER WILLIAMS.
15. The Pharmacology of Cannabis Indica. WALTER ERNEST DIXON.

2.—Morris says that **primary growths of the suprarenal gland** are of great rarity. Their nature may be either a purely glandular proliferation, a large adenoma or a malignant tumor, both cancer and sarcoma having been described. The destruction of the kidney which follows upon the growth of these tumors may be due to either direct involvement of the renal tissue or to pressure flattening out the kidney while its capsule remains intact. The symptoms which would lead to a diagnosis of these growths are: (1) A tumor in the suprarenal or renal region with a kidney-shaped mass on the surface of the tumor; (2) an unusual degree of mobility; (3) rapidity of growth with secondary deposits; (4) marked emaciation and rapid loss of strength; (5) absence of change in urine or temperature; (6) pigmentation of the skin or marked or rapid growth of hair over the body; (7) some gastrointestinal symptom; and (8) pain in some portion of the abdomen or in some joint or distant part of the body. The prognosis of suprarenal tumors is very unfavorable, due to rapidity of the growth. Operation gives the only hope of life. When the tumor is large and movable the transperitoneal method of removal should be used, when small it should be removed through a lumbar incision, and when large and fixed, through the abdomen after the posterior adhesions had been loosened through the lumbar incision. [G.B.W.]

3.—Eastes examined 186 samples of **milk by microscopic and bacteriologic methods.** The samples were obtained from medical officers of health, public institutions, and private sources. The primary object of the investigation was to determine the presence or absence of the Bacillus tuberculosis by microscopic means. Tubercle-bacilli were found to be present in 11 and doubtful in 2 others. In 47 there was pus, and mucopus was present in another 77. Both of these were absent in 51 cases, and the question was undecided in the other 11. Blood was noted in 24 samples; absent in 77, probably absent in 85. Streptococci were found in 106 cases. Colostrum-corpuscles were detected in 16 specimens. Milk which contains pus or mucopus or streptococci is unfit for human consumption, which would condemn about 80% of the samples examined. Milk which is derived from pasture-fed cows is less likely to be contaminated than that from stall-fed cows. [S.M.H.]

4.—Lazarus-Barlow had under his care a man, aged 25 years, who was injured by being crushed between railway-car buffers. When seen he was profoundly collapsed, with a history suggesting, but no symptoms of, an abdominal injury. He died after 3 days. The abdomen remained soft, although there was dulness in the right side below the liver. He vomited frequently, but vomited no blood; he had pronounced hiccough. The necropsy showed the abdomen full of fluid blood which had a yellowish tinge suggesting the presence of bile. Near the right lobe of the liver there was a large rupture extending from the anterior margin close to the gall-bladder well over the convexity to the posterior aspect, and measured 7 inches. It was filled by a blood-clot which was covered by a thin, bile-stained layer of fibrin. About its middle portion there was a pale yellow mass of tissue, ovoid in superficial form and wedge-shaped on section. It was 2 inches long and nearly 1½ inches in its greatest width. Its depth was 1 inch. It had the appearance of normal liver save that it was lacking in the normal reddish-brown color and in the center there were certain branches of the portal vein obstructed by thrombus. Unquestionably it was an **anemic infarct.** In certain other areas there were small hemorrhagic infarcts. In the majority of cases of hepatic infarct, which are rare, there invariably exists vascular obstruction of an extraordinary kind. **Hepatic infarct** rarely depends upon embolism of the hepatic artery, but even in the cases of thrombosis affecting the veins in the intestinal area hepatic infarction is not very common. Some other factor besides obstruction of the portal vein is necessary for the production of hepatic infarct. This is usually low blood-pressure, especially in the hepatic artery. But 27 cases of hepatic infarction could be collected from the literature. To these are added the case just described and 2 other cases, since seen, which were cases of malignant disease involving the head of the pancreas. In one there was a single bile-stained anemic infarct on the convex surface of the right lobe about the size of a hazel-nut. In the other multiple large hemorrhagic infarcts were scattered irregularly through the organ. Of undoubted anemic infarcts Lazarus-Barlow has been able to find but 2 other cases. [S.M.H.]

5.—Lazarus-Barlow obtained a specimen of **dissecting aneurysm of the right ventricle** from the body of a man aged 68 years. The man had been sick for 4 months, with pain in the left iliac region, occasional vomiting, and loss of flesh. About 10 days before coming to the hospital his left arm became swollen and continued swollen. His complexion was sallow; there was some tenderness and pressure in the left iliac region, but no defined tumor could be felt. The heart-sounds were normal; the arterial tension in the radial pulse was increased. The left cephalic and median cephalic veins were blocked by thrombi. The patient died after 3 weeks, but no details as to the mode of death could be obtained. The autopsy showed malignant disease of the head of the pancreas, with secondary nodules in the liver, great omentum and mesenteric glands. The kidneys were granular. There were 2 infarcts in the left kidney. The pericardium was much distended and contained a large quantity of fluid blood and some clot. In the wall of the right ventricle, close to the apex, was a hematome about 1½ inches long by 1 inch broad. At the lower part of the hematome the outer wall had lacerated. The external opening on the wall of the heart communicated with the cavity of the hematoma. The internal and external openings of the hematoma were practically opposite to one another. The blood had escaped much further into the myocardium than was indicated by the limits of the hematoma, for extravasated blood was present also in the substance of the left ventricle about the apex and was continuous with that in the hematoma itself. The descending branch of the left coronary artery was intensely calcareous, small in lumen and completely obstructed by a thrombus. The myocardium was the seat of extensive fatty degeneration. Barlow calls attention to the fact that this specimen, from the point of view of the infrequency of rupture of the right side of the heart, is interesting. Rupture occurs in the left ventricle about 5 or 6 times as often as it does in the right. The nature of the lesion in this case is of especial interest. Aneurysm of the heart is very uncommon and most cardiac aneurysms thus affecting the right ventricle are excessively rare. Two varieties of cardiac aneurysm have been described: acute and chronic. Acute aneurysms are more uncommon than chronic. The specimen described is unquestionably one of dissecting aneurysm, and as such Barlow believes it to be

unique since a careful search of the literature reveals no cases of a similar nature. It is likely that the extensive fatty degeneration which existed in this case plays a phenomenal part in the pathology of the condition. The specimen conforms to the criterions of a dissecting aneurysm in that there has been rupture through the endocardium, the formation of a hematoma in the wall of the right ventricle, and subsequent rupture of the outer wall of the hematoma into the pericardium at a point opposite the internal rupture. The hematoma seems to have preceded external rupture for these reasons: (1) Because the pressure necessary to rupture the muscular bundles in the ventricular wall could not have been obtained if the pericardium had been full of blood, since under these conditions there is an enormous fall of blood-pressure in the right heart and the pressure in the pericardium would manifestly be insufficient. (2) Because there is never noteworthy extravasation of blood into the ventricular wall in cases of spontaneous rupture of the heart. (3) The condition of the myocardium favored the process. The question of secondary involvement of the myocardium from the existing malignant disease may be set aside on the basis of the microscopic examination. [S M.H.]

6.—C. Smith and Washbourn communicate an article on **infective sarcoma in dogs.** Their observations show definitely that some tumors having a sarcomatous structure are of infective character; that whether they run a benign or malignant course is dependent partly at least upon such questions as those of breeding and general bodily condition, and that immunity results for a certain period of time after the subsidence of the growths. [S.M.H.]

7.—White discovered a **primary carcinomatous cyst of the liver** with secondary deposits in the lungs and bones in the body of a man who during life showed no symptoms pointing to disease of the liver. The cyst was located in the upper part of the right lobe. The capsule over it was quite smooth, on opening it about a pint of turbid, straw-colored fluid escaped. The cavity measured 3 by 4 inches. Its walls were covered by an irregular layer of new growth, which at no point exceeded ½ inch in thickness. The growth did not penetrate the surrounding liver-substance and there were no growths in any other part of the organ. At the base of the right lung there was a ragged cavity containing fluid. There were slight indications of a new growth in its walls, but none elsewhere in the lungs. A growth occupied the whole of the anterior and posterior surfaces of the manubrium sterni and infiltrated the surrounding structures. On section the bone was seen to be involved, but was not expanded by the growth. The tumor showed no signs of cystic change. There were several growths springing from the periosteum of the clavicles which were somewhat elastic to the touch. The largest was the size of a small orange and had a small ragged cavity in its center. The histologic structure of these tumors was the same in all. Sections from the wall of the liver-cyst showed the hepatic cells flattened out and separated by a considerable amount of fibrous tissue in the neighborhood of the growth. The latter were very cellular, the cells being large and of irregular shape. The nuclei were large and vesicular. A large number of the cells showed endogenous proliferation. The stroma was very scanty, being represented by a few fibrous tissue trabeculas. The bloodvessels ran through these trabeculas and were well-formed. There were no embryonic vessels running among the cells. The most peculiar histologic feature was a great tendency to necrosis, which was evidently associated with scanty blood-supply. [S M.H.]

9.—Wohlmann gives a brief review of the work which has been done on the bacteriology of rheumatic and allied diseases. [S.M.H.]

11.—Phillips describes what he considers a **pathognomonic sign of influenza.** It consists of congestion of the greater part or the whole of the faucial arch, including usually the uvula and the posterior part of the soft palate, the whole area of congestion being indicated by increased redness. The dilation or relaxation of the capillaries and of the smaller vessels of the mucous membrane generally is sometimes extreme, and not infrequently arborescent venules are plainly visible, especially about the base of the uvula. The distinguishing feature of this affection is a narrow patch of superficial ulceration on the edge of the anterior pillars of the fauces on both sides; it is symmetrical, and the ulceration is evidently due primarily to desquamation of the epithelium during the attack. This feature of influenza is sometimes present for months or years. It is entirely painless. [S.M.H.]

13.—Wild, in 138 cases of **cutaneous tuberculous disease,** observed several small groups in which the infection could apparently be traced to sources not generally recognized, and in some an interesting relationship was suggested between the mode of infection and the type of the cutaneous lesion. The first of these groups consisted of 4 cases of lupus vulgaris affecting the lobule of the ear. They all followed piercing the lobules for earrings. This wound, of course, penetrated the deeper parts of the skin. The second group was composed of 3 cases of tuberculosis verrucosa acutis. The disease involved the wrist and ball of the thumb in 2 cases, and the wrist alone in the third case. All of the subjects were washerwomen, and engaged in washing the linen of tuberculous subjects. There was no history of mechanical injury or wound of the skin, and there were no lupus-nodules. The infection was apparently received through an unbroken surface, and the disease was typical of the warty type of tuberculosis of the skin. The third group comprised 6 cases of tuberculosis verrucosa acutis and 1 of lupus occurring in children from 3 to 12 years of age, and involving the gluteal region of the neighboring parts. In several instances there was direct evidence of some tuberculous patient in the house. It was suspected that utensils not properly cleansed, and perhaps used for expectoration, or for the reception of tuberculous evacuations, had much to do with the infection of the part of the body so little exposed to other sources of direct inoculation. In none of these cases could any history of wounds or injury be obtained. These cases suggest that the mode and depth of inoculation of the skin is, at any rate, one factor in determining the type of a cutaneous tuberculosis. Infection of the skin may occur from the mucous membrane. In lupus of the face the nasal mucous membrane is occasionally also affected. It is probable that the disease in the nasal mucous membrane is the primary lesion in some of these cases. Relapse or recrudescence occurring after operative or caustic treatment is considered in some instances due to reinfection. [S.M.H.]

14.—Williams briefly reviews the literature of tumors of gigantic size. [S.M.H.]

15.—Dixon concludes an article on **the pharmacy of cannabis indica** as follows: The drug exerts its effect differently according to the preparation used. Its effects vary according to the manner in which it is taken into the system. When smoked exhilaration is most manifest, whilst when taken by the mouth in small quantities this is generally not observed. Where an immediate effect is desired the drug should be smoked, the fumes being drawn through water. In fits of depression, mental fatigue, nervous headache and exhaustion a few inhalations produce an almost immediate effect, all the symptoms quickly disappearing, Its results are marvelous in giving staying power and altering the feelings of muscular fatigue which follow hard physical labor. By the mouth, one hour to two hours are necessary before absorption occurs, but the effects are more lasting than when it is inhaled. The hemp when taken as an inhalation may be placed in the same category as coffee, tea, and kola. It is not dangerous and its effects are never alarming. It is a useful and refreshing stimulant and food accessory and its use does not lead to a habit. Used by the mouth it should be classified with the narcotics, and used in this way the nervous effects produced may be such as to cause serious alarm, yet no danger is to be apprehended whilst the heart remains strong and regular. [S.M.H.]

Lancet.

November 11, 1899. [No. 3976.]

1. Cases of Resection of the Large Intestine for Malignant Growth, with Reestablishment of the Intestinal Tract. WILLIAM HENRY BATTLE.
2. Medical Politics. LUTHER COOKE.
3. Boric Acid and Formalin as Milk-Preservatives. H. E. ANNETT.
4. A Case of Pyopneumothorax from Perforation of Gastric Ulcer. W. B. RANSOM.
5. A Case of Hemorrhagic Ascites with very Grave Symptoms; Recovery after Paracentesis. GEORGE S. MIDDLETON.

6. A Case of Meningitis presenting some Peculiarities. R. S. BERRY.
7. An Improved Apparatus for Washing Out the Stomach. GEORGE HERSCHELL.
8. The Open-air Treatment of Consumption: Six Months' Trial at the Sheffield Royal Infirmary. NOEL BARDSWELL.
9. Sarcoma of the Uterus with Inversion. JAMES M. WILLIAMSON.
10. A Case of Calculus Vesicæ in a Man, aged 53 years; Suprapublic Lithotomy; Bladder Sutured; Catheter Tied in for 12 Days; Uninterrupted Recovery. W. J. COLLINS.
11. Case of Membranous Angina and Membranous Vaginitis of a doubtfully Diphtheric Nature occurring in a Patient convalescing from Scarlet Fever and associated with an Unusual Erythematous Eruption. C. KILLICK MILLARD.
12. A Case of Jaundice due to Floating Kidney; Lumbar Fixation; Recovery. P. CLENNEL FENWICK.

1.—Four cases of **intestinal resection** and anastomosis because of **malignant growth** are reported. A man, 34 years old, was operated upon for carcinoma of the cecum; the growth was resected, the free end of the colon was closed and an end-to-side anastomosis with the ileum was made. Recovery followed and the man remains well 6 months after the operation. Resection of the sigmoid flexure was performed in the case of a woman, 41 years old, for carcinomatous stricture. The ends of the bowel were united by lateral anastomosis, and the woman remains well 10 months after the operation. In a third case resection of the splenic flexure of the colon was undertaken for malignant growth. The ends of the intestine were united by lateral anastomosis, and the patient, a woman of 29, has remained well for several months. Resection was undertaken in the case of a man of 44, because of obstruction resulting from intussusception. Recovery followed, but the man has not been heard of since he left the hospital. [M.B.T.]

3.—Annett, as the result of an experimental study of **boric acid and formalin as milk-preservatives,** concludes that thus used they are very injurious to the health of the consumer, and particularly to young infants. He believes it easy to conceive that the great infant mortality-rate from summer diarrhea of many of our large towns may be closely connected with the practice by milk purveyors, dairymen, and milkmen, especially during the summer months, of systematically doctoring milk by means of preservatives. [S.M.H.]

4.—A woman, 20 years old, had suffered from pain after eating, and occasional vomiting for 2 years, on one occasion she had vomited dark blood, and 6 weeks previous to the time when first seen she was seized with pains shooting from the stomach to the axilla, and followed by vomiting, and she had been confined to the bed since then. Her expectoration had become profuse (a pint in 24 hours) and was unpleasant in taste and odor. Physical examination showed poor resonance at the apices, but no crepitation or bronchial breathing; there was dulness only in the posterior inferior part of the left chest, and near the left base there was amphoric breathing and metallic tinkling, but no succussion. A diagnosis of **pneumothorax from perforating gastric ulcer** was made, and on inserting a needle near the angle of the left scapula, fetid pus was withdrawn. The patient was anesthetized, and 2 inches of the seventh rib was excised near the angle of the scapula. A little gas escaped, and on passing the finger upward and forward, about 4 ounces of fetid pus escaped. The cavity was packed with iodoform gauze. Gradual improvement followed for over a week after the operation when signs of pneumonia at the right base appeared, and after a week's illness the patient died from this cause. At the necropsy it was found that the stomach was distended and adherent to the liver, diaphragm, and spleen. The left lung was firmly adherent to the chest-wall and a sinus led into a healthy granulating cavity. The left lung was free from pneumonia, suppuration, or tuberculosis; the lower half of the right lung was infiltrated with pneumonia. When the stomach was opened an indurated ulcer was found on the posterior wall near the cardia, which was firmly adherent to the diaphragm. In the middle of the ulcer was found a small perforation, closed by recent lymph; there was also a considerable subphrenic collection of pus. [M.B.T.]

5.—A man, aged 27 years, entered the hospital complaining of swelling of the legs and abdomen; he had also been suffering from epigastric pain, headache, and vomiting of bile. After physical examination a diagnosis of **cirrhosis of the liver** was made, and there were all signs of extensive accumulation of free **fluid in the peritoneal cavity.** The man had for some time been a very heavy drinker. A trocar and canula were introduced and 154 ounces of fluid were removed; the fluid was porter-colored and was found to contain large numbers of blood-corpuscles. The pressure-symptoms returned and the tapping was repeated, evacuating 67 ounces of fluid. Diuretic treatment was employed for some time. The patient's condition was very unfavorable, but a change for the better occurred and ultimate recovery followed to the surprise of all who had seen him. It is thought that there may have been **chronic peritonitis** associated with the hepatic disease, or possibly alone, as the cause of the **hemorrhagic ascites.** [M.B.T.]

6.—Berry reports a case of **meningitis** occurring in a child, aged 2 years. Examination of the child when first seen showed on the right half of the scalp, covering the occipital bone, an abrasion of the skin evidently the result of a blow. No history of injury could be elicited, but this abrasion suggested a probable traumatic origin for the meningitis. The chief symptoms were retraction of the head, extreme lateral rolling, vomiting, and limb-movements of a remarkable character. The child would lie motionless save for almost ceaseless head-rolling, when the right limbs, never the left, would be flung simultaneously, violently, abroad; the knee and elbow straight, the leg outwards as far as abduction could be carried, and the arm upwards and outwards against the side of the head. There was nothing suggestive of spasm in the movements. After several consecutive repetitions the limbs lay flaccid and untwitching in the extreme positions into which they had been thrown. There was never any facial contortion. The irids reacted equally and fairly readily to light. There was no strabismus or lid-paralysis. On the fifth day the breathing became rapid and shallow, the eye luster dulled, and constipation gave way to profuse diarrhea. A pneumonia of the right lung developed, and with its advance the flail-like limb-movements and the head-rolling decreased in force and frequency. The whole right lung became involved, and the child was desperately ill. He began to improve gradually, and as he did so the head-rolling and limb-movements increased in constant inverse ratio to the severity of the chest-symptoms. The movements now developed a new phase. The child would lie quiet for intervals varying from a few minutes to a half-hour, when with a sudden twist of the whole body he would turn completely over in the bed, the axis of the twist being through the median longitudinal line. The twist was always from right to left, and so quick that, on coming to rest, the body was nearly in the same position as before the movement occurred. The retraction of the head recurred again, and the diarrhea was succeeded by constipation. The child lost during this period the sordes which existed during the pneumonia, and developed a superficial ulcerative stomatitis, which greatly interfered with feeding. Berry considers the limb-movements and axillary rotations to be the result of abnormal variations of blood-pressure within the skull, such variations superadding their effect to that of the abnormal fluid within the skull, which, as a meningitic result, was making pressure upon the cerebellar cortex. The abnormal variation of blood-pressure probably arose from a functional disturbance of the vasomotor center in the medulla. The pneumonia was probably an expression of loss of vasomotor control, and essentially a nervous lesion, inhibiting the constrictor-fibers by way of central disturbance, also associated with functional disorder among the trophic fibers, such as to impair the cells of the capillary vessel-walls, and allow abnormal leakage into the minute air-passages, setting up a pneumonia of direct irritation. It was thus a secondary symptom, and its remarkable inverse ratio to the severity of the head-symptoms makes it almost certainly responsible for the patient's recovery. It may be fairly inferred from this case that the cerebral cortex is the government-seat of coordination of much more than the mere voluntary or involuntary muscular contraction. [S.M.H.]

7.—Herschell describes an improved apparatus for washing out the stomach. [S.M.H.]

8.—Bardswell communicates the result of **open-air treatment of consumption,** after six months' trial, at the Sheffield Royal Infirmary. This infirmary is situated in the city in an atmosphere constantly contaminated by smoke and other noxious impurities. The Nordrach system has been followed as closely as possible, and the cases admitted for treatment have been unselected. The results, as manifested by improvement in the condition of the lungs, appetite, digestion, weight and general wellbeing, with diminution of cough and expectoration, and of the usual symptoms of constitutional disturbance, have been similar to those which have followed the trial of the treatment under more favorable meteorologic conditions. Thirty cases have been treated; none in the first stage; 9 in the second stage (the stage of softening); of which 1 was nearly cured; 6 much improved; 2 somewhat improved. Of the cases in the third stage, with good digestion and evidence of arrested disease and of healing; 3 were treated and all nearly cured. Of those in the third stage with good digestion, with much active disease, and with some evidence of commencement of arrest and healing, but without pyrexia, 4 were treated; 1 was nearly cured, 3 much improved; with pyrexia there were 2 cases treated, 2 were much improved. With bad digestion, with active disease, grave constitutional disturbance, high fever, etc., including cases of mixed infection and miliary tubercle of the lung, 7 cases were treated; 2 were much improved, 5 somewhat improved. Of chronic fibroid cases with tubercle-bacilli in the sputum and a varying amount of pyrexia and constitutional symptoms, 3 were treated; 1 nearly cured, 2 much improved. Of cases of pulmonary tuberculosis complicated with tuberculous disease of the larynx, 2 were treated; 1 much improved, 1 unimproved. [S.M.H.]

9.—Williamson reports a case of **sarcoma of the uterus** with inversion occurring in an unmarried woman aged 80 years. Two palliative operations were performed. The patient died from cerebral hemorrhage, and on postmortem examination the uterus was found to be inverted, and its mucous surface, which lay next the vaginal wall, was excessively covered with the new growth, in some places to the thickness of an inch, and a large secondary deposit filled the left vaginal fornix. Permission having been conceded only for a limited examination, no report was given upon the other organs of the body. This case, besides being an instance of a rare disease occurring at an unusually advanced age, exemplifies particularly well the occurrence of inversion in sarcoma uteri and emphasizes the need of bearing the possibility in mind in surgical procedures. [W.K.]

10.—Suprapubic cystotomy is believed to be of advantage in the treatment of stone in the bladder from the reasons that the condition of the interior of the bladder can be more closely observed, enlargement of the prostate does not interfere with the operation, and there is little danger of leaving behind a second stone or small fragment of stone. The operation is rapid, simple, and safe. A case is reported in which a uric-acid calculus, weighing 38 grains, was successfully removed from the bladder of a man 53 years of age. [M.B.T.]

11.—Millard reports a case of **scarlet fever** occurring in a girl aged 7 years. During convalescence her temperature rose suddenly, the fauces became swollen and inflamed, the cervical glands enlarged. An erythematous eruption appeared, first on the arms and legs and buttocks, but soon spread to the trunk, neck, soles and palms, the face and scalp being the only parts unaffected. It began as isolated raised papules, and became larger, coalesced, and formed irregular circinate patches, with sharply-defined and slightly raised edges. The skin between the patches was white; there was no itching. In some places it became quite confluent. After 4 days it faded, leaving marked staining. It was followed by branny desquamation. Two days after the erythema appeared both tonsils were covered with membrane, and simultaneously there developed a membrane on one labium majus and one plugging the entire vaginal entrance. This stripped easily, leaving a raw surface. Cultivations made from the membrane showed some bacilli of doubtful nature, but there were none in the least resembling the Klebs-Löffler bacillus. In each culture there was practically a pure growth of an organism identical with the Staphylococcus pyogenes aureus. The patient made a good recovery. [S.M.H.]

12.—A woman, 25 years old, had suffered from several attacks of **severe jaundice.** On physical examination a large, hard tumor was found lying under the right costal margin and appeared connected with the liver. An exploratory incision was made and the tumor was found to be a **floating kidney,** which was pressing on the gallbladder and bile-ducts. The kidney was returned to its normal position and fixed by 3 silk sutures passed through its substance. The jaundice disappeared and the patient left the hospital well, and has been in perfect health since then. [M.B.T.]

New York Medical Journal.

November 25, 1899. [Vol. lxx, No. 22.]

1. Further Experimental Researches on the Effects of Different Anesthetics on the Kidneys. ROBERT COLEMAN KEMP.
2. Report of Cases of Sudden Death from Pulmonary Embolism following Injuries or Operations in the Pelvic Region. GEORGE P. BIGGS.
3. Pregnancy Complicated by Uterine Fibroids. HENRY C. COE.
4. Pemphigus Chronicus Vulgaris of the Larynx and Mouth. J. H. BRYAN.
5. Dry Heat of High Degree as a Therapeutic Agent. C. E. SKINNER.
6. A Plea for the Further Use of Carbolic Acid. FREDERIC J. ADAMS.
7. Dermatitis Following the Use of Orthoform. G. E. DECKER.

2.—Five cases of sudden death from **pulmonary embolism** are reported. The conditions which led to this fatal issue were: Intracapsular fracture of the femur with thrombosis of the iliac veins; dislocation of the hip and fractures of the ribs and pelvis with thrombosis of the iliac veins; perforative appendicitis, in which no evidence of thrombus in any other part of the body was found; operation for inguinal hernia and hydrocele with thrombosis of the iliac and femoral veins; suprapubic cystotomy, in which a coagulum was found in the inferior vena cava, the size of which suggested that it arose in the iliac veins, although no thrombi could be found in these vessels. A cautious prognosis is advised in all cases in which this complication may possibly arise. In not one of the cases were there symptoms to suggest thrombosis. The conditions preceding the development of pulmonary embolism were such as to warrant a favorable prognosis in each case. The constant symptoms in these cases were dyspnea and precordial pain and distress. In one case the first symptom was a violent chill, which was followed by cold perspiration, cold extremities, cyanosis, and irregular heart-action. Death usually occurred so soon after the arrival of the physician that no detailed statement of symptoms could be made. It seems probable that extension of thrombi formed in smaller veins, which were damaged at the time of operation or injury, or by subsequent inflammation, will explain the occurrence of thrombi in the large neighboring veins. Slowness of circulation favors this process. The emboli are usually cylindrical, and smaller than the lumen of the vein in which they form. Such cylinders often become folded upon themselves as they are forced into the branches of the pulmonary artery. The thrombi are chiefly of the red variety, though occasionally mixed, and once started, they tend to grow rather rapidly in the direction of the blood-current; they are loosely attached to the wall of the vein, and may separate completely, leaving no mark to indicate their attachment. A long thrombus may have a very small base of attachment to one side of a vein, while the remainder floats free in the blood. This explains the absence of symptoms of venous obstruction. [M.B.T.]

3.—Coe believes that the **rapidity of the growth of a fibroid** under the influence of pregnancy is in direct proportion to its more or less intimate relation to the uterus. Thus a pedunculated, subperitoneal growth may remain unchanged, while an interstitial tumor undergoes marked enlargement. The position of the tumor is sometimes the most important feature of the case. He reports a case in which the tumor was removed without interfering with

he normal course of pregnancy, also two cases in which the pregnancy was entirely masked by the existence of fibroid tumors. Coe considers marriage for a woman with an intrapelvic tumor as "rather an interesting and uncertain experiment." In regard to the treatment of fibroids during pregnancy, he would not interrupt pregnancy until the fetus was viable, if it were possible thus to prolong it without undue risk to the mother; for he thinks an elective Porro operation at the present day is attended with no more danger than a supravaginal amputation at the third or fourth month. [W.K.]

4.—Bryan reports a case of **pemphigus chronicus vulgaris** of the larynx and mouth. The patient complained of indefinite sensations in the region of the larynx, from which she had suffered for 6 months. Examination with a mirror showed a white membranous deposit about ¼ inch in diameter on the laryngeal surface of the right half of the epiglottis. The deposit was easily detached; the membrane underneath was red, but showed no loss of substance. Four days later, a membrane of the same character appeared on the left half of the laryngeal surface of the epiglottis. At this time, the site of the former deposit looked perfectly normal. There were frequent outbreaks following this, the membranous deposit making its appearance on one half of the epiglottis, disappearing in a few days to reappear on the other half. A short time before the report was made, the gums became red and swollen, and there was a membranous deposit on the upper left side of the gum, about 1 inch in length, and a similar deposit on the lower gum just below the incisor teeth. Examination of this membrane, microscopically, showed a fibrinous deposit, containing numerous round cells, but no epithelium. Staining by Gram's method showed a large number of cocci, but no bacilli. There was a trace of albumin, a few blood-corpuscles, and pus-cells, and a few granular and hyalin casts in the urine. Fowler's solution given to the point of tolerance acted well in this case. [S.M.H.]

6.—Adams uses **carbolic acid** very extensively in his practice. The method he adopts is to dissolve the crystals and apply the fluid to the surface with a camels hair brush. As soon as the surface appears white he applies alcohol in copious quantities. He has very good results in the treatment of cellulitis, felons, ulcers with widespread exudate, carbuncles, erysipelas, and in fact in any and all inflammations where streptococci and staphylococci are present. In one case of gonorrheal vaginitis where the vagina in its entire depth was swollen and the labia nearly impassable, a tampon saturated with pure carbolic acid was inserted into the vagina, permitted to remain 30 minutes and then withdrawn. This was immediately followed by a douche consisting of one quart of alcohol. A second treatment of the same nature effected a complete cure. [S.M.H.]

7.—Decker, in using **orthoform** as a dressing in two cases of injury to the finger and hand, observed a severe dermatitis following the application. In general the drug has proved of great value for cases of this character. [S.M.H.]

Medical Record.

November 25, 1899. [Vol. 56, No. 22.]

1. A Review of the History and Literature of Appendicitis. GEORGE M. EDEBOHLS.
2. Morphinism among Physicians. T. D. CROTHERS.
3. An Epidemic of Intercostal Neuralgia. THOMAS F. REILLY.
4. Hypertrophies in the Tonsillar Ring. DANIEL B. HARDENBERGH.

1.—Edebohls has made a careful study of **the literature of appendicitis** and finds that more than 2,500 communications on this subject have appeared in literature up to and including 1898. He has made a complete bibliography which may be consulted at the New York Academy of Medicine. It is stated that Mestivier first recognized appendicitis, as a disease, in 1759, when he incised an abscess in the right groin of a pregnant woman. The woman died and at the necropsy the appendix was found to be perforated by a pin. The article of Fitz, in 1886, is thought to have given the impetus to the recent extensive study and interest of this subject. It is current belief that males are more frequently affected than females. Rheumatism, grip, and movable right kidney have been mentioned among other probable causes of the affection. It seems to be the modern view that the lodgment of foreign bodies in the appendix is probably more frequently the result than the cause of appendicitis; fecal concretions are most commonly found and next to them pins. Among the other diseased conditions which are mentioned besides simple inflammation, are tuberculosis, actinomycosis, echinococcus, cystic dilation, prolapse of the mucous membrane, carcinoma, and sarcoma. Bacteriologic investigation has shown that appendicitis arises in almost all cases from infection and the bacterium coli commune is most frequently the cause. A long list of unusual and interesting complications is given. Several successful operations have been performed during pregnancy. Few physicians advocate medical treatment for all cases, and many prominent internists consider the disease essentially surgical. Of 5 cases reported as left-sided appendicitis, only 1 is considered genuine. Hancock is said to have performed the first deliberate operation for this condition, opening a deep abscess of appendicular origin, and Morton was the first to remove the appendix successfully for acute appendicitis. At present, the majority of surgeons advocate removal of the appendix as a routine procedure, but few claim that it is always possible or best. McBurney's gridiron, muscle-splitting operation is generally considered not only the best for appendicitis, but also for all other intraabdominal conditions in this region. Invagination of the stump, without litigation and suturing, is the method of treatment in most common use. Gauze-drainage is almost universally used in suppurative cases, either alone or combined with the use of the tube. A large amount of statistical matter is given, which it is impossible to include. [Probably this article was completed before the appearance of the article of Ground, who reports in the *St. Paul Medical Journal* for October a case of left-sided appendicitis, in which the diagnosis was confirmed by necropsy. M B.T.]

2.—See report New York State Medical Society meeting, in PHILADELPHIA MEDICAL JOURNAL, November 4, 1899.

3.—The symptoms of the disease were pain in the left hypochondriac region with a feeling of distention in the splenic region and slight fever. The pain was made much worse by movement, deep inspiration or cough. It lasted three or four hours and then disappeared, but reappeared daily for several days. There was profuse perspiration with the disease. Of 14 cases seen by Reilly 4 had an herpetic eruption along the course of the intracostal nerves in the region of the pain, and 8 had herpes of the face or mucous membrane, while 2 cases had no eruption. The peculiarity of the affection was the frequent appearance of the herpetic eruption in areas other than those supplied by the nerves in the painful areas. A similar epidemic has recently been reported in Germany. Quinin was tried because of the tendency to periodicity in the affection, but was useless. The best treatment seemed to be in strapping the chest and using coal-tar drugs. [D.L.E.]

Medical News.

November 25, 1899. [Vol. lxxv, No. 22.]

1. Chronic Stiffness of the Vertebral Column. CHARLES L. DANA.
2. Vaccinating a Nation. GEORGE G. GROFF.
3. A Brief Summary of the Indications for Operations on the Stomach. MAX EINHORN.
4. A Case of Locomotor Ataxia Beginning in the Sacral Cord and Presenting Unusual Sensory Symptoms. CHARLES J. ALDRICH.

1.—Dana gives a very interesting paper upon the various forms of **vertebral ankylosis.** He reports 2 cases of the so-called hereditary kyphosis first described by Bechterew, characterized by partial or complete immovability of the vertebrae, arching forward of the spinal column, particularly in the upper part, and some diminution of sensation and loss of power. Also, one case of spondylosis rhizomelia, occurring in a man 36 years of age; a disease characterized by primary ankylosis in the hip-joints, and then steady upward extension. The latter disease is, according to Marie and Charcot, distinct from rheumatoid arthritis, but Dana is inclined to believe that it is, after all, only a form of the latter disease. [J.S.]

2.—Groff gives a graphic description of the measures taken by the United States Government, or it is probably

more accurate to say, by the United States Army, for the purpose of stamping out **smallpox in Porto Rico.** A vaccination-farm was established, in which it was possible to prepare about 15,000 points a day. The local practicantes were employed as vaccinators, and were found to do honest and faithful work for the small sum of $25 per month. Scrupulous cleanliness was enjoined, and the results were almost invariably good. No case of death was recorded. It was found that about 200 persons a day was the average ability of each vaccinator. The work cost $32,000, and altogether 790,000 persons were vaccinated in a period of 3 months. [J.S.]

3.—Einhorn says that in cases of benign disease of the **stomach, operative intervention** should be put off until rational medical treatment has failed and the ischochymia remains to high degree. This is because of the high mortality which accompanies the operations on the stomach and which even in the hands of good surgeons reaches almost 25%. On the other hand, in cases of malignant disease the only rational treatment is operative interference and this should be undertaken as soon as a positive diagnosis can be reached. [G.B.W.]

4.—Aldrich reports a case of **locomotor ataxia** that was remarkable for some of the sensory phenomena. The disease appeared to begin in the sacral portion of the cord; there was early loss of control over the sphincters, and lancinating pains in the perineum. At first there was analgesia over the skin of the feet, extending up the back and outside of the legs, and uniting in a large, saddle-shaped area over the buttocks. There was also apparently thermohyperesthesia; that is to say, hot or cold objects produced pain, without a knowledge of their nature. Later, she developed loss of pain-sense all over the body, excepting the eyelids, and some disturbance of tactile sense. There were gastric and laryngeal crises. Aldrich calls attention to the extreme rarity of this form of the disease. [J.S.]

Boston Medical and Surgical Journal.

November 23, 1899. [Vol. cxli, No. 21.]

1. Typhoid Fever at the Massachusetts General Hospital During the Past 78 Years. Mortality; Intestinal Hemorrhage; Perforation; Relapse. REGINALD H. FITZ.
2. On the Value of Blood-examinations in the Diagnosis of Camp Fevers—A Report of the Blood-examinations in Typhoid Fever and in the Malarial Fevers. Cases Occurring in the U. S. Army General Hospitals at Fort Myer, Va., and at Savannah, Ga. J. J. CURRY.
3. The Phenylhydrazin-Test for Sugar in the Urine. I. H. CORIAT.
4. An Instance of Urticaria Occurring as an Initial Rash in Typhoid Fever. FRANK WOODBURY.
5. A Case of Superrotation. A. F. WHEAT.

[In the abstract of Dr. Courtney's paper in the issue of the PHILADELPHIA MEDICAL JOURNAL of November 11, "hyperalgesia" was printed in place of "hypoalgesia." Dr. Courtney believes that the diagnosis of disseminated sclerosis was sufficiently excluded. It was also incorrectly stated that the patient was affected similarly to a case of rheumatism; it should have been, "developed somewhat similar paretic symptoms." J.S.]

1.—Fitz has undertaken a careful analysis of the cases of **tyyhoid fever admitted to the Massachusetts General Hospital** since the year 1821. The results are tabulated and show that the mortality is somewhat uniform. From 1829 to 1849, it was a little more than 11%, and since then it has ranged from 13% to 16%. The interesting feature in the report is that the mortality and complications have not changed materially through the whole period. The best record occurred in 1837, when there were 29 cases with no deaths. Up to 1839, vigorous medication, particularly the drastic purgatives, and more or less liberal diet were used. After that time, the treatment became milder, and the diet was more carefully watched. Indeed, Fitz concludes that "the average mortality from this disease has not materially changed from days of active treatment with emetics, purgatives, venesection, antimony, and calomel, down to the present time," and also, "that a considerable variety in diet may be permitted not only without detriment but also with possible benefit to the patient." [J.S.]

2.—Curry reports the results of his **examination of the blood** of patients at different camps during the late war. The results of the Widal test were very satisfactory. About 95% of all cases diagnosed clinically typhoid fever gave the positive reaction. The negative results were practically 100%. About 50% of the cases did not show the reaction until the fourteenth day. There were few cases of mixed infection. Malarial parasites appeared after the convalescence from typhoid fever was established in several instances. Curry urges the necessity of systematic blood-examinations of the soldiers. [J S.]

3.—Coriat has made a series of comparative tests with **phenylhydrazin** in order to determine what other substances might give the **sugar-reaction.** Lactose, glucose, levulose, maltose, saccharose, all gave crystalline deposits; the crystals varying in shape and size. Glycogen, starches, etc., gave nothing, or a few oily globules. One part of glucose in 10,000 gave a distinct reaction. Various substances normally present in the urine, as urea, uric acid, hippuric acid, and creatinin gave no reaction. The reaction was not affected by the presence of albumin. [J.S.]

4.—Woodbury reports a case of **typhoid fever** that about the sixth day developed an **urticarial eruption.** It is possible that it was produced by the administration of acetanilid and quinin, or the local use of coal-oil, but this seems unlikely. [J S.]

5.—Wheat reports a case of **superrotation of the fetus** occurring in a multipara aged 35 years. He attributes the superrotation to the exertion of the patient during the last 4 hours of labor previous to the application of forceps, and to the arrest of the descent of the head, and also to the disproportion between the head and the maternal parts: that is, a large fetus, and a small pelvis. [W.K.]

Journal American Medical Association.

November 25, 1899. [Vol. xxxiii, No. 22.]

1. Goiter. FREDERICK C. SCHAEFER.
2. Prevention and Treatment of Cancer of the Uterus. A. LAPTHORN SMITH.
3. Advances in the Surgical Treatment of Strasbismus. EDMOND LANDOLDT.
4. Nutrition of the Lens and Its Relation to Cataract Formation. LOUIS STRICKER.
5. A Case of Multiple Laryngotracheal Stenosis. THOS. HUBBARD.
6. Infective Granulomata of Pharynx: Glanders. EMMA E MUSSON.
7. Nasal and Aural Complications in Epidemic Influenza. SARGENT F. SNOW.
8. Dynamics of School Puberty. H. M. HATFIELD.
9. Further Observations on the Therapeutics of the Chlorid of Gold and Sodium. DANIEL R. BROWER and CARL JOHN HABHEGGER.
10. Obstructive Growths of the Pylorus, with a Report of a Successful Case of Pylorectomy. J. E. ALLABEN.
11. Traumatisms of the Male Urethra, with Report of Two Cases. CHARLES W. HITCHCOCK.
12. Surgical Treatment of Uterine Displacements, Resulting from Laceration of the Pelvic Floor. C. K. FLEMING

1.—See this JOURNAL, Vol. III, p. 1330.
2. " " " " " " 1335.
4. " " " " " " 1400.
6. " " " " IV, p. 16.
7. " " " " " " 19.

10.—The case of a woman, aged 28, is reported, who for 10 months had suffered from pain in the right hypochondrium, vomiting soon after eating, and other symptoms of pyloric obstruction. There had been progressive loss of flesh and a somewhat fixed tumor was felt in the pyloric region. Exploratory celiotomy was performed and a growth was found involving nearly a third of the stomach; there were no adhesions to the pancreas or liver. **Pylorectomy** was performed according to Billroth's method; resecting the growth, closing the stomach-wound to the lower angle by continuous Lembert sutures and anastomosis with the duodenum was made by means of Murphy's button, and the abdomen was closed. Rapid recovery followed, the patient left the hospital and remained in good health until 1½ months after the operation, when she began to be troubled with griping pains. Shortly after this she was suddenly taken

vith symptoms of perforative peritonitis and in spite of an operation, draining the abdominal cavity, she died 2 days ater. A necropsy was made which showed that there was erfect union between the stomach and duodenum, but per-oration of the transverse colon had resulted from the Murphy button. The pathological report confirmed the linical diagnosis of carcinoma of the pylorus. [M.B T.]

11.—Two cases of severe **injuries of the urethra** are eported, both resulting from perineal blows. In the case of he first patient, a man of 41, there was free bleeding from he penis, but no pain or tenesmus except at the time of rination; there was at first no perineal swelling, although here was considerable tenderness. He was treated by press-re, hot applications and urinary antiseptics. On the fifth lay after the injury, his penis and scrotum were slightly wollen, the first positive sign of extravasation. The patient's ondition grew worse, external urethrotomy was performed nd uninterrupted recovery followed. In the second case here was bloody urine, slight pain, but considerable ecchy-nosis. External urethrotomy was performed on the day of he injury and good recovery followed. It is believed that ad earlier operation been performed in the first case, there ould have been prompter healing, less formation of cicatri-ial tissue and less tendency to subsequent contraction. Pressure, hot applications, urinary antiseptics, etc., are rec-mmended by the best authorities as the proper line of reatment in cases uncomplicated by retention, but Hitch-ock believes that if in case of injury to the urethra we can stablish a diagnosis of laceration through the 3 coats of the anal, it may be assumed that the expectant plan is not a ise one, and that early operation is far better both for the resent and ultimate good of the patient. [M.B.T.]

12.—The operations of ventrosuspension of the uterus, aginal fixation of the uterus, and Alexander's operation are riefly described and their merits discussed. [M.B T.]

Archives of Pediatrics.

August, 1899. [Vol. xvi, No. 8.]

. Methods of Instruction in Pediatrics. W. P. NORTHRUP.
. Discussion on Methods of Instruction.
. Pulmonary Hemorrhage following Exploratory Puncture of the Chest for Fluid in Infants. HENRY KOPLIK.
. Transposition of the Viscera with Cardiac Malformations. J. P. CROZIER GRIFFITH.
. Separation of Bacteria from Milk by Natural Process. ROWLAND G. FREEMAN.
. Congenital Diaphragmatic Hernia. SAMUEL W. KELLY.
. Acute Tonsillitis in an Infant of Five Months. T. G. BROWNSON.

1.—Northrup in his address as president of the American ediatric Society discusses the **methods of instruction n pediatrics.** He points out the ideal method and relates hat pursued by himself in the University and Bellevue Hos-ital Medical College. The discussion of the address relates the methods in vogue at the various medical colleges roughout the country. [S.M.H.]

3.—Exploratory puncture of the chest for fluid in nfants and children is not entirely harmless. Koplik dvises that the needle should rarely be introduced into the hest unless the physical signs warrant its use. Existence f a temperature alone should not be regarded as a sign of he presence of fluid or pus, or sufficient ground for the uncture of the chest-wall with a needle. Koplik has seen emorrhage from the mouth, or mouth and nose, occur im-ediately upon puncture of the chest in four cases and in one of these was there any fluid found. The bleeding was robably caused by the lung being adherent through the leura with the costal structure, the needle entering di-ectly into the lung and there causing a wound of some loodvessel which allowed the escape of blood as soon as he needle was withdrawn. In all the cases the patients ere very restless and the blood, mingled with frothy spu-um, came to the lips and nose in a spurt. In some of the ases it came from the nose only. Immediately preceding he hemorrhage the patient had a fit of coughing, which ontinued after the bleeding had subsided. None of the ases showed collapse or syncope and none of them proved erious. It is possible that a large bloodvessel might be punctured by this procedure, or that a condition of the blood unfavorable to coagulation (hemophilia) might exist and there result a serious, possibly fatal, hemorrhage. It is not advisable to puncture the chest more than once at a single sitting, and this should be at the point in the chest where the fluid is thought to be as the result of accurate examination. The needle used should be of small caliber, and it should not be entered into the chest-wall beyond two centimeters. It should not be entered and then withdrawn, or pointed in various directions, lest the struggles of the patients produce puncture of the lung or bloodvessels. The needle should be withdrawn as rapidly as it is introduced and the whole operation completed within a half minute. [S.M H.]

4.—Griffith had under his care a case of **transposition of the viscera** and **pulmonary stenosis** in a child aged 8 months. When 5 months old, frequent and rather prolonged attacks of dyspnea developed; the hands, feet and face became blue, and the breathing rapid. Moderate blueness persisted during the intervals between the attacks. Physical examination showed a murmur, heard with greatest intensity at the pulmonary cartilage, and in the third left interspace close to the sternum. There was no thrill. The cardiac dulness extended above to the third rib to the right to the left edge of the sternum. The apex-beat was in the fourth interspace within the nipple-line. The diagnosis made was pulmonary stenosis, probably associated with perforate septum ventriculorum. The child died soon after coming under the observation, of pneumonia. The autopsy showed the interventricular septum deficient in its entire upper portion, and a patulous foramen ovale. The aorta was given off from the right ventricle and lay to the right of and, at its origin, somewhat anterior to the pulmonary artery. In its course it gave off a right subclavian, a right common carotid, and then the innominate, which divided into the left carotid and left subclavian. The coronary arteries arose from the right ventricle. The pulmonary arose from the left ventricle to the left of and slightly posterior to the origin of the aorta. It was much narrowed in both its orifice and trunk. The valves were small, poorly developed and thicker than normal. The pulmonary artery gave off the ductus arteriosus, which was patulous to a large probe up to, but not into, the aorta. The pulmonary veins entered the right auricle, and the inferior vena cava ascended through the diaphragm to the left of the median line and emptied into the left auricle. The superior vena cava also emptied into this auricle. All of the viscera were transposed, including the great vessels, but there was no dextrocordia. The transposition was not recognized during life. [S.M.H]

5.—According to Freeman, if milk is allowed to stand, and the cream rises and a separate analysis is made of the milk and cream, it will be found that with the rising of the cream about 99% of the bacteria are removed from the milk. This separation may be due to the better growth of the bacteria in the top layer from the better nutriment furnished by the cream and the greater supply of oxygen or possibly to the carrying up of the bacteria by the fat globules as they rise. The practical bearing of this observation is important. If heating milk to 155° F. is injurious to it as an infant food, the bulk of the bacteria present may be separated by natural processes from the milk by allowing the cream to rise and then pasteurizing or sterilizing the cream and afterward mixing it with the comparatively **germ-free raw milk.** [S.M.H.]

6.—Kelley delivered a woman of a child which died about 20 minutes after birth. It cried feebly, but distinctly, twice. Before death it was noted that the heart's impulse was on the right side. The child was well formed and weighed about 7 pounds. The autopsy showed the following conditions: The diaphragm upon the right side occupied the usual position, and was well developed; but from the vertebral column toward the left side it consisted only of a triangular process which tapered to a point at about the eighth costosternal cartilage. The posterior edge of this rudimentary leaflet of the diaphragm was smooth and muscular, and fitted into a deep fissure in the liver. The opening in the diaphragm was therefore occupied by the portion of liver connecting the upper to the lower lobe of that organ, and by the colon. The liver was much larger than normal, the smaller (upper) lobe was above, and the larger (lower) lobe below the diaphragm and occupied the entire abdomen, excepting the space occupied by the descending colon and sig-

moid flexure. There was a fissure in the middle of the abdominal lobe beginning at its left margin and extending a third of the distance across it. At the deepest angle of this fissure the umbilical vein entered the liver. The gallbladder was situated posteriorly between this fissure and the pyloric end of the stomach. The stomach, small intestine, vermiform appendix, cecum, and ascending and transverse colon were above the diaphragm. The heart was lying below and to the right of the right nipple with the left ventricle anteriorly and the apex pointing toward the middle line forward and downward. When the thorax was opened **no lungs were visible.** On exploration in the extreme right and posterior portion of the thorax a body was found resembling lung-tissue. The left lung was about ⅛ inch in thickness and was located back of the heart with the pointed end forward. The other organs were normal and normally located. [S.M.H.]

7.—Brownson observed an attack of **acute tonsillitis** in a 5-months-old breast-fed infant. The child had been previously well. It became feverish, refused to nurse, cried frequently and its voice was husky. Examination of the throat showed the tonsils red and swollen, and on each there were several round white spots. The attack ran the ordinary course and subsided. Anemia was quite marked after the attack. A second attack occurred 11 months later. [S.M.H.]

American Journal of Obstetrics.

September, 1899.

1. The Value of Antistreptococcic Serum in the Treatment of Puerperal Infection. J. WHITRIDGE WILLIAMS, WILLIAM R. PRYOR, HENRY D. FRY, EDWARD REYNOLDS.
2. Upon the Treatment of Puerperal Streptococcus Infection by Curettage, the Culdesac Incision, and the Application of Antiseptic Dressings. WILLIAM R. PRYOR.
3. The Antistreptococcic Serum in the Treatment of Puerperal Sepsis. HENRY D. FRY.
4. The Use of the Renal Catheter in Determining the Seat of Obscure Pain in the Side. HOWARD A. KELLY.
5. Diagnostic Curettage. J. RILUS EASTMAN.
6. Toxicity of Urine in Pregnancy. (Second paper.) ROBERT W. STEWART.
7. Vaginal Cystotomy for the Cure of Irritable Bladder. W. KNOX.
8. Malignant Tumors of the Breast. W. P. CARR.
9. Parotid-Gland Therapy in Ovarian Disease. JOHN B. SHOBER.
10. Mumps Complicated with Orchitis and Nephritis. GEORGE N. ACKER.
11. Posterior Rotation of the Occiput in Vertex Presentation. STRICKER COLES.
12. Cerebral Complications of Mumps. J. R. BROMWELL.

1.—See this JOURNAL, Vol. III, page 1199.
2. " " " " III, " 1199.
3. " " " " III, " 1199.
4. " " " " III, " 1202.

5.—J. R. Eastman, in a scholarly paper, discusses the value of **diagnostic curettage.** The procedure is indisputably indicated whenever suspicion of carcinoma or sarcoma exists; and this suspicion will be well-grounded whenever, in spite of well-directed treatment, recurring hemorrhages from the uterus present themselves at or near the menopanse. He considers the most useful method of preparing tissue for the microscope is Ludwig Pick's modification of the method of Thomas S. Cullen, of Johns Hopkins University. This method is described in detail. After the microscopist's positive answer "malignancy," it becomes the duty of the surgeon to remove all the involved tissue, if this still be possible. The opinion "doubtful," means the procuring of new material for examination, and further clinical observations. The diagnosis "benign" is given when the normal characteristic tissue elements of the endometrium and underlying structures are preserved. It is important to take the tissue from the most malignant or suspicious spot, since the pathologist can only answer for the tissue which he has examined. In the laboratory of Orth, of Göttingen, in 20 years some 2,300 specimens from suspected cancer of the uterus have been examined, with error in diagnosis in only three instances. [W.K.]

6.—Stewart has carried on a series of experiments on animals to determine the **toxicity of the urine of pregnant women.** Considerable experimentation was made in the effort to isolate the poison, but this was unsuccessful. He now concludes that the poisonous material with which the urine at times seems to be impregnated, was proabbly due to the presence of bacteria, and was not necessarily the result of tissue metamorphosis, as has been claimed by nearly all the writers of the past 8 years. If fresh urine does not kill and older urine does, the great variability of the toxicity of the urine of pregnancy may depend wholly upon the time which intervenes between the voiding of the urine and its use by investigators. Whatever may be the final word in regard to the nature of the poison, it looks now as if the whole question of the toxemia of pregnancy and the parturient state should be investigated from the beginning. [W.K.]

7.—Knox reports 2 cases of **vaginal cystotomy** performed for the relief of irritable bladder. Both cases had resisted the usual palliative methods of treatment. He considers there is a wide field for this method of treatment, and that its more frequent adoption would result in the cure of many cases otherwise destined to become physical as well as mental wrecks. [W.K.]

8.—In an article on **malignant tumors of the breast,** Carr calls attention to the transition of tumors from one type to another, or even from the broad class of the benign to that of malignant growths. In the recognition of these great difficulty is sometimes experienced; carcinomas are easily recognized; but there is not only identity of structure between inflammatory tissue and some sarcomas, but there is much evidence to show that benign, as well at malignant tumors, frequently occur in some tissue that has been the seat of inflammatory infiltration. The various theories as to the etiology of malignant disease are discussed. Billings has shown that carcinomas are increasing in frequency in proportion to the increase in high civilization. There are now, according to Williams, 10,000 cancers of the breast in England and Wales. Statistics show that 80% of all tumors of the breast are carcinomatous and 2% or 3% are sarcomatous, but these statistics are taken from diagnoses made late in the course of the disease. There is no way of knowing just how many of these tumors were benign in the beginning. Carr gives the following practical conclusions: (1) That it is absolutely impossible, in a very large number of cases of cancer of the breast, to make the diagnosis in the very early stages of the disease before operating. (2) That this is the time to operate; for if we wait for diagnostic, or even suspicious, symptoms of malignancy we greatly lessen our chances for a cure. (3) We should urgently advise the removal at once of every tumor of the breast, no matter how small or innocent it may appear, and invariably have it examined microscopically by a competent microscopist. Nothing will so diminish the death-rate from cancer of the breast as the early and complete removal of all growths in this gland, and it is our duty to spread this doctrine among the laity. No operation should be attempted unless there is reason to believe that all the cancerous tissue can be removed. If any portion of the growth is left, it will grow with great rapidity after operation. [W.K.]

9.—Shober reports 9 cases of **ovarian congestion and chronic oophoritis** treated by means of desiccated parotid gland of sheep. He administered an average dose of 8 grains of the desiccated powder daily. In the cases selected the results show that parotid-gland feeding relieves ovarian pain and causes reduction in the size and tenderness of enlarged and sensitive ovaries; also that under influence the menses become regular and less painful. [W.K]

10.—Acker reports 2 cases of **mumps complicated with orchitis and nephritis.** The patients were males, aged respectively 9 and 14 years. Orchitis is a rare complication in childhood, as the gland does not appear to be liable to such trouble until after puberty. Nephritic symptoms were present in both cases. The writer urges the necessity of vigilance during the course of a disease so prone to the infection of such important organs, and of attention particularly to the quantity of urine and the testing of its character, if there is any doubt. [W.K]

11.—Coles reports 30 cases of **posterior rotation of the**

cciput in vertex presentation. In all of the cases ıe engagement was in the right oblique or transverse, with ıe occiput to the mother's right side, and more or less be-ind the lateral median line. The most common factor roducing the posterior rotation was incomplete flexion as ıe head passed down through the pelvis; the occipital end, eing the largest and passing through the smallest part of ıe pelvis, seems to meet with greater resistance; the sinci-ut, becoming the most dependent portion, would tend to otate posteriorly. The treatment should be, first, to have the ead engage with occiput anterior; but if it has already en-aged posteriorly, then to use the methods that do not re-uire manipulation, such as placing the patient on the side ›ward which the occiput points, and with external manipu-ation direct the back anteriorly; this will usually produce nterior rotation if the uterine pains are stimulated. De-very may take place without interference with the occiput osterior as occurred in 6 of the cases reported; 4 of ıese were in multiparas with very poor pelvic floor, due to revious lacerations, and 2 were in primiparas when the elvis was large and the child not above the average. [W.K.]

12.—Bromwell reports 2 cases in which serious cerebral ›mplications occurred in mumps. The first, a girl of 18, suf-ered from **meningitis and ureteritis due to metas-asis,** as all the gland symptoms ceased immediately receding the brain-complications. The patient died in a pro-ound coma. The second patient, a lad of 11, suffered from milar symptoms, but ultimately recovered. The writer con-ıds that although little is known of the true cause of umps, yet the return of the inflammation, or disease, to s legitimate seat, the parotid glands, followed immediately a subsidence of the brain-complications, is strong evi-ence that it was a metastasis, and urges that this disease eceive more care and consideration at our hands than it sually does, as it is not always non-fatal, and serious com-lications may occur. [W.K.]

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merican Gynecological and Obstetrical Journal.

September, 1899. [Vol. xv, No. 3.]

Prelimimary Observations on the Relation of Some Intrapelvic Conditions to Blood-states in Women. CHARLES A. L. REED.
Remarks upon the Diagnosis of Puerperal Septicemia. W. REYNOLDS WILSON.
Cornual Pregnancy. CHARLES E. MANIERE.
Memoir of Dr. Robert P. Harris. CHARLES P. NOBLE.

1.—Reed believes that physicians are too prone to attrib-e preponderating influence to constitutional rather than to cal pelvic conditions as causative factors in a general state **chronic invalidism;** in certain other cases we are lia-e to look upon the local condition as the "fons et origo" the whole difficulty; while in altogether too many of our ses we look upon our mission as ended when surgical con-lescence has been realized, instead of caring for them until e are assured of their constitutional health. Reed has ade a systematic study of the various blood-states as mani-sted in connection with pathologic conditions found in the lvis, and presents a brief summarization of his observations. ıe cases are classified into those of (*a*) undeveloped geni-lia, (*b*) uterine displacements, (*c*) endometritis, (*d*) infection the uterine appendages, (*e*) myomas of the uterus, (*f*) arian cystomas, (*g*) chronic oophoritis with cystic degen-ation of the ovaries, and (*h*) surgical convalescence. The ood-states observed have been those of leukocytosis, oligae-ia, oliochiomemia, and oligocythemia, embracing several rms of both symptomatic and idiopathic anemias. Most onounced changes in the blood have been noted in cases retrodisplacement of the uterus with fixation, the fundus sting in a position to constantly impinge on the sacral exus. In such cases he has found pronounced oligemia id in two instances marked hypohemoglobinemia. In 44 ses of pyosalpinx the feature always present was a leukocy-sis varying from 13,000 to 38,000. In a few of these cases e diagnosis of the disease rested almost wholly on the ood-count; but in every instance it was confirmed by the velations of the operation. Irritation of the sympathetic rves, persistently applied, cannot fail to disturb the func-nal activity of the spleen, one of the organs chiefly interested in the hemoglobinic process; thus, chlorosis, and even pernicious anemia, may be produced in this way. More recently Murri has described chlorosis as a vasomotor neurosis of genital origin, and Reed is convinced that in the majority of cases this view is the correct one. In conclusion, he urges that more extensive observations be made along this line, so that a sufficient number of cases be studied to justify final conclusions on the relations of intrapelvic conditions and the blood-state in women. [W.K.]

2.—Wilson calls attention to the difficulties sometimes encountered in the **diagnosis of puerperal septicemia.** The condition being one of fever-producing toxemia, the symptomatology may be readily confused with that of other serious febrile conditions. The most important of such conditions are the following: (1) Puerperal insanity which may be classed emong the febrile affections incidental to the puerperium; (2) typhoid fever and pneumonia, the symptoms of both of which are due to special infection, bacterial in origin; (3) malarial fever which represents a true toxemia of parasitic origin. The points of differential diagnosis of these conditions from septicemia are thoroughly discussed. [W.K.]

3.—Maniere reviews the literature of **cornual pregnancy.** The usual history of these cases is that they go on to about the fourth or fifth month, when rupture and death occur. In the statistics of 39 cases of cornual pregnancy collected by Cullen and Wilkins, not a single case that ruptured failed to prove fatal very promptly. The hemorrhage from such a rupture would be much greater than from the average rupture of a tubal pregnancy, because of the larger vessels probably involved, and the fact that in a typical case the horn is free and movable, and the bleeding is favored in consequence. The diagnosis is extremely difficult. In the case reported by Maniere the patient had not menstruated for 4 months, and physical examination through the abdominal wall showed an exceedingly movable mass which could be pushed freely into almost any part of the abdominal cavity, though when left alone it always gravitated back into the right iliac region. The mass was ovoid in shape, and, in quiescent position, its long axis was diagonal to the long axis of the body. The mass was painful and sensitive to pressure; she complained of some morning sickness, and the areolae of the nipples were somewhat darker than normal. The diagnosis of cornual pregnancy was discussed, but was excluded on account of the history of rapid increase in size, and the extreme mobility of the mass. The possible diagnosis of ovarian cyst with twisted pedicle was made on account of this same increase in size, tenderness, pain and temperature. Operation was performed and the true condition of affairs recognized in attempting to deliver the sac. Placental tissue and fetus were delivered before the sac was turned out. The sac was amputated well down to the internal os. The pedicle was rather broad and was tied off in about 3 sections and the stump buried under the peritoneal layer. The patient's recovery was absolutely uneventful. [W.K.]

Berliner klinische Wochenschrift.

July 17, 1899. [36. Jahrg., No. 29.]

1. The Twenty-fifth Anniversary Celebration of the Society of Hospital Physicians. The History of the Society of Hospital Physicians. H. SCHAPER.
   Reply to the Above Address. v. BERGMANN, OLSHAUSEN, VIRCHOW.
2. Dural Infusion in a Case of Tetanus Puerperalis. v. LEYDEN.
3. Some Muscular Diseases. H. SENATOR.
4. A Case of Brain-Tumor. JOLLY.
5. Two Intestinal Resections. KÖNIG.
6. Upon the Infectious Character and the Connection of Acute Articular Rheumatism and Chorea. WESTPHAL, WASSERMAN, and WALKOFF.
7. The Treatment of Tracheal Stenosis. SCHULZ.
8. The Malignant (Nonseptic) Form of Endocarditis Rheumatica. M. LITTEN.
9. Acute Miliary Tuberculosis. C. BENDA.

2.—Von Leyden first gives a brief resume of the history of the researches on tetanus and its antitoxin treatment, report-

ing a case of **tetanus puerperalis** which he treated by Jacob's method of **dural infusion.** The patient was admitted to the Charité at Berlin on the eighth day of the disease. A subdural injection of 10 cc. of Behring's serum was given and later 2 grams of Tizzoni's serum hypodermatically. Von Leyden explains that the latter was used because very little of Behring's could be procured. The patient also received hypodermatically 0.1 of a gram of morphia and by the mouth 2 5 grams of chloral during the first 24 hours. In spite of this the symptoms were very aggravated. On the second day, 3 grams of Tizzoni's serum was given hypodermatically; on the third day, 2 subdural injections of ¾ gram each of Behring's serum; on the fourth day, a 2 gram subcutaneous injection of Behring's serum. On the third day a slight improvement in the patient's condition was noticed, but later the symptoms became severe and were observed even in the lower extremities. Eleven days after the beginning of the treatment the patient's condition was fairly good. Tetanus had disappeared, pulse 108 to 120. Patient still weak. [W.K.]

3.—Senator reported the following forms of **disease of the muscles.** In a typical case of juvenile dystrophy of the muscles the patient was 46 years old, and referred his condition to an injury received 12 years previously. There was the characteristic change one after the other from atrophy to hypertrophy; or, rather, increase in volume, while the apparent hypertrophy did not aid the function of the muscle. The case was typical, except that it occurred late in life. The second case was an illustration of Thomsen's disease. The third was the so-called progressive spinal muscular atrophy, but was not typical in its symptomatology. The fourth case was one in which the muscles gradually became converted into fibrous tissues, so that the patient had difficulty in standing or walking. The fifth case was one of malformation of the tongue, which was grooved and furrowed. The patient had no discomfort from it, and did not come into clinic for treatment on that account; but the author called attention to the case solely to note that there was no inflammation in connection with it, and no discomfort to the patient. [C.L.L.]

4.—Jolly describes an enormous **glioma** that developed through a trephine opening after an operation based upon symptoms which pointed to a localized circumscribed tumor. It demonstrated the impossibility or difficulty in making a differential diagnosis between circumscribed and diffuse tumors of the brain. The tumor developed to the size of a brain outside the cranium, while the patient lived for over two years with a growth that would have speedily ended his life if the operation had not been undertaken. [C.L.L.]

5.—König reports two cases of intestinal resection; in one he removed by a Kraske's operation, a carcinoma that involved the upper portion of the rectum and the lower segment of the sigmoid. The patient made a complete recovery and had good control over the sphincter. In the second case a stenosis of the bowel was found, which resulted from fibrous adhesions with the pedicle of a pedunculated ovarian cyst that had been removed some years previously. [C.L.L.]

6.—A girl of 19 developed an **acute articular rheumatism** in January, 1899. In the beginning of February choreic movements began in the left arm, and rapidly spread to the entire voluntary musculature. On admission to the Charité, on February 12, she presented the picture of a **grave chorea,** with occasional mental hallucinations and confusion of ideas. There was no swelling or tenderness of the joints. The pulse was rapid, the heart-sounds clear. Towards the end the temperature rose, and the patient died on February 24, in collapse. At the autopsy, apart from hyperemia of the internal organs, nothing was found except a very slight **endocarditis** of the mitral valve and an acute parenchymatous nephritis. From the blood, brain, and heart-valve, Wassermann obtained a microorganism, which, when injected into animals produces high fever, and multiple joint-affections. There is a period of incubation, varying from 5 to 10 days, before the appearance of the joint-phenomena. All the joints may be affected. Frequently the swelling attacks one joint, rapidly disappears, and goes to some distant articulation. In addition to the joints, the synovial membranes and the tendon-sheaths may contain an exudate. The organism is a **streptococcus,** although in the tissues and blood it may present itself as a diplococcus. For its growth it requires a high degree of alkalinity and a large amount of peptone. The authors do not claim that the organism discovered by them is the exciting cause of acute articular rheumatism; all that they claim is that for the first time it has been possible to cultivate from a case of postrheumatic chorea a microorganism capable of producing joint-affections in animals. As the bacteria were very small in number in the cadaver, it is not likely that the bacteriologic examination during life will be very successful. [D.R.]

7.—Schultz reports an interesting case of **stenosis of the trachea** resulting from a tracheotomy that had been performed 11 years previously. There was such a stenosis that the inspiration produced a loud sound which was especially annoying during the night, so that the patient had to sleep in a distant room when at home and in a separate ward in the hospital. The trouble was increased while he was in the hospital by the pressure of the glands of the neck which became infected and swollen from an acute tracheal inflammation. Difficulty in breathing was very marked, the patient becoming cyanosed on occasions which increased in frequency, while the attacks became more severe on account of the swelling of the glands. Laryngoscopic examination showed a stenosis at the point of the old tracheotomy-wound. It left a slit-like opening somewhat wider posteriorly. The stricture was, however, not very extensive, but more of the trachea was involved by the pressure of the inflamed glands. The cyanosis and difficulty in breathing finally became so great that the author was obliged to introduce a catheter open at the end through the larynx. It was tolerated for only a few moments, but afforded relief, and was again inserted later when it was tolerated for an hour and a half. Finally the patient retained it for six hours of the night, sleeping during that time. After its removal the dilatation it had produced afforded relief to the breathing for some time. He finally succeeded in dilating the stricture up to No. 38 French, using esophageal catheter with the end cut off, with a stylet inside curved similar to a laryngologic instrument. The stylet was withdrawn as soon as the catheter had engaged and passed through the vocal cords. He found that the rubber catheters cracked and were difficult to sterilize, causing irritation in the larynx; he, therefore, had one constructed of spiral wire which fulfilled all indications. [C.L.L.]

Deutsche medicinische Wochenschrift.

October 5, 1899. [25. Jahrg., No. 40.]

1. Extirpation of the Spleen Owing to Rupture of the Organ through Dull Force, and Concerning Laparotomy in Serious Abdominal Contusions Generally. F. TRENDELENBURG.
2. The Antipyretic Treatment of Fevers, Especially Typhus. L. RIESS.
3. Concerning Pneumatosis Cystoides Intestinorum Hominis, and the Treatment of a Case through Laparotomy. E. HAHN.
4. The Technic of Stomach-distention. FÜRBRINGER.

1.—Trendelenburg reports 6 cases of **rupture of the spleen** from traumatism, of which 4 patients died and 2 recovered. In 4 of the cases the spleen was the only organ injured, once the liver and once both the liver and left kidney were injured. In one case the liver was pathologically enlarged and the rupturing force was comparatively slight, so that it seems that an enlarged spleen predisposes an injury to rupture of that organ. In order to be able to institute the proper treatment in time, it is absolutely essential that an immediate diagnosis be made, because the furious hemorrhage may cause death in less than an hour. [G.B.W.]

2.—Riess writes chiefly to commend his method of **treating typhoid fever by protracted baths.** Although he admits that the fever per se is not usually the cause of grave symptoms, he does believe that the severity of the case usually varies in direct proportion to the height of the fever, and that keeping the fever within bounds causes marked improvement and often entire disappearance of unfavorable symptoms. The duration of the fever seemed to be shortened also—the average for 809 cases was 17.7 days. Complications were not abnormally frequent. The mortality was 8.5%. [D.L.E.]

3.—Hahn reports a most interesting case of **multiple**

ysts of the intestine. The patient was a man, 35 years f age, who for 3 weeks had been confined to bed, was constipated and complained of a full sensation in abdomen. He was emaciated and pale, but all his organs appeared normal on examination. At the operation numerous cysts were ound covering the intestines, the larger of which contained othing but gas, though cultures showed the presence of occi, and a short bacillus. No hard tumors were found. After crushing the greater number of small cysts, and removing some of the larger ones, the intestines were restored o abdomen and the wound closed. The patient make a ood recovery. [G.B.W.]

4.—Fürbringer has previously advised inflation of the tomach by blowing through the inserted tube. This was ften likely to result in an injection of foul stomach-contents nto the physician's mouth, so that he sought to exclude the kelihood of this unpleasant accident, and found that by roducing the tube part way down the esophagus only, and hen blowing, the stomach can be inflated satisfactorily, and here is little danger of a deluge. [Inflation by means of a Davidson's syringe is so simple and practicable that this nethod will certainly not recommend itself to those who ave any esthetic sense. D.R.]

Centralblatt für Gynäkologie.

September 23, 1899. [23. Jahrg., No. 38.]

. A Danger in the Incubator. E. WORMSER.
. Celluloid-thread as Used by San.-Rath Dr. Pagenstecher. SCHLUTIUS.
. Lateral Colpotomy. C. H. STRATZ.

1.—While in the use of incubators for weak and prematurely-born infants there is need of careful regulation of ne temperature, yet Wormser considers that the greatest anger is from lack of proper ventilation, and to secure this s the chief difficulty. He says that the volume of air for ach child in the approved incubator is only about one-tenth f what hygiene requires for its proper growth. The daily eeding of the child is another source of danger and requires onstant watchfulness on the part of the attendant. Wormer relates the case of an infant with good heart-action hich was found dead 2 hours after it was given milk, and ne autopsy showed that the trachea and bronchial tubes ontained a milk-colored mass, and the diagnosis was Suffocation from breathing vomited milk."

2.—About 2 years ago in the city hospital of Elberfeld, in ne surgical clinic of Dr. Pagenstecher, Schlutius first saw **elluloid thread used as suture and ligature material.** After long experiment, Dr. Pagenstecher had perected and brought into practical and surgical use this hread, thus completing a work attempted years before by inhart, and later by Trendelenburg and Lawson Tait. At rst, it was all prepared under the personal supervision of ne hospital physician, but is now made in large quantities s follows: The best English gray linen thread is boiled in a % soda solution and thoroughly sterilized, then packed in erile cloth and dried in a stream of hot air. It is then turated in a specially prepared solution of celluloid, rendering it smooth and glossy, and after being heated in large sinfectors, it is packed in sterile boxes ready for sale and se. Schlutius says that it is firm and strong, without the asticity requisite to the loosening of the knot. It is easily hreaded, readily tied, and being hard and smooth, never ftens by absorbing any secretion from the wound. For his reason when it is used there is entire freedom from itch-abscesses. It can be used in a finer thread than silk nd is therefore adapted to the most delicate surgical work. is made in 5 sizes, the coarsest, No. 5, being best for ligatres en masse. In conclusion, Schlutius expresses his elief that celluloid thread will eventually supersede all her suture-material, being much less expensive and better lapted to the needs of the surgeon. [W.K.]

3.—Stratz describes in detail the operation of **lateral olpotomy** as most satisfactorily used by him in 2 cases, ne involving a pyosalpinx, the size of a man's head, and e other an intraligamentous myoma. The hemorrhage in th cases was very slight; in No. 2, the vaginal incision as so elastic that a myoma 12 to 15 cm. in diameter was moved through an incision 5 cm. in length. In lateral colpotomy the chief points are to avoid injury to uterine arteries and ureters, and to make no opening in peritoneum, Douglas' sac, or the vesical region. Stratz hopes that the success of lateral colpotomy may prove to be a valuable contribution to conservative operative gynecology. [W.K.]

September 30, 1899. [23. Jahrg., No. 39.]

1. A Modification of Tubular Speculum: Slit Speculum: Doubly-slit Speculum. G. KEPLER.
2. A Case of Twisted Axis of the Uterus with a Left-sided Ovarian Cyst with the Transposition of the Tumor to the Right Side. ADOLF WINTER.

1.—Kepler has devised a **modification of the cylindrical speculum,** which is cleft throughout its entire length, and which he claims is thus adapted for use in a large proportion of cases. He has also another form in which there is a second slit half the length of the tube. [W.K.]

2.—In literature there is mention of comparatively few cases of the **twisting of the uterus,** and Winter gives a detailed description of a case operated upon by Freund, who removed a multilocular ovarian cyst from a woman who died from shock 12 hours after. The peculiarity of this case was the firm adhesion to the cecum and vermiform appendix with the position of the tumor on the right side and the twisting of the uterus in its longer axis about 90°. [W.K.]

October 7, 1899. [23. Jahrg., No. 40.]

1. Meeting of German Naturalists and Doctors at Munich, September 18 to 23. ARTHUR MUELLER.
2. Shall Perforation be Considered Necessary in the Extraction of the Infant? W. ZANGMEISTER.

1.—Mueller gives a full report of the papers and discussions in the department of Obstetrics and Gynecology during the first two days of the German Scientific Congress.

2.—Zangmeister discusses the advisability of **cephalotripsy** as compared with craniotomy, and after mentioning the arguments for both methods, decides in favor of the former in most cases. He believes it answers the primary object in lessening the diameter of the fetal head, and is less liable to cause infection by absorption of the decaying materials. [W.K.]

Neurologisches Centralblatt.

November 1, 1899. [18. Jahrg., No. 21.]

1. Contribution to the Analysis of the Function of the Posterior Columns of the Spinal Cord. MUNZER and WEINER.
2. Contribution to the Relations of Pick's Bundle to the Pyramidal Columns, with a Remark upon the Staining of the Myelin Sheaths. RANSOHOFF.
3. Contribution to the Pathogenesis and Morphologic Anatomy of Internal Hydrocephalus of the Horse. DEXLER.

1.—Munzer and Weiner give first the classification of the structures derived from the posterior columns of the dog and rabbit. These consist of (*a*) fibers passing through the posterior columns into the central gray matter, the myelopetal posterior right fibers; and (*b*) the fibers remaining in the posterior columns terminating in the nuclei of Goll and Burdach, the bulbopetal posterior root fibers. The posterior column also contains endogenic fibers which may be either short or extend upwards until they terminate in the muclei of Goll and Burdach. As a result of some experimental investigations, the authors discovered that the normal painful reflex produced by irritation of the exposed posterior roots did not occur after ligation of the abdominal aorta, or after the injection of a normal salt-solution into the spinal cord in sufficient quantity to destroy the central gray matter. This seems to prove that the bulbopetal fibers do not convey the sensation of pain. After sections of the posterior root it is found that when all the bulbopetal fibers in the posterior columns have degenerated, the central stump is still irritable. Another experiment that proved this fact was performed by separating the posterior column from the central gray matter by an incision and maintaining the separation by means

of a fragment of mica. Irritation of the roots entering this separated area caused no reflex, but of those above and below an intense reaction. In fact, there seems to be a certain amount of hyperalgesia in the region below the level of the operation. If, now, the portion of the spinal cord separated from the posterior columns is divided, the columns remaining the sole source of communication between the two portions, no painful reflexes can be obtained by irritation of the lower part. As a result, they conclude that all sensory nerve-roots as soon as they enter the spinal cord, divide into two parts, one conveying sensations of pain, touch, and temperature, passing up through the gray matter, while the other enters directly into the posterior columns. The pain-reflex resulting from irritation of the posterior column is produced by the irritation of the mylopetal fibers and of the short endogenic tracts. It is probable that the fibers conveying pain-sense terminate in ganglion cells in the gray matter of the cord which form a second neuron. The bulbopetal fibers convey the impressions of the movement. [J.S.]

2.—Ransohoff examined the brain and spinal cord of a fetus, 44 cm. in length, that died at birth. In the oblongata and spinal cord, only the pyramidal tracts were still unsupplied with myelin. At the level of the abducens and nucleus in the lateral reticular formation, some fine bands of fibers without myelin were discovered, that, as they proceeded downward, corresponded to Pick's bundle. At a lower level, they were collected into a single, large, round bundle, resembling, and just below the decussation of the pyramidal tract, they turned toward the median line and disappeared in, the the lateral pyramidal column. The condition was bilateral, and seems to prove that Hoche's views of the relation of Pick's bundle to the pyramidal tracts are correct. Ransohoff describes a new method for staining nerve-tissue hardened in Orth's fluid. He leaves the sections 24 hours in Mallory's phosphotungstic hematoxylon, then washes them in water, and differentiates either by Weigert's or Pal's method. [J.S.]

3.—Dexler continues his article on internal hydrocephalus in the horse. In this condition the lateral ventricles and the anterior portion of the third ventricle are dilated. The posterior portion of the third ventricle and sylvian aqueduct apparently contracted. The condition of the fourth ventricle varied. The pressure in 25 of 26 cases was zero, although the measurement was made within 5 hours after death. The curious feature in the brain was the formation of a pressure-tumor by the occipital lobes, which apparently began to penetrate into the posterior cranial fossa and press upon the cerebellum. It is evident from these changes that the cause of the condition must be situated about the center of the third ventricle, and it seems likely that this compression is due to the protrusion of the occipital lobes already described. This tumor of protrusion is apparently in part the result of the peculiar anatomic conditions of the cranial cavity of the horse. The tentorium is ossified, with the exception of a small portion just above the corpora quadrigemina, and just behind the pineal gland. It is through this opening that the protrusion occurs, producing pressure upon the canal of the median portion of the brain, and causing the hydrocephalus. Dexler, therefore, believes that hydrocephalus internus of the horse is a secondary mechanic condition produced by the passive congestion of the cerebrospinal liquid in the ventricle of the anterior portion of the brain, as a result of compression of the lumen of the sylvian aqueduct. [J.S.]

Centralblatt für Chirurgie.

October 21, 1899. [26. Jahrg., No. 42.]

A New Method of Resection of the Elbow-Joints. TITO CAVAZZANI.

The following new method of **resection of the elbow** joint is recommended as very convenient and effectual as compared with other operations now in general use. An incision is made through the skin and subcutaneous tissue, beginning at the outer side of the biceps tendon 2 cm. under the epicondyle and extending obliquely outward parallel with the interarticular line; it then runs obliquely over bone upward along the inner border of the ulna, ending beside the olecranon. The flap is dissected upward by separating in the region between the anconeus and the epicondyle. The periosteum of the ulna and the triceps tendon are separated from the bone together. Then follows the opening of the joint-dislocation and resection in the usual manner. [M.B.T.]

October 28, 1899. [26. Jahrg., No. 43.]

An Osteoplastic Operation on the Mastoid. KÜSTER.

In order to **avoid defects** of the **mastoid** process **after operation** the following method is recommended: The external ear is drawn well forward and an incision is made directly behind it, beginning at the upper border of the external auditory meatus, passing directly downward to the tip of the mastoid process, around it and on the posterior border to the level of the beginning of the incision. The periosteum is separated away enough to enter a chisel, by means of which a thin flap of bone is separated from the surface of the mastoid process. The bone which remains in connection with the skin and periosteum is laid to one side, the diseased tissue is removed and the defect in the bone is packed with iodoform gauze. Out of the lower border of the bony flap a piece is cut large enough for the exit of the iodoform gauze. After 4 or 5 days the tampon is removed and a new one inserted; the cavity fills in a few weeks by granulation. The entire operation can be completed in 15 or 20 minutes. It has the advantage that no trace of the defect in the bony contour remains after the operation. [M.B.T.]

Deutsches Archiv für klinische Medicin.

March 23, 1899. [Bd. 62, Heft 5 und 6.]

19. Diabetes, with Bronzing of the Skin, and a Contribution to the Knowledge of General Hemochromatosis and Atrophy of the Pancreas. ANSCHÜTZ.
20. The Physical Condition of the Liver and Spleen in Diseases of the Former, their Relations to one Another and its Diagnostic Value. POSSELT.
21. Cholesterinuria. HIRSCHLAFF.
22. Periarteritis Nodosa. FREUND.
23. The Experimental Transmission of Lienal Leukemia from Human Beings to Guineapigs. TEICHMÜLLER.
24. The Influence of the Gravitation of the Moon upon the Invasion and Crisis of Croupous Pneumonia. BRUNNER.
25. Acute Vesicular Formations in the Skin, Particularly Febris Bullosa, with a Casuistic Contribution. KÖHLER.

19.—Anschütz reports the case of a man who noticed discoloration of the skin 13 years before his death. Subsequently, there were signs of **cirrhosis of the liver**; that is to say, it became larger, and the discoloration increased and became of a bronze color. Later, there was another attack, in which the liver became swollen, there was thirst and hunger, and the feces were white. After this, there was some improvement, but he finally developed symptoms of **diabetes**; there were ascites, edema, and cyanosis of the extremities, then gradual diminution of the size of the liver, pleurisy, and death. At the autopsy, there were found hypertrophic cirrhosis of the liver, **cirrhosis of the pancreas**, chronic endocarditis and pericarditis, perisplenitis, hypertrophy of the spleen, fibrinous and exudative pleurisy on the left side, with compression of the left lung; brown atrophy of the heart, arterial sclerosis, and general hemochromatosis. The microscopic examination of the liver showed the presence of an enormous amount of pigment in and between the cells, sometimes forming minute granules; sometimes irregular clumps, and taking the prussian-blue test for iron. In addition, there was an irregular hyperplasia of the connective tissue. In the pancreas, there was enormous proliferation of the interstitial tissue that contained everywhere much of the same brown pigment. The lymph-glands in the retroperitoneal region were swollen, and pigmented; those in the inguinal region were slightly enlarged, but nearly normal. Considerable quantities of pigment were also found in the rete malpighi in the form of minute granules at the poles of the nuclei of the cells. Pigment was also found in the papillæ, and in the epithelium of the sweat-glands. In the latter situations, it reacted to potassium ferrocyanid, but in the rete malpighi it did not. The kidneys were nearly normal, and almost without pigment. In the choroid plexus there was an enormous amount of pigment in various stages

f change, the color ranging from golden yellow to deep blue. During life, and in the nonpigment organs examined at the utopsy, there were no traces of pronounced anemia. Anchütz collects from the literature 24 cases of this condition. His own case was the only one, in which disturbance of absorption of fats was associated with diabetes. In the 24 ases, the liver had shown the changes of pigmentary cirrhosis in 23. In 21 of 22 cases, the pancreas was altered, and in 8 cases, in which microscopic examinations were made, igment was discovered in the epithelium of the glands, and n 15 of these cases there was proliferation of the connective issue. In 7 of the 24 cases, an old pericarditis was present. he pigment was curiously distributed. It was always found n the glandular organs and in the heart-muscle, and rarely n the voluntary muscles, and never in the mucous membrane of the mouth and trachea. The central nervous system and the bones also escaped, but the cells of the cartilage contained pigment. This pigment is, of course, erived from the red blood-cells, and it may be associated xtensively with the cirrhosis of the liver, or be secondary o this, or the primary disease. Cirrhosis of the liver rarely, owever, causes destruction of the blood-cells, whereas, as as been shown by various experimenters, such alteration in ne chemistry of the blood produces degeneration of the ells and cirrhosis of the liver. The excess of pigment is lso probably responsible for the cirrhosis of the pancreas, nd its absence from the kidneys explains their noninvolvement. The spleen is, or course, partly sclerotic as a result of ne alterations in the liver. Some interesting experiments ere made in order to determine the excess of iron in the rgans. Quantitative estimations of weighed portions of ver showed the presence of over 7% of iron in the dried ubstance, and over 50% in the ashes; that is to say, over 100 mes the normal quantity and twice as much as has ever itherto been recorded. This great excess of iron must be erived from the food, because there is rarely any pronounced nemia in these cases. It seems likely, therefore, that in ddition to increased assimilation, there is diminished exretion, and the amount of iron normally retained in the ood is not particularly affected. This gradual destruction f the red blood-cells with the production of iron pigment probably the result of an alteration in the parenchyma of l the organs. The symptoms of pancreatic disease in this ase were well marked. There was rapid emaciation, pain the epigastrium, small amount of indican in the urine, hich is abnormal; melituria, the presence from time to me of unchanged muscle-fibers in the feces, which were ay-white in color; without the presence of urobilin in the rine. They contained an abnormal amount of fat, amounting to as much as 50%. Investigation of this showed there ere about seven parts of neutral to two of separated fats; at is, almost an exact inversion of the normal ratio. During these investigations, icterus suddenly developed, and the nount of fat increased considerably. The peculiar defect fat-splitting processes in cases with nearly normal fat-reorption acts only in pancreatic disease; and, when associad with diabetes, indicates some alteration in the pancreatic ands. In conclusion, Anschütz believes that the diabetes ellitus resulted from the sclerosis of the pancreas; that e general cirrhosis of the organs was secondary to the desit of pigment; and that this deposit was brought about by alteration in the parenchymatous cells of all the organs. s.]

20.—Posselt, having become interested in the **ratio of ie weights of the spleen and liver in echinococcus isease of the liver,** has analyzed the literature of the ole subject in order to determine whether any rules rerding this ratio exist. He has collected altogether 33 cases echinococcus multilocularis, to which he adds 9 observed himself. In order to have a convenient method of exessing his results, he had devised what he calls the spleener index $\frac{s}{l}$ that is, the weight of the spleen divided by at of the liver, expressed in the smallest fraction. The rmal ratio is about $\frac{1}{10}$. In carcinoma of the liver, this greatly increased, so that the fraction may fall as low as . This change is probably produced by the formation of condary nodules in the liver. In echinococcus multicularis, both the liver and spleen are proportionately enrged and the factor is not affected. In both hypertrophic d atrophic cirrhosis, the spleen is enlarged disproportionately to the liver, and the fraction is greater than normally occurs. This must be due to the fact that the toxin producing the cirrhotic condition acts also upon the spleen. Finally, in Bantie's disease, that is, splenomegaly with cirrhosis of the liver, the fraction becomes greatest, and may equal $\frac{1}{4}$ or even more. In this condition, the spleen is first affected and the liver secondarily. He believes these results prove the importance of carefully weighing the organs at the autopsies, for the purpose of making a diagnosis. [J.S.]

21.—Hirschlaff reports a case of **cholesterinuria** occurring in a man, 70 years of age, suffering from hydronephrosis. The urine on one occasion was dark, turbid, alkaline, and offensive. A peculiar shining scum formed upon the surface, and upon microscopic examination proved to be crystals of cholesterin. One hundred cubic centimeters of carefully mixed urine from which the cholesterin was separated, showed the percentage of 5.8. A puncture of the cystic renal pelvis gave a similar liquid that also contained large quantities of cholesterin. Hirschlaff mentions as conditions in which this symptom occurs, pyonephrosis, echinococcus of the kidney, renal calculus, cases of severe dyspepsia, epilepsy, and chyluria. He believes that as the intravenous injection of cholesterin into dogs has not produced cholesterinuria, the condition invariably represents either fatty degeneration or old foci of suppuration in the urinary tract. [J.S.]

22.—Freund reports the results of the **studies of the arteries in a case of a man 38 years of age.** There was very extensive periarteritis nodosa, particularly in the arteries of the peritoneum, mesentery, and other serous membranes, and in the heart and voluntary muscles. He describes in great detail numerous sections in which it appears that the changes are sometimes more pronounced in the adventitia, sometimes in the intima, but that usually the process appears to affect chiefly the media. In cross-sections of the arteries it rarely happens that the whole circumference is involved; the changes, as the name implies, occupying only the small part. The adventitia frequently shows cellular infiltration, which is of the mononuclear variety. Often spindle-cells are also found, but polynuclear cells are rare. The intima is often thickened, and apparently undergoes a hyalin change, that also extends to the media, and causes the lumen to be surrounded by a more or less homogeneous ring staining brightly with eosin. The large portion of this hyalin mass is unquestionably due to the transformation of the media, because the internal and external elastic membranes can frequently be made out. These elastic membranes apparently never themselves undergo a hyalin degeneration, as is shown in the preparations stained by orcein. In the earlier stages of the change, round cells, that apparently are derived from the adventitia, appeared to penetrate the media, and often wander in in rows. The hyalin transformation, however, usually extended beyond the limits of the round-cell infiltration. As the change occurs first in one side of the vessel, the line of demarcation between healthy and diseased tissue is usually exceedingly sharp. The intima also takes part in the changes. The cells proliferate and form irregular masses, in which polymorphous elements and spindle-cells with two long terminal processes may be found. This naturally leads at first to a narrowing of the lumen of the vessel, and is subsequently compensated by an aneurysmal dilatation. This leads to the destruction of the internal elastic membrane, and causes dilation of all three coats; that is sometimes irregular, sometimes fusiform, but it never apparently gives rise to the saccular type of aneurysm. Many of the diseased arteries apparently failed to show this compensatory change. The lining endothelium appears in all cases to resist longer than the other portions the progress of the disease, and, therefore, thrombosis does not occur as a usual change. In many of the arteries, however, which were seriously altered, thrombi were present. Ultimately the three coats become confused; the cells from the adventitia permeate the media, which, as a result of the destruction of the internal elastic membrane, can no longer be distinguished from the intima; and it is possible that the media disappears completely. After thrombi have been formed, the further development of the nodules consists in the replacement of the fibrin and the degenerated tissue in the artery by ordinay connective tissue, so that finally there is nothing but a mass of granulation-tissue composed of spindle-cells and fibers. The other changes in the body consisted of a slight dilation, hypertrophy of the heart, and considerable alterations in the

kidney, consisting of the changes characteristic of chronic interstitial nephritis. In addition, necrosis in the renal tubules and some alterations in the glomeruli indicated the recent action of a toxic product. The stomach and duodenum were greatly dilated. The liver was small, there was edema of the brain with slight dilation of the lateral ventricles, and slight microscopic alterations in the muscles and nerves. The clinical history consisted of slight fever, commencing three months before death, followed by severe pains in the lower extremities, and tenderness in the limbs. There was loss of appetite, and the patient became quite weak. Upon admission he was extremely emaciated. The pulse was rapid, and there was persistent vomiting. Death occurred apparently from exhaustion, after the appearance of unilateral tonic convulsions that changed from one side to the other. The case, therefore, can be looked upon either as a toxic polyneuritis or as the result of disease of the nerves secondary to the changes in the arteries. Freund prefers the last hypothesis and then discusses the pathogenesis of the arterial disease. The nodules may be either tumors, or the result of mechanical traumatism of the arteries; or the result of some toxic substance acting upon the walls. The last theory seems to him the most rational. [J.S.]

23.—Teichmüller, having at his disposition two cases of **typical splenic leukemia,** injected various quantities of the blood into 19 guineapigs. The blood was always drawn from a vein in the arm, and injected directly into the animal, either into the jugular or carotid artery or subcutaneously. Each animal received a number of injections, and in all cases, except one in which a large quantity was injected, no result whatever occurred. [J.S.]

24.—Brunner, after an **analysis of 1124 cases of pneumonia,** concludes that the invasion of the disease occurs more frequently just before full moon, and that in the course of the movement of the moon around the earth, when the quadrature falls between the apsides, invasion and crises are more frequent near the coincidents of the points nearest the earth to the syzygies, and he suggests that perhaps an increase in gravitation produces increased activity in the microorganisms. [J S.]

25.—Köhler, after quoting with approval Köbner's description of **acute pemphigus,** that after a brief prodromal stage there occurs a severe attack of fever associated with the development of blebs upon the hitherto perfectly healthy skin, these healing in one part and appearing in another in association with exacerbations and remissions of the fever, the disease lasting from two to four weeks, reports 7 cases which are remarkable in that they occurred among the members of two families occupying adjacent houses. The first, a child 6 months of age, was suddenly taken sick with high fever, and the following morning had blisters over the body, some of them being as large as a quarter. The following days there were numerous fresh groups of blisters, and the child finally died with signs of severe bronchitis. Cultures from the contents of the blebs gave staphylococcus aureus, and a diplococcus resembling the organism of Neisser. The next case occurred in a sister who had nursed the child, and then in another sister who had washed his clothes. Four other cases subsequently occurred in persons who had been very intimately associated with the first case or with some of the succeeding ones; that is to say, there was actually a small epidemic. Köhler concludes, therefore, that the genuine febris bullosa, characterized by general symptoms, is contagious; that it may attack either adults or children; and has the course of an acute exanthem. [J.S.]

Archiv für Verdauungs-Krankheiten.

May 6, 1899. [5. Band, No. 1.]

1. Concerning the Use of Thyreoiodin in the Treatment of Obesity. N. SCHIÖDTE.
2. A Contribution to the Knowledge of Gastric Crises. S. BASCH.
3. Intestinal Hemorrhage in Cirrhosis of the Liver. E. STEIN.
4. Brief Communications: (*a*) A Further Case of Diffuse Idiopathic Dilatation of the Esophagus. WESTPHALEN. (*b*) On the Question of Tetany with Dilatation of the Stomach. W. FLEINER. (*c*) An Answer to the Preceding Communication. A. ALBU.
5. A Communication Concerning Dyspeptic Asthma. F. EHRLICH.

1.—There has been a good deal of evidence furnished showing that the use of **thyroid preparations** causes marked **decrease in weight.** But at the same time there is a very serious loss of body-proteids. The present communication is the result of some work undertaken for the purpose of learning (1) whether thyreoiodin really causes a decrease of the body-weight in adiposity; (2) whether the loss of weight is dependent upon the destruction of fat alone or also upon body-proteid destruction and increased water-excretion; (3) whether it is possible to overcome any loss of proteids by increasing the amount of albuminous food and decreasing the dose of the drug; (4) the influence of the treatment with thyreoiodin upon the temperature and pulse; (5) the effect of thyreoiodin upon the general condition of the patient; (6) how should one best use the drug. The investigations were carried out over the extensive period of 3½ months. The food [unfortunately, it seems to us] was determined over only a portion of this period, and averages were taken from these determinations, and from numerons others that the author had previously made, of the nitrogen contained in the meat and other foods which he used. It is also unfortunate that over several periods the nitrogen was not determined by the Kjeldahl method but with Esbach's ureometer. The patient was a very obese woman, who was put upon thyreoiodin for therapeutic purposes. The result of this experiment showed that this preparation undoubtedly causes decrease in body-weight, since the woman lost about 30 pounds in 80 days. There was, however, in the earlier period, when a limited diet was used, a very marked loss of nitrogen, and it was therefore evident that a good deal of the loss in weight was due to the loss of body-proteids. There did not seem to be very much difference in the loss of water when the thyroid was used and when it was not, and there was so much loss in weight that it was evident that the most important portion of it was due to the increased destruction of fats. The question of the possibility of overcoming the nitrogen-deficit by increasing the albumin in the diet and decreasing the dose of the thyreoiodin must be given an emphatically positive answer, for increasing the daily ingestion of nitrogen up to 2½ gm. of nitrogen caused a distinct nitrogen-retention. This was obtained, however, only when the thyreoiodin was used in moderate doses. The temperature varied a little, and usually showed a slight increase in the evening, and the patient at this time also felt somewhat feverish. The pulse was somewhat increased, at one time to high as 120. The general condition of the patient was not satisfactory when large doses were used, but when she grew somewhat accustomed to the preparation, and smaller doses were instituted, she felt entirely comfortable. As a result of this, Schiödte decides that the preparation may be used in the treatment of obesity, and that it undoubtedly has a marked effect in reducing the body-weight. It is unquestionable, however, that thyroid preparations cause a good deal of systemic depression, and at times, if not carefully watched, produce severe symptoms of collapse, which may come on suddenly. Therefore, if it is used in treating obesity, small doses only are admissible, and these must be used with the utmost care. [D.L.E]

2.—See abstract No. 1, under New York *Medical Record.* PHILADELPHIA MEDICAL JOURNAL, October 21, 1899.

3.—Stein first records in detail a case of **cirrhosis of the liver,** which was **complicated by severe hemorrhages from the bowel.** The patient finally died in England from hemorrhage. Throughout the whole of her illness the hemorrhages had been the most prominent symptom, and they had been the initial symptom as well. There are 3 further cases reported from the records of Fleiner's clinic, and Stein then gives a general discussion of hemorrhage with cirrhosis. It is a common belief that hemorrhage occurs from increase of bloodpressure owing to obstruction in the portal system. This is undoubtedly true, and the most frequent cause of hemorrhage is perhaps rupture of varices. It must be granted, however, that there is a distinct tendency to hemorrhage in this disease, and often from situations where excessive bloodpressure could not be the active cause, and we must consider these hemorrhages due to the cachexia. The cause that produces the cirrhosis is sometimes apparently the cause of the hemorrhage, since stopping the use of alcohol sometimes causes the hemorrhages to cease. The hemorrhagic tendency is sometimes made more pronounced by the existence of acute nephritis, and perhaps

other diseases as complications of the cirrhosis. Another proof of a hemorrhagic tendency in diseases of the liver is seen in the severe hemorrhages that sometimes occur with cholelithiasis. The hemorrhages may occur from many regions. In the intestinal tract there are two kinds depending upon their source from veins or capillaries. Free hemorrhage from rupture of veins occurs chiefly in the esophagus and rectum, while the capillary hemorrhages are more frequent in the stomach and the intestine down to the level of the rectum. The hemorrhages from the stomach are quite common, and they are often due to erosions produced by small hemorrhages into the wall of the stomach. Hemorrhages from the small intestine are comparatively rare. It is frequently possible to elicit the fact that ascites grows less after a marked hemorrhage owing to the absorption of the ascitic fluid into the bloodvessels to replace the bulk of the blood lost. This lasts for but a few days, however, when the previous condition of affairs is found to exist once more. In the diagnosis of these hemorrhages one is most apt to confuse them with gastric or duodenal ulcer, but if there is ascites and enlargement of the spleen this mistake should not be made, and proper attention to the symptoms would usually prevent the error. [D.L.E.]

4.—The case was that of a woman of 44, who for 12 years had digestive disturbances, the chief of which were that she had difficulty in swallowing for a long time, followed by a sensation that the food remained in the esophagus, and that she must drink large quantities of water to carry the food further. She had a sensation of pressure in the chest owing to the distention of the esophagus; often had to regurgitate the food, and for some time, as soon as she assumed a horizontal position, she had had severe cough. When examined she had some hysterical stigmata, and slight splanchnoptosis. The introduction of the stomach-tube emptied the esophagus of a considerable quantity of contents. It was also found that the second sound upon swallowing was replaced by one similar to that produced by pouring fluid into a vessel which already contains fluid. The diagnosis was **hysteria with contraction of the cardia, and diffuse dilatation of the esophagus.** The fluid removed from the esophagus contained no HCl, but some lactic acid. Peptones were absent, and there was no pepsin present. It was possible, nevertheless, that these contents came from the stomach, but against a possible anadenia gastrica spoke the fact that there were large amounts of mucous in the stomach-contents. The diagnosis was established on the above grounds, the only other possible diagnosis being considered a diverticulum of the lower portion of this organ. The diverticulum was excluded chiefly because of the sound upon swallowing, previously described, and a diffuse dilatation seemed to be made extremely probable by the existence of cough when lying down. Westphalen explains this symptom by stating that the food contained in the esophagus rose to the level of the larynx when the patient was horizontal. The patient improved greatly at first, but subsequently became worse; the stagnation occurred again in the esophagus, but lavage and careful diet caused almost all complaints to disappear, and he gained much flesh. The possible explanations of diffuse dilatations of the esophagus are spasm of the cardia, continued contraction of the cardia owing to the absence of the reflex causing relaxation, or, finally, primary atony of the muscle of the esophagus. [D.L.E.]

5.—An interesting case is reported. A man, 36 years of age, had repeated attacks of severe asthma. These were entirely cured for a brief period by the removal of nasal polyps. Up to this time there had been apparently no connection between these attacks and any gastrointestinal disturbance. Afterward, however, the attacks began to appear almost constantly after taking food, and seemed entirely dependent upon this act. The only abdominal abnormities seemed to be enlargement of the liver and spleen, with slight gastroptosis. The patient was somewhat jaundiced. The stomach contained gastric juice in the early morning, but there were no remnants of food present. The use of lavage before breakfast, regulation of the diet, small doses of atropin and alkalies caused the disappearance of the attacks to such extent that they occurred only after carelessness in diet. The patient had previously had rheumatism, and his pulse was quite rapid, though there were no other signs of cardiac disease. Ehrlich believed, however, that the occurrence of **asthma from two reflex sources** indicated some especial predisposition to this affection, and with a rheumatic individual he thought the predisposition probably lay in some cardiac abnormity, and therefore administered digitalis, with the result that the attacks disappeared entirely. [D.L.E.]

Deutsche Zeitschrift für Nervenheilkunde.

June 8, 1899. [15. Band., Heft 1 u. 2.]

1. A Further Contribution to the Knowledge of Acute Non-suppurative Encephalitis and Polioencephalomyelitis. Oppenheim.
2. Chronic Rigidity of the Spinal Column. Hoffmann.
3. Ankylosing Inflammation of the Spinal Column, and of the Large Joints of the Extremities. v. Bechterew.
4. New Observations and Pathologic Anatomic Investigations upon the Rigidity of the Spine. v. Bechterew.
5. Investigation of some Cases of Tuberculous and of a Case of Purulent Meningitis, with Particular Consideration of the Ependyma of the Ventricle of the Brain Nerves and of the Spinal Cord. Dreher.
6. A Case of Acute Bulbar Paralysis, with Autopsy. Ransohoff.
7. A Peculiar Change of the Nerve Fibers of the Spinal Cord that is without Clinical Significance; the so-called Hydropic Change of Minnich. Petren.
8. The Contractions of the Stomach, Intestines, and Bladder during the Epileptic Attack. Ossipow.
7. Springing Pupils in a Case of Cerebral Infantile Paralysis, with Remarks upon the Prognostic Significance of Springing Pupils Associated with Normal Light-Reaction. Koenig.
10. The Symptomatology and Therapy of Severe Paralysis of the Deltoid. Kron.

1.—The first patient, a girl of 16, had suffered for some weeks with headache, loss of appetite, and gastric disturbances. These gradually increased until the headache was very severe; there was vomiting, vertigo, chills, and fever. When admitted to the hospital the patient was apathetic, and there was paralysis of the left abducens. These symptoms, associated with marked tenderness of the left side of the neck and over the mastoid process, led to an immediate exploratory operation of the latter, and the tympanic cavity, with, however, negative results. The condition rapidly grew worse; the patient became almost completely unconscious; there was delirium; and 4 days after the operation, complete motor aphasia and faciobrachial monoplegia of the right side. Sensation was not disturbed. The retinae were normal. On account of the combination of focal symptoms, with the signs of a general febrile disease, a diagnosis of **non-suppurative encephalitis** was made. In the course of a few days, marked improvement occurred, and for some months the patient was apparently perfectly well, with the exception of the operation-wound, which did not heal. A second operation was, therefore, performed for the purpose of removing some necrotic bone, and shortly after this, infection occurred, and the patient died of purulent meningitis. At the autopsy the latter diagnosis was confirmed, but there was also found a focal lesion of the left temporal lobe involving the left third frontal gyrus and the lower portion of the left ascending frontal gyrus. This lesion consisted of two parts that apparently resembled sclerotic scar-formation in the brain-substance. No similar process was found in any other portion of the brain. The value of this case, according to Oppenheim, lies in the fact that by it is demonstrated very clearly the possibility of complete **recovery from the nonsuppurative forms of encephalitis.** This, he believes, is conclusively proven by the fact that focal lesions were only found in the situations where, from the clinical symptoms, they were to have been expected, and that they did not partake in any way of the forms of the acute suppurative process. The second patient, a woman, 40 years old, was suddenly attacked by a sense of pressure in the eyes, scotoma and diplopia, and there was also more or less difficulty in chewing and swallowing. When admitted, she was found to be suffering from bilateral ptosis, and a paresis of the eye-muscles more pronounced on the left side. The muscles of mastication were paretic, but speech was unaffected. The tendon reflexes were increased, but the muscles of the extremities were normal. The gait was somewhat uncertain, sensation was not

involved, and examination with the electric current showed reactions of degeneration only in the masseters. The patient rapidly grew worse, became apathetic, developed weakness in the arms and legs, there was complete ophthalmoplegia exterior, and speech became almost unintelligible. A diagnosis of polioencephalitis, acute or subacute, was made. Death occurred about six months after the first symptoms. At the autopsy, a large lymphosarcoma was found in the anterior mediastinum, apparently growing from a persistent thymus. A variety of microscopic changes were found in the central nervous system. In the cervical enlargement of the spinal cord, there was a curious circumscribed lesion resembling a linear cicatrix. In the gray matter of the cord were also found numerous recent hemorrhages, evidently of agonal origin. The bloodvessels in various portions showed a curious hyalin or fibrous degeneration of the walls, and in the region of the corpora quadrigemina and around the aqueduct of Sylvius there was proliferation of the glia-cells. Oppenheim is somewhat doubtful about the nature of this case. The most important nervous symptom is probably the trophic changes in the masseter muscle. He concludes, therefore, that there are cases in which the symptomatology is so characteristic that a diagnosis of polioencephalomyelitis can be made at once, and others in which a neurotic condition, that is a disease of the nervous system, without anatomical basis, produces symptoms that are more or less similar. In conclusion, he suggests that the disease was caused by some noxious principle, and that this might have been of three kinds, that is—a poison, that he calls A, that produces the myestheric disturbance; second, a poison, that he calls B, acting upon the nerve-cells, and interfering with their function, but not producing anatomic alteration; finally, a poison, that he calls C, producing anatomic alterations. C then would produce polioencephalomyelitis and similar disease types; B bulbar paralysis without anatomic change; A may act in association with either B or C. He believes that in his case the poison was liberated from the tumor in the anterior mediastinum. [J.S.]

2.—Hoffmann reports the case of a man, 38 years of age, who for several years had had **rheumatic pains in the extremities.** Later he had a severe attack of lumbago, and began to notice rigidity of the spinal column. Various bath cures had slight or no effect. The pains were most severe in the upper part of the back and extended into the arms. All the other organs were apparently normal. When examined it was found that the nervous system was apparently normal, with the exception of slight tenderness in some of the nerve-trunks, and exaggeration of the tendon reflexes. The gait was very peculiar. The patient arose with difficulty from the chair, aiding himself with his hand, then stood with the knees slightly bent and the trunk thrown backward. Each knee was lifted upwards, outwards, and forwards, and the lower leg was placed upon the ground in an almost perpendicular line. Any attempt to bend forward was only accomplished by flexion at the knees. There was in addition an extremely severe acne pustulosa over the whole back. Treatment consisted first in the cure of the skin lesion, and then the application of warm sand baths. The patient remained in sand at 40° R. (122° F.) for about three-quarters of an hour. This caused profuse perspiration and palpitation of the heart. He was then washed and placed in a pack for three-quarters of an hour, and finally received warm douches. Twenty-seven such baths produced very pronounced amelioration in the symptoms, and considerable increase in weight. After a further cure at another bath the patient became practically well. The course of the case excludes arthritis deformans. Hoffmann is inclined to believe that the poison was absorbed from the acne. [J S.]

3.—v. Bechterew reports two cases of **rigidity of the spinal column.** The first patient, a man of 34, noticed first swelling of the right knee-joint that disabled him for 8 months, and afterward recurred in milder forms from time to time. Some years later, there was pain in the left shoulder-joint, which subsequently became swollen. When admitted to the hospital, there was general emaciation with atrophy of the muscles of the neck, and the limbs. In these muscles, fibrillary twitchings could be observed from time to time. The hip-joints were flexed and ankylosed. The shoulder-joints showed diminished mobility. The spinal column was almost completely rigid. The gait was disturbed, the tendon reflexes slightly increased, and the atrophic muscles showed diminished quantitative reaction to electricity, but no reactions of degeneration. Mud-baths, massage faradism, with the internal administration of sodium salicylate and potassium iodid caused considerable improvement, even diminishing the stiffness of the joints. The second case, a man of 27, had noticed pains in the knee-joint at the age of 15. These recurred from time to time, and the patient grew gradually worse. The pains were exceeding severe, and often caused complete disability. When axamined, it was noticed that the left extremity was somewhat shorter than the right; both knee-joints had impaired movement, and there was also partial ankylosis at the hips. The spinal column was rigid and bent slightly backwards. This produced peculiarities of movement on sitting down, getting up, and walking. There was no tenderness on percussion over the spine. There was slight quantitative diminution, but not qualitative alteration to the electric current. These two cases differ from those reported by Strümpell and P. Marie, on account of the simultaneous affection of the large joints. They are also peculiar because the disease appeared to commence in the lower portion of the spinal column, and progressed upwards. He therefore suggests for this condition the name **chronic ankylosing inflammation of the great joints and the spinal column.** [J.S]

4.—v. Bechterew reports the case of a man, 30 years of age, who had been obliged to take long railroad journeys continually, and had had syphilis. Four years before examination, he had pains in the neck, the legs, and back. His condition gradually grew worse, and 2 years later he noticed that his neck was bent forward. Gradually the spinal column took part in this, until there was a distinct posterior curvature. In spite of antisyphilitic and bath treatment, the deformity increased; there was trembling in the legs, a tendency to knock-knee, general weakness, emaciation, and some symptoms of melancholia. When examined, it was found that **the spinal column was bent and rigid.** Rotation was impossible. There was some atrophy of the muscles, a marked loss of power, sensation was normal, there was moderate exaggeration of the reflexes. The results of treatment could not be observed. This case is quite typical and belongs to the group described by v. Bechterew, Strümpell, Marie, and others. v. Bechterew objects to the name suggested by Marie, however, that is, **kyphose hérédo-traumatique,** because it is not certain that either traumatism or heredity plays an important part. The pathology is exceedingly obscure, but v. Bechterew was able to obtain the spinal cord and vertical column ln a case that he had previously reported. The spinal column showed the characteristic deformity, there was a certain amount of ankylosis between the bodies of the vertebrae, particularly in the dorsal region. There was no compensatory lordosis. The spinal nerves arising from the thoracic region showed moderate degeneration. The brain and skull were apparently normal, the dura mater spinalis was a trifle thickened, but showed no signs of inflammation. The posterior spinal roots showed very marked degeneration, particularly in the lower cervical and upper dorsal portions of the cord. There was moderate degeneration in the column of Burdach. The pia mater was slightly thickened, and its bloodvessels also showed sclerotic changes. v. Bechterew believes that the pains were due to the inflamed meninges pressing upon the nerve-roots. This also produced more or less weakness of the muscles, and finally brought about, partly as a result of mechanical action, the deformity of the spinal column. The degeneration of the anterior roots was readily explained by the alterations in the ganglion-cells. [J S.]

5.—The first patient, a boy of 7, was sick for 18 days before death. The symptoms were characteristic. At the autopsy there was found lymphatic and miliary tuberculosis. The endyma showed acute inflammation with inflammatory infiltration, vasculitis and perivasculitis. The minute granules covering the surface of the endyma consisted of extrusions of neuroglia tissue into the lateral ventricle. Over these the epithelium was normal. The cranial nerves showed changes only in the connective-tissue, the true nervous tissue being unaffected. These changes were inflammatory in character, and affected particularly the trigeminus. There was cellular infiltration of the meninges of the spinal cord through almost their entire length, especially in the soft membranes. In the second

case, a girl 3½ years of age was sick for altogether about 30 days. The fever reached 38.7° C. The symptoms were characteristic, and in the endyma, in addition to the changes observed in the previous case, there were numerous miliary tubercles imbedded in the tissue. The small granules were composed almost exclusively of neuroglia. Changes were found in the optic nerve, in the vagus, and, to a less degree, in the other cranial nerves. The changes in the meninges of the cord were more pronounced in the upper portion. In the cord itself there was some swelling of the axis-cylinders. The third patient, a girl of 2 years, had had purulent otitis media, and there was some doubt as to whether the cerebral symptoms were due to abscess or meningitis. At the autopsy, **tuberculosis of the pia mater** was observed. Examination of the spinal cord showed very pronounced alteration in the membranes, endoneuritis and perineuritis of the spinal roots, and swelling of some of the axis-cylinders. The fourth case, one of purulent meningitis, occurring in a girl of 25, showed perivasculitis of the subendymal bloodvessels, and small granules composed of neuroglia tissue. The membranes of the spinal cord were profoundly involved. The substance of the spinal cord, however, escaped almost entirely, with the exception of a small focus of softening in the dorsal region. Dreher believes that in this case the suppurative process probably commenced in the brain itself. [J.S.]

6. –Ransohoff reports the case of a woman, 76 years of age, who had suffered from **paranoia** for more than 10 years. She had had several attacks of vertigo with unconsciousness. Four days before her death she awoke and complained of difficulty in swallowing, and there was also a brief attack of dyspnea. The following day the voice was hoarse, and there was almost complete aphonia; respiration was difficult, and any attempt to swallow produced profound dyspnea. The condition continued to grow worse, and the patient died of **respiratory paralysis.** At the autopsy a fusiform dilatation of both vertebral arteries was found. There was also an old focus of softening in the left lenticular nucleus. There were no secondary degenerations of the spinal cord or medulla, but an area of softening was found in the right half of the latter, in the region of the formatio reticularis, at about the level of the upper olive. This lesion was somewhat irregular in outline, and did not reach the surface. It showed increase of the glia nuclei, complete loss of the ganglion-cells, and partial degeneration of the myelin-sheaths. Secondary degeneration could not be detected; the anomalous bundles of Pick were present. Consideration of the anatomy of the region involved showed that the following nuclei and tracts must have been destroyed: First, the gelatinous substance of the fifth root; second, the white lateral reticular substance; third, the upper end of the nucleis ambiguus; fourth, Pick's bundle; fifth, an aberrant bundle of fibers from the lateral columns; sixth, the arcuate fibers between the olive and the restiform body; and seventh, the central tegmental tract. Ransohoff excludes the influence of the old lesion in the reticular nucleus. He is also skeptical regarding the etiologic significance of the aneurysmal dilatations of the vertebral arteries. He therefore concludes that the only cause of the symptom was the recent area of softening in the medulla, and suggests that the slightly atypical course of the disease may possibly be explained by the destruction of Pick's bundle. [J.S.]

8.—Ossipow, at a suggestion of v. Bechterew, studied the **contractions of the abdominal viscera occurring in the course of epileptic convulsions.** Dogs were selected for the purpose of experimentation, and the epileptic attacks were produced, either by the direct electric stimulation of the cortex, or by the intravenous injection of essence of absinthe. At first the abdominal cavity was exposed, and the movements of the organs judged by simple inspection. It appeared to him that the cardia, pylorus, the intestines, and the spleen, all commenced to contract during the convulsion. Then series of experiments were performed in which compressible bulbs communicating by means of a rubber tube with a manometer were introduced into the various cavities. The experiments were performed upon the animals without mutilation, or after section of the vagi or splanchnic, or of the abdominal muscles. Contractions usually occurred 39 or 40 seconds after the end of an epileptic attack, and even during the clonic convulsions. They were rhythmic in character, and lasted for several minutes. These were observed in the stomach, the duodenum, the jejunum, and colon. In the bladder, the contractions often occurred during the clonic period of the attack, and sometimes persisted for many minutes after its cessation. The spleen on palpation was soft before the attack, and afterwards of almost wooden hardness. This Ossipow ascribes to contraction of the capsule. In all cases, these contractions were vigorous, particularly in the case of the colon and bladder. They were usually followed by complete relaxation of the viscus. The various experiments showed that they were produced, not by the local action of absinthe, or by the result of the motor stimulation of the cortex, but as a result of the epileptic attack acting upon their own centers in the brain. Their occurrence, however, is aided by the pressure of the abdominal muscles, and the existence of asphyxia. They do not occur after section of the spinal cord, but are not prevented by section of the vagi, showing that the fibers probably pass through the cord itself. They are in some respects analogous to the epileptic cramps of striated muscles. [J.S.]

9.—Koenig reports the case of a 17-years-old idiot, in whom he observed **spastic mydriasis,** the pupils being unequal, sometimes one larger, and sometimes the other—the period of variation being from a few hours to a day or more. Measurements are not given. Light and accommodation reflexes were intact. This, he believes, is the first observation of this type of pupillary disturbance in the cerebral palsy of childhood. The further course of the case will probably be extremely interesting, and it is possible that these spastic or springing pupils, as he calls them, ultimately become paralyzed. Similar cases have been reported in the literature, but not very rare. They occur occasionally as premonitory symptoms of general paralysis, and in this disease they may appear many years before typical symptoms develop. A form of springing pupils due to environment, or, as Koenig calls them, pseudo-springing pupils, occurs when the two pupils react unequally to light, and the intensity of the illumination is changed. The prognostic significance of spastic mydriasis is one of importance in normal cases. When the pupillary reactions are otherwise normal, and there is no indication of organic nervous disease, its occurrence is not necessarily of serious significance. [J.S.]

10.—Kron reports 4 cases of **paralysis of the deltoid.** The first case was in a boy of 19, who injured the left shoulder, and had paralysis of the deltoid, and inability to raise his arm. In the course of six weeks the latter function became restored, and careful examination showed that it was performed by the external portion of the middle trapezius muscle, the left supraspinalis, and the other surrounding muscles. The deltoid remained flaccid. The second case was in a woman of 43, who, as a result of injury, also had paralysis of the deltoid. Gradually the elevatory function was restored, and it was found to be the result of compensatory hypertrophy of the middle portion of the trapezius, the upper portion of the pectoralis major, and the coracobrachialis. The other muscles also shared in the movements. As a result of these observations, it occurred to Koenig that in cases in which this spontaneous compensation did not occur, it might be acquired as the result of education. The first patient, upon whom he tested this theory, was a girl of 10 years, who, as a result of acute infantile paralysis, had atrophy of the muscles of the left arm, particularly the deltoid. The first exercise consisted in moving the arms forward to a horizontal position, and then gradually, keeping them horizontal, moving them to the lateral position. In the course of six weeks it was possible to move the arms directly to the lateral position from the side, and it was found that the muscles above-mentioned had undergone extensive hypertrophy. A similar result was obtained in a woman of 41. [J.S.]

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21. The Open Method for Treating Fibrous Inflammation of the Pleura (Pneumothoracoplastica Secondaria Pleuritidis Indurata) and Its Results. RICHARD SIMON.
22. Lesions of the Tissues and their Predisposing Influences Towards Infection. PAUL LINSER.
23. A Case of Ankylosis of the Jaw Caused by Interstitial Myositis of the Masseters. RUDOLF SEGGEL.

24. A Contribution to the Study of Joint-Diseases Connected with Gliomatosis of the Spinal Cord (Syringomyelia). Second Communication. N. A. SOKOLOFF.
25. The True Adenoma of the Umbilicus. W. MINTZ.
26. A Case of Operative Exclusion of a Portion of the Intestine. O. TUBENTHAL.
27. Researches Over the Transplantation of the Epiphyseal Cartilages of Growing Long Bones. HELFERICH.
28. The Reimplantation of Resected Epiphyseal Cartilage in Rabbits. ENDERLEN.
29. Extensive Blood Extravasation on the Head, Neck, Nape of the Neck, and Left Arm, in Consequence of Compression of the Lower Portion of the Trunk. HEINRICH BRAUN.
30. The Surgical Treatment of Exophthalmus Pulsans by Single and Double-sided Ligature of the Carotis Communis. KARL BODON.
31. Intussusception of 1.25 Meters of Large Intestine; Operation; Healing. A. KERSTAW.

21.—Simon describes an operation for the **cure of chronic empyema,** which is based on the same principle whereby one incises a hydrocele and packs it with gauze, thus obtaining healing by granulation. The operation consists in subperiosteally resecting a number of ribs by separate transverse incisions and then uniting these separate wounds by longitudinal incision and tying the intercostal arteries. Those ribs should be selected which when removed would best drain the cavity, and the number limited by the size and extent of the empyema. All pockets and separate recesses of the empyema must be opened up into the general cavity. The whole wound is then loosely packed with gauze, and no stitches inserted, so that the whole wound will heal by a granulating process. The advantages of this open method of operating are: (1) All the different recesses, as well as the main cavity of the empyema, are made to granulate; (2) only the bony portions of the chest-wall is removed; (3) the lung and its surface are brought directly to the sight and touch of the operator; and (4) the removal of the hard structures allows of extreme flexibility of the chest-wall. The results of 18 patients thus operated on are as follows: 16 of the cases were cured so as to be able to take up their work again and remained so. The period of observation was from $1\frac{3}{4}$ to 11 years. The average duration of the healing process after the operation was about 11 months. [G.B.W.]

22.—Linser has carried out an interesting series of experiments on the influence of different organisms on ligated, partially dried and contused muscle. Rabbits were used and the experiments were carried out in a most thorough and careful manner. The practical results obtained are as follows: (1) drying of the wound-surface at operation should be avoided by the use of salt-solution or wet compresses and cauterization is to be limited as much as possible; (2) bruising of tissues is to be likewise avoided, and if already done the contused tissue should be removed; (3) the ligating of tissue or the prevention of circulation, by any means, is deleterious in direct ratio to the amount of tissue affected. [G.B.W.]

23.—This case of interstitial myositis of the masseter occurred in a man 48 years of age. He had had a number of carious teeth extracted, each one followed by severe inflammation of the cheek. The probable exciting cause of the present disease was a severe cold, which was followed by severe pain in the cheek and which in spite of treatment gradually grew worse. On examination the region of the left masseter was seen to be driven outward by a flat oval tumor, which was limited by the borders of the masseter. The skin was infiltrated and thrown into folds. The diagnosis of sarcoma was made and a thorough removal of the parts undertaken. The result of the operation was not satisfactory, as the remaining portion of the jaw had become so displaced as to render chewing impossible. Careful microscopic examination was made of the parts removed, and the picture thus seen was a diffuse interstitial myositis terminating in cicatrization and a partial replacement of the muscle-fibers by connective tissue. [G.B.W.]

24.—Sokoloff reports 8 cases of **joint-disease occurring in syringomyelia,** which have come under his observation since the publication of his first article on this subject, and the study of these cases, except in a few unimportant details, only tends to corroborate his earlier conclusions. Spontaneous fractures in syringomyelia are to be regarded as great rarities. The joints involved were always those of the upper extremities. The course of the disease was very slow, two of them of 20 years', and fifteen of 35 years' duration. The changes were so characteristic that mistakes in diagnosis were most improbable. The disease begins slowly as an acute exudation into the joint. In a great many ways the arthropathia of syringomyelia resembles that of tabes, but differs in its location and in its longer duration. In the 8 cases there was disease of 10 large joints, of which 5 were of the elbow, 2 of the shoulder and wrist, and 1 of the sternoclavicular joint. Besides the joint-affections there were 2 fractures, both of them ulnar. Complications as a rule ran an easy course, and because of the rapid healing of the tissues operative procedures may be undertaken without fear of any but normal results following. [G.B.W.]

25.—A woman, 46 years of age, 15 years of age, had during a childbirth acquired an **umbilical hernia.** The skin over the hernia remained unchanged, but 10 years later a dark-blue tumor about the size of a hazelnut developed within 2 months' time, directly in the region of the navus. During menstruation the tumor increased in size and two vesicles which were on its surface broke open. The growth was excised and a radical operation for the cure of the hernia was undertaken. There was return, however, of both the hernia and the growth, and they were reoperated on. The microscopic examination of these recurrent growths showed the following threefold picture: glandular and connective-tissue formation, cystic dilatation of the tubules and sarcomatous degeneration of the cicatricial tissue. [G.B.W.]

26.—A soldier, after a 14 days march, gradually developed symptoms of **intestinal obstruction.** He was operated and a large abscess, filling almost the whole of the pelvic cavity, was found and drained. Complete closure of the wound was not accomplished; instead, two fistulas developed from both of which intestinal contents were exuded. The condition of the patient became so bad, that a second and most radical operation was undertaken. The intestine above the upper fistula was cut through, and the distal end sewed up. This section was through the upper portion of the jejunum. The ileum was then severed just above the ileocecal valve, and the proximal end occluded. This section was below the lower fistula, so that the larger portion of the small intestine, some 2 or 3 meters in length, with their fistulas included, was entirely cut off from the general gastrointestinal tract, and for the future all possibility of fecal matter keeping open the fistulas was removed. The distal end of the ileum and the proximal end of the jejunum were then united, and the operation finished. The patient made a good recovery, gaining some 40 pounds in weight. [G.B.W.]

27.—Helferich has conducted a series of experiments showing the effect of transplantation of the **epiphyseal cartilages.** His results showed that these cartilages, when excised and reimplanted as in his experiments, under favorable conditions, did not entirely lose their vital properties, especially their capability of producing bone, though some decrease in their activity was observed. The shortening of the limb on the side operated on is partially compensated for by growth of the epiphysis. [G.B.W.]

28.—Enderlen's results of the microscopic examination of specimens of transplantation of the epiphyseal cartilage as carried out on 80 young rabbits are, as follows: (1) The excised and reimplanted epiphyseal cartilage retained its vitality to a large extent; (2) the extremities of the cartilage and that part nearest the perichondrium seemed to retain their vitality the best, while in the central portion the degeneration was most marked; (3) the epiphyseal cartilage underwent a considerable increase in its height; (4) the difference in height of the cartilage, which appears later on is due to ossification which takes place from the living part of the cartilage only; (5) in the piece of bone removed with the cartilage, portions remained living, and on the degenerated bone trabeculae were found layers of ostoid tissue and new bone-substances; (6) the ulna, which was the bone operated on, did not grow as fast as normal and consequently there was curvature of the radius. [G.B.W.]

29.—This patient was buried under the debris of a fall of wall for $\frac{1}{2}$ hour, the pressure being exerted on his breast and abdomen. His head was not injured. On examination, extensive **ecchymosis was found on the face and neck** and on the left arm. The conjunctiva showed mark

extravasation. Many months elapsed before healing was complete. [G.B.W.]

30.—The fundamental cause of traumatic **exophthalmus pulsans** is a rupture of the carotid artery into the sinus cavernosus. The flow of blood into the sinus from the artery causes an increase in pressure which dams the blood back into the vena ophthalmica. The consequential congestion of the tributaries of this vein causes edema of the lids and dilatation of all the vessels of the orbit. The walls of the veins become thickened until they are virtually arteries, and the pulsation of these vessels causes motion of the eyeball which is synchronous with the heart-beat. Generally exophthalmus pulsans is onesided, but occasionally when the injury has been extensive both carotids may have been torn. The treatment, first of all, should consist in rest in bed with narcotics to relieve pain. In a very few cases where the rent in the artery-wall has been small, absolute rest may effect a cure, but almost always more severe measures are necessary. Far ahead of all other of the more radical methods is ligation of the common carotid on the same side as the aneurysm. Bodon reports one case in which the right common carotid was tied with almost complete cure of the exophthalmus pulsans. Another case was greatly benefited by the carotid ligation, but this had to be supplemented by the excision of some varicose veins, just above the upper edge of the orbit. [G.B.W.]

31.—In this case the **intussusception** was so large and firm that the only method of treatment available was the splitting of the external bowel, with following incision of the internal. In spite of the severity of the case the patient convalesced rapidly, and a small fecal fistula, which developed after the operation, healed spontaneously. [G.B.W.]

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22. The Technic of Extirpation of the Larynx. Oskar Föderl.
23. Experimental Researches in Regard to Rupture of the Bladder. Fritz Berndt.
24. The Histologic Results Following the Transplantation of Pieces of Bone. Fischorder.
25. Resection of the Cervical Portion of the Esophagus on Account of Carcinoma. F. de Suervain.
26. A Bacterium Resembling that of Diphtheria Found on Granulating Wounds. Thorn.
27. Congenital Defects, Development and Use of the Patella. Dr. med. Ernst August Wuth.
28. Partial Subcutaneous Rupture of a Flexor-Tendon of the Forearm, with Secondary Formation of a Degeneration Cyst Resembling a Ganglion. Thorn.
29. The Influence of Section of Nerves on the Healing of Bones. G. Muscatello and D. Damascelli.
30. The Aural-Surgical Anatomy of the Temporal Bone. W Okada.

[The numbers correspond to those in the *Archiv* and are volume-numbers.]

22.—The **technic of extirpation of the larynx** is always open to betterment. After the excision of the diseased larynx a restoration of the continuity of the respiratory tract would be ideal. Föderl, in a case of stenosis of the trachea, resected the stenosed portion and united the cut ends of the trachea with appropriate catgut sutures. This emboldened him to attempt in a case of complete extirpation of the larynx the restoration of the continuity of the upper respiratory tract. The remains of the cricoid cartilage were brought up and fastened to the hyoid bone with 3 strong catgut sutures. There was some tendency to stenosis following the operation, but appropriate treatment by a specialist remedied this fault, and the final result was very good, the patient being able to talk in a whisper and to swallow without trouble. In those cases in which it is possible to leave in situ the epiglottis and the aryepiglottic folds, even better results are to be expected. [G.B.W.]

23.—**Rupture** of an empty or almost empty **bladder** is a rare accident. In the case of a full bladder, when the internal pressure is raised by an outside dull force, the rupture takes place where there is the least opposing pressure. Thus in a bladder so fully filled as to reach above the symphysis, the rupture occurs on the upper and posterior segments, because here the opposing pressure is only the soft intestines. In these cases the rupture is intraperitoneal. If the bladder be only partially filled, the force pushes the bladder down into the pelvis and itself protects the upper part. The danger-point is then the yielding pelvic floor and the rupture is extraperitoneal. The rupture is diagnosed by intense tenesmus, with inability to pass any urine, or possibly the voidance of a very small quantity of bloody urine, impossibility to detect bladder above the symphysis, easy catheterization, and only a small quantity of bloody urine coming out through the catheter. The treatment of vesical rupture should be about as follows: Celiotomy as the best method of reaching the bladder. It is best always to suture the bladder, as it is in this way the most readily protected against infection by the secretions of the wound. The suturing of the bladder-wall and of the peritoneum should be done separately. In case peritonitis has already set in, rendering the separate sewing of the tear of the peritoneum impossible, a tampon should be put into the peritoneal cavity. The after-treatment should consist in the extensive use of iodoform-gauze packing. [G.B.W.]

24.—Fischorder conducted a series of experiments on rabbits to show the **histologic changes attending the transplantation of bone.** A small piece of the skull of the rabbit was removed subperiostially, but immediately restored to its former position and the edges of the periosteum united over it. Rapid necrosis of the medullary substance of the diploe first occurs. This is seen by the nuclei refusing to take the stain. The necrosed medulla is soon absorbed by new tissue, which springs from the opened medullary spaces, from the periosteum and from the dura. Much slower is the disappearance of the older bone, which takes place partly through typical resorption and partly through layers of new bone replacing the old. [G.B.W.]

25.—**Carcinoma of the esophagus** is open to operation when its lower border does not reach below the upper edge of the arch of the aorta, and when the growth is still movable. Tracheotomy as a preparatory operation is seldom indicated, and even when resection of a portion of the trachea is necessary, tracheotomy should be put off until the end of the operation. Gastrostomy is the best way whereby a favorable condition of the esophageal wound may be obtained, and is absolutely essential in deep resections of the esophagus. When at the operation it has not been possible to fasten the lower end of the esophagus in the wound, the end, after being ligated, may be allowed to sink into the chest. A permanent gastric fistula is more endurable and less dangerous than a cicatricial fistula in the region of the aortic arch, which continually needs dilatation. If the ends of the esophagus are closed, it is then right to make a salivary fistula on the neck. [G.B.W.]

26.—Thorn has found in the secretion of wounds **a bacterium greatly resembling that of diphtheria.** It is a bacillus, not motile, of variable length, which by cultivation becomes club-shaped and segmented. In many young agar cultures, and generally in bouillon, it takes on a less characteristic form, that of a short rod 2-4 long and 4 times as long as broad, often slightly curved, rounded on both ends, or pointed on one or both ends. In bouillon-cultures there is a tendency for the bacilli to gather side by side, maybe 10 or 12 in a row. The resemblance to the true diphtheria-bacillus is most striking in one to two-days-old agar or gelatin cultures. Here they become club and handle-shaped, but are somewhat thicker in proportion to their length than the Klebs-Löffler bacillus. In this club-shaped and handle-shaped variety often the rod is well stained, while the smaller end is paler. By cultivation on Löffler's blood-serum these bacilli mostly lose their club-shape and soon become short, thick rods. They stain with the ordinary anilin stains and also by Gram's method. They grow best at a temperature of 37°, but also to a considerable extent at the room-temperature, thereby differing from the true Klebs-Löffler. They are facultative, anaerobic, and grow well on agar, blood-serum, and bouillon, but only slowly and sparingly in gelatin. The colonies on agar or blood-serum are somewhat rougher and more sappy than the true diphtheria. The colonies on agar plates are round, size of pin's head, whitish opaque, with

finely irregular edges, and never liquefy the culture-medium. As to their pathologic importance, they proliferate energetically in wounds, they exist together with the pyogenic cocci, and they live and grow in purulent secretions. It is not known whether they penetrate into the tissues or not, but they probably possess a slight influence tending toward the production of local inflammation and general fever. The bacillus gains access to the wound from the skin, though it is not a constant inhabitant of the dermis. [G.B.W.]

27.—Wuth reports a case of **congenital absence of the patella** in a man 35 years old, and in whose family all the male members suffered the same defect while the female portion had normal patellas. There was no functional disturbance in any of the family; on the other hand, the patient himself was a most energetic and successful jockey and mountain-climber. The quadriceps tendon followed down the usual course, going directly between the condyles of the femur and was inserted into a very prominent tuberosity of the tibia. The only abnormal symptom, so far as walking or using the leg is concerned, is that in walking the patient fails to bring his heel to the ground, bearing his weight entirely on the ball of his foot. [G.B.W.]

28.—The history of this case of **partial rupture of a flexor-tendon** of the forearm is: A man, 20 years old, fell on the outstretched hand, bending it forcibly backward. Intense pain and diffuse swelling on the flexor side of the forearm were immediate symptoms, and afterward the swelling gradually extended up the arm to the elbow-joint. Treatment slowly reduced the general swelling, but inability to use flexor-tendons of the second and fifth fingers and wrist, with the existence of a hard swelling the size of half a plum, situated on the palmar aspect of the carpal joint, remained. After a close and exhaustive study of the case Thorn gives the following conclusions: (1) It is possible for subcutaneous rupture of strong flexors to take place, though in the above case rupture was only partial; (2) the degenerative and reparatory processes which follow the rupture are similar to those following open section of a tendon; (3) the reparatory process seems able to go on until complete healing of the tendon has taken place; (4) the degenerative process may form a ganglion-like cyst around the point of rupture. [G.B.W.]

29.—Muscatello and Damascelli report an interesting series of experiments on the **influence of nerve-section on the healing of fractures.** Rabbits of a middle age were used, and after section of the brachial plexus one of the bones of the foreleg was broken. As a control-fracture the same bone on the opposite side was broken, but no nerves severed. It was found that if the fragments were kept in coaptation, the fracture of the paralyzed limb united in the same time and with the same kind of a callus as the control-fracture did. [G.B.W.]

30.—Okada's article on the **surgical anatomy of the temporal bone** is most exhaustive and is based on multitudinous measurements and calculations. His results are summed up in the following conclusions: (1) the anthropologic form of skull does not in itself offer any indication whereby one can recognize a "dangerous" temporal bone; (2) the "dangerous" temporal bone, which is due to the presence of an abnormally short distance between the sulcus transversus and the external point of operation, is found on the right side much more often than on the left, and more frequently when the mastoid process is small than when large; of probably more importance is, that in the dangerous temporal bones the planum mastoideus forms an angle with the axis of the external auditory meatus; (3) these dangerous mastoid processes are called "processus mastoideus infantilis," because of their close resemblance to mastoid process of children in which the distance between the sulcus and the place of operation is still smaller; (4) the following suggestions may act as a guide in the recognition of the dangerous temporal bone. They may be dangerous—(*a*) when the right mastoid is to be operated on; (*b*) when the mastoid process, the flat dimensions, and the external width of the temporal bone are all very small; (*c*) when a processus mastoideus infantilis is present; (*d*) when the patient is under thirteen years of age; (*e*) when the spinal supra meatum points markedly medianwards; (*f*) finally, an operation on a woman must be done with greater care than when a man is the patient. [G.B.W.]

Zeitschrift für Orthopädische Chirurgie.

[Band vii, Heft 1.]

1. The Principle of Construction of Bandages and Apparatus for Tuberculous Inflammation of the Bones and Joints. JULIUS DOLLINGER.
2. Curvature of Bones following Inflammatory Softening. A. SCHARFF.
3. Orthopedic Apparatus with Celluloid Bandages Reinforced by Wire. LUDWIG SEITZ.
4. The Plastic Surgery of Tendons. HERMANN GOELET.
5. The Cerebral Paralyses of Children. W. BÖCKER.
6. Congenital Scoliosis. A. M. HIRSCHBERGER.
7. Exercise in the Treatment of Scoliosis. MAX HANDEK.
8. Open Letter to Dr. G. Zander in Stockholm. M. JAGERICK in Rotterdam.
9. Reply. F. LANGE.
10. A Reply to Lange. A. SCHANZ.

1.—Dollinger gives the principles to be observed in the treatment of **tuberculous joints and bones.** (1) The best method of combating the tuberculous process is the fixation of the joint; (2) the fixation is accomplished most satisfactorily by apparatus which may be put on and off, but in emergency plaster-of-paris bandages and like dressings may be used; (3) extension in so far as it gives fixation, is of value in the treatment of tuberculous joints; (4) when the diseased bone has to carry much weight as in caries of the spine, supporting apparatus are most essential. By these principles the spasms of the muscles may be overcome, and the tuberculous process stopped, sometimes early enough to retain good functional joints. When the disease progresses further, ankylosis with the parts in the best functional position can be obtained. [G.B.W.]

2.—The possibility of various **bone curvatures following inflammatory softening** of the bone itself is well shown in the following case reported by Scharff: A young man, 19 years old, as the result of a slight injury developed an osteomyelitis of the left femur. Numerous operations were undertaken to remove necrosed bone and heal up the sinuses. Three years after the first operation he presented on examination the following conditions: The left femur just below the middle was curved outwards and anteriorly, forming an angle of almost 160°. As a consequence when standing with the heels close together, the knee-joints were separated 6 cm. from each other. The left leg gave 6.5 cm. shortening, and the curvature increased visibly when the patient stood or walked. There were no symptoms of rachitis and the bending had gradually increased since the osteomyelitic attack, so that the softening of the bone and the consequent curvature were more than likely the result of the osteomyelitis. The softening of the bone is due to an inflammatory osteoporosis, and it occurs most readily where the bones naturally are the most porous, as at the ends of the diaphysis. The bending is due to two forces, that of gravity in that the limb supports the weight of the body, and that due to muscular action. The former of these is of course the more important. As to the treatment, prophylaxis is of the utmost importance, such as avoidance of too early attempts at walking, the application of extension and supporting apparatuses. When the curvature is already present various operations must be undertaken for its correction forcible straightening, osteotomy, and the like. [G.B.W.]

3.—Without very materially adding to the weight, but adding greatly to the strength, the use of **steel wire** as suggested by Dr. Lange in the making of **celluloid apparatus** seems a most happy idea. The wire used is from 1½ to 3 mm. thick, and it is laid longitudinally and transversely in between the layers of bandages and the celluloid-acetone mixture. The amount of wire to be used depends entirely on the requirements of the apparatus. [G.B.W.]

4.—Goelet has written an interesting article on **tendon transplantation** and other **tendon operations,** which modern orthopedic surgery so urgently demands. In order to obtain good results, asepsis is of the utmost importance, and in this connection the use of silk as a suture-material instead of catgut, has, in Prof. Hoffa's clinic, given the utmost satisfaction. The choice of operation depends upon the demand of each individual case, and should be made only after careful consideration of all existing conditions. Sometimes stretching of the atrophied muscles and contracted tendons

under narcotic, is all that is demanded, but frequently the knife is brought into requisition. Tendons of atrophied and degenerated muscles may be transplanted into healthy ones, or sutured to the tendons of the same, or simple tenotomy may accomplish the best of results. The first fixation dressing following the reposition of the parts to their normal relations should be a plaster-of-paris coat, which should be worn for 4 to 8 weeks. Then some proper form of orthopedic apparatus is to be applied. The after-treatment should consist of electricity, massage and active motions. Passive movements should be avoided except to teach children how to make the active ones. [G.B.W.]

5.—Böcker offers the following classification of the **cerebral palsies of children:** (1) Cases in which only the lower extremities are affected. Strictly only these cases should be considered under the title of Little's disease. The prognosis here is good. (2) Cases in which the disease may affect either the upper or lower extremities and is accompanied by cerebral disturbances. The prognosis is unfavorable. (3) Cases in which the athetosis becomes most prominent. The prognosis is a comparatively favorable one. (4) Cases of cerebral hemiplegia. The prognosis is favorable. Böcker also reports the history of 22 cases divided into the three first classes and 2 cases of hemiplegia. [G.B.W.]

6.—Congenital scoliosis is a very uncommon condition, and because of its association with deformities and monstrosities which render life impossible, it is even less seldom brought to the physician for treatment. If we understand by the term congenital scoliosis only those cases which have originated intrauterine either from some improper pressure or from unequal development of the spinal column, a prognosis is difficult to give. But that there is an increase in the deformity as soon as the child attempts to sit upright or stands is undisputed. Some of these cases may reach adult life, but diagnosis of the condition then is extremely hard. The bending at the seat of the curvature is more sudden than in the acquired form. The spinous processes turn suddenly at the seat of trouble from the normal and point in a true sagittal direction, either towards the right or left. There is no prominent amount of torsion, and the processes are turned towards the convex side. The x-rays will aid in verifying the diagnosis. [G.B.W.]

Revue de Médecine.

May 10, 1899. [19me Année, No. 5.]

. A Study of Paraphasia. A. PITRES.
. A Clinical Study of Some Infectious Diseases. H. ROGER.
. Researches Concerning the Frequency of Secondary Septicemia in the Course of Pulmonary Infections. (Chronic Ulcerating Tuberculosis—Lobar Pneumonia.) L. BECO.
Is So-called Central Hepatization of the Lung a Reality? R. LEPINE.

1.—The history of the study of **paraphasia** is first considered, and then a number of cases are reported. The first occurred in a sea-captain 65 years of age. It followed repeated attacks of apoplexy which had caused no hemiplegia. There was a left lateral hemianopsia and difficulty in spontaneous speech, and impossibility in properly naming objects, though he could repeat spoken words. In ordinary conversation he said unintelligible things, usually speaking actual words, but such as were meaningless in the connection in which they were used. He could add and subtract properly, but if asked to read the result always gave it incorrectly. If asked to multiply two figures he could write the result properly, but could not speak it. When asked to sing the Marseillaise he began with the correct tune, and with the words "Allons enfants de la patrie," but the remainder was an incomprehensible jargon. The second case was in a woman, 48 years old, very illiterate. She had had repeated attacks of apoplexy. She had difficulty in ordinary conversation in naming objects, in repeating words, but no psychical trouble. The third case was in a man of 48, who was an alcoholic. He had a sudden onset of paraphasia following an injury to the head while drunk. There was no paralysis of the limbs. He did not write his own thoughts or words dictated to him correctly, but he could copy properly written words. He had marked paraphasia in conversation, in naming objects, and in reciting. He repeated words very incorrectly, and sometimes could not do this at all. He could draw very expressive pictures of the objects which he wished to name. [The article will be continued. D.L.E.]

2.—There are two cases of hemorrhagic varicella reported in this **series of infectious diseases.** One in a man of 22, who showed large bullae on the soft palate. The general condition was thoroughly good, and he recovered without any bad symptoms. In the other case, a child of 10 months, the hemorrhagic eruption was evidently due to general bad condition, owing to severe gastroenteritis. The child died. The mortality in 166 cases of chickenpox was 3.61%; such statistics show that the disease is scarcely as simple an affair as is commonly thought. Amongst the cases of variola there were 2 in children of 3 years who had been vaccinated at the time of their birth. It was evident that the immunity was insufficient to keep them from acquiring the disease, but it ran an extremely mild course; while, contrasted with this, a child of 4 years contracted confluent variola, and died on the sixth day. One case is of some interest in that a woman who had been tending her sister who had variola was vaccinated on April 17, on the 20th she had severe chill, headache, and fever; on the 21st the eruption of vaccinia developed with the typical characteristics. One day later she was admitted to the wards with a high temperature, and careful examination discovered two charactistic smallpox pustules. Another case occurred in a young man who was admitted at the same time with his young brother. The latter had smallpox of moderate severity. The sister, who lived with them, had later a marked attack of smallpox, while the first mentioned man who had been vaccinated, and repeatedly revaccinated, began with severe symptoms, and 3 days later had an erythematous eruption which rapidly passed away and two smallpox pustules developed. Albuminuria was extremely rare in those who recovered. It was noted but 3 times in 17 cases. In considering diphtheria he mentions one interesting case of supposed cutaneous diphtheria in which curious symptoms followed the use of antitoxin in a woman of 21. Eight days after the injection of antitoxin there were sudden symptoms of intoxication with high fever and pains in the joints. Two days later the woman showed charateristic signs of hysteria with convulsions and finally with a marked ecstatic state. The fever continued for some days, the pulse became rapid, but about a week later they all disappeared; he considers this a toxic hysteria. Under anginas he mentions one in a child of 8 months, which was complicated by a pseudomembranous conjunctivitis. Cultures showed the tetragenus. In another case in a man, there was a false membrane all over the inside of the mouth, the cheeks and the pharynx, the tongue only escaping. The eyes were affected also, and the meatus urinarius was so obstructed by false membrane as to prevent micturition. The general condition was good, and the fever rose only to 100.3°. Culture showed the streptococcus. One case of mumps was noted in which beside testicular involvement there was a painful swelling of a lachrymal gland. Investigations of the cases of gastroenteritis by Roger showed that the greater part of the intestinal toxins were insoluble in alcohol. Injection of the toxins into a rabbit caused diuresis, diarrhea, some myosis, convulsions, sometimes nystagmus, and finally marked depression of temparature, which—if the animal lived—gave place to severe fever. In the attacks of cholera morbus it was found that the temperature was not depressed, the internal temperature was always high. In one case with profound depression one liter of salt-solution was injected into a vein; the cyanosis disappeared, the pulse became perceptible, the skin became warm, and intelligence returned. Another injection was undertaken a few hours later and the woman recovered entirely. In another case in a man of 33 with a choleriform gastroenteritis an attack of apoplexy with hemiplegia occurred. The man was admitted in coma with conjugate deviation of the eyes, and died in this condition. The autopsy showed an acute arteritis affecting the arch of the aorta and the left sylvian. The aorta showed numerous gelatinous plaques on its interior, and the sylvian was obliterated by an adherent thrombus and the corresponding area of the brain was acutely softened. Under typhoid fever Roger notes the case of a child of 6 years that was admitted with typical symptoms of typhoid. Two days later the temperature fell, the child lay with its limbs drawn up and complained of severe pain

in the head. It showed marked hyperesthesia, followed by coma, Cheyne-Stokes respiration, hydrocephalic cry, and photophobia. The autopsy showed the typical lesions of typhoid fever with no meningitis, but three caseous-looking nodules were found in the cerebellum, and these contained pure cultures of the pneumococcus. A case of pneumonia is noted in which there was at one time a temperature of 109.40, but recovery ensued. Under septicemia he notes a pneumonia and purulent pleurisy following abscess of the neck. In another case a purulent meningitis followed scarlet-fever; it was due to the streptococcus. The streptococcus was found in exudate, and the infection was thought to have occurred through the nose. In another case a woman ran the clinical course of so-called acute delirium, with no local signs during life, and the postmortem showed no local changes, but the blood contained a pure culture of the streptococcus. It was evidently an acute septicemia. In one case a woman with an intense bronchitis gave birth to an infant, which died 8 hours after. The culture from the blood of the infant showed a pneumococcus uncontaminated, and the same microorganism had been abundant in the sputum of the mother. This is an example of a mild infection in a mother causing death in the fetus. Many cases of error in diagnosis are mentioned. Measles was often diagnosed when the condition was either grip, serum eruption, gastrointestinal rash, or similar condition. The same was true of scarlatina, and in 38 cases smallpox was diagnosed when it did not exist, the most common condition being chickenpox; the opposite mistake was made in one case. [D.L.E]

3.—Beco has made investigations of cultures from the blood of 20 cases of **advanced ulcerating phthisis** with signs of secondary infection, to see whether there is a tendency to a general infection of the organism. In two cases he found the B. coli communis in the spleen. Both of these cases were postmortem infections. In two instances he found the streptococcus in the spleen, but it was doubtful whether these were antemortem infections. The tubercle-bacillus was never found. [D.L.E.]

4.—Lépine reports a case which began with the signs of pneumonia and continued for ten days. The diagnosis was **central pneumonia,** since no definite signs of consolidation could be determined. There was some dulness at the left base, and many fine rales were heard. The use of the fluoroscope, however, showed that the lung was not more dense in this region than elsewhere. Another similar case is reported, and he decides from these examinations that the condition commonly thought to be central pneumonia is in many cases at any rate merely a severe congestion of the lung without any consolidation. [D.L.E.]

Archives de Médecine Experimentale et d'Anatomie Pathologique.

May, 1899. [11me Année, No. 3.]

1. The Bacterial Flora of the Lung of Men and Animals. BECO.
2. The Poison of the Human Tubercle-Bacillus. AUCLAIR.
3. The Bacillus Icteroides and its Toxin (Control Experiments). DE LACERDA and RAMOS.
4. Acute Septicemia from a Capsulated Streptococcus. DES BARRES and WEINBERG.
5. Cicatricial Regeneration of Mucous Cavities and Their Epithelial Covering. CORNIL and CARNOT.
6. The Action of Promol on the Red-Blood Corpuscles. MARCANO.

1.—Beco has made a study of the **bacteria found in the lower air-passages** of animals and human beings. The results obtained in animals are given in the following conclusions: (1) The **healthy lungs of laboratory animals and of domestic animals** in a state of health are generally **sterile.** (2) Exceptionally, and despite the apparent integrity of the lung, the pneumococcus of Fränkel may be present. (3) After death the bacterial flora in the upper air-passages remains confined there and does not generalize itself by way of the lower parts of the track. For this reason, it may be admitted that under ordinary conditions the bacteriologic analysis of the lung at autopsy gives valuable results. (4) The fact must, however, be kept in mind that after death, if the lung was not sterile, a reduction in the species occurs analogous to that seen in other viscera. (5) If the lung was sterile at death it behaves like a closed viscus regarding the invasion of the germs of putrefaction from the intestines. (7) In the case of pathogenic species, such invasion is tardy and discrete, so that it is not a source of error in the search for the causes of death. (8) Between these two types there exist facultative saprophytes, the presence of which in the blood of the heart at autopsy can only be the result of a postmortem penetration. The conclusions arrived at in the study of human cadavers are as follows: (1) The lower air-passages in healthy human beings may be sterile. (2) In lungs that are apparently entirely free from morphologic change, isolated pathogenic species may be encountered. (3) These pathogenic bacteria are especially those which are considered as the usual agents of the various bronchopulmonary infections, and are, in the order of frequency, the pneumococcus the streptococcus and, more rarely, the staphylococcus. (4) It is probable that during the last hours of life, and favored by the death agony and proportionate to the length of the latter, an extension of the flora of the superior air-passages occurs down to the lower portions of the respiratory tree. This is a fact of which account should be taken in the bacteriologic analysis of the lung at autopsy. (5) During ordinary conditions this extension does not occur after death. (6) In man, as well as in animals, a reduction is likely to occur after death in the number of microbial species primarily found in the lung-tissue. (7) The tubercle-bacillus is not found in the healthy lung. [D.R.]

2.—Of late there has been a tendency to revive the theory of the dualism of phthisis. Ziegler, Strümpell, and others believe that the inflammatory reactions about tuberculous cavities are the result, not of the tubercle-bacillus, but of other bacteria contained in the cavities. The tubercle-bacillus, it is said, is incapable of producing hepatization; and when such a condition is found about a tuberculous focus, it is the result of other microorganisms. This conception is based upon three alleged facts: The usual absence of hepatization about tuberculous lesions, the presence of foreign microorganisms in the hepatized zones and the frequent absence of the bacillus of Koch from the regions attacked by pneumonia. Fränkel and Troje, convinced of the unity of phthisis, have advanced an ingenious hypothesis. They suggest that the pneumonic processes in phthisis are incited, in the absence of the bacillus, by the secretory products of the microorganisms coming from neighboring tubercles. Auclair's studies were made for the purpose of confirming or refuting this hypothesis. He has extracted from the bodies of tubercle-bacilli four poisons, called etherobacillin, chloroformobacillin, zylenobacillin, and benzinobacillin. These terms indicate the origin of the poison and the body used to extract it. For purposes of brevity he has proposed the names **etherin, chloroformin, zylenin, and benzenin.** His present experiments were made with human etherin. The method of intratracheal inoculation was used. If the dose was large, the animal died within from 24 to 36 hours, and presented at autopsy the first stage of hepatization of the lungs. The hepatized islands were scattered throughout the lung, especially towards the bases. Microscopically, the alveoli were found filled with a fibrinous exudate. If the animal survived the inoculation for 15 or 20 days, the aspect of the lesions was a little different, the majority of consolidated foci being in a state of gray hepatization. If the etherin was injected into vigorous animals in repeated fractional doses, their survival was prolonged for several months, and the pulmonary lesions at autopsy bore the classical aspect of a lobar caseous pneumonia. In one instance a cavity was also found. The alveoli were filled with embryonal cells and desquamated epitheliaum. Caseous degeneration was manifest, especially in certain regions. The formation of typical giant-cells was never seen, but when chloroformin was used, such cells containing as many as 30 nuclei, were found. The caseous detritus was always sterile. The author's **conclusions** are that tuberculous pneumonia in all its stages, fibrinous hepatization, catarrhal pneumonia, and caseous degeneration, is the result of the bacillus of Koch and not of superadded microorganisms. The pneumonia is produced by a special poison secreted by the bacillus, which can be extracted by the aid of ether. Diluted with sterilized water and injected

ito the trachea of guineapigs and rabbits, it produces all the sions of tuberculous pneumonia. The protocols of the xperiments, together with illustrations, are given. [D.R.]

3.—Lacerda and Ramos have made experiments with the **Bacillus icteroides of Sanarelli** and its toxin. The scoverer had claimed that the organism would give a naracteristic growth if grown first at a temperature of 37° C. nd then at a temperature of 22.6° C.; but the authors were nable to find any characteristic cultural peculiarity, no matter what method of cultivation was employed. They elieve that the **paraffin-like aspect of the cultures** n agar and in the Esmarch tube, as well as the "milky-ay" appearance of the cultures on gelatin-plates, may erhaps serve as points of distinction from other bacilli. The nimal experiments consisted in subcutaneous and intra-enous injections of the toxin into rabbits and dogs. They und that the symptoms and lesions closely resembled those bserved in yellow fever. The following symptoms were nstantly observed: vomiting, fever, great prostration, nguinolent discharges, and albuminuria; often suppression urine, coma, convulsions, and hiccough preceding death. two instances there was a generalized icterus, as well as morrhages from the eyes, the nares, and the rectum. egarding the lesions, enormous congestions and hemor-agic suffusion in the stomach, intestine, kidney, and adder were noted. Frequently the liver, as well as the dneys, presented distinct traces of commencing fatty generation. The bladder was generally empty because of e suppression of urine, the death in convulsions being tributable to uremia. The authors believe that the symp-matic and anatomic picture accords exactly with that of **ellow fever.** They believe themselves justified in con-lering the Bacillus icteroides of Sanarelli as the true cause that disease. The yellow fever toxin (amaryllogenic xin) is a general poison having a destructive action upon llular protoplasm, especially in the liver, the heart, and the dneys. The **serum-therapy,** both for prophylactic and rative purposes, has not been crowned up to the present ne by very brilliant results. Nor do the authors promise emselves very much for it: first, because, in order to be value, the injection has to be made at the beginning of the ease, which is not easily possible; and secondly, because would be necessary to inject very large quantities into a in, also not feasible. [D.R.]

4.—A man of 40 years, a hostler, had pricked himself 3 ys before appearing at the hospital, while currying a rse. The horse died rather suddenly of colic. The ick, which was at the right elbow, led to a small ulcera-n, and very soon to edema of the arm, forearm and hand. e temperature rose, the general condition became very d, and the edema spread to the shoulder and the thorax. spite incisions and the use of the thermocautery, the pa-nt died on the morning of the fifth day after the injury. a scraping from the subcutaneous tissue a **capsulated reptococcus** was found. A rabbit and two guineapigs re inoculated with a little of the serous fluid from the ema. The rabbit died of septicemia; the guineapigs sur-ed. From the peritoneal fluid of the rabbit and from the art's fluid of the body of the dead patient, a diplococcus d short chains of a capsulated streptococcus were found. periments were then made to determine whether the ganism was a pneumococcus or a streptococcus. It grew idly in ascites-bouillon; slowly in ordinary bouillon, and gelatin. On agar and glycerin-agar its growth was more id. Milk was coagulated in 48 hours. On potato the wth was slow, in the form of small, brilliant colonies. All the liquid and fluid mediums were rendered distinctly acid er 24 hours. The organisms stained well with all the ial agents and with Gram's stain. No method succeeded staining the capsule. In all the media and after num-s of generation, and even after 14 passages through mice, microorganism preserved its chain form. As Mar-rek's serum was capable of immunizing against it, its ptococcic nature was verified. Marmorek had deter-ned that the streptococcus no longer grew on a medium which it had already been cultivated, while other organ-is gave colonies on filtered cultures of the streptococcus. e same biologic phenomenon was presented by the au-rs' streptococcus. They propose the name of "strepto-cus aureolatus," for the microorganism, and believe that bears some resemblance to Marmorek's streptococcus. Some observers had maintained that Marmorek's antistreptococcic serum immunized only against the streptococcus which had served for the manufacture of the serum. Their experiments showed that it immunized also against others; but they admit that the organism is very similar to the streptococcus of Marmorek. Therapeutically they suggest that if in cases of wounds like the one in the patient, diplococci mixed with short chains of a capsulated streptococcus are found, immediate resort should be had to injections of antistreptococcic serum. [D.R.]

5.—Cornil and Carnot have made some interesting experiments on the **repair of artificially produced bladder-defects,** some of which they have already reported. The earlier experiments consisted in the removal of the upper portion of the bladder and the suturing of the edges of the wound. The incision healed through a fibrinous cicatrix, which became fibrous; there was also a reformation of the epithelium. The newly-formed mucous membrane was plicated and covered with stratified epithelium similar to that of the bladder. Along the entire wound on the upper surface of the bladder the great omentum adhered, this adhesion having occurred spontaneously, without any intervention at the time of the operation. To secure such adhesion, however, it is necessary to prevent the entrance of the urine into the peritoneum. To accomplish this, a ligature is placed at the middle of the bladder, the bladder being thus divided into two cavities, the upper of which is incised with scissors in the anterior posterior direction. The lower cavity receives the urine through the ureters, and expels it through the urethra. After the operation the great omentum covers the lips of the wound and adheres thereto. Cicatrization is complete in from 8 to 12 days, or about the time when the catgut is absorbed, and the bladder then resumes its pristine size. The action of the great **omentum** suggested to the authors to try the experiment of **replacing a large part of the bladder** by that structure, and in this they succeeded. They tied the ligature around the bladder, removed the upper cavity completely, united the cut edges of the bladder with the omentum, and then closed the abdomen. The only inconvenience which the dog seemed to experience was more frequent micturition during the first few days. On sacrificing animals eight days later, the upper vesical cavity was reconstituted by the aid of the great omentum. The mucous membrane reformed in from seven to ten days and covered with its stratified layers of epithelium, the new portion of the bladder-wall formed by the peritoneum. The mucous membrane was thrown into folds, and beneath it was a thickened vascularized connective tissue, rich in plasma-cells and leukocytes, which was furnished by the inflamed and thickened omentum. The plications and vegetations of the mucous surface are, in time, effaced, as the bladder distends with urine. It was interesting to see that the vesical epithelium not only covered the entire cicatricial surface, but even penetrated deeply into the track of the sutures placed between the mucous membrane and the omentum. The prodigious proliferation of the epithelial cells on the surface, on the folds, and in the suture-tracks, bore a strong resemblance to tubular squamous iepitheloma.

Under Carnot's direction, Marie excised the upper portion of the bladder, and filled the defect with a loop of intestine, uniting the edges of the wound with the muscular coat of the bowel. Inadvertently, the needle passed into the intestine and touched and wounded the mucous membrane, so that the suture extended from the mucous surface of the intestine to that of the bladder. When the animal was killed, 16 days later, the track of the suture-thread was covered with cylindric epithelium from the intestine and with stratified squamous epithelium from the bladder. Where the two kinds of epithelium meet, they are simply in contact, and there is no transition between them. The conservation of the proper character of 2 mucous membranes united artificially is a general law without exception. In the present case it was evident that the bladder-epithelium possessed a greater proliferative power than that of the intestine, for the pseudoepithelioma, as the authors call the newly-formed epithelial masses of the bladder-epithelium, was much more extensive than the cylindric pseudoepithelioma derived from the intestine.

Marie, in another experiment, replaced part of the bladder of a dog with a part of the animal's skin, conserving as much as possible the circulation in the flap. Curiously

enough, the skin retained all its histologic features, and the hair even grew. In another series of experiments the author incised the bladder and introduced a large section of omentum through the wound, afterwards sewing the omental pedicle to the edges of the vesical incision. When inflammation did not occur in the included omentum, it became covered with a layer of stratified pavement epithelium. They then, in other animals, sewed the omentum to the upper half of a bladder constructed at its middle by a ligature. In a second operation, they separated by an incision the upper cavity now attached to the omentum, from the lower, and removed it as far as possible from the lower portion. Despite this, the upper cavity became again adherent to the lower, communicating with it by a fine channel. In another experiment, when the dog was killed 70 days after the operation, the bladder was found perfectly reformed; the upper half constituted a spherical sac adherent to the omentum, and contained pus. Experiments were also made on the gallbladder. It was divided longitudinally, and turned so that the membrane came in contact with the lower surface of the liver, to which it was sutured. When the animal was killed, the gallbladder was found retracted into and surrounded by the liver, and its cavity to have reformed. [The ingenious experiments of Cornil, Carnot, and Marie may prove of practical value in surgery. D.R.]

6.—Marcani recommends **formalin** (1) for the purpose of **fixing blood,** (2) as a **dilution-fluid** for blood, and (3) as an agent in sedimentation. As a fixing fluid he employs formalin in absolute alcohol (1 : 20); as a diluting fluid solutions of sodium sulfate (specific gravity 1020) 100, formalin 1; or solution of sodium chlorid (NaCl, 1, water 85–100), formalin 1. [D.R.]

Sundry French Journals.

1. Heat in Therapeutics, Particularly Local Baths of Superheated Dry Air. GEORGES SIMONOT. (*Paris Thesis*, 1898, 99, No. 37.) (*Gaz. Heb. et de Méd. de Chirur.*, March 26, 1899. 46me Année, No. 25.)
2. Subacute Digestive Infection with Predominance of the Gastric Symptoms in a New-born Child, Hydric Diet. MARFAN. (*Sem. Méd.*, March 29, 1899. 19me Année, No. 14.)
3. Chemic and Histologic Modification of the Bone-Marrow at Different Ages and in Staphylococcus Infection. ROGER and JOSUÉ. (*Sem. Méd.*, March 29, 1899. 19me Année, No. 14.)
4. The Causes of Error in the Diagnosis of Biliary Lithiasis. FRANCOIS LOUIS HENRI VERGRIETE. (*Paris Thesis*, 1898–99, No. 207.) (*Gaz. Heb. de Méd. et de Chirur.*, April 21, 1899. 46me Année, No. 27.)

1.—Simonot studies **heat as a therapeutic agent,** and shows that it increases the activity of the circulation considerably, and that it gives rise to abundant diaphoresis. It has a remarkable action upon all painful phenomena. According to the author, of all treatments based upon the use of heat, the local bath of dry air gives the best results, because this form of applying heat permits of the use of higher temperatures. **Local baths of superheated dry air** are applicable to a great number of acute affections, and to a greater number of subacute and chronic diseases, in which they give better results than any form of medication previously used. [J.M.S.]

2.—Marfan reports the case of a child, aged 6½ months, who had been nursed by his mother until he was 3 months old. He had been fed every time he cried, both night and day, until one month old, when he had an attack of diarrhea; 15 days later he had a second attack, and at the age of 2 months a third attack. His mother thought that her milk was diminishing in quantity, and therefore weaned the child, and placed him upon artificial feeding. In the day-time she carried him to a day nursery, where he was given sterilized milk every 2 hours, and during the night she took care of him herself and gave him, in addition to the quantity of milk taken during the day, a liter of boiled milk and toast-water. The child seemed to stand this enormous supra-alimentation for some time, but in the course of 4 months was again taken with diarrhea; the stools were liquid, yellowish in color, and very frequently accompanied by vomiting, that occurred after each feeding. On the day of his admission to the hospital he vomited several times and had 7 bowel-movements. The rectal temperature was 38° C. (100° F.); and the diagnosis of gastroenteritis was made, with a slight acute exacerbation. The child was placed upon a diet of boiled water for 15 hours. The next day the temperature had fallen; there were 6 stools and feeding was resumed, but the day following the child vomited everything that he ate. The breath had a pronounced butyric odor. There were 8 stools in 24 hours; the expression was bad and resembled very closely that of infantile cholera. At that time the diagnosis of **subacute infection of the alimentary tract, with a predominance of gastric symptoms,** was made. The child was again placed on liquid diet for 24 hours and under its influence the vomiting stopped. The next day there were 4 stools, the temperature was normal and feeding was resumed with prudence. The child had 3 more attacks of vomiting and diarrhea, but finally, under the influence of liquid diet, fully recovered. The author lays great stress upon the efficiency of a diet composed of water only in this case, and considers it of fundamental importance in the treatment of digestive troubles in new-born children. After a time, however, he combines it with other dietetic means and has had excellent results. Its great efficiency is due to the fact that it causes gastric putrefaction and fermentation to disappear. He recommends it in infantile cholera, acute and chronic gastroenteritis, acute dysentery, colitis, and in subacute or chronic colitis. [J.M.S.]

3.—At a meeting of the Société Biologie, held March 27, 1899, Roger and Josué read a paper on the **histologic and chemic modifications of the bone-marrow in different ages and in staphylococcus infection.** They show that the structure and the chemic constitution of bone marrow varies considerably with age. Chemic analysis of the marrow in young rabbits of about 1 k. in weight shows that it contains about 75% of water and 11% of fat. As the animal grows older the water diminishes, so that it constitutes only from 32% to 50%, and at the same time, the fat increases, reaching 32%, and, finally, being present in even greater proportion than 50%. Furthermore, the albuminous and insoluble materials diminish as the animal grows older. A histologic examination of the bone-marrow gives the same result as the chemic analysis. In rabbits, weighing 1 k., the red marrow contains a large quantity of blood, the fatty areas are small, the spaces are frequently filled with cells and the eosinophile elements are very abundant. There are also a large number of lymphocytes, some large mononuclear neutrophiles, some intermediate types of giant cells with distorted nuclei, and nucleated red blood-corpuscles; there are no basophiles. In older animals the fat increases in amount and the cells disappear; there are always a relatively large number of eosinophile cells. In large rabbits inoculated with a culture of staphylococcus, water may form 78% of the whole and fat only 4%; albuminous and insoluble substance increase in large proportion. Histologic examination likewise shows a diminution, or even disappearance of fatty areas. At the same time, the cells proliferate, but in the case of infection, contrary to that observed in young animals, the eosinophiles are few in number and the mononuclear elements with vesicular nuclei, the protoplasm of which is filled with neutrophile granules predominate. [J.M.S.]

4.—**Errors in the diagnosis of the biliary lithiasis** are so common that Vergriete has studied the causes for these mistakes. He studied successively the abnormal cases in which anomalies of the symptoms of calculus are seen (voluminous stone accessible to palpation and mistaken for a new growth, anomalies of the biliary passages, and anomalies of pain); those in which complications modify the clinical picture (intestinal obstruction, cardiac trouble, and infectious complications); and finally those in which the traumatic or pathologic antecedents may complicate the diagnosis. The author ends by calling attention to the particular sources of error seen in childhood and in old age. [J.M.S.]

Guaiacol in Lupus.—Funk (*Klinisch-therapeutische Wochenschrift*, September 10, 1899) reports 2 cases of disseminated lupus in young children in which applications of guaiacol twice a day produced a cure, in the one case in 2 months and in the other in 3 months. The treatment is free from pain, and is of value only in disseminated lupus.

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.

For Warts on the Face.—Castel (*Journal des Practi-ens*) recommends the following application in facial warts:

℞.—Salicylic acid..... 1 part.
Flexible collodion..... 8 parts.

Poisoning in Infants from Acetanilid used Exter-ally.—Westcott (*Pediatrics*, June 15, 1899.) reports the ıse of a healthy infant, 4 months old, in which the use of ıre acetanilid, as a dusting powder for the relief of severe ıtertrigo of the groins and thighs, was followed by marked ⁄anosis and stupor, from which it was difficult to arouse the ıild. After the exhibition of a few drops of whisky hourly .e symptoms gradually subsided. Westcott cites from liter-ure six additional cases of poisoning in children from the :ternal use of acetanilid. All of these patients recovered cept one, a baby, four days old, with erythematous inflam-ation of the skin, for which several applications of a)wder composed of equal parts of acetanilid and bismuth ere used. Westcott concludes that the use of acetanilid a desiccant dressing with young children, even when there an insignificant exposure of the derm, is distinctly dan-rous to life.

Hyoscin Hydrobromate in Chorea.—Rendle (*In-an Medical Record*, August 30, 1899), reports a case of ute chorea in a boy, 16 years old, in which potassium omid, chloral and arsenic failed to give relief. When lmitted to the hospital he had constant and universal voluntary movements; the tongue was dry and brown, ıd was severely bitten; the temperature was somewhat evated, the pulse was weak, and the respiration irregular. is condition soon became apparently hopeless. Hyoscin drobromate, in doses of $\frac{1}{200}$ of a grain, was given hypoder-ically twice daily, and was soon followed by improve-ent. The dose was increased to $\frac{1}{100}$ of a grain thrice daily, d within a week the movements had almost subsided, ıbsequently Fowler's solution was used, and the patient ade a complete recovery. The writer adds that chorea is re in India, but usually fatal.

Heroin in Cough.—Herwirsch (*Therapeutic Gazette*,)vember 15, 1899) states that during the last 10 months he s used heroin in more than 30 cases, mostly with good ıults. In acute bronchitis it gave much satisfaction. In ronic bronchitis and phthisis the drug in most cases gave od results and failed in only three instances. The writer ncludes that heroin in doses of from $\frac{1}{2}$ to $\frac{1}{6}$ of a grain three ıes a day is a valuable addition to our materia medica in ıte and chronic bronchitis and the cough accompanying thisis. Except in three instances, the results were always isfactory. The drug shows little or no tendency to cause ıstipation, and in only one case did drowsiness follow its ministration. No headache or disorders of the stomach ulted from the use of heroin, as is often the case with mor-in. The dose is much smaller than that of morphin or lein, and the cost of the drug considerably less.

Poisoning by Sulfonal or Trional.—H. C. Wood, Jr., *erck's Archives*, November, 1899) observes that acute sulfonal ısoning is rarely fatal, but that 17 of 20 cases of chronic ısoning had a fatal termination. The first signs of the ic action of the remedy are so unsuggestive that they are en not noted, diagnosis not being made until the patient's ıth-warrant is read in the blood-red urine. There are, for ımple, complaints of nausea, of general lassitude and akness; nearly always there is also disturbance of the wels, either light serous diarrhea or obstinate constipation, ceding the outbreak of the pathognomonic symptoms. ne of these conditions occurring in a neurasthenic woman, ich class furnishes the large majority of cases of poisoning, racts the attention of the physician until the patient as-nes, with the suddenness of a thunder clap, the aspect of lying woman. In advanced sulfonal poisoning the ıptoms are more uniform, and consist of colicky pains, niting, obstinate constipation, local or general paresis, ataxia of both arms and legs, and finally the red urine, due to the presence of hematoporphyrin. Of 9 cases of trional poisoning collected by the author, 3 ended fatally. The symptoms of trional poisoning resemble those of sulfonal poisoning, the most noticeable premonitory symptoms being headache, giddiness, staggering gait, paralysis, and slight watery diarrhea, changing abruptly into constipation. The writer remarks that the most important point in the treatment of poisoning by these drugs is prophylaxis. A considerable proportion of the cases were not under the close observation of the physician while taking the hypnotic; such a course is justly regarded as most reprehensible. The drug should not be allowed to accumulate in the body. Simply stopping the remedy for a few days will not suffice; the interruption should be for *at least* one week, and the intestinal canal should be thoroughly cleaned out, to make sure that no undissolved remnant of the drug is left. In poisoning, the first thing to be done is to empty the bowels promptly and thoroughly. In most of the cases which recovered, improvement began from the time the bowels were opened. After emptying the bowels, the most promising treatment, according to Wood, is that of Müller, who from the high acidity of the urine was led to employ alkalies. Two cases recovered under the use of sodium bicarbonate. Vogel treated a case of trional poisoning successfully with sodium bicarbonate and sodium sulfate. Large amounts of water should be introduced into the circulation, both by the intestinal tract and by the subdermal tissues, in order to aid the elimination of the poison.

Arecolin.—Clemensha (*Buffalo Medical Journal*, September, 1899) states that the hydrobromate of arecolin, an alkaloid found in the areca nut, is a white crystalline, soluble salt, which when applied to the eye in the form of a 0.5% or 1% aqueous solution causes contraction of the pupil. A 0.5% solution dropped into the conjunctival sac causes burning and slight congestion. In from 3 to 5 minutes the pupil begins to contract and reaches its maximum in from 10 to 15 minutes, accompanied by spasms of the ciliary muscle. The maximum effect remains for 15 minutes or so, after which the pupil gradually returns to its normal condition, usually in the course of an hour or two. In the normal eye, tension is apparently unaffected, but in glaucoma clinical results show this drug to be the equal of eserin. The drug keeps well in solution. According to Frohner, arecolin, when injected hypodermically, is a more powerful sialogog than pilocarpin.

Vanadium Salts.—Berthail (*Merck's Archives*, November 5, 1896) has employed the vanadium salts of iron, sodium lithium, and sodium phosphovanadate in over 140 cases. It was found preferable to employ aqueous solutions of these salts, and the following solution is suggested:

℞.—Sodium vanadate..... 3 grains.
Distilled water..... 3 ounces.
A teaspoonful three times a day.

Berthail recommends doses of $\frac{2}{3}$ to $\frac{5}{6}$ of a grain in 24 hours, preferably given before meals. Good results may also be obtained from smaller doses, and progressively increasing doses of from $\frac{1}{6}$ of a grain to 1 grain in 24 hours are recommended for 10 to 14 days, treatment then being interrupted. In this way the inconveniences of medication, notably cramps and slight diarrhea, may be averted. Most constant therapeutic effects are increase in appetite, diminution of arthritic pains, diminution of glycosuria in the diabetic, and increase of urea. The most important applications of the vanadium salts are given as follows:

1. In tuberculosis, when good results are at least temporarily obtained. The appetite returns, bodily vigor increases, and the general condition becomes notably improved. Gastric disturbance, however, is noted as an unfavorable feature in these cases. 2. In anemia and chlorosis the results are conclusive, the vanadate of iron being employed. 3. In neurasthenia sodium phosphovanadate has given excellent results. 4. In diabetes the results have been in certain cases very remarkable, especially on the glycosuria and the acetonuria. 5. In gout, sodium vanadate and more especially lithium vanadate produce marked effects on the subacute articular pain. 6. The vanadium medication, finally, has been known to effect, temporarily at least, the growth of neoplasms and it has been of service in malaria and in certain skin affections.

The Treatment of Pruritus.—Evans (*Treatment*, October 26, 1399) states that among curative agents baths take the first place. The most efficient baths are those containing alkalies, and a quarter to half a pound of sodium carbonate may be used. A borax bath (1 to 4 ounces to 30 gallons of water) is very valuable. Turkish baths suit some cases exceedingly well. In addition to, or in place of, baths, either lotions or ointments are often necessary. Of all lotions those containing carbolic acid are most useful, and the best strength is 1 to 60. Alkalies may be added as in the following formula:

℞.—Liquid carbolic acid..... 1 dram.
Solution of caustic patash..... ½ dram.
Water to make.....10 ounces.

Or—

℞.—Carbolic acid..... 1 dram.
Sodium bicarbonate..... 1 dram.
Water to make..... 1 pint.

Lotions are certainly preferable if the extent of skin affected is very large, but if the area is small, an ointment is a more convenient preparation. An ointment containing carbolic acid is perhaps the most useful. Next to carbolic acid in efficiency Evans places ichthyol, especially when the part is inflamed. A very convenient ointment is the following:

℞.—Ichthyol..... ½ to 3 drams.
Calamine..... 2 drams.
Paraffin ointment to make..... 1 ounce.

Resorcin (15 grains to the ounce) is also useful. Ointments containing mercury are of value, but should not be used over large areas. The following formula is suitable.

℞.—Ammoniated mercury.....30 grains.
Pulverized zinc oleate..... 1 dram.
Soft paraffin..... 5 dram.
Hard paraffin to make..... 1 ounce.

Among the internal remedies of value may be mentioned, carbolic acid (to 1 grain in pill, thrice daily) and pilocarpin nitrate (1/10 of a grain, twice daily). Codliver oil often acts well, and the effect does not seem to be wholly attributable to its action on the general health.

Eumenol as an Emmenagog.—Mueller (*Münch. med. Woch.*, June 13, 1899) states that this remedy is extractum radicis tangkui, which has been used in China for centuries in the treatment of dysmenorrhea and amenorrhea. He has found it very useful in delayed menstruation and dysmenorrhea. When the discharge is scanty and watery, eumenol makes it more profuse and heavier. The drug is free from toxic properties and does not act as an oxytocic. The dose is a teaspoonful, thrice daily.

Beta-Eucain.—Poole (*Journal of the American Medical Association*, October 14, 1899) concludes as follows from his use of this drug in a series of cases: (1) Eucain is decidedly less toxic than cocain, therefore superior to it. (2) Its aqueous solutions keep well and can be sterilized by boiling without destroying the activity of the drug. (3) It produces anesthesia equally well and sometimes better than cocain. (4) It is superior to cocain, in that it causes no heart-depression or other unpleasant systemic effect. (5) It causes no mydriasis, and no disturbance of accommodation, which is an advantage in some cases. (6) It is less dangerous to the cornea than cocain, inasmuch as it does not cause a desquamation of the superficial epithelium.

Tuberculous Adenitis.—Morgan (*Pediatrics*, October 15, 1899) suggests, in addition to the ordinary methods of preventing tuberculous infection, that loose teeth, carious teeth, and stumps should be removed, and that cavities should be thoroughly disinfected and filled. Adenoids, if sufficiently pronounced to cause symptoms, should be promptly removed, likewise enlarged tonsils, especially if liable to repeated attacks of catarrh, or if they have an irregular surface. If tuberculous glands appear, much can be done for their cure, in the early stage, according to the writer, without operative interference. In addition to codliver oil, iodid of iron with malt is useful, but abundance of fresh air, if possible at the seaside, is of far more importance than any drugs. From local treatment much is to be expected. Teeth, tonsils, and nasopharynx should be attended to. Stomatitis an small ulcers of the lips and gums should be promptly treated In treating the glands themselves we should always think c the part of the skin or mucous membrane the diseased glan represents, and then apply the remedy to that spot. Fo instance, the gland at the angle of the jaw and the uppe deep cervical drain the tonsil, therefore apply the remedy t the tonsil. The application recommended is as follows:

℞.—Iodin..... 12 grains.
Potassium iodid..... 15 grains.
Oil of peppermint..... 2 minims.
Glycerin..... 1 ounce.

This treatment will not affect all glands, but if applied b fore softening takes place, it undoubtedly reduces th majority. For the superficial glands draining the skin Mo gan uses potassium-iodid ointment well rubbed into the ski representing its surface of absorption. If, after a fair tri of constitutional and local treatment, the glands still increas in size, or show signs of softening, the sooner they are r moved the better.

The Coagulating Power of Blood-serum.—Hub bard (*Lancet*, October 14, 1899) at the last annual meeting the Medical Society of London stated that he had tried th coagulating power of the various serums on the blood of li ing persons. This power appeared to be independent their antitoxic properties, and for this purpose he used se eral serums indifferently—antistreptococcic, antidiphtheri and antisyphilitic. He tried antisyphilitic serum in a ca of aortic aneurysm in which pain appeared to be a measu of the severity of the case. After three daily injections wit out other treatment the pain had quite disappeared and ob jective signs improved. Pain recurred six months later a was promptly relieved by antidiphtheric serum. He h also used antidiphtheric serum with immediate success the case of a girl suffering from menorrhagia without ar obvious pelvic lesion. In a case of hemophilia which h suffered severely from recurring attacks of epistaxis, nece sitating plugging of the posterior nares, he had injected an streptococcic serum and antidiphtheric serum on the follo ing day. The hemorrhage was completely stopped and t patient had no recurrence of the epistaxis. Hubbard thoug that these facts pointed to a fresh departure which mig lead to considerable developments. He had carried o various experiments to determine whether normal seru was as valuable a coagulant as the antitoxin serums, but to the present time he had reached no definite conclusion this point. He thought the antidiphtheric serum probab possessed greater coagulating power than the others.

A Lubricant for Catheters.—Gouley (*New York Me cal Journal*, November 4, 1899) states that web and rubb catheters are much injured by fats of all kinds, by glycer saliva, and vaselin, and that the best lubricant is soap, prived of glycerin and free alkali, and mixed with muc age of chondrus crispus. He recommends the followi formula:

℞.—Powdered white castile soap..... 1 ounce.
Water..... 3 ounces.
Mucilage of chondrus crispus..... 3 ounces.
Formalin, (40%)..... 10 minims.
Thymol..... 5 grains.
Oil of thyme..... 5 minims.
Alcohol..... 15 minims.

Mode of preparation: Heat the soap and water, and s until a homogeneous slime is formed; then add the muc age (1 ounce of chondrus crispus to 1 pint) of water; wh cool pour in the formalin, then the thymol and oil of thy mixed with the alcohol, stir, strain and keep in a cover vessel until all air-bubbles have vanished. The result is opalescent substance of the consistence of honey, whi should be put up at once in 2-ounce collapsible tubes a sterilized.

Hyperidrosis of the Feet.

℞.—Borax, Salicylic acid } of each..... ½ ounce.
Boric acid..... 1 dram.
Glycerin, Dilute alcohol } of each..... 2 ounces.

Apply three times a day.—*Journal des Practiciens.*

Original Articles.

REPORT OF A FATAL CASE OF TRICHINOSIS WITHOUT EOSINOPHILIA, BUT WITH LARGE NUMBERS OF EOSINOPHILIC CELLS IN THE MUSCLE LESIONS; WITH REMARKS ON THE ORIGIN OF EOSINOPHILIC CELLS IN TRICHINOSIS.

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A NEW interest was given to the study of trichinosis by the recent publications of T. R. Brown [1-2], in which he reported the finding of a very decided increase of the eosinophiles in the blood and a variable number of these cells in the muscle lesions of individuals with this disease. To Brown's 4 cases Gwyn[3] has lately added a fifth. As a result of his studies Brown regarded eosinophilia of high grade (42%, 49%, 68.2%) as a constant and therefore important diagnostic phenomenon of human trichinosis.

For the clinical history and autopsy of the following case I am indebted to the kindness of my friend, Professor C. F. Hoover:

The patient, a woman aged 35 years, was admitted to St. Alexis Hospital, March 13, 1899. She had been ill for 3 weeks with fever, diarrhea, and vomiting. There was frequent sweating, and pain in both hypochondria and in the epigastrium, as well as in the muscles of the extremities. She was considerably emaciated. On admission she had a remitting fever, her temperature ranging from 99° to 104° F. The tongue was dry, moved with difficulty, and sensitive to pressure. The clinical picture was that of a multiple acute myositis. Besides the affection of the skeletal muscles, there were marked evidences of myositis of the diaphragm. Though there were no signs of any complication in the thorax or abdomen which could impede the respiration, the diaphragm phenomenon was greatly impaired on both sides, most marked, however, on the right. This led to a suspicion of trichinosis, and a piece of the quadriceps extensor of the right thigh was excised and found to contain many trichinae. After the patient had been a week in the hospital, she suddenly developed a complete paralysis of the abducens of the left side. All the movements of the eye seemed to be executed with great difficulty. Coverslip preparations of the blood stained with Ehrlich's triacid stain on examination showed a slight leukocytosis but no increase in the number of the eosinophilic cells. The diarrhea ceased shortly after her admission to the hospital. The patient soon became helpless, unable to feed herself, or turn in bed. She died 2 weeks after admission.

Although a differential count of the leukocytes was not made in this case, Dr. Hoover himself carefully examined the preparations and is confident that there was no increase of the eosinophilic cells. A differential count made from blood from the liver and spleen after these organs were brought to my laboratory, showed no increase of these cells. The autopsy was done 12 hours after death, by Dr. Hoover, who kindly sent the organs with portions of muscle to my laboratory for examination.

Anatomical diagnosis. General infection of the voluntary muscles with trichina spiralis, acute yellow atrophy of the liver, infarction of the spleen, fatty degeneration of the heart, congestion, cloudy swelling and fatty degeneration of the kidneys, congestion of the lungs and intestines.

The body was cold, and rigor mortis marked. There were no marks, scars or abrasions of the skin. The skeletal muscles were very stiff and on section pale and opaque. The pleura was smooth and free from adhesions. Both lungs were congested and edematous, but free from consolidation. The mucous membrane of the bronchi and trachea was congested. The tonsils, thyroid, cervical and bronchial glands showed nothing abnormal. The tongue showed no macroscopical changes. The pericardium was normal. The heart weighed 200 grams, the myocardium was pale, soft and friable. Both sides of the heart contained dark fluid blood and clots. All the valves and the coronary arteries and veins were normal. The cardiac walls were of ordinary thickness. The muscle of the diaphragm was of ordinary thickness. Here and there small opaque areas were visible. There were no areas of calcification. The liver weighed 1650 grams, the right lobe measured 17 x 18 x 8 cm., the left lobe 11 x 15 x 4 cm. The capsule was smooth. The cut surface was of a pale yellow color, smooth and soft, and easily torn. The bloodvessels were congested. The gallbladder and bileducts, the hepatic artery, portal vein, and venae cavae were negative. The spleen weighed 130 grams, and measured 13 x 7 x 2 cm. The capsule was smooth. On section the organ was of ordinary consistency, and of a dark red color. The trabeculae and malpighian tufts were visible. At the lower border there was a small pale infarction surrounded by a zone of congestion. The kidneys were of about the same size and general appearance, and together weighed 275 grams. The capsules were easily removed, the surfaces were smooth. On section they were pale and rather opaque. The cortices were of ordinary thickness. The pancreas, adrenals, pelves, ureters, bladder, ovaries, tubes and vagina were negative. The stomach appeared normal, the mucous membrane of the large and small intestines was congested.

Agar petri plate cultures from the lungs, liver, spleen, and kidneys remained sterile after 3 days in the incubator. Smear preparations of these organs showed no microorganisms. Teased preparations from the tongue, the diaphragm and quadriceps femoris showed live actively motile trichinae in large numbers. No trichinae were found in the intestinal contents. Examination of a number of coverslip preparations made from the blood of the liver and spleen on differential count showed no increase of eosinophile cells. Sections of the various viscera and of the quadriceps femoris, tongue and diaphragm were hardened in Zenker's fluid, Orth's fluid and in 95% alcohol, cut in celloidin and stained with hematoxylin and eosin, eosin and methylene-blue, hematoxylin followed by Van Gieson's stain and by acid fuchsin, and with the Biondi Heidenhain triple stain.

Sections of the heart showed congestion of the capillaries and small veins. In some of the veins there were small accumulations of large and small mononuclear leukocytes. No cells with eosinophilic granules were seen. In places between the muscle-fibers there were large and small areas of cellular infiltration, the cells in these areas including small round cells, plasma cells, a few polymorphonuclear neutrophiles, and a number of both polymorphonuclear and mononuclear cells, with eosinophilic granulations.

Sections of the lungs showed marked congestion with edema. There were no inflammatory lesions. In the peribronchial tissue and in the lymph-spaces, but never in the small bloodvessels, a few polymorphonuclear and mononuclear cells with eosinophilic granulations were seen. In the large pulmonary veins and arteries there were a considerable number of these cells.

Sections of the liver presented a remarkable picture. In many places it was impossible to recognize the section as liver-tissue. The central portions of the lobules were the only places in which a semblance of liver tissue was preserved. Even in these areas most of the liver-cells were small, shrunken, very granular and stained intensely with eosin. In many places the nuclei of liver-cells could not be made out. In other areas the liver cells were swollen and contained large and small fat drops, while in still another place there was nuclear fragmentation, with widespread

and intense fatty degeneration of the liver cells. The walls of the capillaries were unchanged, the connective tissue was not increased. The branches of the portal vein were congested. Many of the capillaries contained many polymorphonuclear neutrophiles, but no eosinophilic cells.

In the spleen the vessels of the pulp were markedly congested. The capsule and trabeculae were thickened and there was a diffuse fibrous tissue increase. In the pulp there were numbers of large polymorphonuclear and mononuclear cells with eosinophilic granulations. A few polymorphonuclear eosinophilic cells were seen in the bloodvessels. Sections through the infarcted area showed complete necrosis of the tissue, with nuclear fragmentation. In the hemorrhagic zone about this area there were numbers of hematoidin crystals, but no eosinophiles.

The kidneys were markedly congested and edematous; the epithelium of the convoluted tubules showed cloudy swelling and fatty degeneration. The bloodvessels showed no increase of eosinophilic cells. There was loss of the lining epithelium of the gastric mucosa in places, but the tubules were well preserved. In the intratubular stroma there were a number of cells with eosinophilic granulations. In the large lymphoid nodules in the submucosa these cells were not seen. The eosinophilic cells were found in the stroma of the mucosa of the large and small intestines.

In sections of the tongue, diaphragm and quadriceps femoris there were large numbers of trichinae of varying size, situated in the muscle-fibers. The trichinae were usually single, but in many places two and even three were seen in the same cyst. The trichinae were situated in the muscle-fibers and were surrounded by a hyaline capsule of varying thickness. In most cases the sarcolemma could be made out. In many places, especially at the poles of the cysts, there was very active multiplication of muscle-nuclei, which were for the most part long, vesicular and often irregularly constricted. Muscle-fibers containing trichinae, both near to and at a distance from the latter, were swollen, had lost their striations, and showed finely granular, amorphous areas of degeneration which stained deeply with eosin. About some trichinae there was little cellular reaction, while about others great numbers of cells were seen. In many places there was marked proliferation of muscle-nuclei in fibers in which no trichinae were to be found. The process was evidently an acute one. There was no evidence of calcification. In the cellular reaction about the trichinous areas the following varieties of cells could be distinguished:

1. Cells in every way like plasma cells, having a single round or oval, somewhat vesicular nucleus containing larger and smaller chromatin masses, surrounded by a varying amount of homogeneous cytoplasm which stained faintly with eosin. In some of these cells the nucleus was centrally placed, but in most it was eccentric. In shape these cells were round, or long oval; occasionally they were very much elongated (ameboid movement?). They were the most numerous cells present.

2. Cells with nuclei of the same size and appearance as No. 1, surrounded by homogeneous cytoplasm which stained deeply with eosin. These cells were fairly numerous.

3. Cells with nuclei similar to Nos. 1 and 2, surrounded by cytoplasm containing very fine eosinophilic granulations.

4. Cells of the size of large mononuclear leukocytes with rather deeply staining nuclei, surrounded by either finely or coarsely granular, deeply staining eosinophilic granulations. These cells were quite numerous.

5. Polymorphonuclear cells, with reniform, horseshoe-shaped, or trilobate nuclei and cytoplasm, containing either finely or coarsely granular eosinophilic granulations. These cells were numerous, and were the exact counterpart of polymorphonuclear eosinophilic cells of the blood.

6. A variable number of small round cells with single deeply staining nuclei, surrounded by a narrow rim of non-granular protoplasm. These were typical lymphocytes.

7. Cells of varying size, usually very large, containing very large, elongated vesicular nuclei. These cells were very numerous in places and were evidently proliferating muscle-cells.

8. A few typical fibroblasts.

9. A few giant cells with from four to six nuclei and somewhat homogeneous protoplasm.

10. A few polymorphonuclear neutrophilic leukocytes.

In some places, especially at the margins of the areas of cellular infiltration, there were seen rows of polymorphonuclear and mononuclear cells, some with eccentric nuclei, and many with fine or coarse eosinophilic granulations.

The bloodvessels were dilated, but showed no special increase of leukocytes in the small veins, but in some capillaries there were a considerable number of mononuclear cells. The process in the tongue was of more recent date than that in the diaphragm and other muscles examined. Careful search failed to discover transition of polymorphonuclear neutrophilic cells into eosinophiles. There was absolutely no evidence of this mode of origin for the eosinophilic cells as claimed by Brown.

The most numerous and apparently the most important cell in the reaction in this case was the plasma-cell. The cells with eosinophilic granulations were much less numerous than the plasma-cells. The development of the former from the latter could be readily and easily traced as follows:

The homogeneous protoplasm of the plasma-cell becomes first faintly and then strongly eosinophilic. In the next stage fine, and later, coarser eosinophilic granulations develop, producing typical mononuclear eosinophiles. Some of these later develop polymorphous nuclei. With the development of granulations the plasma-cells often increase in size. The size of the eosinophilic cells varies, however, within rather wide limits.

In this case, at least, it seems certain that the eosinophiles were formed in the areas of cellular reaction about the muscle trichinae, and were not brought there from a distance by the bloodvessels, due to chemiotactic substances formed by the parasites or furnished by the degenerating muscle. The substances present, whatever their nature, exerted a positive chemotactic attraction for plasma-cells. The granules of the eosinophilic cells stained readily not only with eosin but with acid fuchsin, picric acid and orange G.

In view of the absence of an increase of eosinophiles in the blood, it is of great interest to note their presence in the peribronchial tissue, the heart-muscle and the splenic pulp. Were they formed in these localities, or where they brought by the blood-current from the muscle and stored? The latter seems the more probable explanation. Their presence in increased numbers in the gastric and intestinal mucosa (where they can usually be found under apparently normal conditions) is to be explained probably by the recent presence of trichinae in the intestine and intestinal wall. The eosinophilic cells in the mucosa are probably developed from the plasma-cell, which, as Councilman[4] has pointed out, is the most numerous cell of the stroma of the mucosa.

It is very much to be regretted that no bone-marrow from this case was obtained for study. I have recently

en able to trace the development of typical eosino-
iles from plasma-cells in the bone marrow in two
ses, and from plasma-cells in various other organs in a
rge number of conditions.

In Brown's first case, in which the muscle was taken
r histological examination about 7 or 8 weeks after
e onset of the disease, numbers of eosinophiles were
esent in the muscle lesions with polymorphonuclear
utrophiles, from which Brown thinks the former have
eir origin. In his second case the muscle was taken
out 3 weeks after the onset of the disease and the
uscle changes were less marked, the eosinophiles were
ver, and it is stated that there was no evidence of the
nsition of neutrophiles into eosinophiles. In the
ird case the infection occurred probably 5 weeks or
ore before the muscle was obtained, and the eosino-
ilic cells were as numerous in the tissues as in the
st case. In all 3 cases there was marked increase of
sinophiles in the blood (68.2%, 42%, and 49%) with
responding decrease of the neutrophiles. In all 3
ses the small mononuclear forms were relatively de-
ased in number while actually more plentiful in the
od.

A study of Brown's tables shows that there was an
ual increase of both large and small mononuclear
kocytes in the circulating blood, with a decrease of
neutrophiles. As far as one can gather from his article
main argument in favor of the origin of the eosino-
iles from the neutrophiles is the decrease in the num-
of the latter, coincident with the increase of the
mer. From his description of the changes in the
scle, it is not clear upon what histologic appear-
es he bases his conclusions that the polymorpho-
clear cells develop eosinophilic granules.

n Brown's fourth case (a museum specimen) in
ich death occurred 6 weeks after the onset of the
ease, there were large numbers of eosinophiles in the
ues about the degenerated muscles. In the descrip-
of this case no mention is made of the neutro-
lic cells in the reaction about the parasites. Brown
ations the presence of small round cells in the
scles in Case 3. A critical study of Brown's care-
y compiled tables of blood-counts shows that in
cases there was not only an increase of the eosino-
lic cells, but of the large mononuclear forms. These
er forms are just the blood-cells from which plasma-
s develop.

he histological study of the lesions of my case
ws (that for this case at least) the plasma-cell is the
ortant cell in the exudation. From the appearance
with in this case it is conclusively shown that the
ma-cell and not the neutrophile is the origin of the
nophile in the muscle lesions. It is probable that
the patient lived longer these cells would have
ded the circulating blood in numbers.

he presence of an increased number of cells (both
morphonuclear and mononuclear) with eosino-
philic granulations in the mucosa of the stomach and intestine, I attribute to the local influence of the parasite in the intestinal canal. As is now well known an increase of eosinophiles occurs in the blood in other forms of helminthiasis besides trichinosis.

These cases have recently been collected by Ehrlich and Lazarus,[5] according to whom Müller and Rieder were the first to describe eosinophilia in helminthiasis. These authors described two cases of ankylostomiasis, in one of which there was an eosinophilia of 8.2%, and in the other of 9.7%.

Zappert, in two cases of the same disease, found the eosinophiles increased up to 17%, while in a third case they were not increased. Bückler, working under the direction of Leichtenstern, has shown that eosinophilia may be caused by oxyuris (16%), by ascaris (19%), and by taenia medio-canellata (34%). Ehrlich and Lazarus also report a case of ankylostomiasis observed by Leichtenstern in which the eosinophiles in the blood reached 72%. These authors suggest that in helminthiasis the parasites form poisonous substances which exert a positive chemotaxis for eosinophiles.

Summary.—In my fatal case of trichinosis I have been able to confirm Brown's observation on the presence of eosinophiles in the muscle lesions, but have failed to find an increase of these cells in the circulating blood. In this case there is no evidence to support Brown's claim that eosinophiles are developed from neutrophilic leukocytes in the muscle lesions. On the contrary, there is convincing proof that polymorphonuclear and mononuclear cells with eosinophilic granulations may have their origin in plasma-cells, and this was apparently their only mode of origin in this case. In acute trichinosis cells with eosinophilic granulations may be stored (or formed?) in the heart-muscle, the peribronchial tissue and the spleen.

The finding of a decided increased number of eosinophiles in the mucosa of the stomach and intestine suggests that they were formed in these localities under the influence of trichina, while the latter were either in the intestinal canal or tissues. This observation points to the intestinal mucosa as at least one of the places in which eosinophiles are formed in the eosinophilia of other forms of helminthiasis (ankylostomiasis, etc.).

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A marble bust of Prof. Emil Du Bois Reymond has been presented to the Physiological Institute of the University of Berlin by the Professor's widow.

APPENDICITIS.

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MY object in writing this paper is to suggest some simplification of the meaning of the term appendicitis, and to invite attention to the expediency of adopting a more uniform treatment. Irrespective of the direct causative factor, be it a special microbe, an irritative Bacillus coli, toxin, or foreign body, etc., few, I think, will not readily admit that appendicitis is a local infective malady, which constantly degenerates the appendix, and by perforation not unfrequently destroys the life of the individual. They will also admit that this apparently functionless organ is particularly prone to disease, owing to its peculiar anatomic formation and its situation.

From a personal experience of 60 operations for appendicitis I do not place much value on a classification into catarrhal, suppurative, gangrenous, etc., for I have frequently noted that such distinctions are practically worthless. To say the most, they only imply mere phases of the same disease, sometimes existing and evident, more often existing and not evident. I think it would better serve all purposes if we should adopt a common working basis, and adhere to the simple yet comprehensive term "appendicitis." By so doing I feel certain we might often avoid useless theorizing in a complaint whose transition stages are so direfully insiduous.

I should think there are few medical men, who, if called into consultation in a case of appendicitis, and finding the patient suffering from a "drum" abdomen, vomiting, pulse 140, and facies hippocratica, would not sum up the situation as perforation with diffuse peritonitis, or if they met with a circumscribed, tense, painful, fluctuating swelling in the cecal region would not diagnose appendical abscess. Now suppose we put aside these two self-evident, and I may say late, phases of the disease, I ask is there a physician or surgeon to be found, who at a bedside can correctly diagnose or picture the exact pathologic lesion in a case of appendicitis?

1. Is it possible to include or exclude the existence of a rapidly thinning stricture?

2. Can early abscess-formation between adhering coils of bowel be diagnosed?

3. Can it be positively stated that the appendix is only congested? distended with mucus? blown out with pus? or that it is not rapidly becoming gangrenous? are protective adhesions forming? and that there is not some foreign body or irritative mass on the point of bursting into the abdomen?

My experience teaches me that I am not competent to decide these points, without use of sight and touch. And as I consider each one of these questions should be promptly decided for the patient's welfare, I unhesitatingly recommend and practise immediate celiotomy. By this simple procedure I find I can eliminate all element of doubt, and effect a rapid cure by extirpating both organ and disease at the same time.

Doubtless many will say why open up every case when a large percentage spontaneously cure? My reply to such a question would be (1) I am unable to say at the commencement of any case, that the patient will recover without operation; (2) I cannot guarantee that some sudden emergency might not at any time arise, which would render operation useless; (3) celiotomy and removal of appendix, pus, etc., is the most exact and rapid method of cure with which I am acquainted, and (4) I do not believe in a large number of spontaneous cures.

An appendix once infected is a permanently weak spot and although in many cases no actual recurrence follows, yet in a considerable proportion adhesions have formed around appendix and cecum, which cause chronic digestive disturbance, with dragging pain, and some tenderness in the right iliac fossa. The appendix frequently after an attack becomes glued to adjoining structures; on two occasions I found it adherent to right ovary, in each instance causing chronic ovarian irritation. And in some cases I found it firmly adherent in the pelvis, tying down the cecum in a tent-rope fashion. In such cases the patient had complained of flatulence, pain and a tenderness for a long period. I find when I remove these adhesions, that immediate and permanent relief follows.

Another condition which I have observed, is the action, in some cases of an abnormally short mesoappendix, on the movement and shape of the appendix. On three occasions (without a previous history of appendicitis) I operated purposely to relieve a continuous dragging pain in the cecal region, with tenderness at McBurney's point, without any other local or general symptom, and found the appendix firmly bound down behind the cecum by a stunted thickened mesoappendix, with kinking and tendency to stricture at point of distal attachment of the mesentery to the appendix. It was impossible to raise the cecum, much less the appendix, to the surface until the mesoappendix was divided, then both could be lifted out of the wound with facility. I cannot imagine a more dangerous condition in case of the supervention of an attack of appendicitis, for I should think that gangrene and perforation would rapidly take place under such circumstances. I may mention that the three patients permanently recovered.

There is another point in connection with this disease that requires further definition. Some time since an article written by Mr. Pearce Gould appeared in one of the London medical papers, in which a series of cases of appendicitis with "general peritonitis" were reported, many of which were cured. I have no do

that Mr. Gould's appreciation of the term "general peritonitis" considerably differs from mine, for although cures were reported I failed to satisfy myself that a single patient with "general peritonitis" recovered. Personally I do not understand the application of the word "general" to a limited contiguous peritonitis starting from an infected appendix, and I take it that the usual meaning of "general peritonitis" is a diffuse peritonitis such as is caused by the unrestricted escape of fecal matter into the general abdominal cavity.

In all cases of appendicitis there is some peritonitis, which may be confined to the serous covering of the appendix, or may spread by direct contiguity over a few coils of adjoining bowel, but surely such extension does not imply general peritoneal infection. In 20 cases in which the adjacent coil or coils of bowel were inflamed (fried-ham appearance) I have operated on by removing the appendix and any existing pus, and an uninterrupted recovery followed in each. Yet I never flattered myself that I had cured "general peritonitis."

In my 60 cases there have been 4 deaths, one due to pyelophlebitis in a case of long standing (fourth attack lasting for one month before admission to hospital), and three to diffuse peritonitis caused by anteoperative perforation; no adhesions having formed, the fecal matter flowed frcely into the abdomen. So far I have never saved a case of general peritoneal infection and I seriously doubt if I ever shall.

I think the qualification "general" might be profitably dispensed with, and the term localized peritonitis might be used for inflammation of the serous membrane spreading by direct contiguity from an infected focus with formation of adhesions, and diffuse peritonitis for general peritoneal infection such as may be caused by ruptured bowel, etc., without the formation of efficient protective adhesions.

In conclusion the method which I now adopt and find most satisfactory in appendicitis is to operate as soon as possible after I diagnose the complaint.

The local skin-disinfection having been carried out very gently, McBurney's celiotomy is performed. If any tumefaction is previously felt, the incision is made directly over it. If any pus is present it is removed with sponges, and when the parts are thoroughly dried, a deliberate search is made for the appendix, separating adhesions if necessary until it is found. I made it a rule some years ago never to quit the abdomen, when operating for appendicitis, without taking out the appendix. On two occasions I proved the value of my rule, for I discovered a second collection of pus when hunting for the appendix, which undoubtedly would have been left behind if I had followed the teaching of some conservative surgeons.

I have over and over again broken down intestinal adhesions in the face of pus-cavities, and have never yet caused fresh infection. I attribute this to the fact that I always endeavor to let the light into a pus-collection, and clean up before proceeding further. In my opinion there is far more danger in leaving a rotten appendix behind, than in clearing out existing pus, separating adhesions, and removing the organ.

In all cases of appendicitis when suppuration is met I place a large drain on the stump of the appendix, and take care to give frec vent to anything which may require to come out.

The treatment of appendicitis by applying poultices or ice, and the administration of opium or purges, and hoping for spontaneous recovery, or fixing some arbitrary time for operation, is nothing more or less than a medical farce, which is never amusing, but frequently disastrous.

TEMPERAMENT AND DISEASE, OR "THE NEW HUMORAL PATHOLOGY."*

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(Concluded from page 1037.)

WE may substitute, therefore, in place of the classic group of temperaments, which, as has been mentioned, related only to visible individual disposition, a classification of chemical character, grouping only into three, though a variety of degree between them may be presented. These three are coincident with natural reactions, and are (1) the alkaline temperament; (2) the acid temperament (Gibier); (3) the neutral temperament. Furthermore, it will be borne in mind that all of them refer only to nutritional activity, in the sense in which I have already spoken. A short study of each of these three temperaments may serve at this time to explain, in a measure, what the above train of thought has led to, without detailing the intermediate steps in their elaboration, which would lead us into the depths of nursery, developmental and dietetic philosophy.

The Alkaline Temperament.—Individuals of this kind show a decided alkalinity, and such fluids as are usually highly acid, like the gastric fluid and the uterine secretion, are much weaker in their reaction, while those normally alkaline, for example, the blood, are frequently very much increased in this direction. Careful scrutiny will reveal that such persons are almost exempt from certain diseases, and on the other hand, are peculiarly subject to certain other affections.

They seldom or never suffer from arthritic troubles; chronic rheumatism and gout are practically unknown to them. From eczema and psoriasis, from varices and allied conditions they are almost immune. Cancer in its various forms seems not to occur among the alkaline, nor are vascular and cardiac affections frequent.

* Read at the meeting of the Mississippi Valley Medical Association at Chicago, October 5, 1899.

It is especially noteworthy that diseases closely related to each other, as those that are vascular and cardiac to those that are rheumatic and gouty, do not attack these persons. From sourness of the stomach (pyrosis) they are quite free.

On the other hand, they readily acquire other maladies, notably when they live in cities and cannot afford to eat much meat. For animal food tends to acidify the tissues, and in a measure neutralizes the ill-effects of hyperalkalinity. Moderate quantities of spirituous liquors also are potent means of acidification. The diseases to which the alkaline temperaments are most prone are the tuberculous, notably to the pulmonary variety, and to scrofulosis, which is undoubtedly also tuberculous in character. A vegetable diet and total abstinence from alcoholics tends to increase alkalinity and is distinctly harmful to those predisposed by environment and heredity (diathesis) to any form of tuberculosis.

The Acid Temperament.—This forms an almost direct antithesis to the alkaline, and, curiously enough, the diseases to which the former are subject, occur only infrequently and in mild form among the latter. The converse is also true. It is thoroughly well established that individuals of this temperament suffer from hyperacidity in all of its forms, and from the maladies associated with this dyscrasia. All the normally acid secretions show highly acid reactions, and the normal alkalinity of the blood and the intestinal juices is markedly reduced.

To all arthritic affections, to gout and to rheumatism, to the herpetic skin-eruptions, to vascular degeneration, with aneurysm formation and apoplexy, and to forms of nerve-degeneration associated with, or dependent upon, arterial lesions (paresis, scleroses, tabes, migraine, hysteria), they are particularly liable. Cancer and epithelioma are frequent, notably when there exists, normally, acidity, which now becomes overacid; stomach and uterus are, therefore, especially choice locations. Among women of the acid temperament sterility is often observed (uterine acidity).

Possibly, the highly acid media of the body offer poor nutrition to many pathogenic microbes, and so leads to the fact that persons of the acid temperament are rarely affected with tuberculosis and seem immune to yellow fever and cholera, as well as other acute intestinal infections.

The neutral temperament may well be regarded as the normal state, happily inherited from sound ancestry or fostered by wholesome ways of living from birth onward. Persons of this fortunate class, while they may become temporarily acidic or alkaline by reason of alimentation and habits of life, are readily curable from such affections as often become intractable among members of the other temperaments. But it is not alone in sickness that we note this characteristic, for morally and mentally the neutral temperament is readily controled, while the markedly acid and alkaline are difficult to control. Moral and mental atavisms are ofttimes observed among the extremes. Objects of degeneracy are rare among the mean.

It would possibly be interesting to enter deeper into the subject of diathesis in this connection, but I cannot do so at present. It may be well, however, to mention, that but two great tendencies prevail, namely:

1. The *scrofulous*, or predisposition to tubercle development, closely allied to the alkaline temperament, and

2. The *arthritic*, under which is also included the neoplastic, and which consorts especially with the acid temperament.

The question naturally arises in our minds. Have we any corroborative experience in the realms of disease to substantiate the ideas herein advanced? It seems to me we have abundant evidence.

Let us look for a moment into what I feel like terming the "association of diseases." It is certainly more than passing strange, more than mere coincidence that we so frequently find certain maladies side by side, seemingly independent, though often allied, in one and the same individual.

On the other hand, it is remarkable that certain other affections are rarely met with in the same persons, seem even antagonistic to each other. We should seek logical causes for our clinical experiences and our pathologic knowledge.

It is not sufficient to say simply that this or that disease takes this or that course because a certain individual possesses these or those traits of character. Is it not, at least, quite as likely, and more logical, to assume, that the very traits to which we refer are themselves marks of a given fundamental temperament, which favors the development of certain well-understood tendencies to disease? *A priori*, it is just as likely, and actually it is far better scientific reasoning.

Is it scientific to reason, that because a person happens to be blonde or brunet certain characteristics of thought and action follow? Is it not more reasonable to say that because certain physical conditions obtain, such and such a one acts so or so? The type of expression would follow as an effect. It would not be a cause.

And so it is also with "association of disease," to which I cannot refer here with as much detail as I desire.

Is it not a fact of remarkable import that patients wasted to the last degree by arthritism (lack of oxidation and loss of nutrition) seldom, if ever, fall victims to any form of tuberculosis, when we could fairly say general conditions for the development for the latter would be most favorable, were it not for some underlying antagonistic tendency or principle. Experiences of this kind are worth serious thought. Cancer, too, and tuberculosis, I have never seen together; nor does

the latter show itself even in the extreme cachexia of the former. As I have pointed out, arthritic and cancerous affections are essentially acid affections; tuberculosis develops almost exclusively on alkaline foundations.

On the other hand, look at the maladies which frequently associate themselves together. The most classic example is that of arthritis, endocarditis, and chorea, of which I have elsewhere spoken.[1] These three affections all arise upon an acid foundation, are even characteristic of the acid temperament. Migraine —real hemicrania—I have never seen save with the essentially acid. Examples of this kind could be readily multiplied, but I desire to look elsewhere than at the bedside and in the consulting-room.

Many extravagant claims have been made by the believers in a vegetable diet for human beings. They claim it prevents consumption; that the eating of beef or animal food is conducive to its development. Experience with certain animals and man does not substantiate these claims, in fact, speaks clearly against them.

It has been found that about 25% of the mortality among the birds and animals in Regent Park (London) is due to tuberculosis, a percentage almost double that among human beings taken the world over. Of these animals the meat-eaters are much less affected. Among the mammals that eat only vegetable food,—the monkeys, kangaroos, antelopes, and deer,—tuberculosis causes about 25% of all deaths. Among the purely meat-eating beasts, such as lions, wolves, leopards, etc., the loss from this disease is but 3%. Birds eating no meat show a mortality of 30%, while the carnivorous birds—eagles, owls, vultures, and other birds of prey—suffer only to 11% of the number lost. These contrasts are certainly impressive, not merely coincidental, and surely have great significance.

We may even see corroborative testimony in frequent morbid conditions among our domestic animals. Note the common affliction among our cattle, the horned variety especially, which are herbivorous and alkaline. It is tuberculosis. Observe how frequently the faithful dog limps painfully about with rheumatic joints, or twitches with chorea, or claws and scratches his skin, itchy with eczematous disease. He is carnivorous and acid.

Experiments in the bacteriological laboratory also lend color to these statements. Observation has taught us that certain pathogenic organisms cannot grow in or on acid media. Neutralize or alkalinize the acidity, and they thrive abundantly. So, too, a little glycerin added to an inert medium favors rapid development of tubercle-bacilli. (Roux et Nocard.)

It has seemed to me that the suggestions presented are of great *practical* value—if they possess any value at all. While they may well be applied as a form of treatment in the developed disease or in the earlier diathetic tendencies, their greatest worth must lie in the province of prophylaxis. If it is possible—as it is—to recognize qualities of temperament in the very young we may be enabled to forestall the manifest inclinations of ancestry or heredity, which notably follow distinct lines of development. Theories and practices which take us into the nursery are, I know, unpopular and likely to be shelved. It is for this reason, possibly, that the results of our best efforts are so often unsatisfactory. Physicians usually fail to reach back far enough; they want good results right away, and are not content to await the real outcome of their endeavors, in generations beyond the present.

Yet it is just here where we make the greatest mistake. We may, and often do, cure maladies in individuals, but thus far we have failed, with few exceptions, in spite of the enormous progress the science of medicine has made in recent years, to subdue the deviations from the normal nutritional powers which constitute morbidity.

The study of "temperament" is still in its infancy, has been even scarcely taken up, but it offers, I feel sure, a rich and fruitful domain for practical research, and its results will be shown in the future.

Indiana Medical Journal.

A CASE OF CEREBRAL HEMORRHAGE FOLLOWING LABOR.

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The following case, which occurred in the service of Dr. J. T. Duryea, in the obstetrical department of Kings County Hospital, is of interest because textbooks generally give but a passing notice to the condition.

E. D., aged 31, German, was admitted to the antepartum ward of Kings County Hospital, December 8, 1898. She had had two previous confinements, the first of which had been a difficult instrumental delivery and the second had been a normal one. She was uncertain as to the time her expected confinement should occur. The preliminary examination on December 9, 1898, showed the following conditions: Fair general health; the pelvic measurements ample; a vertex presentation, R. O. A.; and the urine normal. The urine report on December 16 was: Sp. gr. 1015, albumin with a few hyalin casts present. Quantity of urine normal, pulse-tension good and patient was feeling well, so with a close watch on her condition she was allowed to go on. On the morning of December 18, the patient had a severe headache and beginning labor-pains; pulse of good tension. At 10 P.M. she had a severe labor-pain and from then until 10 A.M., December 19, she had at prolonged intervals long and hard pains. During the entire night there was a constant slow flow of blood from the slowly dilating, rigid os. At this time dilation was complete; general condition, fair. At 10.30 A.M. the membranes ruptured and with the next pain a small fetus, apparently about 6 months, was rapidly expelled. There was a considerable flow of blood following the expulsion of the fetus, and the patient being somewhat exhausted, the Credé method of extraction of placenta was immediately begun. While the uterus was being manipulated, the patient was noticed to sink into a semiconscious

stupor, from which she could be aroused only by loud calling; breathing somewhat stertorous. Placenta was hastily extracted and ergot given. The pulse at this time was weak and fluttering; whisky and strychnia by hypodermic and saline solution by rectum were given. Condition much improved; in about 5 minutes she again began to breathe stertorously and then sank into a deep stupor. Convulsive twitching then began in the muscles of the right hand and progressively extended to right arm and right side of face and then involved the whole body. Notwithstanding the previous poor condition of the pulse and the march of the convulsion, I decided the case to be one of eclampsia. Chloroform was administered and veratrum viride given hypodermically. As soon as possible, the patient was put into a hot pack. At 6 P.M. another and less general convulsion took place. The patient remained in a comatose state from this time until her death on December 23, 4 days 9 hours after labor. During this time a very small amount of urine was secreted and none was passed voluntarily; it contained a large amount of albumin. Diaphoresis was free and a constant watery evacuation of the bowels was kept up by medication. A postmortem examination, made by Dr. J. S. Gilfillan on December 24, showed the following conditions: "Hypostatic congestion of both lungs; cortex of each kidney large and pale, pyramids congested. Brain: Pia mater over left occipital lobe and posterior part of cerebrum intensely congested. In left corpus striatum is a ruptured artery and clotted blood extends from posterior to anterior part of internal capsule and into lateral ventricle. In right nucleus caudatus is a small hemorrhage, and there is blood on surface of corpus striatum. Other organs, normal."

In looking up the literature of this case, very few similar ones are found on record. Olshausen[1] in a series of 200 cases of eclampsia, with a mortality of 25%, found 5 cases of cerebral hemorrhage. Whether these cases were true eclamptic seizures with cerebral hemorrhage as a sequel or of primary cerebral hemorrhage in childbed, is not stated. Other textbooks consulted only mention the possibility of this condition and so dwell on its improbability as to almost banish it from one's mind.

In studying the case, a number of questions arise:

1. What caused the cerebral hemorrhage? There was no apparent arterial disease present; unfortunately a microscopic examination of the arteries was not made; the albuminuria was of recent date and had given rise to no unpleasant symptoms; the tension of the pulse was very low, so low in fact, that stimulants were administered.

2. Was there an eclamptic factor present, preceding the cerebral hemorrhage? The insidiously developing stupor would seem to indicate its possibility, and yet, the type of convulsion, with only one repetition together with postmortem findings to explain both convulsions, would seem to prove conclusively that the hemorrhages preceded and were the causes of the seizures.

3. No eclamptic factor being present and albuminuria of only slight degree without other symptoms, what caused the premature spontaneous expulsion of the fetus?

The therapy practised may seem to be conflicting in administering cardiac stimulants immediately preceding treatment for eclampsia, in which lowering of the blood-pressure is an important factor. This, to my mind, only emphasizes two facts: (1) The peculiarity of the hemorrhage in a patient with such a low blood-pressure, one that had practically been bled all the previous night by her rigid and slowly dilating os; and (2) the tendency of the physician to hastily consider eclamptic all convulsions in childbed, and to treat for eclampsia without much regard to the application of rational therapeutics to the conditions present. The possibility of puerperal convulsions being caused by cerebral hemorrhage has been indelibly impressed upon my mind by this case.

[1] American Textbook of Obstetrics, p. 628.

Carcinoma of the Kidney with Multiple Metastases of the Lymph-glands.—A. Trayer (*Correspondenz-Blatt für Schweizer Aerzte*, October 15, 1899). A man, 20 years old, had been ill for some time with enlargement of the lymph-glands and a tumor in the left hypochondrium, which was believed to be an enlarged spleen. There was no history of tuberculosis or syphilis, and the patient's previous health had been good. At the beginning of the trouble nothing could be found in the abdomen on physical examination, but little by little there developed in the left hypochondrium a tumor of increasing size, the surface of which later on became nodular; the lymph-glands of the left axilla and of both inguinal regions gradually enlarged, followed by more general enlargement. The condition was diagnosed and treated as pseudoleukemia. The patient's general condition became rapidly worse, and death followed. A necropsy was performed at which it was found that there was carcinoma of the kidney with numerous multiple enlargements of the lymph-glands; there was a large mass of glands in the right subclavian fossa, and others under the base of the sternum and between the trachea and aorta. In the abdomen the retroperitoneal glands were much enlarged, but the mesenteric glands were not involved. The condition is thought to be one of considerable rarity. [M.B.T.]

Four Cases of Cesarean Section.—W. S. Thorne (*Occidental Medical Times*, September 15, 1899) reports 4 cases of cesarean section, in two of which he operated himself. A primipara, aged 30, had been in labor 30 hours. She had a flat rachitic pelvis, and the anteroposterior diameter was much diminished by bulging of the sacral promontory. The abdomen was opened and the uterus incised in the usual manner. The child was extracted and the placenta detached without difficulty, the uterine cavity was flushed with hot sterile water and the uterine wound sutured by superficial and deep silk sutures. The mother died on the second day of shock and hemorrhage. Contraction of the uterus was not satisfactory from the first and resisted all efforts to improve it. In another case a primipara, 23 years old, had been in labor 20 hours. The anteroposterior diameter of the pelvis was less than an inch and a half, by reason of an exostosis of the sacral promontory. The abdomen was opened by a median incision, the uterus was incised and a dead child was extracted. Removal of the placenta, cleansing and suturing were carried out as in the previous case. The patient was much exhausted, but rallied from the operation only to die on the fourth day of septicemia. In a third case a primipara of 28 was found to have a typically flat pelvis with an anteroposterior diameter of 1½ inches. The amniotic sac was ruptured and operation was performed before labor came on. The steps of the operation were as in the previous cases, and the woman recovered without unfavorable symptoms, leaving the hospital at the beginning of the fifth week in perfect condition, with a healthy child weighing 10 pounds. The fourth patient, a primipara, aged 22, had irregular bony prominences on the lateral walls of the pelvic basin; the pelvic arch was narrow and the transverse diameter between the tuber ischii much shortened. The abdomen was opened and the further steps of the operation were carried out as in the other cases until the child had been removed, then complete removal of the uterus was carried out with extraperitoneal treatment of the stump. There was no hemorrhage or shock following the operation and an uneventful convalescence followed. [M.B.T.]

The Philadelphia Medical Journal

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Bill for the Increase of the Medical Department of the Army.—In our issue of November 25, in speaking of Surgeon-General Sternberg's report, published in the PHILADELPHIA MEDICAL JOURNAL, we said that it was plain that in his opinion the great medical mistakes of the Spanish war were essentially due to the policy of Congress in keeping the Medical Department of the Regular Army in such a state of low equipment. We are glad that the Surgeon-General, acting upon the demonstration made by the war, has prepared the following bill. Both for the sake of justice to medical men, and for assuring the care of the health of the Army, we hope that an adequate supply of medical officers will be secured, and that the rank, dignity and value of the medical branches of the service will be duly recognized. We trust that the bill may be speedily passed.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled:

SECTION 1. That there shall be added to the number of medical officers of the Army now authorized by law, four assistant surgeons-general with the rank of colonel, ten deputy surgeons-general with the rank of lieutenant-colonel, thirty surgeons with the rank of major, and eighty assistant surgeons with the rank of first lieutenant who shall have the rank of captain at the expiration of five years' service as now provided by law. Provided that the original vacancies created by this act in the grade of colonel, lieutenant-colonel and major shall be filled by seniority promotion in accordance with established laws and regulations.

SEC. 2. Hereafter candidates for appointment in the medical corps of the Army who pass a medical examining board in compliance with existing regulations, shall be appointed acting assistant surgeons for a probationary period of six months; during this probationary period they shall attend the army medical school established at the army medical museum in the city of Washington, and the faculty of the army medical school shall report to the Secretary of War at the end of the prescribed course of instruction upon the fitness and relative standing of the probationary candidates; those who are recommended by the faculty may then be commissioned by the President to fill existing vacancies in the medical corps of the Army.

SEC. 3.—Acting assistant surgeons appointed in accordance with the provisions of Sec. 2 shall be paid $100 per month and shall not be entitled to any allowances or to mileage in reporting for the prescribed course of instruction, or in returning to their homes if they are not recommended for a commission.

SEC. 4.—The number of acting assistant surgeons appointed in accordance with the provisions of Sec. 2 shall not exceed the number of vacancies existing or to result from retirements during the probationary period.

SEC. 5.—Candidates who have rendered satisfactory service as acting assistant surgeons or as commissioned medical officers in the Volunteer Army of the United States for a period of six months or more, shall be exempted from this period of probation and may be commissioned at once if vacancies exist, and they pass a satisfactory examination as to their physical, moral, and professional qualifications.

Bills for the Relief of Acting Assistant Surgeons in the United States Army, and of Assistant Surgeons with the Rank of Captain in the Volunteer Army.—We are delighted to see that Surgeon-General Sternberg is anxious to do away with some of the injustices and indignities which in all countries seem to fall upon the medical officers of the service, and that he is determined to give them a proper equality of rank and dignity as compared with other branches. He has prepared the following bills:—

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled:

SECTION 1. That on and after the passage of this act acting assistant surgeons in the Army of the United States shall have the same rights and privileges as regards leaves of absence as commissioned officers of the Army.

SEC. 2. Acting assistant surgeons of the Army of the United States who have been appointed since the first day of May, 1898, who have been absent from duty, by proper authority, on account of sickness contracted in the service, shall be paid for the time of such absence at the rate per month specified in their contracts.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled:

That assistant surgeons in the Volunteer Army of the United States commissioned by the President as captains, in accordance with the provisions of an act for increasing the efficiency of the Army of the United States and for other purposes (approved March 2, 1899), are entitled to the pay of a "captain mounted" from the date of their acceptance of such commission as prescribed by law.

One Great and Popular Lay Journal Our Friend.—There are over 100,000 physicians in the United States, who, because they have no corporate voice, and no union of desire, are almost wholly without power and influence with the lay newspaper and magazine world. The nostrum syndicates control the advertising columns, and the quacks of every description fill the reading columns, while pseudoscientific medicine is the delight of the average reporter and editor. In this sorry condition of professional degradation it is refreshing to find a most successful and popular lay journal which not only advocates the payment of the physician's bills, but which excludes the whole tribe of nostrum and quack advertisers. Quite as gratifying is the fact that one medical society has been able to break through the habitual professional aphonia, and show its gratitude for the noble stand taken by the *Ladies' Home Journal.* At its regular meeting, the King's County Medical Society of Seattle, Washington, passed the following resolutions:

"*Resolved*, that this Society highly appreciates the earnest editorial on the 'Fee of the Doctor' in the October number of the *Ladies' Home Journal*, and that it hereby extends a vote of thanks to its editor, Mr. Edward Bok, for his able effort in the behalf of our profession.

"*Also resolved*, that this Society hereby expresses its appreciation of the exclusion of all patent medicine and other obnoxious advertisements from the columns of the *Journal*, by a vote of thanks to the Curtis Publishing Company."

The Hangman and the Doctor.—A correspondent in Chicago informs us that twelve physicians attended a recent hanging in that city; and asks plaintively whether the profession wishes to be associated in the public mind with such takings-off. We cannot answer for individual wishes in the whole profession, but we have observed that there is a period in the career of the average physician when he is not averse to taking official part in a hanging. He is usually comparatively young when this desire overmasters him, and he is likely to get over it after his first experience. The relish for these things does not, as a rule, persist into mature professional life. We have never attempted to analyze the motive for this ambition; it is enough for us to note that the sheriff never wants for medical assistants when he has to hang a man. As for the ethics of it, we do not think such a question is involved. There are good and sufficient reasons why one or more physicians should attend an execution. In the first place, the law in some States, we believe, requires it; in the second place, the condemned man or his friends may desire it; and in the third place, there are sometimes scientific interests involved. It may be a question of taste how many physicians are required; but as for Chicago, we know that that city does nothing by halves, and with twelve physicians present we think the man should have been well hanged.

Notice Concerning "Suggestions to Medical Writers."—During the past year we have been often urged to republish in book-form the series of editorial notes entitled, "Suggestions to Writers." As the desire has appeared so general we have acceded and the work is now in the printer's hands. The volume will be entitled, *Suggestions to Medical Writers*, and will be an octavo of about 150 pages, published by the Philadelphia Medical Publishing Company at the retail price of $1.25. Until further notice it will be sent gratis to all new subscribers of the PHILADELPHIA MEDICAL JOURNAL, who, after December 9, remit in advance the regular yearly subscription price of the JOURNAL. In addition to the articles which have been published as editorials, the book will contain a general introductory chapter on *Medical English*, a chapter on *Medical Paleography* (to be published in the December number of the PHILADELPHIA MONTHLY MEDICAL JOURNAL), and a new essay entitled, *History and Psychology in Words.*

Tenement-House Reform.—The Tenement-House Committee of the Charity Organization Society of New York City is engaged in a most praiseworthy effort to secure the following reforms in the erection and construction of tenement-houses:

That in all new tenement-houses no air-shaft should be less than 6 feet wide in any part, nor less than 150 square feet in superficial area; that no new tenement-house should exceed 6 stories in height unless it be fireproof; that all living rooms in tenement-houses should have a capacity of at least 600 cubic feet of air-space; that for every new tenement-house containing 20 families or more there should be provided at least one bath-tub or shower-bath in a separate apartment for the use of the tenant, and when there are more than 20 families in any such house there should be provided additional bath-tubs; that every tenement-house hereafter erected or altered, 4 stories or more in height, should have the first story made fireproof; that the walls of all tenement houses hereafter erected should be carried up 3 feet 6 inches above the roof on all four sides, so that the roof might be used as a playground; that no wooden building of any kind whatever should be placed on the same lot with a tenement-house within the fire-limits of the city; that in every new tenement-house the stairway connecting the cellar with the first floor should *not* be located in whole or in part underneath the stairs leading from the first story to the upper stories; that no closet should be constructed underneath any staircase in any tenement-house; that every new tenement-house and every existing tenement-house in which the halls are not light enough in the daytime on all floors to permit an ordinary person to read easily without aid of artificial light should have every door leading from the public halls to rooms provided with ground-glass panels of an area of not less than 6 square feet; that in every new tenement-house all interior shafts should be fireproof and provided with fireproof self-closing doors to all openings; that the following provisions of the existing building-laws be continued in effect, viz., that the bulkhead doors of all tenement-houses should at no time be locked, but they might be fastened on the inside with a hook or bolt; that in all tenement-houses where wooden stud partitions rest over each other, the space between the studs should be filled in solid with fireproof material, to prevent the spread of fire from floor to floor; that the cellar floor of every temement should be covered with concrete not less than 3 inches thick; and that when a kitchen range or stove is placed within 12 inches of a wooden stud partition the woodwork should be cut away and filled in with fireproof material.

These are sound hygienic recommendations and should receive general acceptance and practical application. To further the objects in view it is proposed to hold a tenement-house exhibition illustrating the various aspects of the subject, and to be repeated in several of the larger cities of the United States, and also at the Paris Exposition in 1900.

A Successful Operation for Brain-tumor.—A case, which will probably rank as one of the most important in the annals of practical cerebral localization, has just occurred in this city under the care of Dr. Charles K. Mills. The patient, a man aged about 60 years, began, a few months before the operation, to have ataxia of the right arm, with loss of muscular sense, astereognosis, diminished tactile sense, and sense for pain, heat, and cold. Later, a flaccid paralysis of the arm and leg supervened, masking the former ataxia. The sensory symptoms continued, with slight if any variations. There were occasional disorders of speech, not amounting to a true aphasia of recognized type, but rather

suggestive, on the whole, of verbal amnesia or paraphasia; there was no word-blindness nor word-deafness. The patient never had a convulsion, and did not complain of pain nor any discomfort except a sense of fulness or pressure on the top and left side of the head. Several critical examinations of the eye-grounds failed to show optic neuritis; on one occasion, however, there was a temporary right hemianopsia, and there was also a reversal of the color-fields and contraction of the form-fields of a distinctly hysterical character. The data that were especially relied on for localization were the primary onset of ataxia with loss of muscular sense and astereognosis in the arm, followed by and being masked by a flaccid paralysis of that member as well as of the leg. This was believed to indicate a lesion in the superior parietal lobule—a localization which was confirmed by operation. Dr. W. W. Keen trephined the patient on November 24, and exposed an encapsulated tumor of the superior parietal lobule of the left side, subcortical in origin, but protruding through the cortex. The inferior portion of the tumor was cystic, extending 10 cm. into the brain. It was removed entire, cyst-wall included, and we are authorized to state that the patient has recovered from the operation.

The obstacles to successful diagnosis in this case were three in number—the absence of convulsions, of pain, headache and of optic neuritis. With these three cardinal symptoms absent, a diagnosis of a tumor of the brain was deprived of some of its main supports. To confuse the diagnosis still more, the case bore a superficial resemblance to hysteria. This was seen especially in the ocular changes and in certain emotional characteristics. These were finally estimated, however, at their true value as mere epiphenomena. That the case was one of organic disease was indicated by the manner of onset and the evolution of the symptoms. It has special importance as an instance of successful localization in the superior parietal lobule—a localization not often successfully made, and which was indicated, and most fortunately recognized, in this case by the sensory changes associated with ataxia of the arm, merging into paralysis. We understand that Dr. Mills and Dr. Keen will make a full report of the case at the next meeting of the Congress in Washington.

The Quack Combine.—It is clear that an attempt is being made to syndicate all the infinitely varying quack-interests. However self-contradictory and scornful of each other, one object of loathing unites them, as did one mind the Gadarene pigs. The principal qualifications for joining the combination are ignorance and hatred of the medical profession. The more marvelous and mirth-provoking the stupidity, the more epileptic the hatred, the greater is the certainty of admission. If to these qualities are added the wildest of insane Buddism, and the most loathsome of financial greeds, then is the welcome all the more jubilant. The object of *The National Association of Liberal Physicians and Surgeons* is to secure the repeal of all laws relative to the practice of medicine, and to confer the degree of M.D. upon all who will pay for it. We advise all physicians to secure a copy of the *Prospectus* of the National Association, People's Institute, Leavitt and Van Buren Streets, Chicago. It is a most interesting, most amusing, and most instructive document.

We notice, by the way, that the "Independent Medical College" of Chicago is operating in India. *The Indian Medical Record* quotes letters (for the English of which the United States has to suffer) in which for £25 the representative of the college will confer the degree, etc. The reputation of our country and profession is, of course, smirched. Cannot Chicago and Illinois abate this nuisance?

The Number of Bacilli in Tuberculous Sputum.—It is not uncommon, nor does it at first glance seem unreasonable, to assume that the number of tubercle-bacilli in each field of a given specimen of sputum furnishes an index of the character of the case from which it has been expectorated. This belief on the part of many practitioners is shown by the fact that in reporting clinical histories of tuberculous cases the record of the sputum-examinations from time to time is given as a serious and final proof of the progress of the patient toward recovery. The serious error of such observations may be well understood when it is noted that some such cases reported as cured by injections of tuberculin several years ago have gone on from bad to worse (following the temporary disappearance of the bacilli) and have finally died of hemorrhages and other undoubted tuberculous troubles.

The presence of the Bacillus tuberculosis in any of the secretions or excretions is a definite proof that tuberculous infection exists. But absence in one or two examinations, or temporary decrease or disappearance, should never be accepted as proof that there is no tuberculous trouble, or that it is decreasing or has disappeared. The clinical or physical signs alone can give information of value in regard to these facts. Even these signs must be carefully interpreted, for the progress of a tuberculous case is by no means indicated by hard and fast rules, nor the changes that cover but short periods of time. In regard to the sputum it must be remembered that the number of bacilli found in each field under the microscope is mainly an index of the concentration of that particular specimen. From any given sample of sputum an expert bacteriologist may readily secure a specimen which is likely to and usually does present the most crowded fields for inspection; from the same specimen a less expert examiner may secure a mount that will present but an occasional red-stained bacillus against the violet background. Again, many infected patients cough up a specimen at some time during the day—usually in the morning—

which is so concentrated that every field will show nearly a hundred bacilli; during the remainder of the day a thin bronchial secretion forms the greater part of the expectoration and in it few if any tubercle-bacilli are found.

The onset of an exacerbation due to congestion in an old tuberculous case is usually accompanied by a bronchorrhea causing rapid dilution of the expectoration and a consequent diminution of the number of bacilli per field. This change is sometimes so marked that a patient whose sputum has steadily shown from 50 to 100 per field for months, will, on "catching cold," present an expectoration in which it is difficult to find a single tubercle-bacillus. All of which is a strong argument against the mechanical interpretation of numerical counts in the study of the progress toward recovery, or toward the grave, of any case of tuberculous infection. Much of the literature reporting "cured" and "benefited" cases on this basis is practically valueless.

The methods of Klebs and Nuttall, which by concentration secure the whole bacillary congregation of a day's expectoration, are in sharp contrast with the haphazard methods here objected to. The repeated employment of Nuttall's method furnishes evidence of the greatest value, but the necessary accuracy of the involved methods requires the service of a genuine bacteriologist, while the time necessary makes almost impossible its application to the study of charity cases.

Suggestions to Writers, No. 49. Let us Stop the Use of the Subjunctive Mood!—The extraordinary simplicity of construction of the English language, like every other product of civilization, has flowed naturally from qualities of mind in the originators. It has led to the designation of English as the grammarless language. However this may be, it is undoubtedly, of all the languages of the world, the freest from hard and fast grammarial formalism. Almost every adjective can be used unchanged as a noun, and almost every noun as an adjective, and there is the greatest liberty in the placings and functions of all words. These free and uncomplicated qualities have been and are potent factors in making English the world-language it is certainly destined to become. But in its evolution, like every other organism, it must bear with it remnants and tags of old, atrophied and useless organs, wholly or partially outgrown. Our wonderful but incurable spelling is one. Another is the subjunctive. We have turned it over to the poets and other dealers in the antique, but still, dilettantelike, one occasionally writes, *If the artery be not found, In case it be not so*, etc. It may be confidently said that in English the subjunctive is opposed to the genius of the language and of its speakers, that this subjunctive is rapidly becoming archaic, and the sooner it is entirely disused the better. We are active-minded people, will not submit, and so in grammar we have no passive voice. We are positive and indicative-mooded in our characters, and so we have, or are wisely hastening to have, no subjunctive. If one says (not, *if one say*) *if*, it is only a passing supposition, neutralized by *if it is so*, *if it is not so*, etc., in which all the doubtfulness necessary to be conveyed, all the contingency admissible, resides in the little supposition *if*, and is not incorporated in the very heart of the sentence, the verb. Let us abolish the use of the subjunctive!

Editor and Reader. No. 27. The Philadelphia Medical Journal for 1900.—As the number of readers of a journal increases, the variations and differences of their tastes become more evident. With only 5,000 subscribers there is a natural homogeneity which is wanting with twice this number. A certain proportion will wish for new special departments, or for extensions or restrictions of some already represented, and at the same time others will state wishes which exactly contradict. The differential of all hints will be our indication for change and methods of future growth. The consideration applicable to all suggestions and criticisms is that whatever our faults we are willing and desirous to better the JOURNAL, and that to give over 13,000 words of scientific matter for one cent at least leaves the purchaser much choice as to what he may read and what he may leave unread. There is one recommendation that seems to be more general than others: An enlarging of our original article department. This will soon be realized. The Lane lecturcs of Professor Allbutt will soon appear, and we have a number of original articles promised by leading continental physicians and surgeons. Such progress has been made in securing promiscs of contributions for our special and enlarged issues of the JOURNAL once a month, that we can confidently promise subscribers that these numbers will be of exceptional value and interest. The issue of January 6 will be enlarged to about 75 pages of reading-matter, and, in its original article department, will be devoted to profusely illustrated contributions by the foremost investigators, upon the advances in medicine by means of the Röntgen rays.

Traumatic Hemorrhagic Internal Pachymeningitis.—Köhl (*Correspondenz Blatt für Schweizer Aerzte*, October 15, 1899). A man, 42 years old, fell while working at hay, receiving a severe wound in the head. The pain following was not very great, and the wound was treated at home for 14 days with a proprietary remedy. Suppuration occurred in the wound and about a month and a half later slight headache appeared which gradually increased in severity until the patient was unable to work. By the end of 3 months there was paresis of the left side of the body, dizziness, and a tendency to fall toward the left. A diagnosis of brain-abscess was made and the patient was removed to the hospital for operation. The skull was opened by means of a chisel and the dura was found smooth but hyperemic. On opening the dura there escaped about a deciliter of dark-colored fluid blood. A strip of iodoform-gauze was inserted for drainage, the skin-flap was brought down and closed. The paralysis was much lessened a few hours after the operation, but 3 days later symptoms of intracranial pressure reappeared, the gauze was removed and fluid again escaped and the symptoms again improved. Progressive recovery followed and the patient left the hospital 4 weeks later. This affection is of comparatively rare occurrence, and it is called by certain physicians hematoma of the dura mater. Köhl believes that the bad prognosis for this affection which is given by many physicians is not justified, for, as was shown in this case, rapid recovery may be obtained, in some cases at least, by operative treatment. [M.B.T.]

Correspondence.

THE ARMY-RATION.

BY CHARLES SMART, M.D.,
Lieut.-Colonel and Deputy Surgeon-General, U. S. A.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

ARTICLES have appeared recently in the public press criticising the army-ration, denouncing its unsuitability for troops in a tropical climate and urging a radical change in its character. These articles are based on the elementary propositions, that while fatty foods are good where a high development of animal heat is required, they are harmful in a climate where there is no call on the system for a large heat-production. Everyone is willing to grant these propositions. They are simple and can be verified every summer and winter by the inhabitants of the north temperate zone. There are 12 ounces of bacon in the army-ration, and this is no doubt an excess of fat for a dietary in the tropics. But it does not follow that the army-ration should therefore be changed. The critics who see so clearly that the ration should be altered to suit their views of what is right and proper to be eaten in tropical climates, and who are astounded at the dulness of those army officials who think it wise to be slow in doing anything of this kind, do not appear to know that the army-ration is run on a broader gauge than the elementary propositions which form the basis of their argument.

There is in the Army of the United States a considerable difference between the ration of the soldier and the diet of the soldier. The critics of the army-ration do not understand this. The ration is the allowance for subsistence of one person for one day. The diet is what is actually prepared in the kitchen for consumption by the soldier day by day. The ration is prescribed by law, and consists of the meat, the bread, the vegetables, the fruit, the coffee, and sugar, the seasoning and the soap-and-candle components.

The meat-component does not consist of fat pork or bacon, as those who know nothing of the domestic economy of army-kitchens appear to believe. On the contrary, there is some variety in the meat-component. It consists of 20 ounces of fresh beef, *or* 20 ounces of mutton when the cost does not exceed that of beef, *or* 12 ounces of pork, *or* 12 ounces of bacon, *or* 22 ounces of salt beef, *or* 14 ounces of dried fish, *or* 18 ounces of pickled fish, *or* 20 ounces of canned salmon, *or* 18 ounces of fresh fish. The bread-component consists of 18 ounces of flour, with baking-powder, when the men have to bake their own bread, *or* 18 ounces of soft bread, or 16 ounces of hard bread, *or* 20 ounces of cornmeal. The vegetable-components consist of $2\frac{2}{5}$ ounces of beans, *or* $2\frac{2}{5}$ ounces of peas, *or* $1\frac{3}{5}$ ounces of rice, *or* $1\frac{3}{5}$ ounces of hominy and 16 ounces of potatoes, *or* $12\frac{4}{5}$ ounces of potatoes, and $3\frac{1}{5}$ ounces of onions, *or* $11\frac{1}{5}$ ounces of potatoes and $4\frac{4}{5}$ ounces of canned tomatoes, *or* $5\frac{4}{5}$ ounces of other fresh vegetables, not canned, when they can be obtained in the vicinity or transported in a wholesome condition from a distance. The fruit-component consists of 2 ounces of dried fruit, such as prunes, peaches, or apples. The other components consist of coffee green, or coffee roasted, *or* tea, green or black, *and* sugar, *or* molasses *or* cane-sirup; vinegar, salt and black pepper, and to these are added the soap-and-candle components.

The slightest knowledge of practical cookery will enable anyone who reads what I have just written to form an idea of what may be called the flexibility of the army-ration. The soldier in the tropics is not called upon to eat his 12 ounces of bacon *or* go hungry. That *or* is not to be found in the regulation statement of the meat-component of the ration, although there are more than a half dozen other important *or's* in it. And there is variety also in all the other constituents except the soap-and-candle components. If the scientist will calculate the elementary constitution of any one of the various diets which may be formed from the flexibility of the army-ration, he will find that there is a sufficiency of nitrogen and carbon in each to support the system of the soldier under the heaviest strain of work and exposure. If the proximate principles be calculated it will be found that many variations may be made in the relative proportion of proteids, hydrocarbons and carbohydrates. But more than all this we *know* that the soldiers of the United States have never gone hungry on their full ration.

Granted, then, that the ration suffices to sustain the system in the cold of a Montana blizzard, will any one suggest its insufficiency for nutritive purposes where there is little call for physiologic fuel to keep up the animal heat? No; but, says the critic, for whose information I am writing, there is too much of the hydrocarbons, too much bacon in the ration, to make it a suitable ration for tropical climates. Too much bacon! Too much candle! There is a candle-component in the ration, but the soldier is not called upon to eat it. Nor is he required to eat the bacon if he does not desire to do so.

This leads me to refer to the elasticity of the ration. Its flexibility has already been referred to; but its elasticity also is wonderful. It is so elastic that the soldier may verily eat his candles if he does not require them for other purposes. He may leave the candles in the hands of the Subsistence Department, and if their money-value will pay for a can of peaches, or a pound of rice, or so much of any other of a long list of articles kept for sale by the subsistence officers, he can eat his candle-component in the form of peaches or rice or any of the other purchasable things. So with the bacon. He is no more required to eat that because it is part of the ration than he is required to eat the candles, but he may transform it into some other article of food which he likes better, or which is better for him under the climatic conditions which affect him at the time. So, indeed, with all the other components of the ration except only the fresh vegetables, fresh bread, baking-powder and dried fruit. Even the fresh beef-component may be reduced in quantity, and the money-value of the quantity not issued for use may be drawn in other articles of sale.

There is even a greater elasticity than this to the ration, for the money-credit for components not drawn and used may be applied to the purchase of articles from outside sources, articles not kept for sale by the Subsistence Department. Thus, in probably every company and post mess hall in the United States on Thursday, November 30, 1899, there was turkey with cranberry-sauce on the table, representing so much bacon and other articles of the formal ration not drawn in kind and used, but left in the hands of the Subsistence Department and placed as a cash credit for the payment of turkeys and cranberry-sauce or of any other purchases to vary the diet of the soldier. If at any of the posts they did not have turkey and cranberry-sauce on that day it was because these things were impossible there, but they no doubt had an excellent dinner all the same.

Under the present law and regulations as to the ration the soldier can have any variation of his diet within certain money-value limits which his officers consider necessary for his well-being. His ration is fixed by law and it is a most liberal one; but his dietary depends upon the intelligent

supervision of company officers and the ability of the company cooks. I have stated the law and regulations concerning the ration and its flexibility and elasticity, and the Subsistence Department may be depended upon to provide the articles necessary to vary the diet. If a change in the dietary is advisable it lies with the company commanders to carry it into effect. If the change is desirable on medical grounds, medical officers should communicate their views to these responsible officers and the change can be effected without difficulty. There is no need to talk about changing the ration to effect a change in the dietary.

But it may be said, Why not go a step further and reduce the ration to simpler terms? Why not make it a money-value instead of so much of this, that and the other component? A money-value to be of equal value at all military stations would have to be a different value at every station. A dollar is worth nothing from the point of view of the ration if there is not a bite of anything within its purchasing radius; but to the stomach of a hungry soldier 20 ounces of fresh beef, 12 ounces of bacon, etc., have a fixed value, and when the Subsistence Department is charged with providing these articles the soldier will fare much better than if the department had only to provide him with so many cents a day for his food.

The United States army-ration is the most liberal ration in the world. It is the best ration for the far northwest of this continent whence come the subzero cold waves to sweep over the country from the upper stratums of the atmosphere, and it is the best for the tropics when intelligently utilized. It is the product of the experience of several generations of army-officers, and it is the part of wisdom to be slow in urging alterations at the suggestion of people who know that an excess of fatty food is not suitable for a dietary in the tropics and who have just discovered that there are 12 ounces of bacon in the soldiers' ration.

But the best dietary for the tropics is a wholly different subject from the ration, and we will await with interest the publication of the observations of our officers, line and medical, on the modifications which appear to them to be judicious for Cuba, Porto Rico and the Philippines.

EXPERT TESTIMONY.

By H. C. WOOD, M.D.,
of Philadelphia

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

IN the JOURNAL of May 27, 1899, you published a letter from myself, pointing out the deficiencies of the proposed Act of Assembly for the Government of Expert Testimony, published in the *Legal Intelligencer* of January 17, 1899. In my letter I attempted to show, that under the proposed law in many cases no expert who knew anything about the matter requiring expert testimony could testify; that in a case of alleged poisoning the whole judicial proceeding would collapse; and that the proposed Act would shut off any proper examination of accident cases and almost of necessity prevent the detection of many frauds.

The general justness of the criticism is shown by the fact that in the proposed Act as finally shaped by the committee of the Pennsylvania Bar Association the attempt is made to meet the difficulties suggested in my letter. Section 3 of the original Act read:

"If the application for appointment of official experts be granted, no expert or opinion testimony may be offered by either party, but such testimony shall be heard only from the official experts that are chosen and called to testify in the manner hereinafter provided."

In the finally amended bill the last section reads:

"If the application be granted, no expert or opinion testimony may be offered by either party, but such testimony shall be heard only from the official experts that are chosen and called to testify in the manner hereinafter provided, unless the witness called to express an opinion has by reason of personal observation, examination or test, actual knowledge of any fact enabling him so to do."

Exactly what is meant by the added words is, to my thinking, not clear; in fact, it makes it very indefinite how much of personal observation is necessary, and whether the opinion must be formed solely upon personal observation. Leaving this matter, however, for the interpretation of the court, the addition appears at first sight to so narrow the scope of the proposed law as to almost deprive it of force, because it takes out of the range of the law every case in which the individual concerned is still living or the *Res gestæ* is in the possession of one of the contestants. The proposed law does, however, more than this; under it whoever has control over the person or thing contested about can have made what examinations he pleases; while no such opportunity is afforded his opponent, be he plaintiff or defendant. In a case involving mental capacity it may be either plaintiff or defendant who is advantaged, usually, however, it will be the attacking party. At the will of the plaintiff in an accident case the injured man may be examined by a half-dozen doctors, who can then testify from personal observation; at the will of the plaintiff in the poison case the chemist for the prosecution may offer his evidence and be backed up by any number of chemists who have shared in his observations; at the will of the plaintiff in the malpractice suit, doctors for the prosecution, who have seen or examined the patient and noted the results of the alleged bad treatment, are competent witnesses; but not so with the other side. Under the law the counsel of one side may go round amongst experts until he finds one who serves his purpose, just as freely as at present, but the privilege is denied to his antagonist, since Section 5 of the proposed law provides that examinations made by order of the court shall be by the official board of experts.

The bill has been prepared on account of the belief that medical testimony given for one side is usually *ex parte*, prejudiced, perhaps even dishonest. Waiving, for the sake of argument, any contention that this is incorrect, it is plain, that if *ex parte*, prejudiced, or even dishonest testimony be allowed for one side it should be allowed for the other.

If the bill during its passage by the legislature were so altered as to allow each side to call experts, the Board of Experts would become largely judicial in their character. But what jury could follow such a chaos of expert testimony as would be produced? Experts for the prosecution, experts for the defence, experts for the court, each and all cross-examined, perhaps into numerous contradictions. What would the whole cost be in an important case? From the layman's point of view the right thing to do is to make the experts called by the court openly and plainly judicial in their character. Each side should be allowed to call their own experts, but the opinion of these experts should be reviewed by one or more experts who shall bear the relation to the expert testimony that the judge does to the law; or who shall act as the expert adviser of the judge, and shall not be subject to any direct or cross-examination by the lawyers.

The question of compensation of experts may seem at first thought of minor importance, but it is really dominant. No man of great skill in the medical profession is going to act as expert unless properly paid for the labor and for the loss of time. Neither health nor professional reputation are im-

proved by expert work, which is further very disagreeable to most men. As was shown in my first letter, the proposed law, with its uncertainty of the expert receiving any pay whatever, and its certainty that the pay will be in most cases absolutely inadequate for the work done, means of course that all expert work will be performed by such inferior men that for the cause of justice it would better be left undone.

TWO FATAL CASES IN WHICH ENORMOUS DILATION OF THE STOMACH WAS UNRECOGNIZED.

By BOARDMAN REED, M.D.,
of Philadelphia.

To the Editor of The Philadelphia Medical Journal :—

In the Journal of August 12, a visiting surgeon to the general hospital of a neighboring city reports having performed a laparotomy upon a case of abdominal distention, after having made the diagnosis of intestinal obstruction (of which there were symptoms), but found instead only an enormous dilation of the stomach. Even then, instead of simply washing out the viscus in the usual way and attempting by some of the now well known methods (such as massage, intragastric electricity, the pneumatic gymnastics of Turck, or the injection of full doses of strychnin hypodermically) to contract it again, the surgeon proceeded to open the stomach and empty it in this more heroic manner, of "a quantity of gas and green bilious fluid." The patient seems to have borne this sort of treatment bravely, reacted well, and next morning is said to have been quite comfortable; the two openings having meanwhile been sutured. If it had been possible for him to endure a similar treatment daily for a few days longer, or if somebody had only thought of washing out his stomach, even at this stage, with an antiseptic solution, and at the same time stimulating him hypodermically or through the rectum, it is possible that he might have survived. As it was, he died two days after the operation. The autopsy revealed nothing wrong except the dilated stomach. The surgeon deserves all praise for frankly reporting this unfortunate case, and admitting the mistaken diagnosis, and that "lavage should have been tried." Many of us have made equally serious mistakes and have not been honest enough to confess and report them. I did not venture any criticism upon the case at the time, for the reason that it seems an ungracious thing to point out or emphasize the mistakes of our confreres. But, another similar case in which an immense gastric dilation was unrecognized, and the patient allowed to die without even an operation, has lately been reported, and in view of the apparent lack of familiarity with present methods of diagnosing dilation of the stomach, it seems to be the duty of some one to speak out, not in condemnation of individuals who happen to do less than their whole duty, since we are all fallible and as a rule do the best we can, but rather in an earnest plea for a better training of medical students in all that pertains to the diagnosis and treatment of so vital an organ as the stomach, and for a determined effort to supply, in so far as is possible, the deficiencies in this respect of physicians now in practice.

I fear that even today not all medical schools teach these most important subjects with any approach to thoroughness; and few of us whose diplomas bear date of 10 years or more ago, were taught anything at all concerning the modern methods of examining and treating the stomach. A prominent Philadelphia physician frankly informed me not long ago that he did not believe it possible to determine the boundaries of the stomach! Evidently the half a dozen treatises on diseases of the stomach, now published in the English language, are not bought and read as much as they should be.

If it were not possible to determine the motility, size and position of the stomach, except by transillumination, with the help of an intragrastric electric light, or by some of the other instrumental methods which are more or less complicated, it would still seem rational and proper to obtain by such conservative means this very important information before summoning a surgeon and having a laparotomy done. But there are methods now in use by means of which an expert can define the boundaries of the stomach with great accuracy in nearly all cases without even the use of a soft rubber tube.

These methods are not difficult, and every medical student should be made so familiar with them that he would no sooner think of failing to define the boundaries of the stomach in any obscure abdominal disease than he would neglect to take the pulse.

LABORATORY DIAGNOSIS IN THE LATE WAR.

By CHAS. F. CRAIG,
Acting Assistant Surgeon, U. S. Army.
Pathologist and Bacteriologist of the U. S. General Hospital, Presidio, of San Francisco, Cal.

To the Editor of The Philadelphia Medical Journal :—

In my remarks upon the above subject, published in the Philadelphia Medical Journal, October 28, 1899, it was not my intention to enter into any controversy, but the letter of Dr. William G. B. Harland, in the current number of the Journal, deserves an answer.

As Dr. Harland justly observes, the laboratory of the Sternberg Hospital was not established until the latter part of August, and of course was not available before that time. The statement is made, however, that "the laboratory was put in action too late to answer the questions of diagnosis and water-purity that arose in May, June, and July."

So far as the question of the purity of the water-supply is concerned for that time, this is true, although there is no reason to believe that the water during May, June, and July was any worse than in August and September, when it had had a longer period in which to become contaminated. The laboratory experiments then made and since confirmed by researches at the Army Medical Museum show that to the water-supply of Chickamauga Park cannot be laid the blame for the epidemic of typhoid there. As regards "the questions of diagnosis," I may say that there were many patients in the Sternberg Hospital whose illness dated back to June and July, and almost without exception these cases were diagnosed as "remittent malarial fever" or "dengue." The Widal test, as well as the clinical symptoms, proved that these cases were typhoid. Dr. Dock, than whom there is no better authority on malaria in this country, worked at Chickamauga Park for several weeks, and during that time was only able, from hundreds of cases studied, to find two or three cases of malarial fever. It is certainly singular that malaria should not have been as prevalent in August and September, the very season in which it is always most prevalent elsewhere, as in May, June, or July.

I respectfully refer those interested to the Surgeon-General's paper published in the Philadelphia Medical Journal, and to Dr. Victor S. Vaughn's paper in the *American Journal*

of Medical Sciences. These papers, as Dr. Harland says, state most admirably the question of blame, etc. It cannot, however, be denied that many volunteer medical officers refused to avail themselves of the help in diagnosis offered by the laboratory even when it became available.

X-RAY BURNS.

BY WALTER B. METCALF, M.D.,
of Chicago.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

I WAS very much interested in the article by Dr. L. D. Judd on "Röntgen-ray Injuries," which was published in your journal of September 30, as the theories advanced coincide perfectly with my experience. It afforded me pleasure to see the subject discussed in so able a manner. The benefit of a true and definite understanding as to the exact cause of x-ray burns is apparent. I was very much surprised at the recent article by Philip Mills Jones, which also appeared in your journal, and fearing that Dr. Judd might ignore so unjust an attack on his article, in the interests of true science and the welfare of the public, I feel that some of the assertions made in this attack should not go unchallenged. The respective merits of a controversy are very hard to support or attack through the limited space of a medical journal; however, I will try to be brief.

It is amusing to note in Dr. Jones' article that he has cited an experiment by Elihu Thompson, which experiment is, in fact, the very best evidence that x-ray burns are caused by the action of a current generated in the tissues by induction from the tube. He states that "Elihu Thompson had a tube made, the body and major portion of which were of leaded glass; in one side was inserted a window of thin German glass. He then exposed his little finger opposite to and very near this window of German glass. The tube was excited by a static machine. After an interval of time, a very marked dermatitis developed *upon that portion of the little finger which was exposed opposite to the window of German glass.* Now, the electrical condition was the same for all parts of the tube. If induction occurred in the hand at any point near to the tube, it would necessarily occur at all other parts of the hand near to the tube. Consequently, if dermatitis was the result of electrolysis caused by induction, the dermatitis would have appeared upon the whole of the little finger and upon such parts of the hand as were of necessity near to the tube."

The principal error in his "scientific deduction" (?) from this experiment is "that the electrical condition was the same for all parts of the tube." It is well known that the leaded glass acts as a screen to an inductive influence, and every maker of static machines is well acquainted with the fact that leaded glass cannot be used for the induction plates, as the inductive energy is consumed by focular currents generated in the glass itself. In this experiment with a tube of leaded glass, the portion of the finger opposite the window of thin German glass, which is free from lead, was unprotected from the inductive influence of the tube; while that portion opposite the leaded glass was protected in precisely the same manner as though a piece of sheet metal with a small opening were interposed between the finger and the ordinary tube, having the finger exposed opposite the opening. In fact, Dr. Judd mentioned in his article that it is the custom of some operators to protect the patient by interposing a thin sheet of metal between them and the tube.

On the other hand, if x-ray burns are caused according to the theory that they are "produced by the radiant energy emanating from the tube in the form of what we are pleased to call x-rays," we cannot understand why the finger exposed opposite the leaded glass was not affected, as the radiant energy or light is not shown to be obstructed by the leaded glass.

"Careful study of the questions of inertia, moments, periodicity and induction," as involved in the above experiment, will certainly prove the theory advanced by Dr. Judd to be correct, while they throw no light upon the theory that burns are produced by the radiant energy—unless we are pleased to term an inductive influence a radiant energy.

It is not claimed that the inductive influence from the tube will generate a constant direct current in the tissues, but it is true that a current of an alternating or oscillatory nature, as claimed by Dr. Jones, would be generated. It is absurd, however, to claim that a current of this nature cannot have an electrolytic action upon the tissues.

The constant direct current is the only current commonly employed for electrolytic work, but an interrupted direct current will produce an electrolytic action; so will a faradic current (which is an interrupted induced current with the impulses much stronger in one direction than the other). This may be proved by a simple experiment. Take a piece of white paper and saturate it with a solution of potassium iodid, and then place the terminals upon the paper a short distance from each other; there will appear a dark-brown spot under one of the terminals, which will show that chemical decomposition has taken place.

The terminals from an alternating current, if placed in a vessel of water, will decompose the water. This is certainly an electrolytic action.

The inductive influence surrounding the tube is due to a current of changing value passing through the tube, and it is this point which Dr. Judd demonstrates. He does not claim that a static machine will not produce x-ray burns. Static currents of an interrupted or a low vibratory or oscillatory nature, as generated from a static machine, run at a low rate of speed, would create as much of an inductive influence as that derived from a coil, in proportion to the volume of the current used; but a static current of a very high vibratory or oscillatory nature, or one capable of forming a practically constant discharge of current through the tube—as when generated from a machine running at a very high rate of speed (1,200 to 1,500 revolutions per minute), such as is possible with the mica plate machine referred to by Dr. Judd, would eliminate the inductive influence from the tube, thus preventing the possibility of an x-ray burn.

I have made many experiments with tubes illuminated by the current from static machines running at a very high rate of speed, and have been unable to produce an x-ray burn or even a dermatitis with a tube illuminated in this manner; while with a static machine running at a low rate of speed a very marked dermatitis may be set up with a very short exposure.

The value of x-rays to the diagnostician is too great to allow false ideas as to the danger of x-ray burns to deprive him of its use, and I trust that before this subject is dropped there will have appeared enough facts from practical investigators to overcome the present prejudices to the general use of the x-ray.

Iodin in Fish.—According to a recent publication, fish contains iodin in larger quantities than nonaquatic meat. Herring contains the most, 0,002 grams of iodin to each kilogram of weight and salmon and trout the least, $\frac{1}{10}$ of milligram to each kilogram of weight.

Special Article.

REPORT TO THE SECRETARY OF THE TREASURY OF SURGEON-GENERAL WYMAN, OF THE MARINE-HOSPITAL SERVICE.

THE Surgeon General of the Marine-Hospital Service reports that the past year, the 101st of the existence of the Service, has been the most active in its history. The number of patients treated in the marine hospitals and dispensaries exceeded that of any previous year, and the duties of the Service in relation to quarantine and public health were largely increased, both in volume and variety, by reason of the war with Spain, and the resulting territorial acquisitions.

The Service owns and operates 22 marine hospitals, and there are besides 107 stations where patients receive hospital or dispensary treatment. Dur ng the fiscal year 1899 the total number of patients was 55,489, of which number 12,610 were treated in hospital.

Professional aid was given to other branches of the Government service, as follows:

To the Revenue Cutter Service, in the examination of 990 applicants for the position of cadet, engineer, and seaman; to the Steamboat-Inspection Service, in the examination of 1,860 pilots for color-blindness, 64 being rejected; to the Life-Saving Service, in the examination of 1,275 applicants for the position of surfman, and the examination of 363 claims of surfmen for the benefits provided by section 7 of the Act of May 4, 1882, to the United States Coast Survey, examinations, 36; to the Light-House Service, examinations, 14; to the Naval Reserve, examinations, 8. The total number of physical examinations was, therefore, 4,179, of which number 250 were rejected.

Aid was also extended to the Immigration Service by the medical inspection of 297,785 immigrants; to the Civil Service Commission in making physical examinations; and to the Army and Navy by the reception of patients in marine hospitals, and by the detail of medical officers for sanitary supervision of United States Army transports. These offi cers were gradually withdrawn after Marine-Hospital officers had been assigned to quaran ine duty in ports of Cuba and Porto Rico.

During the year the hospitals have received special attention in the matter of repairs and preservation and ward equipment. The medical libraries have been increased by the addition of the latest standard works; the operating rooms have received new and improved instruments and appliances, including x ray machines, and the laboratories provided with photographic outfits. A new service ambulance has been adopted and supplied to a large number of the stations.

As mentioned in the last annual report of the Service, the business of the purveying division had reached such proportion that the establishment of a purveying depot in New York became necessary.

After careful consideration, a suitable building was secured under lease in New York and the purveying depot transferred th ereto during the past summer. The space in the Bureau thus vacated has permitted the enlargement of the Bureau organization, required by the additional duties imposed upon it.

Upon application of the Surgeon-General, the Secretary of the Interior was requested to transfer to this Department, for the treatment of consumptive patients of the Marine-Hospital Service, the abandoned military reservation known as Fort Stanton, N. Mex., and on April 1, 1899, an Executive order was signed to that effect. A medical officer was placed in command, and preparations were made for the reception of patients, who are now being transferred.

This measure will not only be of benefit to the patients treated in this favorable climate, but will relieve the marine hospitals of these contagious cases, and will be of material aid to the great movement now being urged throughout this and other countries in suppressing this communicable disease. Legislation will be requested for the development of this sanatorium.

The Surgeon-General again refers to the necessity of Congress making an appropriation for a marine hospital for the port of New York. The present arrangement for the care of sick and disabled seamen at the prineipal port of the United States in a building leased from time to time is unsatisfactory. I coneur in his recommendation.

The medical corps at the end of the fiscal year consisted of 83 commissioned medical officers. During the year, after successful examination, as required by law, 16 applicants were commissioned as assistant surgeons. Since June 30, 10 have been appointed. There are, in addition, 95 acting assistant surgeons, 11 sanitary inspectors, and 38 hos, ital stewards—a total of 144 noncommissioned officers. In addition to the commissioned and noncommissioned offieers, there are about 400 attendants and quarantine employees when the marine hospitals and quarantine stations have their full complement of men. This number is of necessity largely increased during epidemics.

Three assistant surgeons contracted yellow fever, and one died of this disease October 12, 1899, while engaged in the work of preventing its spread in Key West. The Fifty-fifth Congress passed a law authorizing the payment of the amount of salary and allowances for two years to the legal representatives of an assistant surgeon who died of yellow fever under like circumstances in 1893. The Surgeon-General recommends the passage of a general law granting a like amount in the event of the death of any officer in the active performance of his duties. He points to the fact that these officers are subject to change of station, as are offieers of the military and naval establishments, and ordered to posts of exceptional danger; also, that like provision is made for the Life-Saving Service. The Secretary concurs in his recommendations, with the limitation that the officer's death should be occasioned by an infectious or contagious disease acquired by him in the discharge of his official duty.

EXPENDITURES.

The expenditures from the Marine-Hospital fund during the fiscal year 1899 amounted to $680,897.71. The balance on hand at the close of the fiscal year was $683,187.93. The amount available from the appropriation for the prevention of the introduction and spread of epidemic diseases at the beginning of the fiscal year was $457,190.93, and the balance remaining to the credit of this appropriation at the close of the fiscal year was $292,650.26. The sum of $100,000 was added to this fund by act of March 3, 1899.

The Surgeon-General represents that a reorganization of the divisions of his office was made imperatively necessary during the past summer by reason of increased work connected with the case of sick and disabled seamen, and by the opening of new marine-hospital stations; also by the operation of the act of Congress approved February 15, 1893, entitled "An Act granting additional powers to and imposing additional duties upon the Marine-Hospital Service," and the extension of the national quarantine service to the islands of Cuba and Porto Rico.

The Bureau as now organized consists of six divisions, each under a commissioned medical officer: First, Division of Marine-Hospitals and Relief; second, Division of Domestic Quarantine; third, Division of Foreign Quarantine; fourth, Division of Sanitary Rep rts and Statistics; fifth, Division of Personnel and Accounts; and, sixth, Miscellaneous Division.

HYGIENIC LABORATORY.

In the early part of the last fiscal year the investigations, covering a period of 13 months, of the pollution of the Potomac River water were completed. The results were confirmatory of the report submitted to the last Congress, and they indicate clearly the neeessi y for filtration of the District of Columbia water-supply before it is furnished to consumers. The work in connection with car sanitation has been carried so far that further investigation is unnecessary, and a complete report thereon is in preparation. Experiments to test the efficieney of formaldehyd as a disinfectant have claimed attention throughout the year, and a report has been published upon "Disinfection with formaldehyd in a vacuum chamber combined with dry heat." Bacteriologic and pathologic work in the investigation of the cause of the epidemic of meningitis which prevailed in many localities, including the city of Washington, has been carried on during the year, and is still in progress. The work of the laboratory has included also the examination of speeimens transm t-ted from the stations, and an investigation into the na ure of pneumonia, Malta fever, and typhoid fever. The immuniza-

tion of a horse against typhoid fever has been progressing satisfactorily, and a series of experiments are now in progress to test the value, in the prevention or cure of the disease, of the serum obtained from this animal. Following the report of the commission on yellow fever, the immunization of a horse was at once begun with a view of obtaining a serum that will prove efficacious in the prevention and cure of yellow fever. This work is still in progress. The Surgeon-General renews the recommendation made in the previous year that the laboratory be removed from its present location in the Bureau, and that a special building be provided for it. This laboratory has complete equipment, and in view of its important and practical character the facilities for its conduct should be increased by the erection of a suitable building.

National Quarantine Service.

The Marine-Hospital Service now owns and operates 13 large and complete quarantine stations, which, the Surgeon-General reports, with their boarding vessels, disinfecting apparatus hospitals, and personnel, add materially to the administrative duties of his office. There were 3,838 vessels inspected and 370 disinfected at these stations during the fiscal year. There are, besides, 9 stations where inspection of incoming vessels is conducted by officers of the Service.

In ac ordance with the act of Congress approved July 1, 1898, a site for a quarantine station has been selected in the State of Washington, near Astoria, Ore., not far from the mouth of the Columbia River. The purchase of this site, with the buildings thereon, has been arranged, but its consummation has been necessarily deferred pending the examination of title. On account of urgency, temporary provision has been made, and quarantine examination of incoming vessels is now being conducted.

In April a proposal was received from the mayor and city council of the city of Savannah to turn over the quarantine function and the quarantine plant of the Savannah quarantine to the Marine-Hospital Service. This tender was made at the time when large bodies of troops were being returned to the United States from Cuba, using Savannah as a port of entry. The quarantine work connected therewith devolved almost entirely upon the Marine-Hospital Service, and such fact, together with the expressed confidence of the city of Savannah in the Marine-Hospital Service, led to this tender. The quarantine was accepted under section 8 of the act approved February 15, 1893, and the buildings leased at a nominal figure for two years, the proposal being that at the expiration of this period the Government should purchase the property of the Savannah quarantine at a price to be fixed by arbitration, or, if the city of Savannah desired to resume its quarantine functions, any improvement made by the Government should be paid for by the city at a price to be fixed by arbitration. The Department being unauthorized to formally accept these terms, agreed to recommend to Congress the legislation necessary to carry out the intent thereof. Accordingly, the necessary appropriation is recommended in the Book of Estimates. The transfer was effected on April 18, and the station is now being conducted as a national quarantine station. The Savannah quarantine station is one which, from a sanitary standpoint, is of the greatest importance, Savannah being the principal city of the South Atlantic seacoast, and the vessels entering there being of an especially dangerous character, inasmuch as they come from tropical ports. During the last year there were 445 vessels subjected to quarantine inspection at that port, of which number 58 were infected. The acquisition of this quarantine was in accordance with the spirit as well as with the letter of the law of 1893, which contemplates the surrender by State and local quarantines of their quarantine functions to the National Government. This is rightly regarded as an important step in the attainment of a strictly national quarantine.

On account of new fortifications on Egmont Key, the War Department demanded the removal of the detention camp which had been establsihed by the Marine-Hospital Service on this island during the war with Spain, and transferred to the custody of this Department the adjoining Mullet Key. The camp, therefore, has been transferred to Mullet Key. This is essentially a quarantine camp necessary for the detention of people who may have been exposed to yellow fever before permitting entry at the important port of Port Tampa. There is a State quarantine on Mullet Key, occupied by consent of the War Department before the transfer of the island to this Department. It is without facilities for the detection of suspects, however, as provided by the detection camp established there by the Marine-Hospital Service.

The Department has also received from the Navy Department the right of possession of Craney Island, a small island in the vicinity of Norfolk, Va., which, under the direction and control of the Marine-Hospital Service, is utilized for the reception of smallpox patients from Portsmouth, Norfolk, and neighboring localities, each city meeting its own expenses.

During the winter of 1898-99 disinfection of houses and contents was performed in the several localities in Louisiana and Mississippi infected during the yellow-fever outbreak in 1898. In the city of New Orleans the Marine-Hospital Service, by request of the State and city boards of health, and with their cooperation, undertook an inspection and thorough aeration of houses where the fever had prevailed. The number of infected houses was so great that nothing more than aeration on bright, cold days was attempted. The Surgeon-General believes there is little doubt of the value of this work, as shown by the lateness and limited number of cases that developed during the past fall.

Early in the spring the President determined to return to the United States, before the onset of the rainy season, troops in Cuba and Porto Rico no longer required there for military purposes. Yellow fever having prevailed among some of these troops, and because of the uncertainty with regard to others, the disinfection of all their baggage was deemed necessary. Arrangements were perfected with the Quartermaster's Department, which rendered valuable cooperation and assistance, and the camp equipage and baggage of all the troops, about 25,000 in number, was effectively disinfected by the Marine-Hospital Service at 6 quarantine stations during March and April. Moreover, soldiers returning after April 1 were required by the regulations to be held in detention camps for a period of five days to demonstrate their freedom from infection. About 12,000 were thus detained under the direct surveillance of the national quarantine officers. The work was highly successful. There has been no infection traceable to the baggage or personnel of the troops connected with this movement.

Yellow Fever.

In the latter part of July last, an epidemic of yellow fever appeared in the National Soldiers' Home, near Hampton, Va., the management of which was given over entirely to the Marine-Hospital Service, whose efforts to suppress the same were successful, there having been a total of 45 cases and 13 deaths. In his annual report the Surgeon-General discusses the probable origin of this fever, and describes the methods adopted to suppress it. The success has but one parallel, that at McHenry, Miss., in 1898. The epidemic excited unusual attention because of the peril to which some 3 500 veterans of the Civil War were exposed, and because of the terrible ravages of this disease in Norfolk and vicinity in previous years. As usual in all epidemics, endeavor was made by irresponsible parties to throw doubt upon the character of the disease, but the opinion of the physicians, 12 or more in number, who saw the cases, among them experts of national reputation, and one sent by the State of Louisiana, leaves no question as to the diagnosis. The Surgeon-General gives credit to the physicians of the Home and its governor for their prompt and intelligent action, and calls attention to the lesson to be derived from this epidemic, namely, the necessity of promptly recognizing and announcing the disease. The incident is encouraging as demonstrating that when this is done the spread of the disease may he checked.

Despite the work of the Service and the Louisiana State board of health during the winter of 1898-99 in aerating houses and the contents thereof, infected during the outbreak of yellow fever in New Orleans in the fall of 1898, the disease again appeared as a recrudescence, the first case having been noted in the city of New Orleans in May, 1899, but there has been no very wide spread, and up to the present

time the total number of cases reported has been less than 100. In September, yellow fever was reported in Jackson, Miss., and Mississippi City; but in these places, as in New Orleans, the tendency to spread has been limited, and the cases have been few. In both Louisiana and Mississippi officers of the Marine-Hospital Service have been present to insure the execution of the Treasury quarantine regulations and give aid to the local health authorities. Officers have also been detailed to investigate rumors and pass upon the nature of suspected cases in many localities.

On August 27 the Marine-Hospital Bureau received the first announcement of the existence of yellow fever in Key West, though subsequent developments indicate that it had previously prevailed there in mild form for several weeks. The management of the epidemic in the city itself was left, as is contemplated by the law, to the State quarantine authorities, the efforts of the Marine Hospital Service being directed toward preventing the disease from spreading to other portions of the State and to other States. Accordingly, the Service established a maritime patrol around the island of Key West and a detention camp on Dry Tortugas, 60 miles distant, where persons desiring to leave might undergo the required period of detention. To October 20 there had been reported 1,230 cases of yellow fever and 60 deaths. Many cases of a mild type have doubtless been unreported, as a number of the Cuban physicians in the city have failed to report their cases. The disease at this time is rapidly decreasing. The disease was subsequently discovered at Miami, Fla., the first official announcement being made October 19, with the statement that it had probably been existing in a mild form unrecognized for two months. There have been reported to October 23, 20 cases and 2 deaths. It has not been determined whether the yellow fever at Miami is traceable to the fever at Key West, and if it is, whether the cases were not existing there before the quarantine patrol had been placed around the island of Key West. Miami has been placed under quarantine, and the Marine-Hospital Service has prepared a small detention camp at Fulford, a few miles north, for people wishing to leave Miami. The lateness of the season renders a widespread prevalence improbable. The Surgeon-General reports that prior to the announcement of the fever there had been a number of cases of so-called dengue fever, many of which were without doubt mild cases of yellow fever. He deprecates the unwillingness of physicians to acknowledge the serious nature of supposed cases of dengue fever, and in his report urges that measures be taken to prevent the spread of dengue, since that disease is so often associated with yellow fever.

On account of the prevalence of yellow fever and smallpox in Mexico quarantine officers were stationed at the three principal railroad crossings from Mexico into Texas—at El Paso, Eagle Pass, and Laredo, Tex. Passengers from Mexico were obliged to give evidence of not having been in any yellow fever infected district in Mexico for 10 days prior to their arrival at the border, this inspection service being supplemented by a system of sanitary certificates issued in Mexico.

The assistance of the Marine-Hospital Service in the suppression of smallpox has been limited chiefly to expert services in diagnosing the disease in many localities and instructions to the local authorities in the methods to be pursued. The methods of suppressing smallpox in communities are so plain, and the protection of individuals so evidently the duty of the communities themselves, that the Marine-Hospital Service will not assume any financial obligations connected therewith. The Bureau has, however, issued a large number of a précis upon the methods of diagnosing and suppressing this disease, which have proved of great value to local authorities. Expert officers have been detailed in several of the States, at the request of the governors or health authorities thereof, for duty as above indicated. A general vaccination of crews of vessels on the Great Lakes, the rivers, and Atlantic and Gulf coasts was conducted by the officers of the Marine-Hospital Service during the past winter to assist in the movement to suppress this disease.

The Surgeon-General calls particular attention to the necessity of vaccination as a reliable preventive. The Bureau has officially declared that no vaccine virus except that known as glycerinized vaccine lymph should be used, and that the purity of this form of virus is unquestioned. The prejudice against vaccination which has heretofore to some extent prevailed is no longer justified in view of this perfected preparation, by use of which, untoward results from vaccination need not be feared. The form of virus is easily procured, and upon its free use, in conjunction with the recognized quarantine procedures, must reliance be placed for the suppression of this loathsome disease, now so generally prevalent.

INSULAR AND FOREIGN QUARANTINE.

In January of the present year an order was signed by the President and the Secretary of War transferring all the maritime quarantine of Cuba and Porto Rico to the Marine-Hospital Service. In March, another Executive order was issued declaring that the expenses of this service should be paid from the revenues of the islands, and setting aside $300,000 annually from tonnage tax receipts of Cuba as a quarantine-fund. A thorough organization was effected as soon as possible, there being at the present time some 30 officers of the Service in Cuba and 7 in Porto Rico. The selection and assignment of officers, the promulgation of regulations, the purchase of disinfecting apparatus, boarding vessels, etc., has been a work of great magnitude and importance. Two complete sets of most recent and approved type of disinfecting apparatus for quarantine stations have been sent to Manila, with the approval of the Secretary of War, and arrangements are now under consideration for their use in protection against the plague and other diseases prevailing in the Orient. In April, the Marine-Hospital Service organized an inspection service for the fruit ports of Central America. Seven medical officers were assigned to the United States consulates in as many ports, their duties being such as to assure the safety of fruit vessels before leaving the foreign port as to prevent their detention and the consequent ruin of cargoes on arrival at ports of the United States. On account of the violent epidemic of yellow fever in Vera Cruz, Mexico, an officer of the Service was detailed in the office of the United States consul at that port, and subsequently, on account of the same disease in various interior towns in Mexico and the danger of its being conveyed across the Texas border, a commissioned officer, with the expressed assent of the State Department, was sent to the City of Mexico to organize a system of inspection and disinfection of infected baggage, in order to facilitate the travel of people across the Texas border. Some 20 localities in Mexico were infected with yellow fever. Sanitary inspectors were appointed to act in conjunction with the consular service in furnishing certificates to be presented at the border to the quarantine officers stationed there. Acknowledgment is due the Mexican Government for its courteous attitude toward this measure of the United States.

On account of the increasing prevalence of plague in Asia and certain portions of Europe and Africa, officers of the Marine-Hospital Service have been detailed for duty at Honolulu, Yokohama, Hongkong, and Naples. Inspections have also been made by Marine-Hospital surgeons of Oporto and Lisbon, Portugal; Barcelona, Spain; Marseilles, France; Cairo and Alexandria, Egypt; and the principal seaports of Western Europe whence emigrants sail for the United States, including Bremen, Antwerp, Hamburg, and Rotterdam. As provided by the law of February 15, 1893, Marine-Hospital officers have been detailed to serve in the consular offices at these principal ports. The Bureau has also a medical representative upon the sanitary commission in Constantinople, and a medical officer at Rio de Janeiro.

Measures have been taken to put in effect the act passed by the last Congress authorizing a commission of medical officers to ascertain the number of cases of leprosy now in the United States.

CAUSE OF YELLOW FEVER.

With regard to yellow fever, attention is invited to the report of the commission of medical officers of the Marine-Hospital Service detailed by direction of the President to make an investigation into the cause of this disease. Their findings are important, inasmuch as they verify the findings of Sanarelli in his discovery of the bacillus icteroides. They further demonstrate that this disease is received into the human system through the respiratory tract and indicate the

probability of a protective and curative serum similar in its use to that now employed in the treatment of diphtheria. While this discovery gives ground for hope of amelioration in the matter of yellow fever in the future, the Surgen-General calls attention to other measures deemed highly essential.

The success attending the efforts of the Government authorities in Cuba in diminishing the prevalence of this disease by sanitation is an object-lesson to be studied by our own and all other governments of the Western Hemisphere. It is known that there are many seaports of this hemisphere where yellow fever is endemic because of bad sanitary conditions, readily removable by proper sanitary engineering. An inquiry is now being conducted concerning the ports of the Western Hemisphere where yellow fever constantly prevails, with a view of definitely determining the reason therefor, and proving, if possible, that it is due to want of proper drainage, sewerage, and cleanliness of the harbor. The report suggests that in the interests of commerce, as well as of life and health, the time may come when an international agreement may be effected between the republics of this hemisphere by which the unsanitary conditions which perpetuate this western pest in certain ports will be considered a just cause of complaint by the other republics, and such quarantine or other restrictions imposed by mutual agreement upon the government possessing the offending port as will cause it to adopt the necessary measures for the removal of the evil. The Surgeon-General points out that action of this character would be far-reaching in its effects upon the welfare and commercial prosperity of all.

National Quarantine Law.

The bills introduced into the Senate and House of Representatives of the last Congress to strengthen the national quarantine law, though strongly endorsed by both the Senate and House committees, were not acted upon. The Surgeon-General points to the fact that these amendments can have no justifiable opposition, at least those relating to maritime quarantine; and in view of the threatening bubonic plague he urges that legislation be enacted strengthening the national quaratine service in the manner indicated in the above-mentioned bills, which have already received the approval of this Department.

The Serum Institute at Frankfurt am Main was opened November 8. The royal minister of education, Dr. Studt, Prof. Hess, of Marburg University, and Prof. Schmidt, of Messler, were the principal speakers. The medical faculty of the university of Giessen was also represented. In honor of the event, Profs. Schmidt and Weigert were made Geh. Med.-Räthe by the Kaiser.

The Osiris Prize.—M. Osiris, a wealthy Parisian, noted for his charities and public spirit, has presented to the Institute of France a sum representing an annual income of about 33,000 fr. for a triennial prize of 100,000 fr. for the most remarkable work or discovery of general interest, especially in the domain of medicine and surgery. The prize is open to general competition in all countries.

The Auscultatory Signs of Persistent Foramen Ovale.—H. Sewall (*Colorado Medical Journal*, October, 1899). A female waif, less than a week old, was brought to the hospital in a very much emaciated condition and with the skin slightly bluish or slate color. The cyanosis gradually increased and led to a careful examination of the heart. The first sound was short and there was a distinct murmur with an unusual area of distribution and time relations. The murmur was heard most distinctly in the segment which included the base line of the heart at the right border of the sternum, that is, in the area of the chest-wall most closely approximating the auricles. The murmur appeared to be presystolic both in time and character; its ending was abrupt and its accent acute. Death resulted in a few days and at the necropsy the organs were all found normal with the exception of the heart, and its one defect consisted in a persistent foramen ovale. The opening was an oval measuring about $\frac{1}{10}$ of an inch in its long vertical diameter and situated about the center of the auricular septum. The ductus arteriosis was closed except for a slight pit connecting with the aorta. [M.B.T.]

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending December 16, 1899:

Monday, December 11—College of Physicians, Section on General Medicine.

Tuesday, December 12—Pediatric Society.

Wednesday, December 13—County Medical Society.

Thursday, December 14—Pathological Society.

The new Boyce Annex to the Atlantic City (N. J.) Hospital, built at an expense of $10,000 by Mrs. William Nourse, of Philadelphia, formerly Miss Boyce, of Absecon, was formally opened last week with impressive exercises. The addition is a model hospital building, which has been handsomely furnished by the charitable citizens of this city.

College of Physicians of Philadelphia.—The following figures are taken from the annual report of the Library Committee read at the meeting held December 6: Total number of volumes in the Library, exclusive of duplicates, 57,291; unbound pamphlets, 31,075; unbound reports and transactions, 6,104; duplicates, 2,004; increase for the year 1899, 2,630 volumes; number of visitors, 4,632; number of books consulted, 9,376; number of books taken out 2,169. Of the new publications added to the library during the year, 29 were written by Fellows of the College. The Honorary Librarian reported 201 volumes, 1371 pamphlets and 2,027 numbers of journals received during the month of November, with a list of donors numbering 44. An excellent copy of what is said to be the only authentic portrait of Thomas Sydenham after the original of Mary Beale, by Anna Lea Merritt, copied by permission of the Royal College of Physicians of London, was presented to the College of Physicians of Philadelphia by Dr. John Kearsley Mitchell.

Vital Statistics of Philadelphia for the week ended December 2, 1899:—

Total mortality 410

Diseases.	Cases.	Deaths.
Pulmonary tuberculosis		52
Pneumonia 48, congestion of the lungs 2 . .		50
Heart-disease 28, fatty degeneration of the heart 3, inflammation of the heart 2, neuralgia of the heart 2		35
Diphtheria 31, membranous croup 7		38
Nephritis 21, uremia 8		29
Apoplexy 12, paralysis 9, softening of the brain 1		22
Inanition 10, marasmus 9, debility 7		26
Carcinoma 16, sarcoma 3, tumor of the liver 1		20
Inflammation of the brain 15, congestion of the brain 3		18
Casualties 8, burns and scalds 3		11
Convulsions 10, epilepsy 1		11
Typhoid fever	35	6
Scarlet fever	54	1
Cerebrospinal meningitis	2	0
Peritonitis 9, senility 8, bronchitis 6, gastro-enteritis 5, cirrhosis of the liver 4, abscess 3, cholera infantum 3, diseases of the brain 3, dropsy 3, aneurysm of the aorta 2, intestinal obstruction 2, diabetes 2, pulmonary hemorrhage 2, laryngitis 2, appendicitis 2, septicemia 2, alcoholism 1, asthma 1, anemia 1, cirrhosis of the lungs 1, cyanosis 1, disease of the liver 1, drowned 1, dysentery 1, erysipelas 1, malarial fever 1, fracture of the larynx 1, cerebral hemorrhage 1, influenza 1, cystitis 1, pericarditis 1, metritis 1, spondylitis 1, malformation 1, rheumatism 1, rupture 1, sore mouth 1, tetanus 1, pertussis 1, gunshot wound 1.		

By the Will of the late Vice-President Garrett A. Hobart, the following institutions in Paterson, N. J., are devised $5,000 each: St. Joseph's Hospital, the General Hospital, the Children's Day Nursery, St. Joseph's Orphan Asylum, and Paterson Orphan Asylum.

NEW YORK.

A New Chapel for St. Vincent's Hospital.—In connection with the celebration of the fiftieth anniversary of this hospital, Archbishop Corrigan dedicated the new chapel. All of the fittings and furnishings are gifts. There are 10 memorial windows.

A New Church Edifice for the Christian Scientists.—The corner-stone of a new edifice, near Central Park, to cost $500,000, to accommodate a congregation of Christian Scientists, was laid on Thanksgiving Day. Evidently Christian Science pays well.

Yellow Fever at New York.—The United States transport *Burnside* arrived from Cuba with a discharged soldier on board who had been taken sick with yellow fever on the voyage. He was removed to Swinburne Island, and the vessel disinfected before being granted pratique.

Money Lavished on a Lying-in Hospital.—Mr. J. Pierpont Morgan has added $350,000 to his recent gift of $1,000,000 to the society of the Lying-in Hospital, and has deeded to the society considerable adjoining property, thus making 3,920 square feet of additional space for the new building.

A Fatal Leap in the Delirum of Pneumonia.—A woman, while very ill with pneumonia in Roosevelt Hospital, developed such a violent delirium that it became necessary to strap her down in her bed. Suddenly, in a frenzy of excitement, she broke her bonds, and leaped from the fourth story to the ground. She died in about two hours.

Dr. Barber Goes to an Asylum.—Dr. Pliny W. Barber has just gone to Morris Plains Asylum. His family physician is of the opinion that his mental condition is the result of injuries received over a year ago in a fall down the stairway of an elevated railroad station. At the time of this injury Dr. Barber remained unconscious for many hours. He was also assaulted and made unconscious while walking on the street last August.

Commander Delehanty Exonerated and Commended.—As a result of the investigation into the charges made against Commander Daniel Delehanty, of the Sailors' Snug Harbor, Staten Island, the Board of Trustees, by an almost unanimous vote, adopted the report of its special committee. This committee found that the statements against the Commander were the work of a group of disconcented subordinates in the hospital, whose affidavits were "prejudiced, unsupported, and contradictory;" that the Commander's severity was abundantly justified by the evidence presented, and that his making constant inspections, during both day and night, was worthy of commendation rather than of criticism.

Outside Poor Foisted on New York.—A pitiable case has just come to light, which emphasizes the necessity for checking the old and reprehensible practice of overseers of the poor in many parts of New York and adjacent States of shipping their poor dependents to New York City. The case referred to was that of a man, named Delbert Williams, who had been in Rochester, Oswego, Hudson and Albany, and had been passed on to New York. According to law, each county must take care of its own indigents, and, although it is said that Williams is dying, Superintendent Blair, of the Department of Charities, is compelled to return the man to the Overseer of the Poor in Albany County. This sad case is by no means an exceptional one, and, aside from the inhumanity of such an act, it is gross injustice to New York City.

Antidote Unwittingly Taken With the Poison.—The recent case of a would-be suicide affords some confirmation of certain statements going the rounds of the press regarding alcohol as an antidote for carbolic acid. The experiments and observations of Dr. Seneca D. Powell prove that when alcohol and carbolic acid are mixed in the cavity of a wound, the corrosive action of the acid is neutralized without interfering in the least with its antiseptic properties; and the experience of some of our ambulance surgeons has been favorable to the internal use of alcohol in cases of poisoning from swallowing carbolic acid. The other day a young woman, who was desirous of ending her life, mixed the lethal dose of carbolic acid with some whisky. The result, though unexpected to her, was all that could be desired, for the ambulance surgeon found that the liquor had neutralized the poison and the girl had suffered no serious injury.

Work of the Children's Aid Society.—The annual report shows that during the past year the daily average attendance at the industrial and evening schools was 7,218, the total enrollment having been 15,773. In addition to this, by means of a system of visiting, 3,662 poor families have been found in great destitution, and have been helped. The society also maintains a number of lodging-houses, and in these the average number of daily lodgers has been 402. Many persons have been secured paying situations, and 1,571 persons sent out of the city. Since 1854, this society has been the means of sending out of the overcrowded city no less than 70,000 persons, mostly children. During the past year the society received from the city $105,654, and all other sources, $243,385. Such a report can hardly fail to excite admiration, yet a feeling of curiosity naturally arises in the mind of the uninitiated to know why, in view of such a showing of charitable work accomplished, the society should be so anxious to give the impression that almost its sole function is police-duty, and that its charitable labors are purely incidental and secondary. Yet this has been its contention in the recent suit to compel the society to obey the law, and, like other charitable institutions, to submit to the inspection of the State Board of Charities. It is difficult to conceive of a good reason why an institution, doing such excellent charitable work, and handling such large sums, both from public and private sources, should not be subject to inspection by the legally constituted body.

New York Health.—The report of the Health Department for the quarter ended June 30. The estimates of the population of the greater city on that date are as follows: Manhattan, 1,953,569; the Bronx, 163,537; Brooklyn, 1,231,543; Queens, 134,139; Richmond, 67,260; total, 3,550,053. The death-rate for the three months was 18.16 per 1,000; marriage-rate, 9.12; birth-rate, 20.07. Richmond appears to be the healthiest borough, with a death-rate of 15.17, and Queens is next with 17.09; Brooklyn, however, is not far behind Queens, the rate there being 17.45. In Manhattan the deaths averaged 18.53 to each thousand of population, while in the Bronx the rate was excessive—21.21—explained, according to the department, by the number of deaths in in-

stitutions there of patients transferred from the borough of Manhattan. Of the 16,119 deaths reported, more than one-half, or 8,742, occurred in tenements, and 3,950 in institutions, leaving only one-fourth of the total to represent deaths in dwellings, in hotels, in the streets, and by drowning, etc. There were 160 suicides during the quarter, 121 males and 39 females. Of these, 44 ended their lives by carbolic acid, 32 by gas asphyxiation, 36 by shooting, and 15 by hanging. Two women who had passed the century-mark died, both residents of Brooklyn, and both natives of the United States. One, Eliza Stanwood, reached the age of 100 years 11 months 29 days; the other, Margaret Jackson, 102 years. The former's death resulted, according to the doctors, from "old age," the latter's from apoplexy. The division of contagious diseases vaccinated 38,555 persons; 16,571 infected rooms were fumigated or disinfected; 612 persons were removed to hospitals because of contagious diseases. A large quantity of infected goods was also destroyed. The division of food-inspection condemned and seized 2,615,880 pounds of milk, fruit, meat, fish, etc. Eighty-two arrests were made, resulting in 66 trials and the imposition of fines aggregating $1,425. In all, the 14 inspectors assigned to the work of examining fruit and food made 111,938 inspections and condemned 1,724,737 pounds of goods. In the matter of school-inspection, there were 23,543 visits made; 42,431 pupils were examined, and 3,132 were excluded as a result of these; more than one-third were for parasitic diseases of the head and body.

The Plague Ship and Her Cargo.—The quarantine officials, the board of health, the public generally, and coffee merchants in particular, have been much stirred up this week over the question of what should be done with the steamer *J. W. Taylor*, which recently came to this harbor from Santos, Brazil, with two persons sick with the bubonic plague. These individuals are now nearly well, and the ship has been fumigated time and again, but the suspicion still lurks in the minds of those most interested that it is not impossible that certain rats and other vermin in the hold of the ship may have absented themselves at the time when science was doing her best to kill them, and with them, exterminate all germs of the dread disease. Theoretically, all danger of infection should be over, and, as a matter of fact, it is known that many of the rodents have been killed by the disinfection, but President Murphy and Dr. Cosby, of the health department, stoutly maintain that neither the vessel nor her cargo shall be allowed to come to New York City, and Dr. John D. McGill and Dr. Samuel A. Helfer, the health officers of Jersey City and of Hoboken, respectively, are equally determined that they shall not touch the shore within their jurisdiction. It should be noted that the 24,000 bags of coffee have received their due share of attention. The bags of coffee were dumped out on lighters, and each lighter's cargo ordered to be exposed to the air for 8 days. As the time drew near for the first lighter's cargo to leave quarantine the health-department officials began to worry over what disposition was to be made of it, and this feeling of anxiety was very naturally shared by those merchants who had a financial interest in the cargo, which is valued at $600,000. At first, Drs. Doty, Jenkins, and Geddings, relying upon the teachings of modern science, and fully convinced that the work of disinfection had been faithfully carried out, took issue with those members of the health department who refused to listen to any plea for permission to dock the ship and her cargo; but since then Dr. Doty, the health officer of the port, has weakened, and apparently believing that "discretion is the better part of valor," has issued the following statement, which will have an important influence on our commerce with Brazil: "Hereafter all vessels arriving from Santos, whether there is infectious disease among the crew or not, will be subjected to the same precautions. The cargo will be fumigated in the hold, then discharged into lighters and held in the open air for 8 days from the time of removal. The vessel, after discharge of cargo, will be kept under the supervision of the health officer and loaded in the stream before sailing." A second vessel, the *Roman Prince*, also from Santos, is now undergoing this cleansing process, although there has been no sickness on board. One cargo of Santos coffee is ashore. The Red Star steamship *Friesland*, which came into port from Antwerp, Tuesday morning, ran into one of the bubonic-plague fleets, the *Lassell*, and stove a hole in her. The crew of the *Lassell* acted quickly, but the water poured into her hold, and she had to be beached near Clifton, S. I. The *Lassell* had no cases of the disease on board, but she was held, to be put through the extraordinary process of disinfection. There are several other coffee-ships due here soon and, if they are also held at the quarantine station, they will prove a menace to the harbor in more ways then one, as Tuesday's accident shows. Staten Island is excited, because it is feared that when the sea-water flooded the hold of the *Lassell* the rats, which are said to be responsible, more or less, for the spread of the bubonic plague, doubtless swam ashore to Staten Island the moment the craft was beached.

CHICAGO AND WESTERN STATES.

With the object of checking the progress of tuberculosis among cattle, the Dairymen's and Stock-breeders' Association recently held a meeting in this city, at which over 100 delegates were present.

Chicago Medico-Legal Society.—At a meeting held December 2, Dr. Joseph Matteson read a paper on the notification and public supervision of the tuberculous. Professor Edwin Klebs followed with a paper on the bubonic plague.

Physicians' Club of Chicago.—A regular meeting of the club was held November 27. The subject for discussion was **Modern medical education.** Henry H. Donaldson, professor of neurology in the University of Chicago, discussed the teaching of subjects introductory to clinical medicine. Dr. William S. Christopher spoke on the usefulness of didactics, recitations and clinics. The relation of the hospital to the medical school was discussed by Dr. N. S. Davis, Jr. Dr. John M. Dodson spoke of the elective system and the continuous session. The meeting was well attended and some interesting and instructive points were brought out.

Chicago, Milwaukee and St. Paul Railway Surgical Association.—The seventh annual meeting was held at the Great Northern Hotel, Chicago, November 16 and 17. Papers were read and discussed as follows: "Normal Saline Solution," by Dr. E. O. Plumbe, of Rock Valley, Ia. "Little Things in Surgery," by Dr. M. L. Allen, of Tama, Ia.; "Membranous Conjunctivitis," by Dr. Thomas McDavitt, of St. Paul, Minn.; "Fracture of the Femur," by Dr. W. C. Gates, of Rockland, Mich.; "Compound Fracture of the Femur," by Dr. J. E. Luce, of Chilton, Wis.; "Fracture of the Cervical Vertebrae," by Dr. S. A. Spilman, of Ottumwa, Ia.; "Traumatic Tetanus," by Dr. S. A. Hewitt of Charles City, Ia.; "Diseases of Lung following Injury," by Dr. D. S. Fairchild, of Clinton, Ia.; "Don't Be in a Hurry to Amputate," by Dr. J. R. Hollowbush, of Rock Island, Ill.; "Some Pets of a Country Doctor's Armamentarium," by Dr. E. Steiger, of Prairie du Chien, Wis., and "Medical Treatment of Hernia," by Dr. H. H. Whitford, of Elgin, Ill. Dr. A. I. Bouffleur, of Chicago, secretary of the association, gave a surgical clinic at the Cook County Hospital for the members and their guests.

A Training-school for Male Nurses.—The managers of the Alexian Brothers' Hospital have decided to arrange a systematic course of instruction in nursing parallel with the instruction that has been given for a number of years to the members of the Order. They have been prompted to this innovation by the demand for male nurses that comes to them very frequently from both the public and the medical profession, but which could not be granted as the work in the hospital requires the entire efforts of the Brotherhood. Chicago has not had such an institution heretofore. The school has been placed under the guidance of Mr. Edward A. Hurst, a graduate of the Mills Male Nurse Training-school of New York. The candidates for admission must pass an examination in elementary grammar-school branches, such

as reading, writing, simple arithmetic, etc. Only men of approved good moral character and sound health, of 21 to 35 years of age, are accepted. There are no restrictions as to religion, as the hospital is absolutely nonsectarian in the admission of its inmates.

The Garbage Question in Chicago.—At a recent meeting of the Commercial Club, Mayor Harrison mentioned among the needed improvements a garbage-reduction plant. Perhaps no city is more backward in its methods for the collection and disposal of garbage than Chicago. A plant for the disposition of garbage by scientific methods will cost a considerable sum of money. Private individuals will not erect such a plant on the strength of a one-year contract with the city. A garbage-reduction plant not only renders garbage inoffensive, but it is more economic when once in operation. The by-products, of which grease and fertilizers are the chief, bring in a revenue sufficient to pay the operating expenses of the plant and interest on the money invested, and a large sum in addition that goes to offset to a great extent the cost of collection. With a garbage-reduction plant in operation, the annual cost to the city of collecting garbage could be considerably reduced, and the methods of disposal would be such as modern sanitary science requires. In many of the larger cities of the country, notably Buffalo, Detroit, and Cleveland, garbage-reduction plants are in use, but in most cases they are supplied under the contract system. The suggestion of Mayor Harrison is that the city issue bonds, if given authority by the Legislature so to do, for the construction of a garbage-reduction plant that shall be the property of the municipality.

Chicago Vital Statistics.—The Chicago Health Department, in its bulletin issued November 30, computes the mortality statistics for the 11 months of 1899, and the showing these statistics make gives health-officers some occasion for alarm. Aside from the present epidemic of diphtheria and scarlet fever, smallpox-infection is feared, and influenza, they declare, is likely to sweep the city within a short time. Diphtheria and scarlet fever continue to find new victims, and the coming of colder weather is likely to increase the seriousness of the diseases, according to medical experts. The deaths resulting from these two diseases for the 11 months of the present year will show 484 scarlet-fever fatalities, as against 67 in 1898 and 81 in 1897. Deaths from diphtheria total 738, against 622 last year and 702 in 1897. School principals' reports to the Health Department show an average of 60 cases a day, with an average of 3 deaths. The State Board of Health has quarantined against Kentucky as the result of the breaking out of smallpox in parts of Illinois bordering the Southern State. In Chicago the work of vaccination—compulsory when necessary—is being pushed. Thus far, according to the health officials, diphtheria has been the most serious malady. The mortality caused by this disease was doubled within the 11 days following the opening of the public schools. Deaths from scarlet fever also showed an increase. From this fact it is urged that the 50 medical inspectors for the schools, recently authorized by the Board of Education, should be placed at work at once. The examination of candidates has been called for December 9. During the first 11 days of September there were 18 deaths from diphtheria. In the following 11 days the total was increased to 36. The opening of the schools, health officials say, brought about the increased mortality, as weather conditions suffered no marked change. As compared with the first 6 months of 1898 the excess in the city death-rate for 1899 was 12.91%. The last 5 months show an excess of 11.11%. The total excess in deaths for the 11 months of this year is 2,545.

SOUTHERN STATES.

The Baltimore **Home for Incurables** has just received a bequest of $5,000, and the Union Protestant Infirmary one of $2,000 by the will of the late Elizabeth E. Bose, of that city.

Dr. Canfield Seriously Injured.—Dr. William B. Canfield, a well-known physician of Baltimore, while searching for a friend in West 72d Strcet, New York, recently, fell heavily to the pavement, and when taken to the Roosevelt Hospital, it was discovered that his skull was fractured. The cause of his fall is not known, though a neighbor saw him reach the second step of the stoop, and then reel and fall heavily to the sidewalk.

The **State Board of Health of Maryland** has just won a final and complete victory, which demonstrates both its right and power to enforce the law requiring physicians to report cases of infectious diseases occurring in their practice. The company-physician employed by the Maryland Steel Company, at Sparrow's Point, failed to report a case of smallpox which occurred at that place last February, and the outbreak of the disease soon reached such proportions that the secretary of the health-board learned of it through other channels. The health authorities very promptly caused the physician's arrest for violating the law, and the latter, backed by all the influences of this large corporation, has made a desperate fight, but failed at every point. The State admitted in the outset that the violation might have been without intent, but the judge ruled in accordance with the legal maxim that ignorance of the law was not an excuse. There was nothing of persecution in the case and the Board of Health should be congratulated upon having made an example of such an influential offender, and having demonstrated conclusively its right and willingness to enforce laws which serve to protect the health of the community.

Johns Hopkins Hospital Medical Society.—At the meeting held December 4, DR. THOMAS exhibited **these neurologic cases:** (1) Paralysis of the seratus magnus. The paralysis had come on gradually, preceded by slight swelling of the hand and arm, and the cause was unknown. The typical picture of a "winged scapula" was present; (2) paralysis of the right sciatic nerve. The woman walked with the flat-foot and toe-drop and the right leg was continuously decidedly colder than the left. The paralysis was due to the long-continued pressure of a delayed labor and was the first case of the kind seen at the hospital, though they have had a number of cases of obstetric palsies on the part of the baby.

DR. LA GARDE, U. S. A., presented a paper on **Gunshot injuries by the projectiles of small caliber.** He exhibited rifles of the Springfield, Mauser and Krag-Jorgensen type, explained their differences and then detailed a number of experiments that he had conducted to determine the differences in the effects of their missiles. He considers the small projectiles much more humane than the old-fashioned ones, and in addition to his experimental work adduced the experiences of the late Spanish-American War in support. DR. BORDEN, U. S. A., exhibited a number of very excellent radiographs showing the results of the small caliber injuries received by the soldiers in Cuba and also announced his belief in the more humane properties of the small projectiles.

MR. FLINT presented a tabulated report of all the **gunshot wounds** treated in the Hopkins Hospital since its opening. Of 37 noninfected wounds of the soft parts all were cured, the treatment being simply irrigation and dressing. Of 8 infected wounds of the soft parts, 7 were cured. There were 8 bullet-wounds of the joints, all of which were cured, and of 8 bullet-wounds of the bones, 7 were cured and 1 patient died

from shock. Of wounds by shotguns there were 6 of the soft parts with 5 recoveries, and 14 of the bones or joints with 12 recoveries. There were 19 injuries to the viscera, and in 10 of these cases there was perforation of the stomach or intestines; 6 of these latter patients recovered.

DR. RICHARD C. CABOT, of Boston, exhibited a **new stethoscope** which was said to combine the advantages of the ordinary stethoscope with those of the phonendoscope.

MISCELLANY,

Obituary.—DR. DANIEL MCMURTRIE, medical director of the U. S. Navy, retired, a native of Milton, Pa., and a graduate of the University of Pennsylvania, class of '61, at Washington, D. C., November 21, aged 63 years.—DR. SHEFFIELD W. GREENE, Richbury, N. Y., November 27, aged 85 years.—DR. J. J. CARROLL, U. S. Army, November 5.—DR. FREDERICK W. WILLIAMS, Colorado Springs, November 22, aged 40 years.—DR. JOSEPH G. WALLACE, New York, November 21, aged 44 years.—DR. AARON ROSENTHAL, from the effects of an overdose of opium, New York, November 30.—DR. JOHN IZARD, Roanoke, Va.—DR. C. V. ROBINSON, health officer of Petersburg, Va.—DR. JOHN H. MCBLAIR, Washington, D. C., December 4, aged 65 years.—DR. JOHN STANFORD SAYRE, passed assistant surgeon, U. S. Navy, retired, Monticello, Mo., aged 42 years.—DR. WILLIAM WIRT, The Hague, Westmoreland County, Md., November 28, aged 85 years.—DR. GRANVILLE B. SLOUGH, Easton, Pa., November 28, aged 61 years.—DR. M. B. GOLDBERG, formerly a resident of Philadelphia, in Cincinnati, O., aged 79 years.—DR. T. F. NIXON, resident physician at the State Farm, Castle Hayne, Wilmington, Del., December 2, as a consequence of a railroad accident.

Health-Reports.—The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, U. S. Marine-Hospital Service, during the week ended December 1, 1899.

SMALLPOX.—UNITED STATES.

			Cases.	Deaths.
ILLINOIS:	Cairo	Nov. 21	2	
LOUISIANA:	New Orleans	Nov. 18-25	6	
MASSACHUSETTS:	Chelsea	Nov. 18-25	1	
OHIO:	Cleveland	Nov. 18-25	8	
TENNESSEE:	Nashville	Nov. 18-25	3	
VIRGINIA:	Portsmouth	Nov. 18-25	5	2

SMALLPOX.—FOREIGN.

AUSTRIA:	Prague	Oct. 28-Nov. 4	7	
BELGIUM:	Antwerp	Oct. 28-Nov. 4	7	2
BRAZIL:	Rio de Janeiro	Oct. 12-20	93	67
CANADA:	Ontario	Nov. 10	20	
"	Quebec	Aug. 21-Nov. 27	138	All in Kamouraska Co.
MEXICO:	City of Mexico	Oct. 29-Nov. 5	3	2
"	Vera Cruz	Nov. 8-24		4
RUSSIA:	Moscow	Oct. 22-28	2	1
"	Odessa	Oct. 28-Nov. 4	1	1
"	Warsaw	Oct. 22-Nov. 4		7
TURKEY:	Constantinople	Oct. 25-Nov. 6		2

YELLOW FEVER.—FOREIGN.

BRAZIL:	Rio de Janeiro	Oct. 12-20		3
CUBA:	Havana	Nov. 16-23	10	4
"	Puerto Principe	Nov. 18	1	case, soldier.
MEXICO:	Vera Cruz	Nov. 8-24		3

CHOLERA.

CHINA:	Hongkong	Oct. 1-7	2	1
INDIA:	Kurrachee	Oct. 15-21		1
JAPAN:	Yokohama	Oct. 7-14	1	

PLAGUE—FOREIGN.

ENGLAND:	Alexandria	Nov. 6	1	
INDIA.	Kurrachee	Oct. 14-21	7	4
SPAIN:	Cadiz	Nov. 27	1	suspect case

Changes in the Medical Corps of the U. S. Army for the week ending December 4, 1899:

GREGORY, VERDO B., acting assistant surgeon, will proceed from Beaver Dam, Wis., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

HACK, CHARLES W., acting assistant surgeon, is granted leave for one month from December 1. November 21.

POPE, Lieutenant-Colonel BENJAMIN F., deputy surgeon-general, leave for 10 days granted is extended 5 days. November 22.

CALVIN, Lieutenant-Colonel DE WITT, deputy surgeon-general, is relieved from the command of the Josiah Simpson General Hospital near Fort Monroe, and will turn over the property for which he is responsible to Major ROBERT M. O'REILLY, surgeon, who will take charge of that hospital.

MOHART, FREDERICK H., acting ssistant surgeon, will proceed from Washington, D. C., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

Par. 18, S. O. 292, August 29, this office, appointing a board of medical officers to meet on board the hospital ship "Missouri," at Manila, P. I., is revoked.

ACKLIN, MURRAY, hospital steward, now at U. S. General Hospital, Presidio, will be discharged from the service.

JONES, JOHN F., acting assistant surgeon, will proceed from Leroy, Ill., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

OATES, WILLIAM HENRY, acting assistant surgeon, will proceed from Mobile, Ala., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

MCHENRY, G. A., acting assistant surgeon, extension of sick leave granted him is further extended two months on account of sickness. November 27.

HEPBURN, JAMES E., acting assistant surgeon, leave on surgeon's certificate granted him is extended one month on account of sickness. November 27.

MCLEAN, ALLEN D., acting assistant surgeon, in addition to his duties at Fort Wayne, is detailed for duty as examiner of recruits at Detroit, Mich.

CROSS, WILLIAM A., hospital steward, Columbus Barracks, having relinquished the unexpired portion of furlough, is transferred to the Philippine Islands. He will be sent to Jefferson Barracks and will take charge of a detachment of hospital corps men to be sent to the hospital corps school of instruction, Angel Island, and upon the completion of that duty he will report to the commanding general, department of California, who will furnish him transportation to Manila, P. I.

GIBBONS, GEORGE, hospital steward, Fort Leavenworth, is transferred to the Philippine Islands. He will be sent to San Francisco and will report to the commanding general, department of California, who will furnish him transportation to his new station.

WINNE, Major CHARLES K., surgeon, is granted leave for 30 days from about November 30. November 20.

FULLER, First Lieutenant LEIGH A., assistant surgeon, is relieved from duty at the U. S. Military Hospital No. 1, Havana, Cuba, and will proceed to New York City for further orders.

Changes in the U. S. Marine-Hospital Service for the 7 days ended November 30, 1899:

PECKHAM, C. T., surgeon, granted leave of absence for 4 days. November 28.

GLENMAN, A. H., surgeon, relieved from duty as quarantine officer at the port of San Juan, Porto Rico, and directed to procesd to New Orleans, La., and assume command of the service. November 27.

PETTUS, W. J., surgeon, relieved from duty at the Cape Charles Quarantine Station, and directed to proceed to Cleveland, Ohio, and assume command of the service. November 27.

SMITH, A. C, passed assistant surgeon, relieved from duty at Norfolk, Va., and directed to report at Washington, D. C., for special temporary duty. November 28.

STIMPSON, W. G., passed assistant surgeon, to rejoin station at St. Louis, Mo. November 27.

EAGER, J. M., passed assistant surgeon, relieved from duty at Detroit, Mich., and directed to proceed to Cincinnati, Ohio, and assume command of the service. November 27.

OAKLEY, J. H., passed assistant surgeon, relieved from duty at Evansville, Ind., and directed to report at Washington, D. C., for special temporary duty. November 27.

SPRAGUE, E. K., passed assistant surgeon. relieved from duty in the Hygienic Laboratory, Washington, D. C., and directed to proceed to New York, N. Y., and report to Surgeon L. L. WILLIAMS (Immigration Depot) for special temporary duty. November 28.

THOMAS, A. R., passed assistant surgeon, relieved from duty at the Reedy Island Quarantine Station, and directed to report at Washington, D. C., for special temporary duty. November 28.

WICKES, H. W., passed assistant surgeon, relieved from duty at Cleveland, Ohio, and directed to report at Washington, D. C. for special temporary duty. November 27.

GREENE, J. B., passed assistant surgeon, to report at Washington D. C., for special temporary duty. November 25.
To rejoin station at Boston, Mass. November 28.

MATHEWSON, H. S., assistant surgeon, relieved from duty at the San Francisco Quarantine Station, and directed to report at Washington, D. C., for special temporary duty. November 24.

LAVINDER, C. H., assistant surgeon, relieved from duty as quarantine officer at the port of Ponce, Porto Rico, and detailed as quarantine officer at San Juan, Porto Rico. November 27.

GRUBBS, S. B., assistant surgeon, relieved from duty as quarantine officer at the port of Cienfuegos, Cuba, and directed to report at Washington, D. C., for special temporary duty. November 24.

RUSSELL, H. C., assistant surgeon, relieved from duty at Cairo, Ill., and directed to proceed to Boston, Mass., for duty and assignment to quarters. November 27.

VON EZDORF, R. H., assistant surgeon, to rejoin station at New Orleans, La. November 27.

FRICKS, L. D., assistant surgeon, to report at Washington, D. C., for temporary duty. November 24.

GWYN, M. K., assistant surgeon, relieved from duty at Boston, Mass., and directed to proceed to Chicago, Ill., for duty and assignment to quarters. November 27.

CORPUT, G. M., assistant surgeon, to report at Washington, D. C., for special temporary duty. November 24.

RICHARDSON, T. F., assistant surgeon, relieved from duty as quarantine officer at the port of Nuevitas, Cuba, and directed to proceed to the Reedy Island Quarantine Station and assume command of the service. November 24.

KING, W. W., assistant surgeon, relieved from duty at New Orleans, La., and assigned to duty as quarantine officer at Ponce, Porto Rico, November 27.

KORN, W. A., assistant surgeon, relieved from duty at Chicago, Ill., and directed to proceed to Evansville, Ind., and assume command of the service. November 27.

HOLT, J. M., assistant surgeon, relieved from duty at St. Louis, Mo., aad directed to proceed to Cairo, Ill., and assume command of the service. November 27.

EDSON, ELMER R., assistant surgeon, to proceed to St. Louis, Mo., for duty and assignment to quarters. November 24.

WILLE, CLARENCE W., assistant surgeon, to proceed to Boston, Mass., for duty and assignment to quarters. November 24.

AMESSE, JOHN W., assistant surgeon, to proceed to Detroit, Mich., for duty and assignment to quarters. November 24.

WILSON, ROBERT L., assistant surgeon, to proceed to San Francisco, Cal., for duty and assignment to quarters. November 24.

BROWN, B. J., JR., acting assistant surgeon, granted leave of absence for 3 days. November 27.

FRICK, JOHN, acting assistant surgeon, relieved from duty at Santiago, Cuba, and directed to proceed to Havana, Cuba, for duty. Novembeer 29.

LINDSAY, J. M., acting assistant surgeon, detailed as quarantine officer at the port of Cienfuegos, Cuba. November 24.

STONE, OWEN W., acting assistant surgeon, detailed as quarantine officer at the port of Nuevitas, Cuba. November 24.

APPOINTMENTS.

ELMER, R. EDSON, of Indiana; CLARENCE W. WILLE, of Pennsylvania; JOHN W. AMESSE, of Michigan, and ROBERT L. WILSON, of Texas, commissioned as assistant surgeons. November 22.

Changes in the Medical Corps of the U. S. Navy for the week ended December 2, 1899:

WARD, R. R., passed assistant surgeon, ordered to the "Independence," December 15.

TAYLOR. J. S., assistant surgeon, detached from the "Independence," December 15, and ordered to the "Scindia," December 31.

DAVIS, E., assistant surgeon, appointed assistant surgeon, November 21.

LUMSDEN, G. P., surgeon, ordered to temporary duty on the "Franklin," December 1, during absence of J. A. Guthrie, passed assistant surgeon, on leave, thence home and to await orders.

STOUGHTON, J., passed assistant surgeon, order of October 14, detaching from the "Monadnock" and ordering to the "Bennington," revoked.

BEEBE, D. G., assistant surgeon, order of October 14, detaching from the "Bennington" and ordering to the "Ranger," revoked.

Dexler (*Neurologisches Centralblatt*, October 15 1899), describes the anatomic changes occurring in a disease known in Bohemia as **Dummkoller.** It occurs in horses, is characterized by a maniacal condition, diarrhea, dizziness and trembling. Pathologically, the essential element of the disease is the **acute internal hydrocephalus.** He has examined 24 brains from horses dying or killed in this condition, and reports the following as an example: The bones of the skull were thinned, and somewhat softer. The left olfactory bulb contained a quantity of clear yellowish fluid under pressure. A solution of formalin could not be forced through the brain. The arachnoid and pia were not thickened. The peripheral veins were slightly dilated. The arteries of the base had produced deep furrows in the central substance. There were symptoms of intracranial pressure. The ventricles were dilated, but microscopically all the tissues, including the endyma, appeared to be normal. [J.S.]

Foreign News and Notes.

GREAT BRITAIN.

The winter meeting of the General Medical Council began on Tuesday, November 28. A well-informed correspondent thinks that the most important subject to be tackled by the Council is the raising of the standard of the entrance examination to the medical profession.

Dr. Thomas Myles, a native of the city of Limerick, Ireland, and one of the foremost surgeons of Ireland, was recently elected to the presidency of the Royal College of Surgeons of Ireland. As a mark of appreciation of the honor conferred on him the freedom of the city of Limerick was recently voted to him by the Town Council.

An excellent book of reference is "Neale's Digest," a third edition of which has just been published in England. This book, as all medical men know, is an index to medical literature extending over the past 60 years, and so far as books, periodicals, or papers written in English are concerned, forms a complete reference to all that has been written on every conceivable medical subject. It is a monument to the author's patience, industry, and learning. The new volume, which is published by John Bale, of London, at the price of 25s. 6d., brings "Neale's Digest" up to June, 1899, and while it is indispensable to all medical men engaged however casually in literary pursuits, it will also be found valuable to all members of the profession. Of course the book is an index and not an encyclopedia, therefore it presupposes the possessor to be in touch with a reference library.

The comparative mortality of English districts was the subject chosen by Dr. Franklin Parsons, the president of the English Epidemiological Society, for his inaugural address delivered before the society, on November 17. In the course of his address, both by figures and maps, Dr. Parsons threw some doubt on the general view that the death-rate and the density of the population go hand-in-hand. For example, he showed that the town with the greatest number of inhabitants per acre—viz, that enormous eastern adjunct to London, West Ham—has a lower death-rate than Huddersfield, which has the smallest number of inhabitants per acre of English towns. He concluded in a manner that is highly flattering to the efforts of the modern sanitarians by finding that the healthiest towns are those of rapid modern growth, the development of which has taken place under proper regulation and which have been sewered from the first, so that the bulk of the houses are built on clean soil which has never been polluted by soakage from privies and cesspools and have about them a proper amount of open space. Dr. Parsons' figures also upset the theory that there is always a connection between overcrowding and a high death-rate; for the death-rate in Gateshead, where overcrowding is most rife, is lower than in Preston where it is almost least.

Tabes Dorsalis and General Paralysis of the Insane.—Dr. F. W. Mott, F.R.S., opened a highly interesting debate at the Pathological Society of London, on November 17, upon the pathology of these two diseases and the possibility of their being identical. Dr. Mott pointed out (1) that a certain number of cases of tabes might begin with mental symptoms or that mental symptoms in the form of crises may occur in the course of tabes. Many such cases have come under his notice in the London county asylums; (2) a certain number of cases of general paralysis presented tab-

etic symptoms during life and postmortem showed atrophy and sclerosis of the posterior columns of the cord and the posterior roots; (3) a few cases have been met which later in the disease developed well-marked symptoms of general paralysis. He then said that in conjunction with Dr. Hamilton Wright he had investigated the microscopic changes which had taken place in 8 cases of tabes dying in lunatic asylums, and all showed pathologic changes indicative of general paralysis. It was also admitted, he said, that syphilis was the most important factor in the production of both diseases, while the closest relationship was shown between them in their etiology as regards sex, age, and social position and environment. Dr. Mott concluded a most interesting speech by submitting that the pathologic processes in the two disorders were the same.

A Midwife Sentenced to Three Years' Penal Servitude.—At the Breconshire and Radnorshire Assizes a midwife surrendered to her bail on a charge of manslaughter. The evidence proved that the prisoner, while attending a woman in labor, got drunk and refused to consent to allow a medical man to be summoned. When at last a medical man was fetched, the wretched patient was found to be in a state of collapse from loss of blood, and died shortly afterwards. The jury returned a verdict of guilty, and a sentence of three years' penal servitude was passed. It is such terrible cases as this that by their occurrence divide professional opinion sharply in England upon the advisability of a midwives' registration bill. One section, probably much the larger and comprising most of the country general practitioners, want no Act of Parliament elevating the calling of midwife into a profession, for they consider such legislation would create rivals to them in a most important branch of their profession, and rivals who could afford to undersell them, having no status to maintain and no capital sunk in expensive education or otherwise. This section quotes such cases as the one narrated above as proof that midwives are not the sort of people to be recognized by registration as a professional body. Other medical men, led by some well-known obstetric physicians, point to these tragedies as proof that registration is required, so that only suitable people should ply the occupation of midwife. The whole question, though old, is ever green, and if the General Medical Council can solve it satisfactorily, no one again will call the body inept.

Medical Conference at Newcastle-upon-Tyne.—An important meeting of medical practitioners resident in the North of England was held at Newcastle-upon-Tyne on November 22, when Dr. Glover, Mr. Victor Horsley, and Mr. George Brown, the direct representatives of the medical profession upon the General Medical Council, addressed those present upon the various questions usually grouped together under the heading "Medical politics." Mr. Victor Horsley found bitter fault with the constitution of the General Medical Council and with its legal procedure. Mr. Brown and Dr. Glover spoke with moderation, but owned that the body of which they were members was capable of amendment. Dr. Glover has been a member of the General Medical Council for some 12 years—ever since, in fact, the principle of direct representation was conceded to the profession by the Council—and was able to speak with authority when he used words tending to remove the impression that would have been left by Mr. Horsley's speech that the Council was inept if not mischievous. Dr. Glover could speak from personal knowledge to the good work that had been done by the Council in many directions; and no one can look at the state of the medical profession in England before and after the act which called the Council into existence without seeing that an immense if slow improvement had taken place. The Newcastle conference has a particular importance in that it is the first occasion in which the direct representatives have taken counsel with their constituency as to what things are wanted by the profession and what steps should be taken to obtain them. Hitherto the direct representatives have acted in accordance with their individual judgment or their individual promises. The conference marks an attempt on the part of the direct representatives to take common action in accordance with some line that is acknowledged to be acceptable to the medical profession at large. This is a promising advance.

The Infamous Madame Frain, at one time the most prolific supplier of abortifacients, or things which pretended to be abortifacients, in Great Britain, was tried in the person of William Brown, Abraham Abrahams, Philip Perron, James Fox and Harriet Cross at the Central Criminal Court of London, on November 22, with "conspiracy to incite women to administer to themselves noxious things for the production of miscarriages." The decoction bearing Madame Frain's label, which was analyzed by the *Lancet* in the course of a detailed investigation into the subject of abortifacients as sold by advertising quacks, was shown to contain substances which might act deleteriously when administered to pregnant women, so that a conviction was confidently expected by the medical profession. Sir Richard Webster, the Attorney-General, in opening the case for the Crown, asked the jury to find the prisoners guilty, whether Madame Frain's mixture was as innocuous as cold tea or really possessed ecbolic properties, inasmuch as it was supplied to pregnant women as a means of procuring abortion, an action which must be regarded as an incitement to that crime. The judge was unable to take this view, though, to the ordinary intelligence it is a natural one, but ruled that the analysis of Madame Frain's mixture showed it to contain substances believed to act as abortifacients, upon which ruling the prisoners were convicted. The action of the law has been very tardy in meting out justice to the distributors of Madame Frain's mixture, and it is to be feared that the recent convicts are newcomers into the business, not the persons who have made much money out of abortion-mongering and deceiving unfortunate girls.

CONTINENTAL EUROPE.

Obituary.—DR. F. VON BIRCH-HIRSCHFELD, the distinguished professor of general pathology and pathologic anatomy in the University of Leipzig, author of a well-known textbook on pathologic anatomy, and a frequent contributor to medical literature, died in Leipzig, November 20.—DR. A. BRUJEFF, formerly professor of dermatology and syphilography in the University of Cracow.

University Appointments.—PAVIA: Madame Riva Monti has been appointed professor of comparative anatomy. ROME: Dr. Giorgio Pardo has been appointed professor of psychiatry. BELFAST, IRELAND: Dr. J. A. Lindsay has been appointed professor of medicine in Queen's College, to succeed the late Professor Cuming. MUNICH: Dr. Schmaus has been appointed extraordinary professor of pathology; Dr. Kopp has been appointed extraordinary professor.—WÜRZBURG: Dr. Martin Heidenhain, formerly privat-docent in the University of Tübingen, has assumed direction of the Anatomical Institute.—LEMBERG: Dr. Wladimir Sieradzki has been elected professor of legal medicine.—PARIS: Dr. Terrier, professor of operations and surgical appliances, has exchanged chairs with Dr. Berger, professor of clinical surgery.

The Latest Literature.

British Medical Journal.

November 18, 1899. [No. 2029.]

1. Meningitis. JAMES BARR.
2. Notes on a Case in which Antityphoid Inoculations were Practised. SIR DYCE DUCKWORTH.
3. The Relation of Large-celled Indurative Hyperplasia of the Lymphatic Glands to Tuberculosis. HUGH WALSHAM.
4. The Diphtheria-Mortality of the Three Principal Australian Colonies for the Past 15 Years, with Special Reference to the Influence of Antitoxin on the Death-rate. JEFFERIS TURNER.
5. Case of Snake-bite Treated with Calmette's "Antivenene Serum"; Recovery. S. J. RENNIE.
6. A Case of Cerebrospinal Fever in India, with Bacteriologic Examination. W. J. BUCHANAN.
7. The Treatment of Tetanus by the Intracerebral Injection of Antitoxin, with Notes of a Fatal Case Treated by this Method. CHARLES FIRMIN CUTHBERT.
8. Magnesium Sulfate in Tropical Dysentery. F. A. ROUGET.
9. Dislocation of the Radiocarpal-Joint. JAMES T. BAYS.
10. Another Case of Cardiopulmonary Rale. THOMPSON CAMPBELL.
11. Cerebrospinal Rhinorrhea. THEODORE FISHER.
12. Hydatid Cyst in the Femoral Canal. FREDERICK EDGE.
13. A Case of Mitral Obstruction; Thrombosis of the Splenic Vein; Enlargement of the Spleen and Hematemesis. T. HENRY GREEN.

1.—Barr writes at great length on the subject of **meningitis,** taking up its etiology, pathology, symptomatology, diagnosis, and treatment of all forms, basing his deductions chiefly upon 26 cases which had come under his direct notice. [S.M.H.]

2.—Duckworth reports having used **antityphoid inoculations** in the case of a young man who was about to go on duty in the tropics. Two inoculations were given at intervals of about 10 days. Each injection consisted of 1 cc., which was introduced into the left flank. There was moderate febrile reaction with some loss of appetite, a little pain at the seat of injection following each administration. There was also an area of redness about the point of inoculation. After the second inoculation the finger-blood was examined for the Widal-reaction. The reaction was extremely vigorous and well-marked even in 200-fold dilution. The inoculation was made in another patient with another portion of the same vaccine, which was followed by similar symptoms. A second inoculation, 10 or 12 days after the first, is highly desirable to secure the full benefit of the vaccine. One should employ perfect sepsis and sterilization of all instruments. The patient should remain in bed for 2 days and be kept quiet until all reaction has passed off. With these precautions there need be no anxiety as to a satisfactory result. [S.M.H.]

3.—Walsham distinguishes **large-celled indurative hyperplasia of the lymphatic glands** by the transformation of the normal gland tissue into large-celled tissue having none of the characteristics of the original structure. This large-celled tissue consists partly of rounded and polygonal cells and partly of spindle cells. If the proper lymphadenoid tissue has not altogether disappeared, the remaining portions of it form reticulated bands, pervading the large-celled tissue. This large-celled hyperplasia of the lymphatic glands is of tuberculous nature, and should be looked upon as a pretuberculous change in the gland. [S.M.H.]

4.—Turner discusses the **diphtheria mortality** of the principal Australian colonies for the past 15 years, making special reference to the influence of antitoxin on the death-rate. For the purpose of study he divided the 15-year period into 3 sub-periods, the first extending from 1884 to 1889; the second from 1890 to 1894, and the third (the antitoxin period) from 1895 to 1898. In Queensland the mean annual death-rate per 100,000 living from 1884 to 1889 was 42.9. From 1890 to 1894, 44-1; from 1895 to 1898 (the antitoxin period), 16.4. In New South Wales the mean annual death-rate per 100,000 living from 1884 to 1889 was 43 2; from 1890 to 1894 it was 47.7; from 1895 to 1898 (the antitoxin period), 18 4. In Victoria the mean annual death-rate per 100,000 living from 1884 to 1889 was 45.4; from 1890 to 1894, 39.8; from 1895 to 1898 (the antitoxin period), 19.7. When comparing the annual mortality of the three colonies with the mortality of England and Wales for the same years it is shown that the mortality in the three colonies has fallen about 50%, while in England and Wales the fall has amounted to a little less than 5%. [S.M H.]

5.—Rennie had brought to him a Hindu boy, aged 12 years, in a semicomatose condition with all the symptoms of **bite from a colubrine snake,** fully developed. His condition was apparently hopeless, but 12 cc. of Calmette's antivenene-serum was injected hypodermically and the boy was given enemas of brandy and beef-tea. No local treatment was used. Soon after the injection, paralysis of the respiratory muscles, which had been slowly coming on, became fully developed and the child ceased breathing. The pulse-beats were only 4 per minute. Artificial respiration was then kept up for a half-hour, at the end of which time the boy regained power over the respiratory muscles. One-sixtieth grain of strychnia was injected hypodermically, as a cardiac and nerve stimulant, and the brandy and beef-tea enemas were continued. From this time he made a rapid and uninterrupted recovery. This case shows the importance of using the serum, no matter how hopeless the symptoms may be. It also demonstrates that the antivenene will keep for almost an indefinite period exposed to all vicissitudes of climate, since Rennie had had this serum in his possession in the plains of India for nearly 4 years. [S.M.H.]

6.—Buchanan had under his care a prisoner, aged 52 years, who developed **cerebrospinal fever.** Kernig's symptom was distinctly demonstrated. Lumbar puncture was done and about 1 dram of turbid fluid withdrawn and examined microscopically. The diplococcus was found within the pus-cells. The patient died after a short illness. The postmortem showed the brain to be covered with fine leptomeningitis, and the base of the brain, the cerebellum, the medulla, and the first 4 inches of the spinal cord (all that was examined) were covered with thick, flaky lymph involving all the roots of the cranial nerves. Diplococci were found in large numbers in this lymph and in the cerebrospinal fluid. [S.M.H.]

7.—Cuthbert used an **intracerebral injection of antitoxin in** a case of **tetanus** which developed on the tenth day after an injury, consisting of a lacerated and jagged wound over the tubercle of the left tibia, which was about 2 inches long and ½ an inch deep; 10 cc. was injected, one-half of the quantity on one side and one-half on the other side, taking 10 minutes for the injection of each half. The patient improved, and on the following day was given 2 injections of 10 cc. each into the flank, one in the forenoon and one in the evening. On the following day he was still further improved. About midday he had slight opisthotonos, after which he was given another injection of 10 cc. About 7.30 he suddenly became delirious and attempted to get out of bed, and, after some struggling with the nurse, in her attempt to return him to his bed, died quite suddenly, presumably from heart-failure. [S M.H.]

8.—Rouget has not found **dysentery** a very deadly affection in Mauritius when seen at the onset. The mortality, for instance, in the prison hospital, where nearly all the cases are treated from their very commencement, has never been higher than 8%. The results of treatment with ipecac have been very unsatisfactory in his experience. **Magnesium sulfate,** if administered in doses of 1½ drams to 2 drams, with 10 minims of aromatic sulfuric acid and some cinnamon water and sirup, he has found in all cases to act remarkably well. In from 18 to 36 hours the dysenteric stools entirely disappear, and in a few days the cure is complete. During convalescence the patient should receive three times a day a powder composed of bismuth salicylate, 15 grains, and benzonaphthol, 10 grains, to which sometimes may be added 3 or 4 grains of Dover's powder. The diet should be essentially milk. The magnesium sulfate should be continued some days after the stools have ceased to be dysenteric. In chronic dysentery the magnesium sulfate is of no value. [S.M.H.]

10.—Campbell reports a case of consumption with a cavity in the left lung in the immediate neighborhood of the

heart, in which the rhythm given by the cardiac systole, and the crepitations and grating sounds in the cavity were audible over the left lung, but most distinct in the neighborhood of the heart. This phenomenon was also present at the right base posteriorly. Later on the crepitations disappeared and were replaced by a creaking sound having the cardiac rhythm. A couple of minutes later the sound had the character partly of creaking, partly of the cracked-pot sound, and was audible to any one standing by the bedside of the patient. It accompanied each cardiac systole. [S.M.H.]

13.—Green had under his care a boy aged 19 years, who came to him on account of **vomiting of blood.** Two months previously he had suddenly felt faint, and vomited about a quart of dark clotted blood. The following evening he arose and ate his dinner and almost immediately vomited about a half pint of dark blood. About a month later he again vomited this quantity. In none of the attacks was there any epigastric pain, but there was some tenderness in the left hypochondriac region with swelling of the legs and abdomen. On admission the boy was found well-nourished but very anemic. There was slight edema of both legs, the spleen was enlarged and slightly tender on palpation. The liver was not enlarged. The urine was normal. The boy was placed in bed, placed on a full diet and given iron. Ten days later he developed an evening rise of temperature. At the end of another 10 days the anemia was greatly improved, although the temperature remained irregular. After this he improved considerably, and at the end of 3 weeks was able to walk about the wards, when he one day suddenly turned faint, complained of feeling sick, but did not vomit. He became very much collapsed and 24 hours later passed a stool black from the presence of blood. Four days later he complained of nausea and abdominal pain and suddenly vomited 3 ounces of bright blood. From this time the hematemesis continued daily, the patient grew rapidly worse and suddenly died 5 days later. There was never any blood in the urine. The postmortem showed a heart weighing 15½ ounces. The pericardium was normal. The mitral orifices admitted the thumb only. There were small recent vegetations around the orifices. Similar vegetations were present around the tricuspid cups. The aortic valves were competent, but a few vegetations were present on them. The substance of the heart was fatty. The aorta and pulmonary aorta were very thin. The spleen was much enlarged and was adherent to the diaphragm. Its capsule was thick and opaque, its substance pale and very tough. There were no signs of embolism. The splenic vein was thrombosed throughout up to its junction with the organ, but the thrombus did not extend beyond the junction with the superior mesenteric vein, which was normal. There was nothing special in the liver or kidneys. [S.M.H.]

Lancet.

November 18, 1899. [No. 3977.]

1. The Present Uses of Excision of the Knee-Joint. HOWARD MARSH.
2. The Joint Affections of Gonorrhea. B. G. A. MOYNIHAN.
3. Ancient and Modern Quackery. T. W. EDEN.
4. The Etiology and Treatment of Inguinal Hernia in the Young. R. HAMILTON RUSSELL.
5. The Removal of the Lens in Cases of High Myopia. ADOLPH BRONNER.
6. The Results of 107 Cases of Vaginal Hysterectomy for Carcinoma Uteri Performed During the Last 7 Years. FREDERIC BOWREMAN JESSETT.
7. Modern Views as to the Causation and Treatment of Gout. ARTHUR P. LUFF.
8. A Case of Drooping of Both Eyelids with Upward Rotation of the Globes on Attempting to Open the Eyes Widely; Cured by Tenotomy of Both Recti Superiores. CLAUD WORTH.
9. Multiple Nevi. T. VINCENT JACKSON.
10. Four Cases of Otitis Media. VAUGHAN PENDRED.
11. A Case of Traumatic (Tuberculosis?) Meningitis. W. H. BROWN.
12. A Case of Cesarean Section During Labor for Obstruction to Delivery per Vias Naturales Due to Cancer of the Cervix after Considerable Dilation of the Latter and Rupture of the Membranes Had Taken Place; Recovery of the Mother and Survival of the Child for 3½ Days. HUBERT M. EARLE.

1.—Experience has shown that while **the mere operation of excision** is highly successful, there are two important drawbacks. The operation is often indicated in the case of disease near the diaphysis of the femur or tibia, when the removal of the bone at this region not only shortens the limb, but prevents its further growth; the other serious difficulty is that the bones are prone to yield at the line of union, so that flexion or some other difficulty follows and the usefulness of the limb is destroyed or seriously impaired. With few exceptions excision is advisable only in adults or adolescents in whom the growth of the limb is complete or nearly complete, and the bones are of so firm a texture that they readily form an unyielding synostosis. The operation is most frequently called for in case the joint has become fixed in a position of deformity or has been incapacitated by incomplete fibrous ankylosis, or when serious and extensive structural changes have resulted from disease. A number of illustrative cases are reported. [M.B.T.]

2.—Moynihan prefers König's pathologic classification of **gonorrheal arthritis** into hydrops, and serofibrinous, empyemic, and phlegmonous inflammation. The affection is characterized by its exceedingly chronic course and from the fact that the complaint of the patient is entirely out of proportion to the intensity of the local inflammation. In case of hydrops there are no fever, ill-health, nor inflammatory changes in the skin; the joint is merely increased in circumference, and painful. The knee-joint is the only one in which the affection has thus far been noted, and recovery is a matter of only a few weeks. The fluid contained in the joint is then almost clear, and pale, yellowish-green in color. In the serofibrinous form and in empyemia, symptoms of inflammation are more intense. Manipulation and movement are extremely painful; swelling and redness very apparent and more or less firm ankylosis may result. The first fluid is thicker, more viscous and turbid, and often contains shreds and clot-like masses of lymph. The phlegmonous form is most serious; the inflammation is fiercely intense and the process extends beyond the limits of the joint capsule, often resulting in diffusing the surrounding structures into one solid, inflammatory mass; the skin is red, tense, shiny, and edematous; pain is excruciating, muscular wasting may be rapid, and disorganization and dislocation may occur within 2 or 3 weeks. There is a tendency for the patella to fuse with the lower end of the femur. The amount of fluid is small and varies from densely turbid serum to pus filled with jelly-like masses. All inflammatory gonorrheal joint-affections are usually polymorphous and inflammations of the serous membranes are likely to develop. The affection is always long-protracted. The main principle as to treatment is rest, but benefit is derived from the use of mercury and potassium iodid, internally, with evaporating lotions or tincture of iodin as local applications. Owing to the tendency to ankylosis, passive motion must be used earlier than in other joint-affections. [M.B.T.]

4.—Russell states that the main purpose of his paper is to prove that acquired inguinal **hernia in children** is a myth. He attaches great importance to the arched lower fibers of the internal oblique and transversalis muscles. These fibers contract and descend towards a position parallel to the floor of the inguinal canal, thus closing the opening of the hernial rings. This sphincter action he considers the predominating factor in the prevention of hernia. In the normal condition of the inguinal canal, there is no real opening except such as is accurately filled by the spermatic cord and the task of opposing hernial protrusion is a moderate one, nothing beyond the capacity of the inguinal sphincter. Oblique inguinal hernia in children occurs, he believes, as the result of an anatomic defect by which a congenital sac is formed; he also believes that the presence of a congenital sac may be diminished in all hernias, and removal of the sac early in life completely cures the hernia. He has operated in 60 cases of inguinal hernia within 3½ years with only one death; there has been no recurrence from the operation. In no case were the walls of the canal approximated by a suture or any other expedient adopted for the future prevention of hernia other than complete removal of the sac. This is regarded as sufficient evidence of the importance of the congenital sac as a factor in the etiology of congenital hern

and as evidence of the power of the inguinal sphincter. Russell dissents from the old doctrine that the operation for hernia should never be undertaken when it may be controled by a truss, in the case of a child. The treatment by means of a truss he considers as never really curative, the only real remedy being the removal of the sac. In operation he disapproves of incision of the muscular fibers near the rings, and believes that when once cut, their integrity can never be restored. Recurrence after such operations are usually not real relapses, but new hernias caused by the injury done to the abdominal wall in operating. He makes the incision parallel to Poupart's ligament, seeks for the cord, opens its covering and draws the sac, with the testicle, out of the scrotum. The vas deferens and vessels of the cord are separated from the sac, as high up the canal as possible, and is ligated at the neck and removed. The superfluous coverings of the cord are cut away, the testicle is replaced in the scrotum, and the wound of the groin is closed by a subcuticular suture, and a collodion dressing is applied. The walls of the canal are untouched by the knife and are not sutured. No after-dressing of the wound or prolonged recumbency are necessary. [M.B.T.]

6.—Jesset gives a statistical report of the results of **107 cases of vaginal hysterectomy** for carcinoma uteri performed during the last 7 years. In operating he prefers the ligature method, as the patient suffers less pain afterwards, and he has not so much fear of sloughing as after the use of forceps. In deciding whether he would perform vaginal hysterectomy or not in a given case, he is guided by the following rules: (1) If on examination of a patient at or past the menopause who was suffering from a discharge from the uterine cavity, which discharge was colored and offensive, and in whose case the introduction of a sound caused bleeding, he should feel pretty certain that he had to deal with a case of carcinoma of the body of the uterus and would advise operation. Should any doubt, however, exist he would dilate the cervical canal and curet the cavity and have the debris examined microscopically. If the report of the pathologist were unfavorable he would at once urge operative measures for the removal of the entire organ. (2) If the disease had begun in the cervical canal or the external os, even if the walls of the vagina were somewhat invaded, so long as the uterus itself was not fixed or the broad ligament invaded he would not hesitate to advise operation. Even in advanced cases, so long as the uterus is movable he is convinced that much relief may be afforded and life may be prolonged by vaginal hysterectomy. To his mind the surgeon who will limit this operation only to those cases in which he can pull the uterus down through the vulva, is not doing his best for his patient. One might just as reasonably argue that because a carcinomatous breast is somewhat fixed and the axillary glands are affected, therefore the surgeon should not remove it. [W.K.]

7.—Luff believes that when **uric acid** is first introduced into the blood it exists therein solely as the sodium quadrirate. This compound is an unstable body, and after a variable time, according to the condition of the patient, it changes into the sodium biurate, which, after assuming the form of the gelatinous biurate is converted either slowly or rapidly, according to various conditions, into the crystalline compound. As to the cause of the gouty attack, Luff holds that owing to the inability on the part of the kidneys to excrete fully the uric acid a diminished excretion takes place, in consequence of which an absorption of the non-excreted portion from the kidneys into the general circulation occurs and constitutes a store of uric acid in the blood from which the gouty deposits are ultimately formed. The uric-acid compounds exercise no poisonous or irritant effect while in solution in the blood or lymph. It is most probable that the gouty paroxysms are due to precipitation of the crystalline sodium biurate in the implicated tissues where the crystalline deposit acts as an irritant and causes inflammation. In order to start this inflammatory process it is necessary that the deposition should occur fairly copiously and suddenly. As to the degree of alkalinity of the blood in relation to the gouty attack, Luff has found the alkalinity of the blood to be higher than the average alkalinity of the blood of healthy individuals. In investigating the properties of the gelatinous sodium biurate he found that by increasing the alkalinity of the blood-serum with sodium bicarbonate, the conversion of the gelatinous into the crystalline form was accelerated. Since the increased alkalinity of the blood of gouty patients is due to a higher proportion of sodium bicarbonate, it can be understood why such blood is prone to hasten and to augment the formation of gouty deposits. When the alkalinity of blood-serum is increased by the addition of potassium bicarbonate, the conversion of the gelatinous biurate into the crystalline variety is delayed as regards time, and is considerably diminished as regards quantity, thus explaining the beneficial effects of the alkaline potassium salts in the treatment of gout. The principles involved in the treatment of this condition are put down as follows: (1) In cases of acute gout, the gouty paroxysm must be treated and the severe pain must be relieved, conditions best effected by the free administration of colchicum and potassium citrate, and by a mild blue-pill and potassium-salts purge. (2) Elimination of uric acid should be promoted by free diuresis, the administration of plenty of water and the employment of potassium citrate or bicarbonate. (3) Excessive formation of uric acid should be checked by a carefully selected dietary, especially avoiding much mixing of proteids and carbohydrates at any one meal. (4) Attention should be paid to general hygiene. (5) Enlarged joints and other gouty deposits should be treated with a view to the removal of the deposited sodium biurate. [S.M.H.]

9.—Jackson had under his care an 8 weeks' old babe with numerous **cutaneous nevi** in all parts of the body. There was no history of heredity. The nevi gradually appeared after birth. They were obliterated by thermocautery. [S.M.H.]

11.—A boy, 18 months old, fell, striking his head on the pavement, a week before admission to the hospital. No unconsciousness had followed; he became increasingly ill, and developed well-marked symptoms of **meningitis.** Ophthalmoscopic appearance confirmed the diagnosis, as he was found to have double optic neuritis and complete blindness. Recovery followed after a prolonged stay in the hospital, and the child is now entirely well. The case is reported to emphasize the fact that meningitis is not a hopeless affection until the patient is dead, and that the longer such patients live the more likely they are to recover. [M.B.T.]

12.—Earle reports a case of **cesarean section** during labor for obstruction to delivery per vias naturales due to cancer of the cervix. The patient was in a very weak condition at the time of operation. The pulse was almost imperceptible at its termination, and prior to removing her from the table, 3 pints of saline-solution were injected into the cellular tissue. A hypodermic injection of strychnia and ether was given. Brandy and hot water were injected into the rectum, and autotransfusion was employed. No attempt was made to remove the uterus, as the disease involved the surrounding tissues to a very considerable extent, and therefore could not possibly have been extirpated. The child did well at first, but on the third day began to waste away rapidly, and died on the fourth day from marasmus. [W.K.]

New York Medical Journal.

December 2, 1899. [Vol. lxx, No. 23]

1. Notes Upon X-Rays and Injuries of the Head. J. RUDISJICINSKY.
2. Vaccination. F. G. ATTWOOD.
3. Further Experimental Researches on the Effects of Different Anesthetics on the Kidneys. ROBERT COLEMAN KEMP.
4. The New York Academy of Medicine's Discussion on Anesthetics. W. H. THOMSON.
5. A Case of Hysterical Larynx. F. E. HOPKINS.
6. Recurrence of the Tonsil after Excision. F. E. HOPKINS.
7. Dry Heat of High Degree as a Therapeutic Agent. C. E. SKINNER.

1.—Jicinsky has been unusually successful in the use of the x-rays for the **diagnosis of injuries** of the head. Cuts are given illustrating their use in the diagnosis of shot, bullets, and epidural clot. [M.B.T.]

2.—Attwood believes that most of the **untoward results of vaccination** are due to the employment of an improperly prepared, and more especially, improperly protected, virus. The most common causes of infection which should be guarded against are dirty scarifiers, unwashed

hands and contact with unclean underwear. The arm should be prepared by thorough washing with soap and water, and after drying the point of inoculation should be bathed with alcohol and the alcohol entirely evaporated before scarification. Another method of procedure which Attwood believes he has found useful is the subcutaneous injection of the glycerinated lymph with a hypodermic or antitoxin syringe. The sterile glycerinated lymph put up in hermetically sealed glass tubes is a great improvement upon the older method of preparation. [S.M.H.]

3.—Kemp concludes an exhaustive article on **Experimental Researches on the Effects of Different Antiseptics on the Kidneys** as follows: Ether produces a special contraction of the renal arterioles with a consequent damaging effect upon the renal secretory cells similar to those that follow clamping of the renal artery. The kidney shrinks in bulk, with consequent fall of oncometric tracing and accompanied by diminution of secretion, marked albuminuria and finally suppression. These results contraindicate the use of ether as an anesthetic when renal disease is present. Chloroform apparently has no effect upon the kidney. The action of chloroform on the heart, as shown by the carotid tracings, is directly depressing. Ether, on the other hand, acts as a cardiac stimulant throughout. The A. C. E. mixture shows the special effects both of ether on the kidneys and of chloroform on the heart, either being predominant according to the mode of administration. There is no advantage in this mixture, but rather the reverse. Schleich's anesthetic is still more objectionable. The cardiac depression of chloroform and the renal disturbances of ether are simultaneously developed in the tracings similar to, but in a greater degree, than with the A. C. E. mixture. Notwithstanding Schleich's claims to the contrary, the fact is that ether remains ether and chloroform remains chloroform during the inhalations of this mixture, and that proportion of either which would be absorbed will depend upon the mode of administration, a tight cone allowing an amount of chloroform to be taken which would be extremely dangerous while free admixture with air would so lessen the absorption of ether that its specific effects would be proportionately lessened. There exists a physical reason for doubting the manageability of mixed anesthetics; if two agents of different maximum points of evaporation are mixed together the more volatile of them will increase the evaporation of the other by carrying off more of the less volatile one than if the latter were vaporized by itself. Thus more chloroform would be inhaled if mixed with ether than if it were administered separately. This effect has been demonstrated physologically in curarized animals. Anaesthol is a dangerous anesthetic, causing (1) respiratory symptoms, respiratory poisoning due to the ethyl chlorid, (2) an aggravated chloroform heart, (3) the renal effects of ether. Nitrous oxid and oxygen is the least dangerous and the least deleterious to the kidneys. Chloroform is nearly as safe in this regard; ether is the worst of the three. All mixtures are dangerous and of no advantage. Hypodermoclysis administered in cases in which there exists disease of the kidneys will minimize, to a great extent, the danger of renal complications due to the anesthetic. Resort should be had to this procedure, it matters not what the anesthetic. As the result of a few experiments on the human subject it has been observed that indican like albumin is produced most markedly by ether, and like albumin also on the descending scale with chloroform or nitrous oxid. The cause of the production of indican has not been determined. [S M.H.]

4.—Thomson considers chronic renal disease or the presence of any of the systematic signs of renal inadequacy, rigid arteries, high tension pulse and dilated right heart with bronchitis as **contraindications of the use of ether.** In such cases chloroform should be used. The only condition in ordinary medical practice in which he uses chloroform with confidence is when there exists a regular but high tension pulse. This indicates a heart that will not be easily depressed. The fact that all agents or mixtures which produce anesthesia by producing narcosis are in some cases very dangerous calls special attention to the recent improvements in the methods for producing local analgesia. To insure success by this method the following details should be strictly followed: (1) An elastic bandage should be applied whenever possible in order to promote the analgesic effect of cocain. The application should not be too tight and it should be loosened gradually after the operation is well over. (2) The cocain or eucain used should be dissolved in a saline solution of definite strength, since infiltration by pure water or by too dense a saline fluid produces much pain by deranging, though in opposite ways, the normal osmosis of fluids in the interstitial spaces. A standard solution may be made consisting of 2 grains of cocain hydrochlorate in ½ ounce of sterilized 0.9% salt-solution, of which 1 dram will contain ½ grain of cocain. More than this amount of cocain should not be used at any one time. Eucain has some decided advantages over cocain in being only ¼ as toxic though quite equal to it in analgesic properties, while its solution may be sterilized by boiling, which process destroys cocain. The best strength of the solution of eucain is 1%. (3) The skin should be benumbed for the initial insertion of the needle by the ether of ethyl chlorid spray or by ice, and then a ring of infiltration should first be made around the part to be incised, by injecting at the outer limit until a wheal of infiltrated skin is raised; then a second wheal is made in the same manner by the needle being introduced at the edge, but within the circumference of the first wheal. By this means the prick of the needle will not be felt, and the infiltration can thus be carried around the whole of the seat of operation. Lastly, the line of the purposed incision is infiltrated and the cutting begun. On cutting further a weaker solution may precede the deeper dissection and be resorted to whenever the patient begins to feel pain. This process requires time and therefore should never be done when haste is a necessity. With the precautions mentioned, such operations as radical hernia, abdominal laparotomies, etc., have been done without suffering. [S.M.H.]

5.—Hopkins reports a case of pertussis occurring in a girl aged 15 years. During convalescence from the attack in which paroxysms had been very severe she developed a high-pitched piercing sound produced by strong inspiration with the vocal cords tense and which closely resembled the squeal of a pig. The squealing sound eventually became both inspiratory and expiratory and persisted many months notwithstanding all sorts of treatment. It was finally abruptly cured by the operation of intubation. A medium-sized tube was placed in position and kept there for an hour. [S.M.H.]

6.—Hopkins reports a case of **recurrence of the tonsil** after excision in a child aged 13 years. The tonsils and some adenoids were removed under ether. The excision was considered thorough and examination 3 weeks later justified this opinion. The child was in poor general health and suffered from repeated attacks of severe amygdalitis. After operation these attacks continued. Four months after removal of the tonsils the patient was seen during one of these attacks and the left tonsil was found considerably enlarged. It was removed, and macroscopically and microscopically it resembled a small hypertrophy. Hopkins has been able to gather a few similar cases from the literature. Among the causes of recurrence, aside from imperfect operation, are tuberculosis or specific dyscrasia and acute inflammation of the stomach. It would naturally be supposed that this acute inflammation of the tonsils must take place soon after operation in order to result in recrudescence of the tonsils, as happened in the case reported. Mackenzie, however, mentions recurrence following acute inflammation long after operation. [S.M.H.]

Medical Record.

December 2, 1899. [Vol. 56, No. 23.]

1. The Formative Period of Uterine Fibroids. GRACE PECKHAM MURRAY.
2. Can We Diagnosticate Obliteration of the Receptaculum Chyli? ANDREW H. SMITH.
3. The Cause and Treatment of Recurring Laryngeal Stenosis Following Intubation. LOUIS FISCHER.
4. Two Cases of Graves' Disease Successfully Treated as Intestinal Autointoxications. CHARLES L. MINOR.
5. Cesarean Section with Recovery of Mother, and Child Saved. JAMES BYARS.
6. Anomalous Pupillary Reaction in Meningitis. ALBERT SEITZ.
7. A Few Rare Double Dislocations. W. M. JAMES.

8. Removal of a Foreign Body from the Nose. D. S. HUMPHREYS.
9. A Supernumerary Placental Cord. ALBERT SEITZ.
10. A Peculiar Case of Pernicious Malarial Infection. BASIL M. TAYLOR.
11. A Case of Lymphosarcoma of the Neck. S. S. WILLIS and V. F. MARSHALL.
12. Poisoning by Alcohol, Chloral, and Potassium Bromid. NORMAL P. GEIS.
13. Acute Alcoholism with Convulsions. JOSEPH G. WILSON.
14. Relapse in Measles. THOMAS W. HARVEY.
15. Ectopic Pregnancy. H. R. LANKFORD WORRALL.

1.—Murray, in an interesting paper, discusses the **formative period of fibroid growths of the uterus** and presents the following summary of suggestions and conclusions: (1) The possibility of determining definite clinical symptoms which would lead to a recognition of a distinct formative period of uterine fibroids, which might suggest a preventive treatment. (2) That the predisposing causes of race, age (other than that of adult life), or condition count for little, and the elaborate reports which form the bulk of the literature up to the present time are of doubtful value. (3) That chronic inflammatory conditions of the endometrium, uterine parenchyma, and of the ovaries and tubes are most powerful predisposing causes, and that there is a direct relation between the hyperplasia of the uterus and the formation of fibromyoma. (4) That extreme disturbances of the nervous system precede and accompany the formation of uterine fibroids. Insomnia, headaches, and hyperesthesia of the sensory organs are present to a greater degree than is usually found when the concomitant symptoms of the inflammatory condition of the uterus are present. (5) That the evolution of the fibroid from the fibromatous enters when it begins to take on growth is exceedingly rapid, and that it is impossible to tell the age of the growth by its size. The rapid appearance and development are the reasons why so few fibroids are seen and examined in their incipiency. That the size and rapidity of growth of a fibroid depend upon its blood-supply, which is determined from the beginning by the location of the nidus, and therefore such conditions as pregnancy or the menopause could have little influence. (6) The possibility of the action of the curettage as a predisposing cause for these tumors on account of the violence done to the bloodvessels, and of hastening their growth, because of concentrating the blood-supply. (7) The crystallizing effect of Keiffer's experiments upon the theories in regard to the formation of fibromymata. He has demonstrated that the blood-supply is cut off from the uterine tissue, which then becomes condensed into whorls of fibrillae which afterward develop into fibroids, obtaining their blood-supply from the surrounding uterine tissue. He has shown that the tumors were composed of an histologic structure in no way differing from the normal uterine tissue, save that which related to the concentric arrangement of fibrillas. There was no evidence of embryonic tissue or new formation. [W.K.]

2.—Smith recurs to President Garfield's case and refers to the rapid loss of flesh that occurred without any evident cause and which was in his belief explained by the finding at postmortem of a mass of inflammatory exudate about the upper lumbar vertebra, which had **compressed** and probably **obliterated the thoracic duct.** In another case Smith noted an extremely rapid and sudden loss of flesh in a man who proved to have a mass covering the bodies of the first second lumbar vertebrae and obliterating the receptaculum of chyli, and involving the pancreas and stomach. He believes that the occurrence of emaciation, more rapidly than seems readily explainable, especially if associated with pale, copious, semifluid bowel-movements associated with symptoms of disease about the stomach, is sure to make obliteration of the receptaculum chyli probable. [D.L.E.]

3.—In order to prevent **laryngeal stenosis** in ordinary intubation, Fischer advises the greatest care in introduction to avoid lacerating the tissues; the tube should be removed every 3 days to avoid irritation from the calcareous deposits. If a tube is introduced more that twice, it is of advantage to use a rubber tube, immersing it in a solution of hot gelatin containing 5 to 10% of powdered alum; a 10% solution of iodothyol and gelatin is also a valuable preparation. There is danger of injury from an imperfectly constructed tube which does not fit the larynx, or from a perfect tube which is too large for the lumen of the larynx, and is not cleaned at proper intervals. [M.B.T.]

4.—The patients had severe gastrointestinal symptoms and had had careless habits of diet. It was therefore thought that they might be suffering from gastrointestinal autointoxication. The first case recovered entirely and the second almost completely after the use of copious high injections of hot water. [D.L.E.]

5.—In this case a **pregnant uterus** was **mistaken** for a rapidly growing **ovarian cyst.** Celiotomy was performed and a living child extracted, the patient making an excellent recovery. Pregnancy was excluded as an impossibility, on account of the social standing of the patient and the operator's personal knowledge of her. This case illustrates the necessity of studying each case without "prejudgment," and that opinions must never be biased by the social position, reputation and circumstances of the party concerned. [W.K.]

6.—The anomaly consisted in expansion of the pupils under the influence of light and contraction in the dark. The child died, but no autopsy is reported. [D.L.E.]

7.—A case of **dislocation of both wrists upward** resulted from a fall upon the palmar surfaces of both hands. Dislocation of both shoulders resulted in the case of another patient from a fall from a fence, striking upon both elbows. In a third case double dislocation of the shoulders resulted from falling on the elbows while running in soft snow. The condition was not recognized by the first medical attendant and the patient was treated three weeks with electricity and liniments. Reduction was easily effected under anesthesia. [M.B.T.]

10.—The case occurred in a boy of 12 years. He had a mild delirium with subsequent stupor and subnormal temperature with slow shallow respiration. Taylor saw him on the fifth day of the disease, found the malaria plasmodium, administered 20 gr. of quinin hypodermically, every 3 hours, and within 21 hours his mind had become clear and his temperature normal, and the plasmodia had disappeared. [D.L.E.]

12.—The interest in the case was in the fact that the patient, a woman of 43 years, took 720 grains of both chloral and potassium bromid within 42 hours, besides 3 quarts of whisky and 1 quart of wine, and yet recovered, chiefly as a result of the use of strychnia and pilocarpin. [D.L.E.]

13.—The two cases reported occurred in soldiers in Porto Rico after drinking native liquors. Severe convulsions with opisthotonos occurred in both cases and in both apamorphin produced rapid emesis and quick improvement. Wilson believes that these and other cases show that convulsions are more likely to occur during alcoholism when the subjects do not habitually indulge to excess and also when crude liquors are used. [D.L.E.]

14.—The child, 11 months old, had typical measles, followed on the twentieth day, when apparently entirely convalescent, by the typical prodromes, eruption, and course of another attack of measles. [D.L.E.]

15.—Worrall describes an unusual case, occurring in Arabia, in which a part of the **fetal remains** of a probable extrauterine pregnancy were **expelled through a sinus** in the anterior abdominal wall. Vaginal examination was refused, and ectopic gestation was diagnosed from the physical signs. [W.K.]

Medical News.

December 2, 1899. [Vol. lxxv, No. 23.]

1. The Hemostatic Use of Gelatin; with Report of a Case of Hemophilia Treated by Gelatin; with Recovery. J. B. NICHOLS.
2. Microbes and Cold. FELIX VITALE.
3. Examination of the Blood in Surgical Diseases. H. STUART MACLEAN.
4. Loss of Intestine and its Effect on the Nutrition. JACOB R. JOHNS.

1.—Nichols gives a brief summary of the **value of gelatin for checking hemorrhage.** It may be used internally, preferably as a subcutaneous injection, in cases of aneurysm, but its use in this manner is sometimes dangerous on account of the spontaneous formation of thrombi in

the vessels. Under certain circumstances, calcium chlorid may be added to the solution. Locally, it may be applied as a dressing in hemorrhages from various organs, and from the skin. He reports the case of a man, 24 year of age, without previous family history of hemophilia, who cut his wrist and forearm on broken glass. The hemorrhage from the cut continued in spite of all forms of treatment, and in spite of the application of a tourniquet, although no large vessels were divided. As death seemed imminent, gelatin from an ordinary culture-tube was poured into the wound and promptly arrested the hemorrhage.

2.—Vitale argues that our knowledge of the **effect of cold upon microorganisms** is at present too indefinite to enable us to draw any valuable conclusions regarding the relations of certain organisms to epidemics. Certain epidemic diseases that usually occur in warm weather in certain parts of the world are found during the colder seasons, and he reports several instances in which epidemics of yellow fever existed when the temperature was below freezing. He believes that the resistance that microbes offer to cold varies with the medium in which they live, and he quotes the experiments of Chamberland to prove this point. [J S.]

3.—MacLean has examined the blood in a number of cases of cervical disease for the purpose of determining whether **leukocytosis** may be used for the **detection of suppuration.** He finds it most valuable in cases of abscess, appendicitis, pyosalpinx, and osteomyelitis. Its absence is sometimes of value as a diagnostic point in tuberculosis and in shock due to nervous conditions, as concussion. In shock due to hemorrhage, there is usually leukocytosis. He reports 22 cases. [J.S.]

4.—Johns gives a second report of a case in which Dr. Deaver removed 30 inches of intestine 5 years ago. The patient has remained well, and there appears to be no disturbance of alimentation. [J.S.]

Boston Medical and Surgical Journal.

November 30, 1899. [Vol. cxli, No. 22]

1. Three Cases of Pyloroplasty for Stricture of the Pylorus. MAURICE H. RICHARDSON.
2. The Hospital for Chronic Disease. W. TAYLOR.
3. The Nutritive Value of Albumose Peptone. A. E. AUSTIN.
4. A Case of Osteomyelitis of the Femur. F. B. LUND.
5. A Case of Kocher's Operation for the Radical Cure of Hernia. F. B. LUND.

1.—Richardson says that it seems probable that many cases of **gastric dilations** are caused by sharp bends at or near the pylorus, producing more or less obstruction to the passage of food. These flexures may be dependent on adhesions, or they may take place as a result of overloading or sagging of the normal stomach. Adhesions around the stomach, by limiting the normal physiologic movement, or by causing a real obstruction, may produce serious disturbances of nutrition. The most important symptom of pyloric obstruction is vomiting or regurgitation of the food some hours after it is taken. With this vomiting, and with or without pain or dilation, progressive emaciation adds the required evidence for a reasonable diagnosis of pyloric stricture. As to treatment, the Heinecke-Mikulicz operation, with its longitudinal incision and transverse suture, answers very well in those cases in which there is not much thickening of the pylorus. But when there is thickening with a lack of pliability, a resection of the anterior and lateral walls is more satisfactory. [G.B.W.]

2.—Taylor contends that special hospitals or wards for patients suffering from chronic diseases should be established in the interests of humanity and for the benefit of medical teaching. [J.S.]

3.—Austin has subjected a dog to a series of diet as follows: 250 cc. of a solution of albumose-peptone for 6 days; there was loss of weight and great prostration. After an abundant mixed diet for 14 days there was given 250 cc. of the above solution and 280 gm. of mashed potato for 16 days; there was loss of weight but no prostration. Finally, 250 ccm. of the solution and 200 gm. of dried rice; there was clearly increase of weight that continued, but less rapidly when rice was given alone. Austin concludes that it is impossible to maintain life upon peptone alone, but the addition of a small amount of carbohydrate retards the nitrogenous loss. Peptone can replace native albumin and **increase albuminous tissue,** and does not cause diarrhea nor disturbance of the stomach; at least neither occurred in the period of 45 days during which it was given the dog. [J.S.]

5.—Lund says that if there is any weak spot following Halsted's or Bassini's radical **operations for hernia** it is most likely to occur at the internal ring where the cord comes out. In the case operated on, according to Kocher, the scar remained firm and strong, and even after 3 months of hard labor no sign of weakening could be detected. [G B.W.]

Journal American Medical Association.

December 2, 1899. [Vol. xxxiii, No. 23.]

1. The Tonsils as Portals of Infection. EMIL MAYER.
2. A Case of Blastomycetic Dermatitis of the Leg. LUDVIG HEKTOEN.
3. "Chronic Recurring Membranous Pharyngitis." JOHN O. MCREYNOLDS.
4. Management of Cases of High Anisometropia. EDWARD JACKSON.
5. Astigmatism after Cataract Extraction. C. F. CLARK.
6. Pancreatic Hemorrhage. J. M. ANDERS.
7. A Study of Codein and Its Salts. GEO. J. LOCHBOELER.
8. Synthetic Chemistry. J. W. WAINWRIGHT.
9. Pancreatic Cysts. L L. MCARTHUR.
10. Amputation Through the Arm vs. Excision of the Elbow; a Case of Conservative Surgery. HERMAN B. GESSNER.
11. Right Inguinal Hernia of the Vermiform Appendix. REUBEN PETERSON.

1.—A clerk, 19 years of age, while attending to his work was taken with an attack of syncope and vomiting. He was found cyanotic, with cold extremities, an irregular, small, intermittent pulse, a forcible and diffuse apex-beat and a systolic, soft-blowing murmur at point of auscultation of the pulmonalis; there was no rise of temperature; slight pains were referred to the muscles of the shoulders and legs; otherwise nothing of importance was noted. A diagnosis of **endocarditis** following **tonsillar infection** was made. The patient had never had rheumatic trouble, and there was no previous abnormity about his heart. With absolute rest and increasing doses of arsenic he completely recovered. The literature of infections arising in the tonsils is discussed. [M.B.T.]

2.—A woman of 64 years had noticed, 4 months previously, a small pimple on the posterior surface of the lower third of the right leg; 3 or 4 days later a second pimple sprang up; both contained clear fluid. Gradually they fused into one larger mass, which slowly enlarged. After a month the swelling was opened and a bloody fluid escaped, then it slowly "dried up." In a few weeks it reopened and ulcers would form, heal up, and appear again, the swelling slowly increasing. When she appeared in the clinic there was a circular, elevated, cauliflower mass, as large as a silver dollar, with an irregularly ulcerated and red surface. The growth was regarded as probably carcinomatous and was removed by a circular incision 2 cm. outside of its margins the subcutaneous fat and superficial fascia being dissected away continuously with the diseased tissue. The defect was covered by a plastic operation. Primary union followed. The subsequent history is not known, Pathologic examination showed the growth to have the histologic characteristic of **chronic cutaneous blastomycosis.** There was marked epithelial proliferation in the form of carcinomatoid masses and downgrowths, associated with the formation of embryonal cells in the stroma, with giant cells and much leukocytic infiltration, diffuse as well as focal. Miliary abscesses had formed between as well as within the epithelial masses, all these features constituting the characteristic histologic picture of this form of mycosis. The blastomycetic nature of the affection was definitely established by finding the characteristic, double-contoured, budding, yeast-like organisms in the granulation-tissue and in the miliary abscesses. [M.B.T.]

4.—See this JOURNAL, Vol. IV, p. 15.

5. " " " " " " "

6.—A man, 28 years old, 2 months before admission to the hospital, was suddenly taken with a severe pain in the ep

gastric region, followed by slight diarrhea. In a few days the diarrhea was succeeded by obstinate constipation which was present throughout the rest of the illness. Ten days after the date of onset jaundice set in, and gradually deepened until it became quite pronounced; the urine now became porter-colored, and the stools clay-colored. The patient had been treated for catarrhal jaundice, but a duodenal ulcer was suspected to be a complication, on account of the marked pain, which invariably developed two hours after the ingestion of food. The second day after admission symptoms of collapse from internal hemorrhage occurred and death soon followed. At the necropsy the lesser peritoneal cavity was found filled with blood, and a large blood-clot was external to but compressing the duodenum, in the vicinity of the head of the pancreas. There was primary carcinoma of the pancreas, with secondary involvement of the lymphatic glands about the hepatic duct and duodenum. The hemorrhage is believed to have been caused by the changes produced by the neoplasm. A second case of **pancreatic hemorrhage** is reported occurring in a horse-shoer, 28 years old, who had been jammed against a post 2 years previously, sustaining an injury of the right side. Since then violent exertion had elicited pain in the side. He had been a heavy drinker for years, and for several months troubled with abdominal distress several hours after eating, flatulence and irregularity of the bowels. One week before admission he was taken suddenly with severe pain in the pit of the stomach, and nausea lasting several hours. He was admitted to the hospital in a state of extreme collapse; his abdomen was rather full in the epigastrium, but not locally or generally distended; there was great tenderness a few inches below and to the left of the xiphoid, over an area about palm-sized, with occasional intense exacerbations of pain. He sank rapidly, and died in about 2½ hours. At the necropsy nearly 8 ounces of dark, clotted blood was found about the pancreas, lying particularly over the region of the left kidney and some fat layers of mesocolon in front. The pancreas, macroscopically, showed several pinhead to pea-sized hemorrhagic and abscess-like spots. The literature of the subject is discussed, and a table of 40 authentic cases of pancreatic hemorrhage is appended. This includes the cases collected by Fitz and by Draper. [M B T.]

7.—See this JOURNAL, Vol. IV, page 18.

8. " " " " " " " "

9. " " " " III, " 1273.

10.—Circular **amputation** of the middle third of the arm, under eucaine-B **infiltration-anesthesia** is reported in the case of a man much reduced by chronic tuberculosis of the elbow. Speedy recovery and a good result followed. It is believed that the patient would have died on the table or during the course of the after-treatment had excision been performed at the time of admission, while delay, for the purpose of building him up, would probably have resulted in progressive degeneration of the kidneys. [M.B.T.]

11.—A man of 52 had first noticed that he had a right inguinal hernia when 10 years of age and had worn a truss for 26 years. Occasionally the hernia came down, giving rise to excruciating pain. Radical operation was decided upon and when undertaken the cord was found adherent to and quite filling up the external ring. The inguinal canal was opened, the adherent sac isolated and a normal vermiform appendix about 3 inches in length was found lying free in it. The appendix was removed, the cecum freed as far as possible from its adhesions, and after the ligation of the sac the operation was completed after Bassini's method. The wound healed by first intention and the patient left the hospital at the end of a month, apparently cured. Peterson states that, including the above case, 116 cases of **hernia of the appendix** have been reported. [M B T.]

Annals of Surgery.

October, 1899. [Vol. XXX, No. 4.]

On the Surgical Treatment of Hemorrhage from Gastric Ulcers. E. WYLLYS ANDREWS and DANIEL N. EISENDRATH.

Actinomycosis in Man, with Special Reference to the Cases which have been Observed in America. JOHN RUHRÄH.

Some Observations on the Surgery of the Gallbladder and the Bileducts. WILLIAM J. MAYO.

Observations on the Surgical Anatomy and Methods of Cure of Inguinal Herniae. J. COPLIN STINSON.

A Method of Treatment for the Restoration of Entire Tibiae Necrotic from Acute Osteomyelitis. HAYWARD W. CUSHING.

Some Experiments Relating to Sterilization of the Hands. LEONARD FREEMAN.

Sterilized Water for Operating Rooms. DUDLEY P. ALLEN.

Strangulated Internal Hernia through a Mesenteric Hole. LOUIS J. MITCHELL.

1.—Eisendrath recommends **surgical** intervention in the **treatment of gastric ulcers** when there are repeated small hemorrhages or more severe ones (more than 500 cc.) occurring more than once. A single copious hemorrhage is not necessarily an indication for operation. As the result of personal experience in operation, and experiments upon animals, the following method is recommended: The ulcer is seized and drawn out from the interior of the stomach with forceps in the form of a cone, and ligature is then applied about the base of the cone and excision is practised. It is best to support such ligation *en masse* by external sutures. Two operations are reported. A woman, 38 years old, had suffered from disordered digestion for 2 years; suddenly there occurred a profuse gastric hemorrhage followed by collapse; the following day hemorrhage recurred, producing a condition of extreme prostration and anemia, with a weak pulse and poor general condition. Gastrotomy was performed; the interior of the stomach was carefully inspected until the ulcer was found on the posterior wall; it was treated in the way that has been described; the abdomen was closed, and the patient made a rapid recovery, and has remained well since then. In a second case, a man, 36 years of age, had suffered several years from cardialgia and nausea. He was taken with profuse hemorrhage. From this time diet and proper treatment were ordered, but the patient still complained of gastric pain, and a second severe hemorrhage occurred. Gastrotomy was performed, and a considerable erosion was found on the posterior wall; 3 smaller ulcers were found, 1 on the posterior and 2 on the anterior walls. These points were tied off, as described, and the patient recovered, and suffered from no other hemorrhages. He continued to have pain and symptoms of dilatation, however, and some months later gastroenterostomy was performed by the use of a Murphy button, and the patient died from peritonitis resulting from leakage at the point of anastomosis. [M.B.T.]

2.—The literature of the subject of actinomycosis is discussed in a very thorough manner, and abstracts are given of the cases which have occurred in American literature, grouped so as to illustrate the different forms of the disease. [The article is continued. M.B T.]

3.—Mayo analyzes the results of 105 **operations** which have been performed **on the gallbladder and bileducts** during the past 8 years in St. Mary's Hospital, Rochester, Minn. Cholecystotomy was performed for gallstones in the gallbladder, or cystic duct, 64 times with 1 death; 4 of the 64 cases required secondary operation, 2 for gallstones overlooked at the primary operation, 1 for relief of biliary fistula probably due to putting the gallbladder on the stretch by suturing too low in the external incision. Cholecystotomy was performed 8 times for infection of the gallbladder with 1 death resulting; cholecystectomy was performed once for acute gangrenous inflammation and for biliary fistula, and twice for recurrent cholecystitis, all the patients recovering. Choledochotomy was performed 11 times with recovery in all cases; cholecystenterostomy was performed once for stricture of the common duct, recovery following. In 3 cases operation was undertaken to free adhesions to adjacent viscera which were causing pain; in 7 cases exploratory operation was performed with negative result; 7 operations were performed for malignant diseases with 3 deaths. It is not believed that cholecystotomy, with immediate suture of the gallbladder, is a suitable operation, as it does not furnish drainage for the accompanying cholecystitis. The normal position of the gallbladder makes the fundus dependent, and in this way favors sluggish bile-current, deposit of sediment, infection and formation of stone. When the fundus is sutured in the external wound, the cystic duct is brought

into a relatively lower position, and the mechanical conditions are even better than in the normal individual; the fixation and elevation of the fundus permanently drains the gallbladder. In many cases it is impossible to suture a contracted gallbladder which is deep under the liver into the wound; in such cases Mayo advises packing of the abdominal cavity by gauze strips, which are tied by sutures in the wound; a rubber drainage-tube is inserted in the gallbladder, 2 catgut sutures, doubled once or more, are passed through the edges of the opening in the bladder, and are sutured and tied in the abdominal wound, and this firmly anchors the gallbladder in position favorable for drainage, prevents displacement, and the catgut is rapidly absorbed after adhesion has taken place. In 11 cases stones were removed from the common duct; in only 4 of these was the duct sutured, and in 2 there was leakage. In the 7 cases treated by drainage without suture, the recovery was just as prompt as in the sutured cases. Infection of the mucous membrane is the chief cause which gives rise to after-trouble. As a substitute for cholecystectomy in these cases, Mayo advises removal of the mucous membrane; it is tough, and separates readily over the muscular coats without prolonged manipulation, and the essential object is obtained as well as by cholecystectomy. The muscular and peritoneal coats are sutured in the incision, and drainage established in the usual manner. Five cases have been operated in this way with excellent results. [M.B.T.]

4.—With regard to the technic of the operation for the **radical cure of hernia** Stinson advises closing the internal ring by sutures and placing the spermatic cord next to the pubic bone; the internal ring is reinforced and the inguinal canal closed by sutures uniting the internal oblique and transversalis muscles and the conjoined tendon to Poupart's ligament and the cut edges of the external oblique aponeurosis and the pillars of the external ring are sutured so that the pillars snugly embrace the cord. Sterilized chromicized tendon and carefully sterilized catgut are recommended as suture material. Most of the patients are cured by this operation, and provided the operator is skilful andthe proper aseptic precautions are taken the mortality should be about nothing. Stinson has operated in 14 cases by this method, all have recovered, and as yet, no relapses have followed. [M.B.T.]

5.—After operations for **acute osteomyelitis** by the old methods the sequestrum lies within a shell of new bone while drainage takes place through sinuses which require months or years to heal. To remove the sequestrum in such cases, heal the sinuses, cause the defect to be closed by granulation and leave the patient a useful limb, has been a very difficult problem. The methods of sponge grafting, the skin-flap method, the use of bone chips, etc., have rarely accomplished a favorable result. The removal of the shaft of dead bone in the acute stages has been followed by results scarcely more satisfactory. Cushing believes that better results might be obtained from early sequestrotomy if the proper time for operation could be accurately determined. The experimental work of Nichols has shown that the most favorable time for removal is at the stage of regeneration previous to extensive formation and coalition of bone trabeculae of the periosteum and new-formed granulation tissue. If small sections of the periosteum are examined from time to time the regenerative process can be watched until it is seen that the above stage is reached, at such a time the dead bone can be removed leaving behind a shaft of granulation tissue and periosteum in the most active stage of bone formation; this shaft, if freed from infection and buried in the center of the leg, forms a solid cord of bone producing tissue. Cushing has carried out treatment after this plan in the case of a boy 16 years old who was first seen on the twenty-eighth day of his illness; he was emaciated, very pale and weak and had slept only when exhausted from intense pain; the left tibia was evidently necrotic throughout, there was a sinus just above the internal malleolus and an abscess near the tubercle of the tibia. Free incisions were made, the openings into the medullary canal were enlarged and drainage established. The patient improved and was soon out of danger. The condition of the bone was carefully watched; on the twenty-eighth day the wound showed granulation of the abscess wall with white necrotic bone at the bottom of the cavity. A section of the granulation area was removed and examined; 2 weeks later a second piece was examined which had macroscopically the appearance of ordinary granulation tissue, but microscopically it was found to contain numerous osteoblasts, many trabeculae, some showing distinct calcification, giving a distinct crackling sensation to the knife as the trabeculae were crushed at the time of excision. After the usual antiseptic preparations the tibia was exposed by a cut along the entire length of the crest and the periosteum was easily separated from the dead tibia with elevator and chisel. Its thickness was from $\frac{1}{32}$ to $\frac{1}{4}$ of an inch, thinnest over the middle, and it was covered by scales or patches of calcified tissue; this formed a rigid wall around the necrosed bone. The dead bone was removed as well as the calcified areas on the inside of the periosteal shaft, all suppurating surfaces of the sinuses and all abscess cavities in the soft parts were removed by cautery, curet, and irrigation, the periosteal shaft was closed by deep sutures obliterating the cavity formed by the removal of the necrotic shaft and a solid cord of periosteum in the most active stage of bone production was buried in the center of the leg. The old sinuses, after dissection of their walls to remove all infected tissue, were plugged with iodoform gauze and a plaster-of-paris dressing applied. There was rapid improvement in the patient's general condition; on the twenty-third day the leg was so rigid that the patient could lift it, on the fiftieth day a second operation was undertaken, cureting sinuses out of the upper and lower extremities of the shaft, and an attempt was made to close the lower epiphyseal cavity by osteoplastic flap over the external wall of the malleolus. The wound healed at once, the leg was supported by a posterior skeleton wire splint and the patient got about on crutches. Both sinuses healed 13 months after removal of the dead bone, apparatus was discontinued and the patient used his leg unsupported. The radiographs show the bone has a distinct cortex and medullary cavity. [M.B.T.]

6.—From his own experiments and the results of those of others, Freeman concludes that none of the methods of **sterilizing the hands** are absolutely reliable. The only reliable means of rendering the hands aseptic is to wear sterilized rubber gloves. Cotton gloves soon become contaminated from the skin, but probably do some good if frequently changed by filtering bacteria. Something may be accomplished by prolonged soaking of the hands in hot water, although not as much as by sweating the hands in a hot-air oven, but the sweating method cannot dispose of the microorganisms beneath the nails, and will not be extensively employed because of its inconvenience. [M.B.T.]

7.—Allen describes the sterilizing apparatus manufactured by the Barnstead Pure Water Still Company. This apparatus has been in use for 1½ years in the Lakeside Hospital at Cleveland, Ohio, and has given great satisfaction. It is recommended because of its simplicity of construction, the small expense of multiplying the apparatus, and from the fact that the water is sterilized after its distribution to the operating rooms, avoiding carrying sterile water a long distance with a possibility of contamination. [M.B.T.]

8.—A boy, 8 years old, was taken with severe abdominal pain after a fall. A physician, who was called in, diagnosed peritonitis, but no operative measures were taken. Death followed after 2 days, and at the necropsy it was found that several loops of **bowel** had become **strangulated** by being forced through an **opening in the mesentery** near the ileocecal valve. In his service as coroner's physician, Mitchell has found holes of this kind 3 times in over 1,000 necropsies and in none of the cases was death due to their presence. [M.B.T.]

Journal of Nervous and Mental Disease.

October, 1899. [Vol. 26, No. 10.]

1. Facial Paralysis, Congenital, Unilateral, and of Unique Distribution. F. W. LANGDON.
2. A Case of Cerebral Hemorrhagic Pachymeningitis with Pseudo-Bulbar Palsy. CHARLES W. BURR and D. J. McCARTHY.
3. On Sensorimotor Palsies of the Musculature of the Face with Remarks on the Ocular Palsies of the Early Stages of Tabes. JOSEPH FRÄNKEL.

1.—Langdon reports the case of man, 33 years of age, without **hereditary neuropathic tendencies** or history of any nervous condition. From his birth, which was apparently easy, he has been unable to close the left eye. Phys-

cal examination, aside from slight systolic murmur at the apex was negative. The left eye showed corneal scar and slight conjunctivitis as a result of frequent irritation by dust, etc. It is also hypermetropic, but the vision can be corrected to normal. The right eye is normal. The following muscles failing to respond to electric examination, and were probably absent: occipito-frontalis, the left half of the orbicularis palpebrarum, pyramidalis nasi, the levator labii superioris, alae que nasi, levator labii superioris proprius, and the risoreus. There is a slight diminution of the remaining muscles to galvanism, but they respond to faradism and volition. The disturbance of motion corresponds to the muscles involved. The only other changes were slight elevation of the left side of the palatal arch, deviation of the uvula to the left, and protrusion of the tongue slightly to the right. Sensation and all the reflexes are normal. The case represents, probably, congenital, unilateral, facial paralysis, perhaps due to absence of the musles or incomplete development of the nerves and muscles. [J.S.]

2.—Burr and McCarthy report the case of a man, 43 years of age, a chronic alcoholic, without other distinct history, who had a severe **epileptic convulsion** at the age of 42. This was frequently repeated. When first admitted, there was some paresis of the left side, slow speech, and increased in the reflexes. Later, he became stupid, emotional, and the gait was uncertain. There was a tendency to giving way on the left side. Still later, there was paresis of the left side of the face. There was pronounced dementia, and speech became inarticulate. When readmitted, it was found that there was complete paralysis of the left side of the face, an extreme ataxia in both arms, and all the movements were weak. All the tendon reflexes were enormously exaggerated. Finally, he was admitted a third time, weak, emaciated, and bedridden. The left side of the body was completely paralyzed, and there were some contractures. Tactile sensibility was normal, there was moderate optic neuritis in the right eye, and death occurred apparently as a result of convulsions. At the autopsy, the dura was adherent over the frontal lobes, and on its inner surface a fibrinous pseudomembrane covering the entire convexity of the left side was present. A similar condition was found in the spinal dura of the first cervical and the third thoracic segments, particularly on the ventral aspect. Some small cheesy nodules were found in the second left frontal convolutions, otherwise, the cerebrum was normal. The crus, pons, and medulla were extremely asymmetrical, and the spinal cord was smaller on the right than on the left side. This was due to the fact that on the right side an old degenerative lesion existed, and on the left side a recent degenerative lesion. Microscopically, the pachymeningitis consisted of two layers of fibrous tissue with marked evidence of interstitial hemorrhage. Tuberculosis was evidently the older lesion. There was proliferation of the neuroglia tissue in the cortex beneath the thickening. The small ganglion cells were irregular in distribution and contained a peculiar pigmentation which consisted of granules, some staining black with osmic acid, and some with hematoxylin. Some pigmentary alterations were found in the cells of the other parts of the central nervous system; and rarefaction of the glia around the bloodvessels, or the cerebral paresis of Marinesco and Sérieux. In the spinal cord, in addition to the pigmentation of the cells, there was found by Weigert's method, a descending degeneration in the direct pyramidal tract of the left side, and crossed pyramidal tract of the right, with slight degeneration on the opposite side. By Marchi's method degeneration was more pronounced on the right side. There was degeneration in Loewenthal's tract. The upper cervical posterior roots were compressed. There was old and recent tuberculosis in the lungs. The authors believe that alcohol was probably the cause of the **pachymeningitis,** although perhaps the tuberculosis was also an etiological factor. In the present case, the diagnosis was different because, although late epilepsy with subsequently intense headache, vomiting, hemiparesis, and loss of mental power occurred, the subsequent optic neuritis and palsy of the faucial muscles seemed to indicate the existence of bulbar palsy. The ataxia of the arms, which of course was produced by the cervical pachymeningitis, was also a disturbing symptom. The diagnosis was brain-tumor, and although literally correct, was actually inaccurate because the condition found at the autopsy had not been expected. They conclude that hemorrhagic pachymeningitis is a possible cause of epilepsy in adults, it may be of inflammatory origin, or secondary to alcoholism or tuberculosis, and a pseudobulbar palsy may develop in the course of the disease. [J.S.]

3.—Fränkel reports the case of a man, 42 years of age, who at the age of 29, lost the vision of the left eye. At the age of 39, he had attacks of severe pain in the face and head, followed by failure of vision in the right eye. The station and gait are ataxic, his facial expression is curious; at rest there is apparently a paralysis of the lower two branches of the left facial nerve. When the face is altered in accord to emotional expression, it is found that the left facial upper nerve, and the right lower facial nerve are active, and indeed show a curious overaction, or sort of ataxia. There is some tenderness to percussion, impairment of taste and smell, complete bilateral optic atrophy, but apparently no paralysis of the external eye-muscles on the right side. There is extensive disturbance of sensation in the distribution of the fifth nerves, particularly the left. The tendon jerks in the lower extremity are absent; the cutaneous reflexes are lively. The case is probably one of **locomotor ataxia.** The question that Fränkel discusses is the possible influence of the tabetic disturbance of the fifth nerve upon the movements of the muscles of the face, and he gives a number of opinions from various authorities upon this subject which he admits is at present insoluble. In regard to the ocular palsies, he believes that they are either pathologic occurrences of another nature from the general disease, or share with it a common etiology, or they may be an associated part of the general disease. Practically, both types appear to exist. For the second it seems reasonable to assume primary sensory origin. Twenty-two cases of locomotor ataxia were carefully examined for lesions in the eye-muscles, on the fifth nerve. Three cases gave a history of derangement of the ocular muscles and evidence of disease of the fifth nerve. In the 14 remaining cases, a history of derangement of the fifth nerve was obtainable. In 2 of these cases optic atrophy was the earliest symptom. In 6 cases, in which there was evidence of extensive disease of the fifth nerve, deep sensibility was disturbed in 5. In 16 cases without disorder of the eye muscles, or disease of the fifth nerve, in 9. The deep sensibility of the eyelids was altered in only 3. Fränkel believes that these results indicate that possibly some of the ocular palsies are really sensorimotor in type, and he concludes that disease of the fifth nerve interferes with the motility of the motor nerves, but we do not know how this occurs; our means of examining these conditions, are at present very imperfect. [J.S.]

Centralblatt für innere Medicin.

November 11, 1899. [20. Jahrg., No. 45.]

Strict Milk-Diet in Diabetes Mellitus. Preliminary Report.

W. WINTERNITZ and A. STRASSER.

This report is a brief statement of the results that have been obtained from the use of an absolute milk diet. It is said to have reduced the sugar strikingly, or to have caused it to disappear from the urine within 48 hours. Both in young subjects or in older ones in the forms of diabetes due to obesity, trauma, or shock, it produced this result in cases that had not responded to other treatment. If albuminuria was present the sugar vanished and, usually, the albuminuria soon after became much less, and in certain instances disappeared entirely. The acetone, if present, increased oftentimes, and if it had not previously been present, appeared during the milk-diet. In many cases the use of mixed diet caused a reappearance of the sugar after the milk-cure, but reinstitution of milk-diet caused the sugar to vanish again. It was not certain whether it was best to increase the diet by giving vegetables and cereals, or by giving meat. Some diabetics can be cured entirely by milk-diet and can afterward take large quantities of carbohydrates without any disturbance. One case remained well during 5 months' observation. The first effect upon body-weight is a loss, which is followed by an increase. The ability to assimilate carbohydrates or other kinds is no criterion of the ability to assimilate milk-sugar. [D.L.E.]

Deutsche medicinische Wochenschrift.

October 12, 1899. [25. Jahrg., No. 41.]

1. The Treatment of Asthmatic Attacks. F. RIEGEL.
2. Contribution upon Hydrophobia Immunity. MARX.
3. Extirpation of the Spleen Owing to Rupture of the Organ Through Dull Force, and Concerning Laparotomy in Serious Abdominal Cntusions Generally. F. TRENDELENBURG.
4. Investigations Concerning Intestinal Anastomosis. E. KATZENSTEIN.
5. Concerning Large Cystic Degeneration of the Kidneys and Liver. STEINER.

1.—Riegel first discusses the varieties and the nature of asthma. He considers that any of the divisions that are usually made, such as essential nervous asthma and bronchial asthma, are artificial, since all varieties of asthma are, in his mind, essentially nervous but dependent upon numerous primary causes. The word asthma is frequently used in a false sense as meaning any form of attacks of paroxysmal dyspnea. The nature of asthma is still in considerable doubt, but Riegel believes that the best testimony is that the attack is due to spasm of the bronchi owing to irritation of the vagus nerve. Hence he believes that any treatment that would be successful must be directed toward an influence upon the vagus, the object being to decrease irritation of this nerve. His experience with atropia in doses of ½ to 1 mg. hypodermically during the attack has been most satisfactory. It did not always control the attack, to be sure, but the action was usually extremely prompt and gratifying; the dyspnea in particular soon disappearing and the distention of the lungs rapidly becoming less marked. He is unable to state in how far the continued administration of atropin prevents the recurrence of the attack, but he feels confidence in stating that atropin is very effectual during the attack. [D L.E.]

2—Marx found that certain animals that were injected for other purposes with fixed virus in the peritoneal cavity did not require lyssa. He has thus experimented with 41 rabbits, 4 guineapigs, 1 dog, and 1 goat. His method of treatment was to take the cerebral cortex and basal ganglia of animals who had had lyssa, to emulsify in bouillon, filter, and to inject each week 1 cc. of this emulsion. The results were successful in every case, since in no instance did the fixed virus subsequently introduced beneath the dura cause any infection. The immunity. was not due to anything obtained from the brain substance itself, since emulsion of normal brain never caused any immunity. It is quite possible, therefore, that a **hydrophobia-serum** may be obtained in this way. There has been a general impression for many years that animals who ate the livers of dogs dead of hydrophobia did not acquire the disease subsequently, and that the livers might also be used to immunize human patients. Such a possibility was investigated by giving dogs portions of the extract of the livers of other animals dead of the disease. It was found in every instance that there was absolutely no antitoxic influence to be observed, hence the taking of portions of liver could have no influence in preventing the disease in human patients. [D.L E.]

3.—In **diagnosis of rupture of the spleen,** differentiation from rupture of the intestine or stomach is comparatively easy, but to *be able* to tell whether the hemorrhage is coming from the liver, spleen, or mesentery, is often so difficult that laparotomy will alone suffice to clear up the case. In case of rupture of the spleen, liver, or mesentery, immediate opperation is advisable, but when the stomach or intestine has been torn, immediate operation is demanded, as it affords the only chance for life. Vomiting is a most important guide to diagnosis, because in simple contusion of the alimentary tract it seldom, if ever, occurs, whereas rupture is followed by immediate evacuation of the stomach. Tenderness on pressure and contraction of the abdominal muscles as symptoms of beginning peritonitis are also important helps. [G.B W.]

4.—Katzenstein in a series of experiments on dogs and rabbits demonstrates the value of **glutencasein** in the **suturing of the intestinal tract.** Glutencasein is a proteid substance, which, when brought in contact with the peritoneum, sets up immediately a local inflammation which causes the excretion of the fibrinous exudate necessary for the formation of firm adhesions. [G B.W.]

5.—Steiner was led to diagnose the existence of **cystic degeneration of the kidneys and liver** in the case reported because of intermittent hemorrhage from the kidneys associated with large nodular tumors on each side which apparently were the kidneys, and with large hard prominences on the surface of the liver. The patient died of uremia, and postmortem there were found large cystic kidneys on each side and cystic degeneration of the liver. The discovery of such cystic nodules over the surface of the liver is almost sufficient of itself to lead one to decide that the renal tumors are also cystic. Another case in which the diagnosis was made during life and confirmed by postmortem examination is reported here and the occurrence of these two cases led Steiner to investigate the families of the patients. He found that a son of the first patient had a right-sided cystic kidney; the father's sister had cystic kidney, and several small children had nodular masses over the surface of the kidneys, and slight albuminuria. In the second family there were the patient whose case is here reported and who came to autopsy, a sister and a brother; all had cystic kidneys. Also a son of the brother had a right-sided cystic kidney and several children showed albuminuria. Steiner notes the following points concerning the affection: It is markedly hereditary; the tumors are present in early life and begin to grow in later life; the enlargement commonly appears in one kidney and subsequently the other enlarges. There is probably no strict differentiation between congenital and acquired cystic kidney. The diagnosis must be based upon the hereditary tendency, upon the character of the tumors, the coincident involvement of the liver, and its progressive course. There is little to be done in treatment. Operation may be considered, but is likely to be extremely dangerous. [D.L.E.]

October 19, 1899. [25. Jahrg., No. 42.]

1. Muscular Diseases Accompanying Urethral Gonorrhea H. EICHHORST.
2. The Relation of Leukocytes to the Solvable Bacteria-Material in Animal Fluids. MOXTER.
3. Deafness a Complication of Cataract-Operation. W. MÜHSAM.
4. Two Discretionary Observations upon the Blood-Conditions in the Polnaer Murder-Trial. (1) The Examination of Blood-Stains. L. LEWIN. (2) Professional Opinion. FR. STRASSMANN.

1—Eichhorst reports a case of **inflammatory infiltration of the muscles** on the outside of the right thigh, coming on during an attack of gonorrhea. The first symptoms of the muscle condition appeared on the fifth day after the discharge was noticed, and were characterized by pain and tenderness with a circumscribed infiltration about 8 cm. long and 4 cm. broad. The condition was very slow in getting better, and when the patient left the hospital 2 months later there was still a spindle-shaped hardness in the muscle, though urethral discharge had ceased for 3 weeks. [G.B W.]

2.—Moxter's method of studying the **influence of the leukocytes upon the bacteria** has been to observe the number of granules formed under the influence of fluids containing leukocytes of normal serums. The cholera vibrio was chosen as being an organism which readily shows granulation under the influence of such fluids. Hanging-drops were prepared from the fluid, the same sized drop being always used and the same amount of cholera-culture being added to this. The preparation was kept at body-temperature from 10 to 25 minutes, the granules were counted and the number found was taken to indicate the bacterial action. Exudates rich in leukocytes obtained from the pleura by Buchner's method were compared with serum. It was found in regard to guineapigs that exudates containing leukocytes caused much more granular breaking up than did the serum, a result opposed to that of Shattenfroh, who counted the colonies on plates, but Moxter considers that the number of colonies on plates may be very much reduced owing to the action of agglutination. In rabbits and rats, however, there was very slight difference in the influence of the exudate containing cells and that of the serum. When the fluid obtained by Buchner's method was freed of cells by centrifugation and then compared with serum there was seen but little difference in the two, the serum having slightly more influence. He decides that there is either no influence upon bacteria from the leukocytes or that they at any rate are not the only

sources of the bactericidal substances. He also added to the artificial exudate physiologic salt-solution to prevent coagulation, then centrifugated and washed with salt-solution, then froze the cells obtained two or three times and suspended them in physiologic salt-solution. The leukocytes thus obtained had very little influence in causing granulation of the bacteria, and he says that according to all methods that have been used there is no testimony that the leukocytes themselves are active in the production of the alexins. [D.L.E.]

4.—The authors criticise the **testimony given at a trial** that the blood-spots found were human blood. It was stated that the spots contained blood-corpuscles which, however, were admitted to be of variable size. Various other points of inexactness were to be seen in the report, and there was no mention of the presence or absence of Teichmann's crystals; there was no spectroscopic examination, and no pigments derived from blood were apparentiy looked for. Such testimony is criticised as being extremely dangerous. [D.L.E.]

Archiv für Verdauungs-Krankheiten.

July 15, 1899. [Band 5, Heft 2.]

1. On the Pepsin Question in Achylia Gastrica. J. TROLLER.
2. Studies of the Function of the Human Saliva. SCHÜLE.
3. A Case of Congenital Angulation of the Large Intestine in Its Relation to So-called Congenital Dilation and Hypertrophy of the Colon. F. GÖPPERT.
4. Investigations in the Sphere of Gastric Pathology. G. KÖVESI.
5. The Metabolism with Decreasing and Increasing Ascites. J. MARISCHLER and E. OZARKIEWICZ.

1.—There has been a great deal of discussion as to whether the amount of pepsin follows the same course as that of the HCl in gastric conditions, and especially in **achylia gastrica.** Some authors have insisted that it usually disappears with the HCl. Riegel, however, states that it rarely is entirely absent. Two cases are reported in this paper, one of them being an example of achylia gastrica, the other being considered hypochylia, since a notable degree of total acidity was repeatedly found, but free HCl was always absent and lactic acid was not present. Both of these cases showed some pepsin digestion; its degree was determined by a slight modification of Hammerschlag's method, which consisted in using protogen as the proteid to test digestive power, because this substance is very easily soluble in HCl solution. The first patient, who probably had had no HCl in the gastric contents for 9 years, still proved able to secrete pepsin and some milk-curdling ferment—the zymogen of the latter was not present after a dilution of 1 to 15, while the pepsin digestion varied from 10% to 40%. The second case, one of hypochylia, showed the presence of the zymogen of the milk-curdling ferment in a dilution as great as 1 to 60, and as much as 75% of pepsin-digestion. Troller, therefore, thinks that these cases and others showing the presence of ferments should be called instances of achlorhydria rather than of achylia. He also notes that the prognosis is not the same when the secretory changes have involved the ferments to a considerable degree, as when the secretion of acid only is much affected. The degree of alteration in the secretion of the ferments is an important sign of the extent and severity of the disease of the stomach. Troller then presents a new method of estimating pepsin in the urine. This consists in taking one gram of protogen, adding 100 cc. of 0.2% HCl solution, and warming until the protogen goes into solution. Ten cc. of this is then to be introduced into each of two test-tubes of similar caliber, and into one 3 cc. of urine is introduced, into the other the same amount of water, and both are placed in an oven at 24° C. for 24 hours. After this time they are rapidly cooled under running water, and 5 cc. of Esbach's reagent is added to each. They are then well shaken, the shaking being repeated, and they are examined after 10 to 24 hours, and the percentage then read. He presents some control-studies of this method upon watery solutions of protogen, and decides that it is an accurate method. From his study of cases of gastric disease he decides that there is a distinct parallelism between the gastric power of secreting pepsin in any individual case, and the amount of ferment contained in the urine, and that from the examination of the urine for ferments one can draw conclusions as to the condition of the gastric functions. [This work is of interest, but a study of 10 cases is certainly scarcely sufficient ground for such a statement, and when so inaccurate a method as Esbach's was used to determine the activity of the ferments, it seems probable that this method of investigating the gastric function will become as obscure as that based upon the determination of the urinary chlorids. D.L.E.]

2.—Schüle, in **determining the activity of the saliva,** used a mixture of starch-solution and saliva which was precipitated with alcohol after it was taken from the oven. It was then allowed to stand for a long time, filtered, the filtrate evaporated to dryness on the water bath, and then dissolved in 100 cc. of water. It was then investigated by the polarimeter. He decides from his investigations of the variations of the diastatic power of the saliva at various times a day, that it increases from early morning to past mid-day, reaching its maximum between 11 A.M. and 3 P.M. The activity then slightly decreases. He then presents some observations concerning the importance of saliva in gastric digestion; the experiments being similar to those of Biernacki—food was introduced through a tube at one time and at another time swallowed and masticated. The comparision of the stomach-contents after the two ways of introducing food confirmed the results of Biernacki, Friedenwald, and Sticker. Secretion of HCl in pepsin was much better when the food was swallowed after mastication. (We have in a number of cases confirmed these results.) Schüle believes this due to reflex action of the food when introduced into the mouth, since he has proved that the mere presence of edible substances in the mouth causes secretion of gastric juice. [D.L.E.]

3.—The case reported was that of a child, 5 weeks old, who had been markedly constipated since birth, and for a week had had no bowel movement. The abdomen was enormously distended. The finger introduced into the rectum discovered that 6 cm. or 7 cm. above the anus there was a sudden bend of the bowel forward, and above this there was a wide cavity in the lumen of the bowel that felt almost like the free peritoneal cavity. After removal of the finger, there was an escape of considerable gas and of a fluid stool. Ordinary treatment had comparatively little effect, but it was discovered that the introduction of a catheter allowed of emptying the bowel of its contents, and resulted in considerable reduction in the size of the abdomen. This was repeated, and finally the catheter was tied in, and the child improved greatly, and its bowels kept open. When the catheter was removed, the condition grew worse, and it was introduced once more and kept in the bowel for some weeks, after which bowel-movements occurred the greater part of the time without this drainage, and subsequently, with occasional washing of the bowel, the child did well, and gained health rapidly. The abdomen reduced in size, and became of practically normal circumference, and ultimately the bowel-movements occurred without any artificial aid. The obstruction to the passage of feces was considered due to the angulation of the bowel, and the dilation was believed to be secondary to this. The cases reported by Henoch, Osler, and Hirschsprung are believed to be entirely analogous to this case, except that they were more advanced. Göppert then gives a study of most of the cases of so-called congenital (or idiopathic) **dilation of the colon** reported, and attributes many of them to a similar angulation of the bowels, leaning especially to Roser's explanation of the production of the obstruction and consequent dilation. This author believes that in the folding of the bowel, the side of the wall that forms the smaller and inner angle becomes compressed against the lower portion of the outer fold, and thus acts as a valve. He thinks, however, that it is doubtful whether this explanation or any other yet offered will explain all the cases. [D.L.E.]

4.—Kövesi reviews rapidly the various views that have appeared, and makes some sensible observations concerning the feverish excitement that was evidenced in the attempt to make it possible to diagnose, treat, and generally dispose of all gastric disturbances through an **examination of the stomach-contents.** As to the estimation of HCl, he wisely believes that it is quite sufficient to follow the procedure of Thomson, who determines the total acidity and the amount of the free HCl, and then reckons the difference between the former and the latter, as organically combined

HCl, in case large amounts of organic acids are absent. He has found the percentage of cases of hyperchlorhydria about Buda Pesth is 30.4, which is decidedly lower than the reports from any other place excepting Zürich. He found it most frequent between 20 and 40 years of age; most of the cases examined, however, were in this period of life. The average acidity in his cases was 50, which is somewhat low. He notes that the excess of free HCl is the most striking and common evidence of hyperacidity, but that in some cases when this is not beyond the normal, the clinical picture of hyperchlorhydria is present when the general acidity is high, and that, therefore, these symptoms must sometimes be attributed to the loosely-combined HCl, which is in excess. In investigating the gaseous fermentation, he found that this was usually dependent upon the amount of HCl present, but that a mere presence of considerable amounts of HCl was not sufficient to prevent the occurrence of fermentation. The most important further condition for its prevention is the preservation of normal motility, since stagnation of the stomach-contents is one of the most favorable conditions for development of the microorganisms causing fermentation. In some cases, however, fermentation was found when there was no evidence of distinct loss of motility. He especially notes the relation between gastroptosis and pathologic fermentation. This he has observed in several cases, and he attributes it to a mild weakness in motility which does not make itself markedly evident with the ordinary methods of examination. He has investigated the quantitative changes in pepsin secretion by the method of Hammerschlag. He decides that, with some exceptions, a decrease in propepsin follows a course parallel to the decrease in the amount of free HCl. Pepsin, however, does not always follow this course, and in some cases of anacidity a normal amount was found present. Its secretion, therefore, seems to be to a much less degree subject to nervous influences than does that of the HCl. The increase of propepsin secretion under treatment was not, however, proportional to the increase of the HCl under treatment. When determined after Hammerschlag's method, he decides that the normal peptic digestive power of the stomach-contents one hour after a test-breakfast is between 50 and 60%. There is some relation between the amount of pepsin and the amount of HCl, but their variations are not definitely proportional to each other. Disturbances of the stomach affect the pepsin secretion less then they do the secretion of HCl. In ectasia and atony, the pepsin is usually normal, while in carcinoma it is commonly decreased. [D.L.E.]

5.—The authors report the results of their **metabolism experiments** in 3 cases of ascites with cirrhosis of the liver. These were undertaken in periods when the effusion was increasing, when it was decreasing under rest and medicinal treatment, and also after removal of the ascitic fluid by aspiration. The previous work in this line has tended to show that the albumin of the ascitic fluid was derived from the food proteids. The authors investigated not only the nitrogen metabolism, but also that of the chlorids, the phosphates, and the calcium, and reach the following conclusions: The phosphorus loss was always greater than the amount ingested. This is observed in certain other conditions, as in diabetes mellitus and fever, but in fever it is always accompanied by a nitrogen loss, and in diabetes it is accompanied by loss of chlorids and calcium. In these cases of ascites, none of the other substances investigated showed a loss. Therefore, this loss of phosphorus alone is believed to be a peculiarity of ascites. The general metabolism showed marked differences in the different periods. During the collection of the effusion, there was decided retention of N, Cl, P, Ca, but the amount retained could not be attributed entirely to their retention in the ascitic fluid, since the examination of the fluid removed by aspiration showed that the quantity in it was too small to explain the whole retention. From this, and from the poor general condition of the patient during this time, they reached the conclusion that a goodly proportion of the retention was only an evidence of subnormal metabolism. When the fluid was being absorbed, there was a distinct increase in the excretion, particularly of chlorids and phosphates, and the balance with these two substances was usually negative. The increase affects first the chlorids, and then the phosphates. Aspiration itself had a striking effect, causing a sudden increase of excretion, and it was particularly notable that this excretion affected all four substances determined. It usually ceases on the second day. They attribute this sudden increase in excretion to the improved conditions of the circulation. [Probably a very just explanation and interesting, in view of Oertel's old observation of the rapid reduction of fat after the withdrawal of fluid in cases of loss of cardiac compensation. Oertel attributed this chiefly to more active metabolism resulting from better circulation brought about by unloading the excess of fluid in the system.] A number of other writers have found absorption good in cases of cirrhosis of the liver in spite of marked ascites. In the cases here reported, as much as 12% of the ingested nitrogen was found in the stools. This is a large loss. The absorption was better in 2 cases after the aspiration. The amount of excretion of calcium from the bowel was used in an ingenious, but not altogether trustworthy, way as an indication of the condition of intestinal secretion. This was found much less during the ascites, and increased largely when the fluid was being absorbed or after aspiration. The increase in calcium excretion was associated with a decrease in the amount of nitrogen in the stool, then this indicating better absorption and secretion. They can give no definite answer to the question as to whether the albumin in the ascitic fluid is derived from food albumins or body albumins, since there was always retention of nitrogen during the collection of the fluid. It was, therefore, difficult to say, whether the nitrogen in the fluid came from the food or from the tissue. [We cannot express unquestionable faith in the work on the metabolism of Cl, P and Ca, since the amount ingested was determined for each whole period by one estimation. Our experience in similar metabolism work is that these salts vary so greatly in food, that results are untrustworthy, unless the amount ingested is determined for each day. D.L.E.]

Archiv für Psychiatrie.

[Band 31, Heft 3.]

18. A Case of Pain in the Back and Weakness of the Lower Extremities Caused by Accident. Anatomic Examination. Nonne.
19. A Case of Hematomyelia in the Cervical Cord. Artificial Anomalies of Configuration, and the So-called Neuroma Verum of the Spinal Cord. H. Wille.
20. Clinical and Pathologic Anatomic Contributions to Microgyria. Bresler.
21. The Significance of the Sensible Sensorial Disturbances in Hysteria and Epilepsy, and their Relation to Attacks. Richard Richter.
22. A Contribution to the Knowledge of the Infectious Granulomas of the Central Nervous System. O. Juliusburger.
23. The Accountability of Hysteric Subjects. Fürstner.
24. The Blood and its Bactericidal Relations to the Staphylococcus Pyogenes Aureus in General Paresis. H. Idelsohn.
25. Remarks upon the Preceding Article of Dr. Idelsohn. F. Jolly.
26. Pathologic Anatomic Findings in Delirium Tremens, with Remarks upon the Structure of the Ganglion Cells. E. Trömner.
27. Contributions to the Knowledge of Cavity-Formation in the Human Spinal Cord. A. Pick.
28. A Case of Chronic Meningomyelitis with Disease of the Spinal Ganglia and Degeneration of Certain Posterior Lumbar Roots, and their Intramedullary Continuation. R. Henneberg.
29. An Interesting Case of Gliomatous Infiltration of Both Cerebral Hemispheres. Carlo Ceni.
30. Changes in the Cornu Ammonis in Epileptics. Bratz.

[The numbers correspond to those in the *Archiv* and are volume numbers,]

18.—After a brief review of the literature of the **pathology of traumatic neurosis,** Nonne reports the case of a man, 45 years of age, who was struck a severe blow in the lumbar region. He was able to continue work for an hour, but the following day found that he could not stoop, and had severe pain in the back and legs. The eleventh and twelfth dorsal vertebras were painful. The third lumbar vertebra was prominent. There was motor weakness in both

legs, and increase of the tendon reflexes. The prominence of the third lumbar vertebra disappeared after 4 months, also the tenderness to pressure. As symptoms of tuberculosis appeared after 13 months' residence in the hospital, the patient was dismissed. It was noted at this time that pressure upon the head and shoulder caused severe pain in the lumbar vertebra. Forward bending of the spinal column was impossible. The tendon reflexes were increased. The patient was readmitted about a year later with pulmonary and intestinal tuberculosis. He still complained of pain in the back and weakness in the legs, and there was general hyperesthesia. Death occurred as a result of the pulmonary complication, and careful examination showed the absence of all pathologic changes in the lumbar vertebra, particularly any form of tuberculosis. Certain cavities were found in the bodies of the vertebras, however, which control-preparations showed existed in the vertebras of other patients suffering from phthisis. Microscopic examination of the spinal cord was also completely negative. The case, therefore, represents a functional neuralgic pain in the back, and shows that in similar cases there is no pathologic basis, according to our present knowledge, for the disease. [J.S.]

19.—Wille reports the case of a man, 27 years of age, who developed **epilepsy after injury to the head,** and during an attack struck his head against the ground. He remained cyanosed, respiration became labored, but he was restored to consciousness by artificial respiration. All four limbs were paralyzed. The tongue was anesthetic, there was complete anesthesia below the neck, but movement and sensation were preserved in the head. The limbs were not spastic. The right kneejerk and cremasteric reflex were normal, the left reduced. The plantar reflexes were still present but weak. The patient suffered from severe thirst, pain in the heels and neck. Death occurred as a result of gradual respiratory failure on the second day. At the autopsy, a hemorrhage into the substance of the spinal cord was found in the fourth cervical segment. In addition there were alterations in the arrangement of the white matter, resembling the neuroma verum of v. Kahlden, and an ascending degeneration in the right column of Burdach beginning at the level of the seventh cervical nerve. The hemorrhage had partially destroyed the gray matter at the level of the third and fourth cervical segments. On the left side the posterior horn was completely destroyed. The fibers of the white substance were completely dislocated, forming a complex tangled mass. Many of the axis cylinders were swollen and stained intensely. The cells of the anterior cornu showed marked degenerative changes. The pia mater, aside from a few insignificant hemorrhages into the substance, was uninvolved. In the region of the second cervical segment, the white substance of the posterior columns appeared to protrude through the pia mater, forming a prominent tumor-like swelling. [J.S.]

20.—Bressler reports **two cases of microgyria.** The first, a girl of 13, had had severe convulsions during teething. She never learned to talk, was idiotic, the tongue was enlarged, swallowing was imperfect, and there were frequent convulsive attacks. Death occurred as a result of pulmonary tuberculosis, and at the autopsy a large porencephalic opening was found in the situation of the left silvian fossa. The operculum was not developed. The convolutions were small and the sulci imperfect. On the right side the silvian fossa was unusually wide, and the convolutions were better marked. Microscopically, the atrophic gyri showed the presence of tangential fibers separated in many places by small projections from the pia mater, which in some situations was markedly thickened. There was proliferation of the bloodvessels, and toward the surface of the cortex, also of the neuroglia. Numerous cells were found in these areas. The second case was in a woman, 39 years of age, who had had convulsions in childhood. There had been arrest of mental development, and of bodily growth. The head was small, speech was imperfect, movements all normal, but slightly paretic, and the hands and feet were cyanotic. The patient died of marasmus. The brain weighed 810 grams, the pia mater was not adherent, and there were areas, particularly in the occipital lobes, in which the convolutions were narrow and tortuous. On cross-section these small convolutions resembled the branches of algae. There was considerable proliferation of the vessels and an unusual number of neuroglia cells. The pia mater sent trabeculae of connective tissue into the brain-substance. Bressler regards both cases as the result of an inflammatory process in early life. The first, as a result of exudative meningitis in the region of the frontal lobes, or else of an acute hydrocephalis. The second, as a result of inflammatory changes beneath the pia mater, giving rise to the separation of the convolutions by the pia mater. He regards the process as a purulent leptomeningitis, excluding encephalitis on account of the bilateral distribution of the lesions. He calls attention to the symmetric arrangement of the abnormal parts. [J.S.]

21.—Richter has investigated 71 cases of **hysteria,** 49 of **epilepsy,** and 8 of **hysteroepilepsy,** with regard to the disturbances of general and special sensation. He regards as hysteroepilepsy those cases in which, besides typical epileptic convulsions, hysteric manifestations were present. The results are presented in tabular form, and from a study of them he draws the following conclusions: that the concentric narrowing of the field of vision in hysteric and epileptic patients is, as a rule, the result of subjective nervous depression and psychic disturbances. Attacks cause a greater narrowing of the field of vision as a result of an increase in both these conditions. As a result of psychic influence, during the examination, it is possible to obtain a normal visual field with the perimeter. In none of the 128 cases was there an objective concentric narrowing. In the majority of hysteric cases, there is no inversion of the color-fields, but from time to time transitory inversion may be observed. No disturbance of sensation, not even hemianesthesia, is of itself of differential diagnostic importance in hysteria and epilepsy. There is no rule in regard to the appearance of anesthesia after hysteric attacks. Sensory disturbances are usually worse, and disappear with the improvement of the general condition. Sensory disturbances after epileptic attacks appear to follow no rule in their occurrence. They are rare and without significance. [J.S.]

22.—The patient, a man 29 years of age, had had luetic infection 10 months previously. Eight months after this it was noticed that he suffered from alteration of character and general weakness of the body. There was slight fever, and the characteristics of hallucinal insanity. The patient suffered from general hyperesthesia. There were no subjective signs of syphilis, and no other disturbances of sensibility. The fever after admission was exceedingly irregular, and sometimes reached 39.7° C. At the autopsy, aside from apparent loss of tone in the heart-muscle, no gross lesions were found. There was hyperemia of the membranes and of the substance of the brain and cord. Microscopically, changes were found in the entire central nervous system, particularly in the cord. There was a round-cell infiltration of the pia that extended into the substance of the spinal cord and brain. There were no indications of the existence of either tubercles or gummas. The round cells were accumulated particularly in the perivascular lymphatic spaces, but also extended here and there into the intervascular tissue. The bloodvessels were dilated and filled with blood. In the cerebellum there were **numerous recent hemorrhages into the white substance without alteration of the bloodvessels.** By Marchi's method, numerous degenerated fibers were found in the cord, and by Nissl's method the cells of the anterior cornua exhibited a diffuse granulation. The authors conclude that their case belongs to the group of **infectious granulomata.** They exclude leukemia on account of the absence of splenic or lymphatic enlargement, and of leukocytosis. They mention a case of diffuse carcinosis of the central nervous system, in which similar lesions were found. They hesitate to regard it as syphilitic because there were absolutely no other changes that could be so regarded in the tissues, and there was no formation of gummata. [J.S.]

23.—Fürstner discusses the **accountability of persons suffering from hysteria.** He does not believe that any considerable portion of the criminal class is hysteric. The hysterical attacks are usually followed by depression, rarely preceded by psychic prodromes. Of course, it depends largely upon the severity of the condition as to whether the patient can be regarded as responsible for his conduct—thus, the degree of amnesia following the attack is to a certain extent an indication of the disturbance of consciousness. The statements of all hysterical cases are by no means to be treated with incredulity. Rather, each case must be judged upon its own merits, and the presence of other factors of disease are exceedingly important in estimating its nature.

Fürstner is convinced that the majority of cases of hysteria are far more responsible in all their conduct than a similar number of cases of epilepsy. [J.S.]

24.—Idelsohn has carried out a number of experiments with the object of determining whether the **blood-serum of patients suffering from paretic dementia possessed any bactericidal qualities.** The blood was collected by means of an ordinary scarifier and a peculiar form of wet-cup, that could be sterilized and then exhausted after being placed in position upon the skin. The latter was, of course, carefully sterilized before removing the blood. Ordinarily, from 5 to 8 cc. are sufficient. He notes that the amount of clotting did not proceed with the same rapidity in all cases. Staphylococci were employed for the tests which were made of portions of bouillon-cultures, added to tubes of the serum. From these tubes, plate-cultures were made at intervals of from 1½ to several hours. Controled tests were made with the blood of normal individuals. Altogether, 38 epileptics were used, 11 normal persons, 6 cases of locomotor ataxia, 4 degenerates, 2 cases of hysteria, and 1 of alcoholism. The results were as follows: (1) in normal and nonparalytic individuals, a bactericidal action was obtained and was most pronounced between the second and third hour; (2) this frequently fails completely in the blood of paralytics, or if present, is very slight; (3) in those cases to which from 1 to 1½ grams of chloral hydrate had been administered on the previous day, the blood-serum sometimes exhibited a distinct bactericidal action, and Idelsohn ascribes this to the slowly excreted chloral hydrate that remained in the system; (4) the blood-serum of tabetics exhibited a bactericidal action; (5) the absence of a bactericidal action is a specific quality of the blood-serum of paralytics. It cannot be explained by disturbances in general nutrition, or by alterations in the blood, but may possibly be explained by assuming an alteration in the alkalinity, by a decrease in the amount of NaCl or perhaps by an alteration in the leukocytes, and in the alexins produced by them. No bacteria are found in the blood of paralytics. The reaction may be of service for the purpose of making a definite diagnosis in the early stages of doubtful cases, [J.S.]

26.—Trömner has investigated **microscopically the central nervous system and spinal ganglia of 7 cases of delirium tremens.** In 6 of these cases the material was obtained in less than 10 hours after death, and in the seventh, 15 hours after death. All the specimens were examined by the Weigert-Pal, Nissl, Weigert's neuroglia stain, and a nuclear stain. The tissues were fixed in Flemming's solution, alcohol and Müller's fluid. Numerous control-preparations were also made. After a brief review of the normal and pathologic anatomy of the cells in the central nervous system he gives a short clinical description of each case, followed by an analysis of the results of the microscopic investigation. The changes were quite uniform, and consisted essentially, first, in thickening of the walls of the arteries, proliferation of the connective tissue in the media, and dilatation and infiltration of the lymph-spaces. These changes were more pronounced in the cortex, and frequently led to minute hemorrhages, as many as two hundred of these having been counted in a square centimeter of the cortex. The capillaries appeared to be proliferated, particularly in one case, but they and the veins showed no pronounced anatomic alteration. The neuroglia fibers of the cortex showed, according to Weigert's new method, considerable proliferation. The Weigert cells were more numerous than normal. The free nuclei, both the small and large varieties, were increased in number in the second and sixth layer of the cortex, and appeared to be accumulated around the degenerating cells. The spinal cord was apparently normal. There was no degeneration of the fibers in the spinal cord, but the tangential fibers of the cortex were somewhat thinned. The changes in the cells were, as is usual in such cases, limited to certain cells, and not uniform. In the spinal ganglia, the cells stained less distinctly. The nucleus was contracted, and in the end its membrane appeared to have become dissolved; the nucleolus showed a curious angular deformity. The cells of the anterior cornua showed in the lumbar region central chromatolysis without staining of the ground-substance, and an increase in size and decrease in part of the chromaphilic bodies, with alterations in the nuclei. In some cases, vacuolation of the cells had occurred. The cells of Purkinje showed slight change or no alterations. The pyramidal cells of the cortex were usually degenerated, showing contraction, alteration of the nucleus, and alterations in the ground-substance. The giant pyramidal cells of the paracentral lobule were nearly all diseased. In general, it was noted that the parietal and occipital regions were less affected than the others. Trömner discusses the possibility that the changes were artefacts due to postmortem processes, the result of other diseases, or simply accidental monstrosities, but finds that no such explanation is acceptable. He therefore concludes, that even uncomplicated cases of delirium tremens show a variety of pathologic anatomic changes which affect the bloodvessels, neuroglia fibers, and cells. The alterations do not correspond to those produced experimentally in animals, but some of them appear to be the result of an acute and some of a chronic process. [J.S.]

27.—Pick describes 10 **spinal cords characterized by various anomalies of the central canal or by the formation of cavities** in the cord and cells. The paper is more valuable by the number (85) of illustrations reproducing various portions of the spinal cords which are described. He reaches the conclusion, as the result of these studies, that anomalies of development are probably the most important etiologic factor concerned in the reproduction of these changes. He does not believe that slight degrees of hydromyelia should be looked upon as trifling, for even a small distention of the spinal canal may lead to disarrangement of the fibers in the gray commissure. The cases themselves can only be described very briefly. The first, a paretic, had an abnormity of the central canal, and moderate granular cell-myelitis of the lateral columns. The central canal in the cervical region extended as a crescent, with the horns pointed posteriorly into the posterior cornua. Lower down, it became more or less distended in the central part, and exceedingly irregular in shape. In those situations where it was largest, the lateral extensions into the cornua were retracted, which Pick explains by supposing that the lumen remained constant, but that the shape varied. There was moderate sclerosis of the nerve-tissue in the immediate vicinity of the dilated canal. This was not cavity-formation, for it was lined everywhere by a cylindric epithelium, and Pick considers unquestionably that it is a congenital anomaly. The second patient died of polyneuritis, and showed in the cervical region an irregularly four-sided cavity lined with epithelium. This sent diverticulums towards the posterior septum and the two posterior cornua. The canal rapidly contracted in the lower portions of the cord, and in the lower cervical region was practically normal. In the upper dorsal region it again dilated somewhat. There was a moderate proliferation of the neuroglia tissue around the canal, particularly marked in the posterior portion. Pick believes that the proliferation of the neuroglia probably occurred at the time the anomaly in the central canal developed. The third patient, a paretic, had in the cervical regions a cavity formation. In the dorsal portion of the cord, there was in the right posterior column an area of sclerosis that caused deviation of the septum. Higher up, this grew larger, and had in its center a cavity which rapidly enlarged and at first showed no trace of an epithelial lining. The posterior cornu in the region of this cavity was distinctly thickened about its center. At the same time, the central canal, which had previously consisted of an irregular mass of glia-cells, became more dilated, and sent a diverticulum out posteriorly into the sclerotic area which was lined with epithelium. Further up both the sclerosis and the central canal diminished somewhat in size; the latter again broadening out to an extensive hydromyelia, and then contracting to form a number of small canals that again united into one. The curious feature was the discovery in the sclerotic tissue of objects resembling ganglion-cells. The position of these can only be explained by assuming a congenital heterotopia, although Pick does not dogmatically state that the whole condition is necessarily fatal. The fourth patient, a case of pons tumor, showed a small cavity in the anterior two-thirds of the left posterior cornua at the level of the fifth cervical segment. There was slight degeneration in the column of Goll, and a cleft surrounded by sclerotic tissue. There was proliferation of the bloodvessels in this tissue, which, with the cavity, increased in size, and extended further posteriorly in the higher regions of the cervical cord, but gradually again

diiminished and disappeared almost completely, together with a vascular proliferation. The central canal was normal throughout, and there was no reason to suppose that the cavity had any connection with it. A few typical multipolar ganglion-cells were found in the sclerotic area, and according to Pick indicate that it was originally dislocated gray matter. The interesting feature is the association of this lesion with a glioma of the brain. The fifth case was in a woman with brain-tumor which was situated in the anterior portion of the corpus callosum. There was very pronounced proliferation of the neuroglia tissue in the posterior columns just behind the posterior commissure. In this region there were no myelinated nerve-fibers, but there were a number of bodies that can only be looked upon as ganglion cells. The sixth patient, a man of 74, had, in the upper portion of the cervical region, a slight diffuse increase of the neuroglia, with sclerosis in Goll's column. At about the level of the sixth roots, the canal became very much wider, and then became divided into two parts; the anterior lined completely by epithelium, the posterior only on the anterior edge. The sclerotic process surrounding the canal gradually extended into the anterior cornua at the level of the eighth cervical roots. The canal became smaller and gradually contracted to the size of an abnormally wide central canal. In the sclerotic tissue in the neighborhood were homogeneous ganglion-cells without nuclei. Lower down the canal disappeared, and was replaced by a mass of epithelial cells, and still lower, a cavity appeared which occupied the left posterior cornua, and extended into the anterior cornua. This cavity commenced about the fourth dorsal segment and was lined with epithelium which disappeared two segments lower. The case is interesting because the typical changes of syringomyelia were associated with congenital anomalies of the central canal. The seventh case, one of brain-tumor, is interesting because a second tumor pressing upon the cord had caused pressure and softening, with the formation of a cavity in the left half of the gray substance, and sclerosis, and increased vascularization of the white substance of the left lateral columns. Pick admits that it is not possible to exclude a congenital cavity-formation complicating the presence of the tumor. The eighth patient, a case of infantile tabes, showed a peculiar arrangement of the central canal in the conus terminalis, which gradually broadened out and frequently divided into two or three separate canals, each lined with epithelium. The ninth case, an idiot, had a dilated central canal in the cervical region with accumulation of epithelial cells on either side, and the formation of an area of sclerosis in the left posterior column. The central canal in the lower portions of the cord became divided into two cavities, placed sagittally, both lined with epithelium. Finally, Pick records a case which was examined too late to be included in the paper. A man had had fracture of the spinal column, and showed a projection from the gray substance into the posterior septum. This increased in size, and gradually developed a large cavity in its center. It gradually diminished and disappeared. He regards it as an anomalous formation associated with change in the central gray substance. [J.S.]

28.—Henneberg reports a case of an unmarried woman, 30 years of age, who was brought to the hospital with complete **flaccid paralysis of all four limbs.** At the age of 17 she had fallen from a wagon, and although no serious wounds had been noted at the time, she had suffered afterward from pain in the head and back. At the age of 28 she noticed a tingling and weakness in the left arm. A few months later there was an apoplectoid attack, associated with sudden increase in all the symptoms. There was then gradual improvement, but later headache recurred, accompanied by vomiting, dyspnea, pain in the back, and increasing weakness in the legs. The gait became worse, and there were occasional twitchings of the muscles of the face and arms. Intelligence remained normal. Shortly before admission to the hospital, she had strained herself in certain exercises and suddenly became paralyzed, first in the arms, and then in the legs. The limbs were at first slightly contracted, and then relaxed. There was a feeling of dizziness, profuse perspiration, and occasionally dyspnea. Vision was diminished. There was nystagmus in all positions of the eye, and the pupils were slightly unequal, but reacted to light. The tendon reflexes of the arms and the kneejerks were absent. The Achilles-tendon reflexes were increased, and there was bilateral ankle-clonus. The muscles reacted normally to electricity; sensation was not involved, and there was slight tenderness over the spinal column. Examination of the eyegrounds showed pronounced papillitis. The muscular sensibility was lost in all the limbs. Considerable improvement occurred in motility. The patellar reflexes returned, and the papillitis disappeared. Death occurred, however, as a result of paralysis of the respiratory muscles. At the autopsy there was found a meningo-myelitis involving particularly the cervical and dorsal regions of the cord. This was associated with ascending and descending degeneration, and inflammatory changes in the spinal ganglia. Some of the posterior roots in the lumbar regions were degenerated, and there was more or less alteration in the muscles. During life, a lumbar puncture had been made, and 12 cc. of liquid withdrawn. It contained no tubercle-bacilli or other microorganisms. Microscopic changes in the cord showed leptomeningitis and pachymeningitis; the latter being in part external, a diffuse myelitis in the cord itself characterized by increase in size of the trabeculæ; and proliferation of the ganglia with the formation of heterotopia in the gray substance. The bloodvessels were overfilled, and in some the adventitia was greatly thickened, sending septa into the surrounding tissue. In the dorsal portion, the cells of the anterior cornua were not greatly altered, but in the cervical portion the ganglion cells were swollen and stained more or less diffusely. In the medulla and pons were found degeneration of the columns of Goll and Burdach and of the restiform bodies. Marchi preparations showed numerous black points in the fillet in the neighborhood of the corpora quadrigemina. In the spinal ganglia considerable changes were found in the cells. Sometimes the capsules were thickened and infiltrated with round cells. Henneberg calls attention to certain interesting features in the case. In the first place, the degeneration of isolated roots in the lumbar region enabled him to make certain observations upon the structure of the posterior columns. Only a small number of the fibers arising from the fourth lumbar root passed into the posterior median root zone. No deep descending degeneration, however, could be observed, but it appears that the majority of the fibers arising from the lumbar roots passed up through the middle-root zone. The peculiar symptoms connected with the kneejerk are explained by the unusual combination of degeneration of the lumbar roots and sclerosis of the pyramidal tracts. The degeneration of the roots was probably secondary to the alteration in the spinal ganglia. Henneberg calls attention to the infrequency of cases of this nature. He is unable to suggest any satisfactory etiology. Syphilis appears to be thoroughly excluded. There was no reason to suspect tuberculosis, and there was no history of an acute infectious disease, such as cerebrospinal meningitis. He is therefore compelled to assume that the traumatism received 11 years before the development of the symptoms had something to do with them. The complete loss of the position-sense of the limbs is probably due to the diffuse myelitis of the cervical cord, and not merely to the slight degeneration in the posterior columns or the lesions of the ganglia. The paralysis must be explained on similar grounds, because the changes in cells in the anterior cornua were too slight to account for it. Moreover, it occurred very suddenly, as if there had been some break in the continuity of the fibers. The muscle-tonus remained good throughout the course of the disease. The papillitis may be accounted for by supposing that the disease of the membranes of the cord extended to those surrounding the optic nerve, or by imagining some toxic substance circulating in the cerebrospinal fluid. [J.S.]

29.—Ceni reports the case of a boy, 9 years of age, who had received an injury to the head without loss of consciousness. From this time he seemed less energetic than usual, his eyesight diminished rapidly, and there was increase of the tendon reflexes, and later a right-sided paralysis of the facial nerve and disturbance of gait. Five months after the injury he was admitted to the hospital and found to have ataxia of both arms, with loss of power, and intention-tremor of the right; the feet were in the equino varus position. There was bilateral clonus, and exaggerated kneejerks; Romberg's symptom was not pronounced; there was diminution of pain-sense, but the electrical reactions were normal. The intelligence was diminished, the patient only spoke when questioned, and there was little tendency to spontaneous

movement. He developed spasms, complained of headache, the motor symptoms increased, there was bilateral choked disc, and death from exhaustion. At the autopsy, a **large glioma** was found, which upon microscopic examination apparently involved almost the entire white substance of the brain. It was more extensive on the left than on the right side. It was of a peculiar gelatinous consistency, consisting of ganglion-fibers, among which were a very few cells supplied with long processes. A curious feature to which Ceni calls particular attention, was the fact that the processes in the neighboorhood of the lymph capillaries extended to them; their ends were dilated in funnel-shape; these processes itself were thicker, and occasionally apparently tubular. He regards the case as one of glioma, for the cells involved both hemispheres, but originated in the left, extending to the right along the corpus callosum. [J S.]

30.—Bratz classifies the **causes of epilepsy** under three heads: heredity, which is apparently present in the vast majority of cases; intoxication; and finally, irritation or extirpation of certain portions of the cerebral cortex. If the latter factor is correct, we should find in the brains of epileptics certain manifest pathologic changes, and in fact, some authors, as Chaslin, Köppen, Bleuler, and others, have described such alterations, consisting essentially in proliferation of the neuroglia. Bratz has examined 70 brains obtained from cases of epilepsy. Fifty of these gave typical clinical pictures; and their brains were examined with reference to the question of the sclerosis of the conu ammonus. Twenty-five showed no change whatever in this region, nor was there any change to be detected microscopically in the motor area of the cortex. In one case, in which the symptoms had been pronounced since the fifth year, psammomas pressing upon the frontal region were discovered, and a cyst filled with cholestearin was found in the corpus striatum. Altogether, 8 cases only showed focal lesions. In the other 25 cases, the cornu ammonus was diseased on the right side 11 times, on the left 13 times, and on both sides once. The changes were practically identical in all. They consisted of an atrophy of the pyramidal cells in the third layer, which sometimes extended a considerable distance towards the termination of the gyrus. Sometimes these cells had almost disappeared; in other cases they contained yellow pigment. In the stratum granulosum, the cells were not uniformly atrophied, some apparently escaping the process. The myelinated fibers proceeding from these cells showed a corresponding degree of atrophy. The subependymal layer, however, was in all cases normal. These atrophied structures were replaced by a dense network of neuroglia fibers, but a pathologic formation of this tissue could not be detected. There appeared to be no difference in the changes presented in the old and young cases; that is to say, old epileptics did not apparently show a more advanced stage of the process than those in whom the disease had existed for a very short time. No distinction could be observed in the clinical symptoms of the two groups; those with the ammon horn so altered having approximately the same type of symptoms as the others. Three of the cases never had grand mal, and, therefore, the sclerosis cannot be ascribed to excessive discharge of motor impulses. These were all cases of late epilepsy, but other cases of late epilepsy failed to present lesions. In one case of pronounced cerebral gliosis, the cornu ammonus was not involved. Bratz does not believe that these changes are secondary to the epilepsy, but he is rather uncertain in regard to their etiologic connection with that disease. [J.S.]

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1.—An important anatomic point in connection with **shot-wounds of the pericardium,** is that sometimes the surface whereby the pericardium is attached to the sternum is very limited, and does not extend out over the rib cartilages, the pleura therefore covering much more of the heart. Tanja even states that without trephining the sternum or resecting a cartilage it is impossible to perform paracentesis precordia without opening the pleura. But the lung does not fill up the pleural cavity by some 2 cm., so that a shot-wound of the heart may readily occur without injury to the lung. The diagnosis of gunshot injury to the pericardium is to be made by the position of the external wound, by increase in the area of the percussion dulness of the heart, and by a compensatory tympany surrounding the dulness. The secondary symptoms vary greatly, and are dependent on infection or noninfection of the blood in the sac. The complications which may arise depend on what other organs have been injured. The treatment should at first be conservative; perhaps the tapping of the pericardium, to draw off the blood when the hemorrhage embarrasses the movements of the heart, may be necessary; but rest and morphin are the main remedies. When, however, secondarily, the exudate increases sufficiently to greatly embarrass the heart or there develops high fever, and the general condition is bad, pericardiotomy should be performed. The incision should be made so as to include the bullet-track, and enough of the sternum or ribs resected to allow of quite extensive opening of the pericardium. The wound should be kept open with gauze until the exudate becomes normal in character. The emptying of the fluid from the pericardial sac should be done very gradually. [G.B.W.]

2.—Out of 60 cases of **foreign bodies in the knee and elbow-joints,** 36 were the result of osteochondritis desiccans. Of the 36, 19 occurred in the knee and 17 in elbow-joint. Osteochondritis desiccans is a disease of young adults and is especially frequent in men. The disease begins with rheumatoid pains in the joints which gradually increase, and is followed by the snapping, joint-effusions and other symptoms characteristic of foreign bodies in the joint. In the 36 cases there were 48 bodies found, 21 still appended to the joint-tissues, and 27 perfectly loose. The growth of the foreign body is progressive; at first it is only an elevation surrounded by a groove in cartilage. This condition increases until the protruberance is separated from the cartilage and becomes loose in the joint-cavity. Osteochondritis desiccans holds no relationship with arthritis deformans. Trauma plays an important etiologic role. [G.B.W.]

3.—Kocher reports the **cure of** 6 cases of **epilepsy through operative treatment.** These cases were

operated on in accordance with his theory as to the etiology of epilepsy. This theory is based on personal experience, statistics of various leading surgeons, and finally on experimental research. It is shown that the development of epilepsy is due to increased intercranial pressure and not to the adhesions, scars or foreign bodies so often found in cases of traumatic epilepsy and blamed for its production. The reasons for this view are as follows: The epileptiform seizures stop as soon as the dura is opened; those cases in which the dura has been opened show a greater proportion of cures than those in which it is not opened; cures are the most permanent in those cases where the tissues filling out the trephine opening remain the most elastic and pliable; experimentally the placing of aseptic foreign bodies within the skull does not cause epilepsy, whereas frequent blows on the head, after Westphal's method, quickly produce epilepsy, and examination of the cranial contents shows an enormous increase in the amount of liquid, up to four or five times as much as normal; finally operative experience shows that in cases of epilepsy, so long as continuous drainage can be kept up or the tissues covering the skull-opening remain soft, so long the patient remains free from epilepsy. But as soon as the drainage stops or the tissues become rigid the epilepsy returns. The operative treatment should therefore be directed towards the continued removal of intercranial pressure. This may be done in two ways: either by continuous drainage, which is best accomplished by the introduction of a subcutaneous silver tube, or by the removal of a large piece of the skull and the forming of an expansile covering for the brain. [G.B.W.]

4.—Krönlein reports 5 cases of **gunshot-wound of the head made by the Swiss repeating army-rifle,** 1889 model, with the weapon held close to the head. Four of the cases presented most ghastly wounds, the skull being crushed into splinters and the brain mashed into a pulp. In one case the whole brain seemed to have been driven bodily out of the skull-cavity. The only one of the 5 cases that lived showed comparatively little, yet still considerable injury. The ball entered just above the left eye and came out through the right temple, and through both openings the brain-substance oozed. The wounds were dressed antiseptically and the patient made a complete recovery. [G.B.W.]

5.—Gangrène foudroyante is an intense wound-infection which causes progressive necrosis of the tissues with the formation of gas. The infection is generally caused by earth or dust gaining access to the wound after the injury. It spreads through the lymphatics, and death results from septicemic intoxication. The pure form of fulminating gangrene differs from a phlegmonous cellulitis in that there is a destruction of the muscle instead of the connective tissue, and clinically the disease progresses without the changes of inflammatory reaction. There is emphysema of the tissues, the limb is cold, bullae form on the epidermis, the veins show dark through the skin, the tissues are soaked with a hemorrhagic serum, and necrosis of the muscles supervenes. A mixed infection sometimes takes place, and there are added to the above symptoms those of intense inflammation. The exciting cause of gangrène foudroyante has been variously ascribed to the bacillus of malignant edema, an anerobic bacillus described by Welsh, Flexner and E. Fränkel, proteus (Hauser), and the Bacillus coli communis with diabetes. The disease is so rapid that early amputation high up is the only treatment of any avail. [G.B.W.]

6.—Schloffer tells of the **leather operating glove** used in Wölfler's clinic in Prague. The gloves should be of good quality leather, not too thin. They are rendered sterile by the following method: Wash with soap and hot water and place in a 5% lysol solution for at least 14 days, then into a 2% lysol solution, and finally washed out in a 1% solution just before being used. From this 1% lysol solution they are put on the hands, and after squeezing out the superfluous solution are used while still wet. The gloves are rendered absolutely sterile by this method, and numerous experiments have shown them to be impervious to the passage of microorganisms through them. To some extent they destroy the tactile sense of the fingers, but possess, the advantages of giving a firm hold on tissues, ligatures, sutures, instruments and other objects. [G.B.W.]

8.—Perthus, after a careful study of 2 cases of **noma,** in both of which he obtained the identical results, gives the following observations: Noma is a mycosis, a predisposition toward which is created, in children, by infectious diseases such as measles and typhoid, and by bad general nourishment. The exciting cause is a germ whose botanical position is half way between the bacilli and the higher organized hyphomycites. This microorganism belongs to the streptothrix, and this particular variety may form in the diseased tissue long threads of considerable strength. From the larger threads, finer ones branch out and run into the healthy tissue and so fill up the necrotic tissue as to make it seemingly a mass of mycel. The finest ends of the threads are twisted like spirillae and these ends force themselves into live tissues and surround the cells so as to cause their death. It was found impossible to infect animals with this streptothrix. [G.B.W.]

9.—Welcke describes a **new method for staining the cilia of bacteria,** for which he claims most excellent results. It is as follows: (1) Prepare a good, young culture on agar (culture not over 24 hours old); (2) prepare a clean and well-flamed slide; (3) carefully avoiding a lowering in the temperature, make a suspension of the bacteria in water by placing one oese full of culture in a watch-crystal full of water; (4) smear diluted culture on slide with a fine, small, oese; (5) dry in the air and draw quickly through Bunsen-burner flame 3 or 4 times; (6) as soon as cooled put in a cold mordant for 20 minutes; (7) thorough washing in a very weak stream of water; (8) remove excess of water; (9) treat with an ammoniated solution of silver oxid, warming over a flame until a vapor is given off, wash, and remove excess of water; (10) dip in a 1% $HgCl_2$ solution for ¼ minute; (11) wash thoroughly and remove excess of water; (12) second treatment with the ammoniated silver solution until specimen is stained a light brown (1, 2 or 3 minutes); (13) wash and remove excess of water; (14) develop in rodinol or methol for ¼ minute; wash and dry. [G.B.W.]

10.—Stubenrauch conducted a series of experiments on animals over the influence of **phosphorus vapor** in causing **necrosis of the jaw.** His results are as follows: Phosphorus vapor exerts no specific irritating influence on the bared periosteum of guineapigs, rabbits or dogs, so that the clinical picture of phosphorus necrosis of man cannot be reproduced experimentally in these animals, and the condition must be considered as peculiar to man. [G.B.W.]

11.—The **stenosis of the duodenum** in this case was caused by a hard immovable tumor about the size of a child's fist. Anterior gastroenterostomy was performed and the recovery was uninterrupted. [G.B.W.]

12.—The original operation was a gastroenterostomy, posterior retrocolica, and was most carefully and thoroughly carried out. The patient made a good temporary recovery, and was much benefited by the operation. Suddenly one day, about 11 months after the operation, he experienced sharp pain in region of stomach, developed severe vomiting, with symptoms of peritonitis and died in 2 days. The postmortem showed perforation of the jejunum. [G.B.W.]

13.—Ringel reports a case of **papilloma of the gallbladder.** A woman, 17 years ago, began to have attacks of biliary colic. Ten years later she noticed a tumor under the liver, which at first varied in size, but later remained constant. At the laparotomy an enlarged gallbladder was found, which contained 8 stones about the size of cherries. The inner wall of the bladder was covered with multiple capillary fibromas, which had in places undergone carcinomatous degeneration. Without doubt the stones were the primary event, and it seems most probable that they were the cause of the pupillary development and the carcinomatous degeneration. [G.B.W.]

14.—Ringel concludes, as the result of his research over **the diagnosis of nephrolithiasis with x-rays;** (1) that only the rare oxalate calculi may with certainty be diagnosed by the x-ray; (2) that other varieties of stone can only be found when circumstances are very favorable, such as a large stone and a thin individual; (3) that the x-rays, however, should be employed in all cases of suspected nephrolithiasis; but only where a positive result has been obtained is the x-ray to be absolutely relied upon, as the absence of the shadow does not prove the absence of the stone. [G.B.W.]

15.—The **stomach** possesses a separate system of **lymph-channels,** whose vessels lie in close proximity to the corresponding bloodvessels, and are collected to a common center in the glands lying just above the pancreas. And it is along this path that the primary metastasis of gastric car-

cimona takes place. When the glands along the porta hepatica, the arteria limalis or in the omentum are infected, then metastasis should be considered retrograde, as these glands are not in the direct lymph-circuit of the stomach. [G.B.W.]

16.—There exist numerous **lymph-vessels of the penis** which pass around the inguinal glands and empty in glands lying inside the pelvis and at a considerable distance from the origin of the vessel. As the lymph-vessels of the prepuce, glands and also the urethra anastomose with each other, there is a possibility, in cancer of any portion of the penis, of giving metastasis to these pelvic glands. [G B.W.]

17.—Franke reports a case of **ostitis fibroplastica.** A laboring man, 52 years old, fell and injured his right knee, but partially recovered, and was able to do his work. Ten months later, severe pain in the knee developed and caused him to seek the advice of a physician. Examination showed a globular swollen knee, skin not discolored, no increase in local temperature. There was some fluctuation around the joint, slight ballottement of patella, and to the sense of touch there seemed to be some thickening of the lower end of the femur. All active motion was hindered because of the pain produced, though passive motion was perfectly free. The lower leg was slightly swollen. At the operation no fluid was found in the joint, which was almost entirely destroyed. The synovial membrane was greatly thickened. The lower end of the femur, outer side, was very prominent, and the thickening seemed to be of connective tissue which had a very elastic feel and was evidently developed from the periosteum. Microscopic examination of this tissue showed a destruction of the bone with replacement both of the bone and medullary substance by connective tissue and a small quantity of newly formed bone. [G B.W.]

18.—In this case of mediastinitis portica, the symptoms were difficulty in swallowing because of pain in the breast, and which finally became absolute, cough, slight elevation of temperature and edematous swelling in the right supraclavicular fossa. An incision was made just above the right clavicle and by dull dissection a small abscess, holding about a teaspoonful of pus, was reached and opened. The wound was packed and the patient gradually recovered, finally regaining perfect health. [G.B.W.]

19.—Heusner has introduced the use of a flattened spiral spring for the treatment of clubfoot. It is attached to the sole of the shoe while the foot is in an outward rotated position. His method for treating clubfoot is as follows: Forcible correction under narcosis, possible section of the Achilles-tendon, followed for several weeks by a plaster-of-paris cast. Then remove all bandages and during the day allow child to run around without any apparatus, while at night the spring is to be put on. If the case is a severe one the child should be put in bed and the apparatus applied for a part of the day. [G.B.W.]

20.—The patient, a man, 29 years old, **shot himself twice in the mouth** with a small caliber revolver. At first there were no especial symptoms, but on the sixteenth day after the injury he began to vomit, and on the twenty-eighth day he first noticed laming of the left arm and leg, which three days later was complete. Examination on the thirty second day showed complete paralysis of left arm and leg, regular but small pupils, slightly exaggerated knee reflexes, ankle-clonus on left side, no loss of consciousness and some vomiting. These symptoms gradually improved up to the sixty-sixth day when epileptic seizures began, and it was this condition which forced operation. The positions of the bullets were found by the Röntgen-rays and by calculations and comparisons with dissections of cadavers. One bullet was located in the body of the sphenoid bone and the other lay on the corpus callosum about 4½ cm. from the surface and to the right side of the falx cerebri. The skull was opened, just to one side of the median line, by an osteoplastic flap and a U-shaped flap of dura turned back. A probe was introduced toward the supposed position of the bullet which it almost immediately struck. The bullet was removed by forceps guided by the little finger. After suturing the dura the bone flap was turned back and the wound sewed up without drainage. The wound healed by first intention. The patient gradually improved, and four months after the operation was in the best of health except for some stiffness of the left leg. [G.B.W.]

21.—Tilmann, after a careful study and investigation as to the theory of **spinal and cerebral concussion,** comes to the conclusion that the commotio cerebri is caused by a tearing of the connections between the gray and white matter of the brain, and is in the majority of cases complicated by capillary apoplexies. The lesions are thus dependent on the different specific gravities and on the different stabilities of the blood and of the gray and white matter of the brain. Because of the weight of the blood and white substances, they possess, when set in motion, more energy than the gray matter and cerebrospinal fluid. The result is a tearing between the white and the gray matter, caused by destruction of the balance between the same; also there is a rupture of the finer capillaries, due to the blood being forced against their walls. [G.B.W.]

Zeitschrift für klinische Medicin.

[Band 37, Heft 1 u. 2.]

1. On the Histology of Chronic Anterior Poliomyelitis. MAX BIELSCHOWSKY.
2. Investigations Concerning Alimentary Glycosuria. F. RAPHAEL.
3. The Etiology of Tabes Dorsalis. MORITZ KENDE.
4. A Contribution to Gastric Diagnosis. GEORGE ROSENFELD.
5. Recurring Polyneuritis. J. SCHLIER.
6. Concerning the Various Forms of Functional Dissociation of the Heart. P. SCHATILOFF.
7. Investigations Concerning the Mechanism of Absorption and Secretion in the Human Stomach. W. ROTH and H. STRAUSS.
8. On the Emigration of Mast-cells in Myelogenous Leukemia. R. MILCHNER.

1.—Bielschowsky reports a case of **anterior poliomyelitis** of the most extreme type. Death occurred at the age of 17. Nearly all the muscles appeared to be involved; motility was almost abolished; there was fibrillary twitching in all the atrophic muscles; and death appeared to be the result of paralysis of the diaphragm. At the autopsy, the organs of the thorax and abdomen were much displaced, but otherwise normal. The brain showed no changes. The spinal cord was thin, and somewhat soft. The anterior cornua were contracted. Changes found by various methods of staining showed pronounced alterations in the motor cells throughout the whole length of the cord up to, and involving, the nucleus of the hypoglottis. These cells, however, were not uniformly affected, some appearing almost normal, and others completely degenerated. In some segments of the cord, where the changes were most pronounced, all the tissues appeared to have undergone degeneration, and to have been replaced by sclerotic tissue, representing the final stage of an attack of acute poliomyelitis. The bloodvessels of the cord were altered, showing thickening of the walls, particularly in the layers of the adventitia and the media. In the neighborhood of some of the vessels, there were brown masses of pigment that gave the Prussian-blue reaction, and represented old hemorrhages. A few degenerated fibers were found by the Marchi method in the lateral columns, and there were numerous degenerated fibers in the anterior roots. Hemorrhagic areas were found throughout the whole cord, but particularly in the fifth and seventh dorsal segments. Bielschowsky concludes that his case is an additional proof of the vascular origin of the disease. [J.S.]

2.—The following questions were investigated: (1) In what degree is there a difference in the sugar excretion in persons who excrete sugar after taking starches, when at one time they take the carbohydrates in the form of starch, and at another time in the form of grape-sugar? (2) Is there a difference in the amount and character of the excretion of grape-sugar when the same quantity is given to different persons, some of whom excrete sugar after taking starches while others do not? (3) Is the amount of sugar-excretion in the same person always proportional to the amount of sugar ingested? (4) How does the sugar-excretion behave in the same person at different times after taking the same amount of grape-sugar? Individuals were given sugar and starches on an empty stomach in the early morning, and the urine was tested each hour subsequently for 6 hours. It

was found that the sugar-excretion was greater after taking grape-sugar than after taking starches; after taking grape-sugar it was as much as 10 times greater than the amount excreted after taking starches. The time at which the sugar appeared and the duration of its excretion differed little whether sugar or starches were given. It was found that those who excrete sugar after the use of starch showed a much greater degree of glycosuria after taking 100 gm. of grape-sugar than those who usually did not react to the taking of starches. Raphael states positively that if an individual who has previously had diabetes does not react to the administration of grape-sugar to any greater degree than normal persons, it must be considered that, at the time at any rate, his diabetes is cured. The sugar was excreted in at about the same time and over a similar period in those who usually react to the administration of starches and those who do not. It was found that the excretion of sugar in the same person was by no means always proportional to the amount of sugar administered, and also the same person varied at different times as to the amount excreted after the same dose. [D.L.E.]

3.—Kende criticises the various theories that have been advanced in regard to **the cause of tabes dorsalis.** Heredity appears to be of no importance, the few cases being anything but satisfactory. Various authors have accepted the occurrence of a neuropathic disposition, such as may be caused by excesses, age, etc. Kende reports two cases occurring in men, 64 years of age, apparently the result of senile marasmus. Chemical poisons produce similar, but not necessarily identical, symptoms and lesions. Chilling acts, if at all, by inviting an infectious process. Traumatism has been alleged in a few cases. Kende reports one case in which symptoms of the disease developed 3 years after a severe injury to the right leg. Blennorrhea frequently occurs in the previous history of tabetics, and Kende was able to collect 11 cases in his own service in which it occurred apparently alone, and 9 additional in which it was combined with luetic infection. Venereal excess may be a cause or a result, at present it is not possible to be certain which. Luetic infection certainly occurs in many of the cases. It is difficult to estimate its true relation, for the following reasons: Many patients believe that they have been infected when such is not the case; others do not recognize infection when it occurs; some deny it; the physician particularly, either as a result of prejudgment or on account of insufficient data, is apt to be in error. From his own experience, Kende believes that slight infection is likely to produce tabes with great rapidity. Of 10 cases that he treated specifically, 3 were made worse, 3 improved at first with after-deterioration, and 5 were considerably improved. In one case a syphilitic gumma was cured without benefit to the nervous symptoms. The strongest argument against the exclusive causal relation of syphilis to tabes is the fact that in certain countries, such as Abyssinia, where the former is exceedingly common, the latter is correspondingly rare. Overexertion has recently been alleged in many cases. In favor of this theory are (1) the impossibility of denying the occurrence of the cause; (2) the observation that prolonged exertion is always injurious for tabetics; (3) the diminution of the muscle-tone; (4) the occurrence of ataxic symptoms with diminished sensation, and loss of kneejerks, in exhaustion; (5) the results of Fränkel's treatment, which is based upon Edinger's theory; (6) the late appearance of ataxia in cases with optic atrophy; (7) the rarity of tabes in neurasthenics, and its frequency in strong, vigorous persons; (8) the infrequency of tabes in the tropics; (9) the fact that in Bosnia tabes occurs only seldom, and the people there are exceedingly lazy; (10) the absence of the disease among prostitutes; (11) the immunity of women in the upper classes, and the fact that they are subject to the disease in the lower classes; (12) the fact that the inhabitants of the city, particularly those whose occupations require them to stand much upon their feet, and especially officers and physicians who are obliged to work hard, are often attacked; while lawyers, clergymen, and, compared with the relative proportions of the population, the Christians are less frequently attacked. Finally, the fact that as civilization progresses, tabes become more frequent. He concludes, therefore, that syphilis is not the actual cause of tabes, and in many cases cannot even be regarded as the predisposing cause. The belief that an imperfect or neglected treatment is favorable to the production of tabes is not proved. The inunction-cure in general is injurious. When improvement occurs, either the diagnosis has been inaccurate or the treatment is suggestive. Civilization tends to the production of tabes, and apparently it arises as the result of a congenital weakness of the nervous system, or is produced as a result of overexertion. [J S.]

4.—See former abstracts of *Centralblatt für innere Medicin.*

5.—Schlier reports the case of a woman, now 29 years of age, who at the age of 17 had an attack in which she fell unconscious to the ground, and became cyanosed. A similar attack occurred at the age of 19. The patient then remained well for 2 years. At this time she had an attack of optic neuritis in the left eye that produced blindness of 4 months' duration. At the age of 22½ and 24½ she had attacks of numbness and tingling in the extremities. At the age of 26 she had severe attacks of vertigo whenever she attempted to work or even to rise from her bed, and there was tachycardia. Three months later, she had a severe attack, beginning with numbness and tingling of the right arm and hand, with paresthesia on the right side of the neck. The right upper extremity then became paretic, followed by the left lower extremity, and then the left arm and right leg. Aside from paresthesia, there was no disturbance of sensation. The muscles were slightly atrophic, and the contractions to faradism and galvanism were remarkably slow, and only occurred on application of very strong currents. There were no objective signs of disease in the thorax or abdomen. The urine and temperature were normal. Later, moderate improvement occurred in the extremities, and there were **symptoms of involvement of the third and seventh nerves, and obstinate constipation.** In the course of 8 months the patient appeared to have recovered entirely, but 3 months later all the symptoms recurred. There were lightning pains in the limbs, and almost complete paralysis; the left patellar reflex was increased, the right diminished; speech was disturbed; there was photophobia, pain in the eyes, vomiting and hiccoughing for several days; there was slight alteration of the character, and occasionally attacks in which the patient had difficulty in breathing, became rigid, and unconscious, followed by a profuse perspiration. Improvement gradually occurred, and in the course of 11 months she was again well. The nature of this disease is difficult to understand. Schlier suspects some form of infection, but is unable to give any satisfactory proof of its existence. All the attacks were preceded by very severe physical exertion. The only treatment that was of any value was rest in bed and the avoidance of any attempt to move before convalescence was thoroughly established. [J.S.]

7.—The work that has previously been done on **absorption and secretion from the stomach** has been chiefly carried out upon animals, though Strauss in especial has done some previous work on the absorption of sugar and of salt-solutions in the human stomach. This extremely interesting article is based upon the results of the determinations of the variations in the depression of the freezing-point of various strengths of solutions of sugar and sodium chlorid, after they had been introduced into the stomach, and allowed to remain there about 20 minutes. The depression of the freezing-point is the index of the molecular concentration of the solution. The experiments were carried out with hypertonic, isotonic, and hypotonic solutions. With both the salt and sugar hypertonic solutions it was found that the concentration became less, and some of the substance has vanished from the solution. Nevertheless the determination of the amount of salt or sugar remaining showed that this was insufficient to explain the remaining concentration of this solution. Therefore there must have been some substances secreted by the stomach; still the sugar-solution showed a much greater dilution than did the salt-solution; therefore some of the sugar must have been absorbed through the wall of the stomach. When isotonic solutions were used it was found they they suffered a loss of concentration also. This cannot be attributed to simple osmosis, for a purely physical process of this kind would not take place when the solution in the stomach is of the same molecular concentration as the blood; therefore this dilution may have been due to an actual vital secretion by the stomach, not dependent upon simple physical processes—an entirely specific action which does not seem to exist with any other absorbing surface in the organism. Hypotonic solutions also showed a lessening of their

concentration, which is a further proof of the existence of an active diluting secretion from the stomach-wall. Therefore there are three processes demonstrated by this work: (1) A simple diffusion resulting from the differences in osmotic tension; (2) a secretion from the gastric glands which dilutes the contents of the stomach; (3) a specific secretion, with digestive properties, coming from the gastric glands. Distilled water when introduced into the stomach and subsequently examined was to have a lowered freezing-point and therefore contained some specific secretion from the stomach. The chief function of the stomach then seems to be secretion and not absorption; the absorption takes place in the intestine. Some pathologic cases were investigated and it was found that two individuals with complete lack of specific secretion of the stomach had an energetic dilution-secretion. Most of the cases with gastric disease showed little difference from the normal in the depression of the freezing-point of the stomach-contents. There were differences in one or two individuals, however, which were quite striking, and one in especial was a case of marked motor-insufficiency with subacidity. This suggests that this method may be valuable in the investigation of gastric cases, particularly in determining the presence or absence of marked disturbance of motility, or, more satisfactorily speaking, in determining the time of retention of contents in the stomach. [D.L.E.]

8.—A case of **myelogenous leukemia** is reported in which the fluid obtained by puncture for a severe degree of ascites, which was present in the case, contained large numbers (23.9%) of cells which had the morphologic appearance characteristic of mast-cells; 24.9% more of the cells found were similar to these, except that they seemed to have lost their granules, though nearby in many cases where collections of granules which seemed to have come from mast-cells that had lost their granules. This case seems to Milchner to establish the existence of emigration of mast-cells and of Ehrlich's theory that myelogenous leukemia is an active leukocytosis. [D.L.E.]

Revue de Médecine.

June 10, 1899. [19me Année, No. 6.]

1. Predisposition to Tuberculosis; Natural and Acquired Tendency to Tuberculosis. Landouzy.
2. Motor Disturbance in the Two First Periods of General Progressive Paralysis. Marandon de Montyel.
3. A Study of Paraphasia. A. Pitres.
4. Investigations Concerning the Frequency of Secondary Septicemia in the Course of Pulmonary Infection. (Chronic Ulcerating Tuberculosis; Lobar Pneumonia.) L. Beco.
5. Hematomyelia from Sudden Compression. (Caisson Disease.) J. Lépine.

1.—Landouzy's article is a general one, the chief purpose of which is to warn the profession that the enthusiasm following the discovery of the **pathogenicity of the tubercle-bacillus,** and of its importance in diagnosis, had led to too great a tendency to make laboratory diagnosis of tuberculosis and to put aside the general consideration of cases, and of the predisposing conditions that may exist in the individual. He reviews many of these causes, and, as many of his countrymen have done recently, insists upon the importance of smallpox in producing an acquired predisposition, and also speaks emphatically of the importance of a previous tracheotomy for diphtheric croup since he has found that many of these cases subsequently acquired tuberculosis. [D.L.E.]

2.—Numerous tables are presented to show the incidence of **motor troubles in general paralytics,** and the conclusions reached are that one finds in the two first periods of motor-paralysis motor troubles of all degrees of intensity; often severe motor troubles in the first period, and still more frequently mild motor disturbance in the second period. It is impossible to determine the period of the disease by investigating the condition of the motor system, and the sphincters may preserve their integrity when even very severe motor disturbance is present; or there may be incontinence with otherwise but slight motor trouble. In the second period the motor disturbances are likely to be more severe when the disease becomes more advanced, while the contrary is likely to be true in the first period. In the first period, motor changes are more marked in the expansive forms of the disease and less marked in the depressed variety, and also the involvement is much more severe in those who have periods of calm with expansion and in the mixed form; on the other hand, in the depressed and demented forms they are more likely to be found in those who have crises of excitement. Motor troubles are more likely to occur in the precocious cases of general paralysis, next in those that appear in middle age and least frequently in the older patients. There seems to be no definite relation between the occurrence of motor troubles and the physical development of the individual. Alcohol seemed to be the chief etiologic factor in producing motor disturbance in the first period of the disease; after this came syphilis and traumatism; in the second period, traumatism seemed more active than anything else. The subjective sensations which occur in the skin and muscles in the early periods of general paralysis are most commonly found in the cases with mild or moderate motor troubles. [D.L.E.]

4.—Twenty-nine cases of pneumonia that terminated in recovery were investigated by taking cultures from the blood. Twenty-seven of these cultures were sterile, while in two cases pneumococci were obtained, but this could not be taken as an indication of a **true septicemia,** since animals inoculated with a considerable quantity of the blood of the cultures did not succumb. The decision reached is that in the great majority of cases of pneumonia that recover, the disease is local infection of the lung, the general symptoms being due to toxemia. Twenty fatal cases are then detailed; in 15 of these, cultures from the blood during life gave no pneumococci; in the other 5 they were present. He decided that in fatal cases the pneumococcus often multiplies secondarily and causes fatal septicemia. As to prognosis, the presence of the pneumococcus in the blood is of varying gravity according as it is found in very small numbers or large numbers. In the first place it is of no consequence; in the second place it is of the utmost importance and makes the prognosis exceedingly grave. He reports one case of lobar pneumonia due to the Friedländer bacillus with consecutive septicemia. Cultures from the blood, the spleen, and elsewhere, showed large masses of this bacillus. [D.L.E.]

5.—The patient was a man of 36, who, while in a caisson, was overcome and became unable to walk, and at the same time had sudden pain in his loins. He was taken to the hospital and for about a week was entirely paralyzed in the legs, subsequent to which he was able to make some movements. Sensation was absent, but reappeared slowly though progressively. He had incontinence of urine and severe constipation. Two months later he still had **paralysis with some contracture,** moderate pain which frequently radiated down the legs and became quite severe, but was more often of a persistent and quieter form. The trouble with the sphincters had vanished. He could walk at this time, but with a hesitating and uncertain gait; he dragged his legs and had a severe tremor of the legs. His muscular power was very poor. There was atrophy and moderate contracture. Sensation was markedly affected. Tactile sensation was somewhat diminished in the legs, pain-sense was much more affected, while the temperature-sense was less involved. The tendon reflexes were exaggerated. There were marked trophic disturbances; large cicatrices were present on the feet corresponding to eschars which appeared several days after the accident and were due to injuries unnoticed when received during the anesthesia. The case was diagnosed as one of central hematomyelia in the lumbar-sacral region. [D.L.E.]

July 10, 1899. [19me Année, No. 7.]

1. Epileptic Hunger. C. Féré.
2. A Study of Paraphasia. A. Pitres.
3. Bony and Articular Changes in a Subject of Myelopathic Muscular Atrophy. G. Etienne.
4. A Case of Pseudo-Bulbar Cerebral Paralysis. R. Lepine

1.—The name (faim-valle) used by Féré to describe the condition of which he writes, admits of no direct translation. It is used to describe a neurosis which occurs paroxysmally in horses, and renders the animal unable to proceed, or it may even fall. When given food, the horse eats ravenously and when his appetite is partly satisfied, recovers himself and proceeds. During the attack, he becomes entirely immobile

Féré describes a number of cases resembling this condition, and occurring in human beings. It should be carefully distinguished from bulimia and pica, since the former is merely an enormous appetite, while the latter is an appetite for odd foods. Neither of these things may be present in the condition described, and they do not appear and disappear suddenly. The first case occurred in a girl of 14 years, who later had typical attacks of epilepsy, preceded by a **gastric aura.** She had previously had repeated attacks of melancholia and loss of consciousness. On one occasion she suddenly called out, after eating a large breakfast, that she was hungry, and then lost consciousness for a few moments; when this passed over, the hunger had disappeared. Such attacks occurred repeatedly. The second patient, a boy of 15 years, after his first attack of epilepsy, developed a sudden sensation of hunger; the paroxysms were always announced subsequently by the same cry—"I am hungry." This case had repeatedly warded off attacks by rapidly eating bread as soon as he felt this peculiar sensation of severe hunger. It is notable that in these cases the sensation of hunger was unaccompanied by any preference for any special kind of food. One case is mentioned, however, in which such preference was exhibited. Finally, another case is reported in which there was a remarkable voracity after epileptic attacks, the woman being obliged to fill her stomach with food and fluids in order to satisfy her tremendous hunger, and even then the sensation was but slightly appeased. [D.L.E.]

2.—Pitres gives a general discussion of **paraplegia** based upon the cases previously reported. It commonly succeeds an ordinary attack of apoplexy, sometimes following only after repeated apoplectic attacks; occasionally it occurs only after the apoplectic insult; it is most frequently after right-sided hemiplegia. It may be manifested by paraphemia, paralexia, and paragraphia. Paraphemia shows itself in incoherence in ordinary speech, words being placed together in unintelligible connection, and short-cut phrases being spoken without any intelligible meaning. Pitres believes that Bastian's division of these cases into those of three grades of severity is artificial, and that they merely shade into each other. A curious form of this variety is embolophasia in which the patient repeats one word or phrase constantly when he attempts to speak. Naming of common objects is often impossible for these cases; this may be more notable than the disturbance of their usual speech or less so. They almost never decline to apply a name to objects, but it is oftentimes ridiculously unsuitable. Their powers of repetition often show changes, sometimes more, at others, less than those in simple speech or naming of objects. The power of repetition is by Wernicke said to be almost never involved, while Mirallié says that it is always involved. Pitres' observations show that neither of these is true. He has seen cases free from involvement, while others showed distinct implication of this power. The recitation of words from memory is likely to be more perfect than other forms of speech; the power of singing which is sometimes entirely uninvolved. In paralexia unintelligible gibberish is brought forth when the patient attempts to read aloud. Some curious examples are mentioned in which the patients came strikingly near the proper words, as for instance, one patient read for "a boy of 8 years" "a young man of 10 years." The difficulty is often seen strikingly in the loss of power of reading figures or in doing the most simple problems in arithmetic. Paragraphia may manifest itself in several ways. The power to write spontaneously is usually much disturbed. The letters are usually fairly well formed, and quite legible, but the words are composed of incoherent syllables. There may be marked disturbance of the power of writing from dictation or from copy. As to the correlation between paraphemia, paralexia, and paragraphia, Pitres states, and offers illustrative observations, that these are by no means necessarily all present in the same case. As to the mental condition, he describes the patients as usually showing no changes in intellect though they are likely to be restless and irascible, and often extremely sad or even melancholic. They carry themselves through their lives in about the same way as other individuals. They often acquire peculiar, delicate intonations, and expressive gestures which supply their deficiencies in speech almost completely. The affection may be permanent or transitory. Sometimes while permanent it shows the most striking variations. Petris has attempted to hypnotize some patients to see the possibilities of suggestion, but it was impossible to do much in this way. One case while under chloroform seemed to speak more correctly while in the stage of excitement than when in his usual condition. The affection not infrequently leads ultimately to mental confusion or progressive dementia. The theory of the causation that he considers most satisfactory is that it is due to a disturbance in the mechanism which provides, under normal conditions, an association between the different cerebral centers concerned in speech. He notes the suggestiveness of these cases in indicating the existence of complex associations between the visual and auditory centers and the motor centers for speech and writing; and since various disturbances of these may occur alone, these cases suggest that the tracts regulating the various divisions of speech must run separately. [D.L.E.]

3.—The case is one previously reported by Etienne and Prautois. (*Revue de Med.*, April 10, 1894.) The patient presented himself at the hospital with a tumor as large as the head of a fetus, which had formed suddenly. The location is not given from the autopsy report, but it seems to have been in the axilla. The man ultimately became powerless, numerous large bed-sores developed, and he died of apparent cachexia. The postmortem notes record the presence of numerous large bed-sores. In the axilla on the right was found a large **tumor** which proved to be **a cyst which had been formed by a rupture of the capsule of the shoulder-joint and a collection of synovial fluid.** There was no cyst-wall, the fluid being enclosed only by cellular tissue. There was a number of bony plates, especially about the right deltoid. The macroscopic examination of the spinal cord showed no changes, but microscopically the cells were markedly atrophied. The anterior horns were shrunken, and the cells less numerous than usual. They were deformed and of irregular outline, and sometimes were merely small collections of granules. A few were found intact. The perinuclear bodies had largely disappeared. The central canal was almostly completely obstructed by a mass of desquamated ependymal cells. There was marked sclerosis of the posterior columns, and in some places almost complete disappearance of the fibers in the column of Goll. The muscles showed pronounced degeneration, and the peripheral nerves, particularly the small filaments of the thenar eminence, were almost completely degenerated. [D.L.E.]

4.—The case was one in a patient of 56 years, who had a **flaccid left hemiplegia.** He had some trismus, paralysis of the tongue, aphonia, alexia, and left lateral hemianopsia, The postmortem showed a lesion of the right hemisphere with softening of the lenticular and caudate nuclei throughout their whole extent, excepting well anteriorly. The external capsule was also entirely destroyed, and, microscopically, the optic tracts were found degenerated. There was no bulbar lesion. [D.L.E.]

Revue de Chirurgie.

September 10, 1899. [19me Année, No. 9.]

1. A Study of Lesions of the Lateral Sinus Resulting from Injuries of the Skull. GANGOLPHE and PIERY.
2. Ten Hundred and One Celiotomies. V. SNEGUIREFF.
3. A Note on Retraction of the Plantar Fascia. CHARLES FÉRÉ
4. Rhinoplasty over a Metallic Support. A. VAUTRIN.
5. The Structure and Function of the Kidney. R. ALESSANDRI.

1.—A man about 55 years old was brought to the hospital by the police; he had fallen, causing a slight wound of the scalp, but there was no sign of fracture of the skull. After remaining in the hospital a time, coma with stertorous breathing developed, followed later by complete left-sided hemiplegia. On making a second dressing 2 days after entrance a second search was made for signs of fracture of the skull, but nothing could be found. Contracture of the extremities on the right side followed and the patient grew progressively worse, sank into a comatose state and died 3 days after entering the hospital. At the necropsy a radiating fracture of the inner table of the occipital bone was

found which extended into the right posterior lacerated foramen; a clot of blood weighing 100 gm. was found in the cerebral fossa between the dura mater and the bone and compressing the brain; the lateral sinus had been broken open at the point of fracture; there was also a subdural effusion extending over the entire left hemisphere. A number of other cases from the literature are abstracted and the etiology, pathology, symptoms, diagnosis and treatment of **injuries of the lateral sinus** are carefully discussed. Attention is called to the fact that the sinus may be torn, not only by a spicule of bone, or other foreign body, but it may be ruptured by separation of fractured bones. These lesions determine the hemorrhage, a clot forms between the dura mater and the skull which is limited in part by the attachments of the dura mater, the separation of the bones which occurs and frequently there coexists a bloody intra-arachnoid effusion. The symptoms of this condition are most variable. The complete picture of cerebral compression may be presented; in other cases the condition resembles that of apoplexy. The diagnosis is often impossible and in case of an injury in which it is probable that the sinus is injured it should be exposed and, if a wound is present, it should be packed with gauze. If it is found that the sinus is not injured, trephining should be done at once over the seat of the injury without reference to the localizing cerebral symptoms. [M.B T.]

2.—Ten hundred and one celiotomies are reported from the Gynecological Clinic and the Gynecological Institute for Physicians at Moscow. These operations were performed within a period of 9 years and 2 months and include only cases in which the abdominal cavity was opened through the abdominal walls and not by the vaginal route; 58 deaths resulted which can be attributed to the operation, a mortality of 5.8%, but all cases included, 98 died, giving a mortality of 9.8%. A greater number of deaths resulted from septic peritonitis (39 cases or 3.8%); the next largest number died from internal hemorrhage (13 cases or 1.2%); thus it is seen that the greatest number of fatalities resulted from infection of the peritoneum. In investigating the cause of this infection, Sneguireff states the malignant or suppurative process predisposed to the development of septic peritonitis in 34 out of the 39 cases, but such conditions need by no means give rise to septic infection of the peritoneum in all cases, if rational measures are carried out, but it is possible to prevent a large number of infections. The preventive measures recommended are the protection of the noninfected peritoneum by walling off with gauze saturated with lysol; repeated irrigation of the abdominal cavity, drainage, and the repair of injured surfaces. By carefully practising these measures Sneguireff has greatly reduced his mortality. The mortality-rate was considerably raised by the number of exploratory operations which were undertaken when death seemed to threaten and in cases in which it was found impossible to give any other relief. As to the cause of infection in the cases in which there was no predisposing malignant or suppurative process Sneguireff was able, by necropsy, to show that in at least 3 cases the infection took its origin from catgut ligatures; since abandoning the use of these ligatures his percentage of mortality has greatly decreased. He also advocates the use of gauze sponges, which have been twice sterilized, in place of marine sponges as a means of preventing septic peritonitis. In arresting its progress, if it has already developed, and as an important means of stimulation during operative intervention, irrigation of the abdominal cavity with warm saline solution has great value; drainage is also an important means of preventing infection, and for this purpose the use of iodoform-gauze is advocated. It is believed that ventral hernias are due, not so much to the drainage as to the other special circumstances, such as the locality and character of the incision, the method of suturing the abdominal wound, and the condition of the patient and of the viscera at the time of operation. Out of 904 cases, in which recovery has resulted, hernia followed in only 27. Great stress is laid upon so-called autoplasty, which is used to designate the covering of all abraded surfaces, the stumps of pedicles, etc., by peritoneal grafts; this is also of importance in preventing adhesions and resulting intestinal obstruction. Death from internal hemorrhage resulted in 13 cases; the hemorrhage occurring from the pampiniform plexus in most cases. The causes were various; the slipping of a ligature, particularly when tissue had been tied en masse; the cutting of vessels by needles, the slipping of ligatures, and overlooking points from which bleeding occurred after recovery from the shock of the operation. The most careful examination of the field of operation, special care in tying all bleeding points and the use of irrigation as a means of finding bleeding points, is advocated. In 5 cases death resulted from intestinal obstruction following operation, but in the last 2 years, in which special care has been exercised to cover all denuded or exposed surfaces by peritoneum, not a single death has resulted from this cause. Within the last year, in which 98 operations have been performed, only one death has resulted, and that followed an exploratory celiotomy in a case of carcinoma of the kidney. The patient died later from pneumonia and cardiac paralysis. Sneguireff emphasizes the importance of the careful study of every case as a means of determining faults in technic and the causes of failure. The importance of necropsy is urged. [M.B T.]

3.—A man, 55 years old, who had retraction of both the palmar and plantar fascia died from pneumonia. He had been suffering from some chronic nervous affection. Extensive notes are given from the necropsy. Retraction of the fascia is considered of trophic origin; the affection is progressive and does not yield to medical treatment. No suggestions are given as to the surgical treatment. [M.B.T.]

4.—A girl, 14 years old, was brought to the hospital for consultation as to the treatment of destruction of the nose. When one month old the child had had a severe attack of variola causing ulceration of the mucosa of the nasal fossa and destruction of the nose. **Rhinoplasty** was performed, using a **metallic support.** From the time of operation there was no sign of intolerance of the foreign body, and the wound united by first intention. Six months later the line of suture had already disappeared and the scar in the forehead, though slightly red and noticeable, was much reduced in size. The support fulfilled its purpose perfectly and was retained without difficulty. [M.B.T.]

5.—Alessandri has carried out a series of 44 operations on animals to determine some points in regard to the function and structure of the kidney. He found that simultaneous **ligation of the renal artery and veins** is incompatible with the life and function of the epithelial part of the kidney, but the collateral anastomotic circulation is entirely sufficient to prevent rapid necrosis of the organ; on the contrary there was observed a progressive gradual cirrhosis which strangled little by little the remnants of the canaliculae and the glomeruli. Hence after ligature of the vascular pedicle of the kidney, while one is not able to conserve the functional portion of the kidney, the organism is not threatened by rapid necrosis of the renal tissue. This tissue is still capable of life and transformation into a fibrous connective tissue which does not die, as is the case with the epithelial portion. [M.B.T.]

Revue Mensuelle des Maladies de l'Enfance.

[*June, 1889.* Tome xvii.]

1. The Syndrome of Parkinson in Infants and Youths. E. WEILL and ROUVILLOIS.
2. Treatment of Exstrophy of the Bladder by Connecting the Ureters with the Intestine. G. NOVÉ JOSSERAND.
3. A Case of Acute Leukemia. LOUIS GUINON and JUSTIN JOLLY.
4. The Infection of the Digestive Tract in Nurslings. LESAGE.

1.—Weill and Rouvillois record a case of Parkinson's disease occurring in a girl aged 10½ years. The child's father died of alcoholism; the mother was nervous. One sister died at the age of 20 months, of convulsions. There were certain abnormal signs foreign to the disease evident in the case, such as choreic movements; a localized athetosis of the extremities, with a predominance of the rigidity of the right side and a right talipes equinovalgus, but these manifestations were outweighed by a predominance of the symptoms typical of Parkinson's disease, namely, rigidity, characteristic attitude, forward inclination of the head, retropulsion, the facial mask, slowness of voluntary movement, dependent upon the rigidity, difficulty of equilibrium, resulting from the slowness of movement, and sensation of heat. There was no autopsy held upon the case, and the anatomic diag-

nosis was consequently approximately deduced from the history of the patient and from the principal symptoms. The child suffered from severe fright a year prior to coming under observation, which was followed in 5 days by severe headache; this by mutism and paralysis, which manifestations suggested a functional trouble of the nervous system. Setting aside the incident of fright the condition can be better accounted for on the basis of a diffuse lesion (may be of an infectious nature) of the central nervous system. The condition of mutism lasted for 3 days. It may have been due to somnolence; loss of consciousness, or, less likely, to aphasia. Following upon this there occurred a right hemiplegia, and on the next day general paralysis. The child was unable to move during one month, after which the movements returned. The generalization of the paralysis proved that the two hemispheres had been involved, and strongly suggested the existence at this period of a diplegia. Accompanying the return of movement there existed general rigidity, and with it, as one observes in spasmodic hemiplegia, and in the diplegias of early age, such abnormal movements as trembling, chorea, and athatosis. The difference between the symptoms of this patient and those of classical infantile hemiplegia consists in the appearance of a Parkinsonian rigidity in contradistinction to the habitual contracture. This particular point, however, does not suffice to make one reject the numerous points of similarity which have been suggested. However, all the other symptoms and the evolution, even, of the malady, indicate clearly a diffuse cerebral affection following from the diplegia. The exact localization of this affection is difficult to determine. The relative integrity of the intelligence would not suggest an extensive destructive lesion of the brain. It is possible that the lesion has specifically involved, directly or secondarily, the region which Brissaud considered as the center for paralysis agitans, namely, the peduncle near to the locus niger. Whatever may be the hypothesis of localization which one adopts, one should admit that the syndrome of Parkinson may be dependent upon the encephalites of infancy. On account of the infrequency of paralysis agitans in early life, Weill and Rouvillois made a review of the literature, and succeeded in collecting a certain number of cases occurring under 20 years of age, 6 of which they reproduce; but one of these presented appreciable lesions of the nervous system, all of the others recalling the classical syndrome. The causes given in these cases are: fright in 2; rheumatism and infection in 1 each, and in 2 cases the cause was not determined. The affection began at 3, 9½, 12, 14, 15, 16 and 20 years, respectively. Treatment was without effect in any of them. One patient, a girl aged 18 years, had little intelligence, poor memory, and was very emotional. [S.M.H.]

2.—Nové-Josserand reports a case of **exstrophy of the bladder** treated by joining the ureters to the intestine according to the method of Maydl, as modified by Tuffier. It consists, practically, in doing 3 successive operations, namely, resection of the bladder, vesico-intestinal anastomosis, and, finally, restoration of the wall. This method differs from the earlier methods recommended in that not only the ureter is isolated but also the vesical trigone (the ureters with their normal orifices and sphincters) and inserted in the intestine, thereby preventing pyelonephritis from ascending infection, which was formerly a common accident. The chief objection to the operation was the length of time required in its performance, which was formerly 2¼ hours, but which the author succeeded in reducing to one hour and a quarter. A review of the literature revealed 17 cases in which Maydl's operation had been done, which together with the author's case make a total of 18. Two deaths are recorded as due to the operation, one attributable to shock and the other to infection. The secondary accidents noted were fistulae of the urinary passages with an accompanying localized peritonitis. All of these cases recovered. Pyelonephritis, as the result of an ascending infection, resulted in the death of one case after a period of 4 months. Continence was perfect in all of the cases save 2. The patients were able to hold their urine for a period of 3 hours; sometimes 6 or 7, and in one case throughout the night. The urine was voided sometimes alone, sometimes mixed with fecal matter. The tolerance of the rectal membrane was perfect. There was no tenesmus, colic, nor diarrhea. Nové-Josserand's case was in a perfectly satisfactory condition three months after the operation. The rectum served the purpose of urinary reservoir perfectly; urine not being voided oftener than every third hour; the general condition was excellent and there was no indication of any alteration of the kidney. [S.M.H.[

3.—Guinon and Jolly report a **case of acute leukemia** in a girl aged 15 years. She had never been a healthy child. She was suddenly seized with general weakness and violent headache. On being examined at this time, she had fever, a certain amount of weakness and marked pallor. She was again examined 15 days later. Anemia was profound and the fever continuous. She was first examined by Justin and Jolly on the thirty-fifth day of her illness. She was then very emaciated, very pale, the mucous membranes were almost colorless. Her face was puffed, but there was no edema. The palms of her hands were yellow and covered with scales. She seemed mentally sluggish, and was very feeble. Her skin seemed dry and hot, but she had no fever. Her pulse was feeble, regular and 138 per minute. There was a systolic whiff over the pulmonary artery. The respirations were superficial, a little accelerated, but there was no dyspnea. The patient breathed through the mouth, owing to the presence of adenoid growths. The respiratory murmur was normal. The liver and spleen were increased in volume. She had no appetite, and after 4 or 5 days began to vomit her milk. The abdomen was distended and the stools were regular. The urine contained 57 centigrams of uric acid to the liter, but no albumin. A few days before death she had epistaxis; small purpuric spots developed on the right arm, and ecchymotic areas in the forearm and in the lower third of the right leg. Her tongue was dry and scaly; her teeth were covered with a thick, bloodstained coating. She rapidly grew worse and died on the fortieth day of her illness. During the 6 days she was under observation her temperature fluctuated between 36.6° and 37.4° C. It was usually higher in the morning. The diagnosis of leukemia was based upon the blood-examination, made 2 days before death and which resulted as follows: Red cells, 865,000; white cells, 28,000; hemoglobin, 20%. A morphologic study of the blood gave the following results: 93% of lymphocytes; 3.6% of mononuclear lymphocytes; 0.6% of large mononuclears; 2.3% of polynuclears, and 0.1% of eosinophiles. There were a few nucleated red cells. The autopsy confirmed the result of the blood-examinations, showing disseminated lymphadenoma in the viscera, particularly the kidney and liver, and a moderate enlargement of the liver and spleen. The lymphatic glands were relatively little enlarged. A histologic examination demonstrated the fact that the small tumors of the kidney had all the characteristics of small circumscribed lymphadenomas. The histologic examination of the liver showed the portal spaces well filled with small cells resembling those of the tumors of the kidney. These were much more numerous than in cases of chronic inflammation of the liver, but they showed no tendency to become circumscribed into nodules. They seemed more to resemble small diffuse adenomas of the portal spaces. [S.M.H.]

4.—Lesage observed a case of **acute gastroenteritis** in which he found coliform organisms in a state of purity. He believes that the acute gastroenterites are the result of various infectious agents. [S.M.H.]

[*July, 1899.* Tome xvii.]

1. Some Complications of Typhoid Fever. Louis Guinon.
2. The White Corpuscles in the Digestive Troubles of Nurslings. P. d'Orlandi.
3. Imperforate Anus. Delanglade.

1.—Guinon refers to the benign character of **typhoid fever as it occurs in the infant,** and supports this view by statistical references. He wishes on the other hand to attract attention to the fact that complications and fatalities do occur to a not inconsiderable extent in some epidemics. He himself observed 23 cases during August and September of 1897 and 1898; 15 of the patients were boys and 7 girls. Among this number there were 4 deaths, making a percentage of 17.39. This high mortality, however, conveys no idea of the frequency or gravity of the complications which were observed. In the 4 fatal cases the complications were, in the first patient, a boy, aged 10 years, intestinal perforation the third week. In the second patient, aged 9½ years, intestinal perforation on the fifteenth day; in the third patient, aged 8½ years, pneumonia with fatal intestinal hemorrhage on the twenty-third day, and perforation of the cornea and resulting

hernia of the iris occurring on the eighteenth day; in the fourth patient, aged 3½ years, initial "typhoid pneumonia," death from pulmonary congestion and septicemia on the fifteenth day. Among the nonfatal complications myocarditis occurred in 2 patients, each aged 12 years. It existed also in the fourth fatal case. Reference is made to another grave cardiac complication which is not described. Two grave cases of ulcerative stomatitis were observed, occurring in boys aged 9½ and 6 years, respectively. Intestinal hemorrhage was a frequent complication. It was the cause of death in one of the fatal cases, and was present to a mild extent in one of the cases complicated by myocarditis, and in 2 other patients, a boy aged 14 years and a girl aged 15 years. Hemorrhage occurred abundantly on the thirty-sixth day in the boy, and mildly on the twenty-third in the girl. The febrile accidents of convalescence are frequent in the infant. These consist chiefly of passing elevations of temperature, simply an exaggeration of the normal curve, apparently dependent upon reduced resistance of the nervous system. In addition to this there is a form which lasts for a period of a few days and is ordinarily accompanied by constipation, which doubtless gives rise to an autointoxication. This form is usually relieved quickly by a free movement of the bowels. But one relapse was observed in this epidemic. Relapses are, however, of rather frequent occurrence in children. In 3 cases furuncles and ecthyma of the buttocks were observed, and in one case there was a sloughing sore. One case showed nervous manifestations of exceptional gravity; an alcoholic boy, aged 15 years, suffered from violent delirium and spasmodic retention of urine. One case contracted typhoid fever in the hospital during the subsidence of a simple purpura. This child developed hematuria and albuminuria. He had a confluent roseola and morbilliform erythema. He recovered and the blood and albumin disappeared from the urine on the thirty-fifth day of the disease. The transformation of a simple purpuric exanthema into a hemorrhagic purpura by the development of typhoid fever is very rare. The transformation in this case was without any other appreciable cause. The author was able to find two cases referred to in literature. [S.M.H.]

2.—D'Orlandi has made a study of the **white corpuscles in 20 nurslings suffering from various digestive disturbances.** The blood was examined at 4 o'clock in the afternoon, before the taking of food. The results of his investigations are as follows: (1) In mild acute gastroenteritis (one case examined) the number of red cells is diminished; the total number of white cells normal. The leukocytic proportion is about normal, save that the eosinophiles are absent. (2) In acute grave gastroenteritis (3 cases examined) the number of red cells is diminished, the total number of white cells is sometimes augmented and sometimes normal. The lymphocytes are always augmented; the mononuclears always diminished; the polynuclears and polymorphonuclears are sometimes augmented and sometimes normal. The eosinophiles are absent or normal. Nucleated red cells were observed twice. (3) In mild chronic gastroenteritis (3 cases examined) the number of red cells is normal or a little diminished; the total number of white cells normal or increased. The number of mononuclears is always diminished; the lymphocytes, polynuclears and polymorphonuclears normal or augmented. The eosinophiles were absent in 2 cases. There were no nucleated reds. (4) In grave chronic gastroenteritis (11 cases) accompanied by a cachexia more or less profound, the number of red cells is almost always diminished. The total number of white cells is augmented or normal in one-half the cases—diminished in the other half. The number of mononuclears is always diminished, while the polymorphonuclears are always augmented. The lymphocytes and polynuclears are augmented or normal. The eosinophiles are absent in one-half the cases; the nucleated reds were present in 3 cases. A striking feature of these results was the constant diminution of the large mononuclear leukocytes and the rarity of the eosinophiles. [S.M.H.]

3.—Delanglade was called to see an infant, aged 50 days, which had been born with an **imperforate anus.** The existence of the condition had been recognized on the fourth day of life by a physician, who discovered that the rectum was obliterated at a distance of 3 cm. from the margin of the anus. The following day he forced a sound or trocar through the obstruction, and immediately there escaped an enormous quantity of meconium. For the next 22 days no fecal matter was discharged from the bowel, but there was persistent daily fecal vomiting. On the beginning of the twenty-second day there was a spontaneous discharge of fecal matter, which continued during four days, and in this time the vomiting diminished. After 19 days the obstruction again became complete. At this time the child was first seen by the author. Its general condition was wretched. Operation was determined upon and accomplished at once. The presence of an ischiorectal abscess induced Delanglade to make an artificial anus with the idea of doing the radical operation at some future time when the child's condition was somewhat improved. The operation was performed; the child improved for a time after the operation, but died at the end of 2 months. [S M.H.]

Mauchamps (*Gaz. Heb. de Méd. et de Chirur.*, April 21, 1899), demonstrates the menacing depopulation of France, and shows that of all the remedies proposed the most practicable and most effective is to reduce the infantile mortality, which is still large in spite of the protective laws. He places the origin of this mortality in the absence of maternal care and feeding. He then makes a strong argument against mercenary feeding, and declares himself an advocate of Pinard's theory, that every healthy and well-developed mother ought to nurse her own child. According to the author, one child ought never to be fed at the expense of another child; a mother has no right to dispose of her milk nor her care in favor of a newborn child other than her own; and the industry of wet-nursing is an institution contrary to nature. He repudiates the feeding of an infant in the maternal house by a mercenary nurse. He shows how the exercise of the profession of wet-nursing has developed and how it thrives: namely, by the insecurity of artificial feeding. If the latter becomes more safe, the wet-nursing industry will have no reason for existing. Then he states very completely the conditions under which **artificial feeding** are available in order to be satisfactory. He enumerates the microorganisms that may contaminate milk directly. He goes into long details upon the conditions of the production and of the distribution of healthy milk. In spite of these precautions the milk may accidentally become contaminated and produce gastrointestinal trouble that may be dangerous to the child. It is necessary to **sterilize the milk.** Mauchamps shows the inefficiency of pasteurization and of boiling in the open air. He recognizes sterilization at home by the method of Soxhlet, which is the method of choice in small cities and in the country, when one is sure of the source of the milk. Commercial sterilization on the other hand gives entire security for the nutritive qualities of the milk and its purity. This is the method of choice in large cities, where it will be dangerous to use milk, the nature and the age of which is not known. The author then studies the alimentary value of different milks, the commercial rectification of cow's milk, and the question of carriage. He then states the clinical results of the **artificial feeding of the newborn by sterilized milk** as a result of his studies in two dispensaries and in a maternity. His conclusions are based upon numerous cases, and he exhibits charts to support his statements. The answers to his inquiries from many physicians lead him to the conclusion that sterilized milk is the best artificial food that one can give to a new-born child. He shows that it is possible to recall a child to a normal rate of development even after its growth has been retarded; but, in order to obtain good results, it is necessary to know how to give sterilized milk. The author then concludes his important work by demonstrating the method of artificial feeding (rules for the feeding, number of feedings, quantity of milk, the kind of bottle, the control of the food, etc.). Artificial feeding carefully carried out is almost always as good as breast-feeding from a mercenary nurse; it offers more security; it facilitates mixed feeding; it permits the mother, who can feed him, to see more of her child and to take care of his nourishment herself. Infant asylums are able to give useful aid to the extension of artificial feeding by giving only sterilized milk to the children that are confided to them. They may also become centers for the distribution of milk, and it is hoped that the dispensaries and infant asylums will become the medical supervisors of nurslings and places in which mothers may receive salutary advice. [J.M.S.]

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.

Gastric Acidity.—Lemoine (*Presse Médicale*, September 2, 1899) recommends the following combination for gastric acidity:

℞.—Magnesia ..... 5 grains.
Bismuth salicylate..... 8 grains.
Sodium bicarbonate..... 8 grains.
Five powders daily in warm Vichy water.

Subcutaneous Injections of Gelatinized Serum in Purpura Hemorrhagica.—According to *Treatment*, November 9, 1899, Arcangeli (*Semaine Médicale*) has employed a normal saline solution, with gelatin in the proportion of 2%, carefully sterilized, in two cases of purpura with recurrent epistaxis and bleeding from the gums in young girls, aged respectively 13 and 10 years.

In the first patient 2 injections of 20 cc. each, injected with an interval of 24 hours into the subcutaneous tissue of the abdomen, sufficed to completely arrest the hemorrhage from the nose and gums. In the second case the same result was obtained with injections of 15 and 10 cc.

Palliative Treatment of Paralysis Agitans.—Williamson (*British Medical Journal*, June 3, 1899) states that it is of the greatest importance to secure sound sleep, as a restless night is quite sufficient to make the symptoms much worse on the following day. Sulfonal or whisky and hot water at bedtime are often useful. Though whisky at bedtime helps sleep and does good, alcohol taken during the daytime seems to increase the trembling, and strong tea and coffee are said to have the same effect. A warm bath has often a good effect on the tremors. The patient's living room should be well ventilated and not too warm. Williamson lays great stress on the value of systematic open-air treatment. Carriage drives and railway journeys are often beneficial. Hyoscin is the only drug which the writer has found really useful. He first gave it in doses of $\frac{1}{200}$ to $\frac{1}{250}$ grain, but found these small doses useless. He now prescribes:

℞.—Hyoscin hydrobromate..... $\frac{1}{4}$ grain.
Chloroform water..... 6 ounces.
Dose: Two teaspoonfuls ($\frac{1}{96}$ gr.).

This amount may be increased to $\frac{1}{75}$ of a grain. In these doses hyoscin diminishes the tremors and restlessness of the muscles and uneasiness, and no bad effects have been observed. After some weeks the drug loses its effect, when it is best to stop it for a time; on recommencing with it the good effects are again noted.

Hypodermic Injections of Mercury.—Brown (*Scottish Medical and Surgical Journal*, June, 1899) recommends the following formulas for hypodermic use:

℞.—Mercuric iodid..... 0.4 gram.
Sterilized olive oil..... 100 cc.

The oil, after being purified by washing in distilled water, and again in absolute alcohol, is finally sterilized. One cubic centimeter of this solution (17 minims) equals $\frac{1}{10}$ of a grain of mercuric iodid.

℞.—Perchlorid of mercury..... 10 grams.
Dry peptone..... 15 grams.
Ammonium chlorid..... 15 grams.
Mix.

This mixture is to be dissolved in distilled water or glycerin in the proportion of 40 centigrams (6½ grains) in 30 grams (about 1 ounce).

The Serum Treatment of Phthisis.—Theodore Williams (*British Medical Journal*, October 25, 1899) states that he has confidence in the serum-treatment of tuberculosis. It was necessary, however, he had found, in his experiments to take the serum from the immune animal, not less than 6 months after the immunization was commenced, if beneficial results were to be obtained; if it were taken at so short an interval as a month it produced phenomena like those of tuberculin.

The Home-Treatment of Phthisis.—Osler (*British Medical Journal*, October 28, 1899), in discussing Allbutt's paper on the treatment of tuberculosis, remarked that the success of sanatoriums had taught the value of method and discipline. The physician was the important factor in the treatment of tuberculosis: the man who could make the patients live according to rule. Much might be done for the 90% who could leave home for the sanatorium—a fixed number of hours daily in the fresh air, on the veranda, on a sofa in the garden, or in a bright room with the windows wide open—rest so long as fever was present, and a well-regulated diet, might be followed by cure in suitable cases.

Incompatibility of Orthoform with Antipyrin.—Marsault (*Journal des Practiciens*, October 28, 1899) calls attention to the incompatibility of orthoform and antipyrin. In compounding the following prescription he found that when the ingredients were triturated in a mortar, they were converted into a semiliquid mass:

℞.—Antipyrin, Orthoform, Dermatol } of each..... 1 grain.

Disinfection of the Hands.—Abbott (*Hygiene of Transmissible Diseases*, 1899), concerning disinfection of the hands, writes as follows: Of the numerous methods recommended only two will be given as thoroughly trustworthy, viz., that of Fürbringer and that of Welch, developed at the Johns Hopkins Hospital.

Fürbringer's Method.—(1) Remove all dirt under and around the nails. (2) Brush nails and skin of hands thoroughly with soap and hot water. (3) Immerse in alcohol, 95%, for not less than a minute, and before this evaporates. (4) Plunge the hands in 1 : 500 corrosive sublimate or 3% carbolic-acid solution, and thoroughly wash them for at least a minute, after which the hands may be rinsed in warm water and dried.

Welch's Method.—(1) The hands and nails are to be thoroughly cleansed with hot water and soap. The water is to be as hot as can be borne, and the brush used is to have been sterilized with steam. This preliminary brushing to occupy from three to five minutes. (2) The hands are then rinsed in clean warm water. (3) They are then immersed for one or two minutes in a warm saturated solution of permanganate of potash. While in this solution they are rubbed thoroughly with a sterilized swab of absorbent cotton. (4) They are then placed in a warm saturated solution of oxalic acid and kept there until completely decolorized. (5) They are then thoroughly washed in clean sterlized water or salt solution. (6) Finally, they are immersed for two minutes in 1 : 500 corrosive-sublimate solution, rinsed in water, and dried.

Aspirin.—Witthauer (*Therapist*, August 15, 1899) says that in the course of the last year he has tested about 3 pounds of aspirin (a combination of acetic and salicylic acids) upon more than 50 patients. It was given in doses of 15 grains, 4 or 5 times a day, in such form that it was mixed with about 45 grains of sifted sugar and a tablespoonful of water. It was tried in all diseases which otherwise would have received sodium salicylate, preferably in rheumatism of the joints and muscles, and in pleurisy. The effect was at least the same as that of sodium salicylate; sometimes aspirin was successful when sodium salicylate failed. In gout it seemed undoubtedly to act better than sodium salicylate. The history of the cases in which aspirin was employed shows that aspirin has distinct advantages over sodium salicylate. The remedy never failed to influence the pains, the swelling and the temperature, and upon no occasion had it any unfavorable effect on the heart or stomach, even in severe cases. It was surprising how well the appetite continued, even in patients who had to take the drug for a long time.

Urotropin in Posterior Urethritis.—Dalton (*The Therapist*, London, October 16, 1899,) recounts 5 cases of posterior urethritis in which most decided benefit resulted from the use of urotropin, after other measures had failed. In 2 other cases doubtful relief was obtained, due, however, the writer believes, in both to the patient's neglect of treatment, and of abstinence of excess of alcohol. The average dose was 7 to 10 grains, 3 times a day, taken well diluted with carbonated water. When the urine is very acid Dalton prescribes alkalies, and when it is very alkaline, mineral acid with gentian.

Sodium Bicarbonate and Potassium Bicarbonate in Gout.—Luff (*British Medical Journal*, October 28, 1899) has conducted a series of experiments, the results of which apparently promise to throw some light on the means at our disposal for checking a gouty attack or for diminishing its severity. He finds that the gelatinous form of sodium biurate is about 5 times as soluble in blood-serum as the crystalline variety; and that the higher the alkalinity of the blood from the presence of *sodium bicarbonate*, the more rapid and complete the conversion of the soluble gelatinous biurate into the comparatively insoluble and crystalline form. Mineral waters rich in sodium bicarbonate are well known to accelerate an attack of gout in many gouty subjects; and from some observations made during the past 18 months the author has found that in every gouty patient examined the alkalinity of the blood was higher than the average alkalinity of the blood of healthy individuals, and since this increased alkalinity was due to a higher proportion of sodium carbonate or bicarbonate, it can be understood why such blood is prone to hasten and to augment the formation of gouty deposits. On the other hand, he finds that the greater the proportion of *potassium bicarbonate* present in the serum the greater is the inhibitory effect on the conversion of the gelatinous biurate into the crystalline form. This inhibitory influence exerted by the presence of potassium bicarbonate explains the well-known beneficial effect of the alkaline potassium salts in the treatment of acute and subacute gout.

Digitalin in the Circulatory Lesions Incident to Old Age.—Beates (*Pennsylvania Medical Journal*, November, 1899) contends that the common teaching to avoid circulatory stimulants in the degenerative vascular lesions of the aged, on account of the alleged existence of *increased arterial tension*, is erroneous, and that when the propelling function of the arteries is less than normal there cannot possibly be an augmented arterial lesion, but on the contrary *diminished* tension. The contained blood is not flowing onward into the venous side in a manner that can only be normally accomplished when the ability of a given artery to perform its function to the full is not prevented, and thus eventuates marked lessening of the standard quantity of blood in the arterial channels, and a corresponding increased volume in the venous side. The treatment of such a condition consists in restoring to the circulation its lost equilibrium. This cannot certainly be accomplished by the use of remedies known as cardiac stimulants, since the latter contain many active principles antagonistic the one to the other, and must, therefore, as they by chance happen to contain the essential principle, either benefit or aggravate the difficulty. Clinical investigation has enabled Beates to prove that in digitalis there exists a derivative, unfortunately known as digitalin, which does restore to the circulation, equilibrium. The tests proving this were applied in those instances in which digitalis, crude drug, and its still more crude official preparations, exhibited by competent clinicians, utterly failed, as did, also, strophanthus, adonis vernalis, convallaria, cactus, caffein, nitroglycerin, in a word, the cardiac stimulants, to achieve the desired end. As digitalin is a name applied to many different principles separated from crude digitalis, it is necessary to remark that that which accomplishes the results here indicated, is known as digitalin, German, Merck. This derivative administered in doses ranging from $\frac{1}{10}$ to $\frac{1}{2}$ grain, from 4 to 6 times daily, as conditions require, accomplishes results that no other plan of drug treatment can ever approach. Particularly is its usefulness demonstrated in that range of cases in which we are taught that digitalis, crude drug, should never be administered, because of the falsely alleged great arterial tension. Beates has held in abeyance for years, by maintaining circulatory equilibrium, slight apoplexies which prior to this being achieved had repeatedly occurred, and, in addition to this, the whole system becomes properly related to the vital unit, and that normal degree of health is restored which converts an invalid into a comfortable and relatively useful being.

Ethyl Bromid as an Anesthetic in Minor Surgery.—Kempter (*Maryland Medical Journal*, September 2, 1899) states that if certain practical rules be followed there need be no fear of death from anesthesia induced by ethyl bromid. According to a series of reports presented at the Berlin Surgical Congress the death-rate in 2,023 cases of chloroform-anesthesia was 1; in 5,090 ether-cases, 1; and 5,228 ethyl-bromid cases, 1. The writer directs that the full dose (1 to 1½ drams in children and 2 to 3 drams in adults) should be poured at once into the inhaler, a crash towel folded into an airtight cone, and made impervious by a layer of paper. The base of the cone should be large enough to cover both the nose and mouth. Having previously instructed the patient to breathe deeply, the inhaler should be applied and held down firmly, and not removed until full anesthesia has been produced, which usually requires about one minute. Owing to the volatile properties of the drug and its liability to decompose, the inhaler should be applied *immediately and retained until full anesthesia has been induced.* Under no circumstance should the inhaler be removed for the purpose of prolonging the anesthesia. A fresh preparation should be used. Exposure to light and air decomposes the drug and results in the formation of compounds having a more toxic effect than ethyl bromid. The advantages claimed for this anesthetic are that it rarely causes nausea or vomiting, that in most instances it does not affect the pulse, that the natural color of the lips and skin is usually retained and that the patient awakes suddenly as if from a natural sleep, without loss of coordination and with a perfectly clear brain.

Heroin.—Wierzbicki (*Klinische therapeutische Wochenschrift*, No. 27, 1899), as the result of a series of clinical experiments extending over a period of three months, concludes that heroin is a very efficient remedy in controling cough. The drug not only lessens the frequency of the paroxysms, but also the quantity of sputum, when the latter is not mucopus. The drug is said to have exerted no influence on the temperature, circulation, or digestive organs. In tuberculosis no effect on the night-sweats was observed. The only outward effect was a slight irritation and dryness of throat, which the patients were quite willing to tolerate on account of the relief from coughing which they experienced after using the drug, a general sense of wellbeing was observed, especially in asthmatic subjects, and this seemed to be attributable to the lessening of the spells of coughing. Small doses did not produce sleep, but large doses (⅓ of a grain) 3 or 4 times daily caused drowiness, dryness of the throat, great thirst, and constipation. The author is of the opinion that heroin is a valuable substitute for morphin in bronchitis and the early stages of phthisis. The drug may be given in powders, or in solution.

Salicylic Acid and Turpentine Externally in Rheumatism.—Freyberger (*Treatment*, November 9, 1899) states that Bourget and Ziemssen recommend in cases of acute polyarthritic rheumatism the use of an ointment containing salicylic acid and turpentine. Glycerin and vaselin retard the action of salicylic acid, and, therefore, these two vehicles should not be used. A suitable formula would be the following:

℞.—Salicylic acid, Oil of turpentine, Lanolin, of each..... 2½ drams.
Lard to make..... 3½ ounces.

The ointment should *not be rubbed into the skin* over the affected part, but spread on a piece of muslin, and kept in position by means of a flannel bandage. Salicylic acid thus applied acts *percutaneously*, and is very useful in cases of acute articular rheumatism, but absolutely useless in cases of gonorrheal rheumatism.

Normal Salt Solution in Toadstool Poisoning.—Noyer (*La Presse Médicale*, September 30, 1899), reports a case of a man, aged 52, who had been poisoned by eating mushroom omelet. Among some of the mushrooms that were left, poisonous varieties were found. The symptoms were collapse, stertorous breathing, marked tremors, dilation of the pupils, and a feeble pulse, averaging 28 beats per minute. Under the application of external heat, and the hypodermic injection of atropin, ether and alcohol, the symptoms grew worse. One thousand cubic centimeters of artificial serum were then injected under the skin with remarkable results. The pulse rapidly increased to 60 a minute. The respirations lost their Cheyne-Stokes character, the temperature rose to the normal, and in 12 hours recovery was complete.

Original Articles.

THE LAW OF THE ACTION OF MEDICINES.

By ELMER F. GOULD, M.D.,
of Carthage, Mo.

"All true science begins with empiricism—though all true science is such exactly in so far as it strives to pass out of the empirical stage into that of the deduction of empirical from more general truths."
—THOMAS H. HUXLEY.

It has been estimated that the pharmaceuticals offered for the use of the medical profession number more than 10,000 preparations; a very large proportion of these are recommended by their makers as "sure" cure. On the other hand, we are told "that there is no place in the human economy for drugs."[1] Extremes of empirical statement are here contrasted in order to enforce the urgent need of generalizations, if such can be made, competent to indicate what results may reasonably be expected from the administration of drugs.

In spite of the opprobrium heaped upon it, from within as well as from without the ranks of the profession, medicine is still accounted "The Healing Art." That there may be, in truth is, such a thing as scientific therapy, is undoubtedly one of the greatest, if not the greatest, benefits conferred upon humanity by the teaching of the distinguished author of the words which serve as a motto for the present essay. In most emphatic language he declared that this great desideratum, scientific therapy, is only to be attained through the study of biology. "There can be no doubt," said he in concluding the address from which quotation above was made, "that the future of pathology and of therapeutics, and therefore of practical medicine, depends upon the extent to which those who occupy themselves with the subjects are trained in the methods and impregnated with the fundamental truths of biology. As pathology bases itself upon normal physiology, so therapeutics rests upon pharmacology—part of the great biological topics of the influence of conditions on the organism."[2] Certain fundamental biological facts which condition the action of medicines should therefore be considered.

A "nucleated mass of protoplasm," or simple cell, is the morphologic and physiologic unit of the human organism. "As a matter of fact, the body in its earliest state is a mere multiple of such units; and in its perfect condition, it is a multiple of such units, variously modified.[3] In the lowest organism each individual cell has the capacity to perform all functions. How, then, does modification or specialization take place? By, or in, division of labor which proceeds in a certain order, and it would appear also that degrees of susceptibility to the action of medicines arise with, and depend upon, the progressive development of the various functions. For the knowledge of the manner in which the first great division of physiologic labor occurs, the world is indebted to Ernest Haeckel, of Jena, whose researches, covering 5 years' time, led to the publication of his gastraea theory.[4]

In 1828, 10 years before the cell-theory was advanced, Karl Ernst Baer had conceived that "at their first appearance all animals are perhaps alike, and are merely hollow globes." That such is the case has since been proved. It has also been proved that the most diverse animals pass through such a (*blastula*) form in their development, and that this "hollow globe" consists of homogeneous cells. Now the phylogenetic origin of the gastraea from the planaea exemplifies the specialization of the functions of organic life from the state of generalized function existing in the homogeneous cells of the blastula. While there may be difference of opinion as to the cause of the process, there

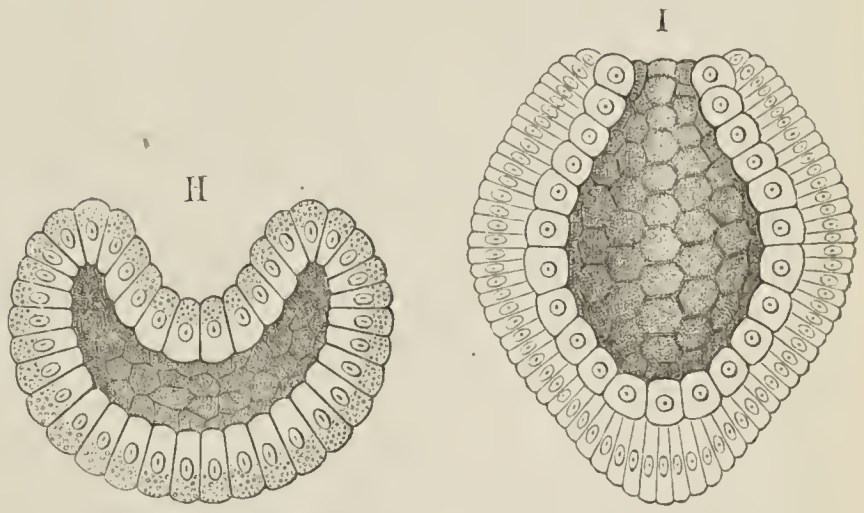


FIG. 1.—*H*, Vesicular germ (*Blastula*) of a coral (*Monoxenia Darwinii*) showing process of gastrulation; *I*, Gastrula in longitudinal section.—From Haeckel's "Evolution of Man."

can be no reasonable doubt as to the manner of its occurrence. According to the "fundamental law of biogeny," the development of the human embryo is an epitome of the development of the species, and is the better understood in proportion as we understand the evolution of the latter. In the phylogenetic origin of the gastraea from the planaea, therefore, we have the type of formation in the human fetus of the hypoblast from the epiblast. That this is the true mode of development is witnessed by the fact well known by histologists that the cells of these two layers are practically identical and so remain throughout life. (Fig. 1.)

The skin-system, or epithelium, then, must be regarded as the most original, and as consisting, therefore, of elements more generalized or less modified as to function than any other part of the body. Developed directly from the exoderm, of very ancient phylogenetic origin, the urinary apparatus must be considered part and parcel with it from a pharmacological point of view. All physicians know, from everyday experience, that certain drugs act as diaphoretics or diuretics

[1] Elmer Lee, A.M., M.D., Ph.B., paper read before the American Academy of Medicine, Atlanta, May 2, 1896.
[2] "The Connection of the Biological Sciences with Medicine." Address at the International Medical Congress, London, 1881.
[3] Huxley: "On the Physical Basis of Life."
[4] "Monograph on Chalk Sponges," Berlin, 1872.

according to circumstances. Along with the fact that epithelium is least modified, or specialized, as to the functions of its cellular elements, must go the statement that the skin-system is most susceptible to the action of drugs. Of those presently to be considered, the smallest dose capable of producing any effect at all, acts solely on this system. That it is in the highest degree susceptible is further witnessed by the great number of herbs, of no very pronounced toxic qualities, which act as diaphoretics or diuretics. To illustrate the point a short list of such agents follows, namely: angelica seed, balm of gilead, blue flag, boneset, burdock root, catnip, elecampane, goldenrod, horsemint, juniper berries, life-everlasting, mullein leaves, pennyroyal, plantain leaves, queen of the meadow, sage, tansy, and yellow dock.

We have seen how the intestinal system originates from the skin-system by simple invagination, and it might naturally be expected that systems related in this way would be affected by the same drugs. This is the case, qualified by the statement that it takes a much larger dose of the same drug to act on the intestinal system than on the skin system. Certain drugs, for example, calomel and colchicin, in minimum doses promote diaphoresis or diuresis, while in much larger doses they exert a purgative action, the particular effect in either case depending on the size of the dose. This fact is of the profoundest significance as indicating that susceptibility to the action of drugs decreases as specialization of function increases.

With regard to the next step in the division of physiologic labor, we find it necessary again to call to our aid the "fundamental law of biogeny" in order to understand the further specialization of function in the human organism. This may be the more freely done, as the truth and utility of the law is implicitly recognized by every teacher of embryology and anatomy, who explains the development of the human fetus, as well as certain anomalies of structure, by reference to the development and structure of lower animals.

It appears that in the Chorda animals (*Chordonia*), ancestors of vertebrates, there arises, at a great distance in time from the origin of the skin system and the intestinal system, another organ system, the neuromuscular. It is not necessary to detail here the manner in which there arises from the exoderm layer, comprising in itself both motor and sensory functions, a new system whose essential function is motion, effected by specialization of that primary property of protoplasm, contractility. It would seem needless to insist that contractility is the special property of muscles were it not for the fact that there is, in the medical literature of the day, quite frequent reference to a so-called "tetanizing principle" in certain drugs. Now tetanic contraction of muscles is a matter of a certain amount of stimulation, which, when applied in the form of electricity, may be measured by the number of induction shocks per second; no contraction occurring with a feeble current unless interrupted. "The number of successive shocks in a second required to produce a tetantic contraction of the muscle, varies in different animals and in different muscles in the same animal. Very rapid stimuli, even more than 24,000 per second, will produce tetanic contraction.[5] It may be here pointed out that stimulation capable of exciting function in muscles need not differ in kind from such as will increase function in the intestinal system; it need differ only in degree. In proof of this statement, the fact may be cited that small doses of the preparation of nux vomica "promote the flow of the stomach and intestinal juices, increasing the digestive power and thus favorably affect the appetite. They also hasten the intestinal movements, and the stools voided are somewhat relaxed."[6] These effects on the intestinal system are produced without, in any perceptible degree, affecting the muscular system. By simply increasing the dose, characteristic tetanic contraction of the muscles is produced, showing that (1) no specific action of the drug is involved, and that (2) the effect produced is determined in either case by the difference in the susceptibility of the two organ-systems to the action of the drug.[7] The next great step in the process of specialization of function is accomplished in the development of the circulatory system or vascular apparatus, the origin of which can only be studied by the light afforded by the "fundamental law of biogeny."

[To be continued.]

PYELONEPHRITIS OF PREGNANCY.

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Case.—Mrs. R., Chicago, married, 26 years old. Miscarriage two years previous. No disease of urinary tract. When 18 weeks pregnant the second time, reported for examination, June 20, 1898. Gave a history of some uneasiness in passing water the night before (smarting, etc.), which had disappeared. Examination revealed no abnormal tenderness, no exudate, uterus freely movable, examination not painful. Two or three hours after reaching home she felt cramps in the lower part of the abdomen, the desire to pass water was frequent and some tenderness was present over the bladder. About the normal quantity of turbid urine was collected during the night and was examined the following morning. The reaction was acid, on standing showed a moderate amount of sediment which was apparently pus. No microscopic examination was made of this specimen.

The patient did not improve under treatment and in 3 days she began to complain of pain in the right lumbar region of great intensity, which radiated down the right groin. The temperature at this time was 100°. Bimanual examination excluded tubal inflammation and appendicitis, and suspecting involvement of the kidneys, Dr. Van Hook was invited to see the case.

At his suggestion the Harris instrument for obtaining

[5] Flint: Textbook of Physiology, p. 530.

[6] Bartholow: Materia Medica and Therapeutics, p. 476.

[7] It is, of course, true that contraction of muscles is normally excited through the nervous system. It is also true that muscles and their "centers" are developed concurrently; both are therefore subject to our law.

urine separately from the kidneys was employed. Clear urine flowed freely from the left kidney. Nothing whatever was obtained from the right side. External examination showed the right kidney enlarged, tender and easily palpable at the level of the umbilicus. A tentative diagnosis was made of obstruction either in pelvis of kidney or in ureter, with a possible pyonephrosis, and the patient was transferred to the hospital. On admission temperature was 99°, pulse 98.

The kidney was explored through a lumbar incision by Dr. Van Hook on the following morning, but no accumulation of pus or urine and no obstacle of any kind was found, a gauze drain was left in the kidney. Within a few hours bloody urine was passed showing that the right ureter was patulous.

On the third day the temperature rose to 103°, the dark urine gradually cleared up, and temperature was normal on the fifth day. The urine still exhibited pus. Enlargement of kidney subsided and patient began to eat.

At this time the pulse became intermittent. Bowels moved once or twice daily and a slight reduction in the temperature was observed to follow. From the ninth to the seventeenth day after the operation the temperature was abnormal most of the time. On July 14, the temperature suddenly rose to 100°, and the pulse to 100, while on the 15th the temperature remained at 100°, and the pulse was 120.

The fetal movements at this time annoyed the patient greatly. The Harris instrument now showed pus coming from both sides and containing bacillus coli. From 27 to 64 ounces of urine passed in the 24 hours. Dr. Herrick saw the patient at this time.

Temperature fluctuated between 101° and 104° and pulse varied from 108 to 126 for the two weeks following. A distressing cough without organic cause annoyed the patient night and day, while the continual nausea and vomiting and excessive perspiration reduced the woman to a mere skelton. At last, hopeless and discouraged, with a temperature of 103°, she insisted on going home.

The question of inducing premature labor had been carefully considered, but it was determined to defer action on account of the patient's exhausted condition. At home she began to gain slightly, the pus diminished in quantity, and her strength slowly returned. Two weeks later, approximately the thirty-third week of pregnancy and the fifteenth week of her illness, she had labor-pains. Examination showed the cervix effaced and the os admitting two fingers. A Barnes' bag was introduced and with the aid of Dr. McKenzie the patient was anesthetized, the dilation of the os manually completed, the bag of waters ruptured and the small head delivered by the forceps. The child was living but very thin and undersized. The labor from inception to delivery of placenta lasted 2 hours.

After the evacuation of the uterus the improvement was more pronounced, and at the end of the fourth week she could sit up. The milk did not appear. For several months after her illness there was albuminuria which gradually disappeared. The recovery is now complete (one year after). The child died four weeks after of malnutrition.

It is largely owing to the efforts of Vinay and others of the French school that pyelonephritis of pregnancy has been isolated as a specific accident of gestation.

Kruse in his inaugural dissertation (Würzburg, 1889) foresaw its existence; but to Reblaud, in a paper read before the Congress of Surgery in 1892, belongs the honor of separating the disease from other urinary disturbances and describing its origin and clinical course. The disease is relatively rare, thus Olshausen reports 25 cases, Vinay 9 cases since 1893 from his service in the Maternity at Hotel Dieu, Navas 11 cases together, Reblaud 3, Bue, Routier, de Lille and Bonneau each one. It is probable that many cases have either escaped observation or have not been reported.

The time of attack is quite suggestive and nearly constant in the middle and latter months of pregnancy. It rarely occurs before the fourth month, usually from the fifth to the eighth and sometimes in the course of the ninth or even some days before labor. There is a slight predilection for multiparae according to Vinay's cases, only two of which were primiparae.

These observations do not support the position of Halbertsma and Olshausen, who maintain that ureteral compression is determined by the fetal head and occurs therefore earlier in primiparae than in multiparae. It is certainly justifiable to assume with Bonneau that all accessory conditions which add bulk to the pelvis, or the presence of inflammatory exudate, can become predisposing causes by favoring ureteral compression. Infection is favored in addition by fatigue, overwork, cold, and especially constipation.

Vinay shows that the pathology is determined by two main factors: First, the ureteral compression which results in stagnation of urine and to a certain extent prepares the way; and, second, the infection which easily occurs when the above conditions are present.

That compression of the ureters is common in pregnancy has been domonstrated many times statistically, notably by Halbertsma and Leyden, who correlated it with eclampsia. Cruveilhier has stated that during his service at the Maternity Hospital all women who died during pregnancy or shortly after delivery had dilated ureters. Not only is dilation present to a variable degree, but necessarily the tonicity of the walls is greatly diminished. The compression is easily explained by reason of the close relations existing between the ureter and uterus on the one hand and the pelvic brim on the other. Thus, according to Ricard's experiments, an interval of only 1.5 cm. exists between ureter and uterus, and from 2.5 cm. separates them from the pelvic rim in the nonpregnant state.

If affected at all, a very small obstacle suffices to obstruct the flow of urine in the ureters. Halbertsma found (dog) a weight of 5 gm. placed on ureter 8 mm. in diameter obstructed a column of 400 gm. of fluid. Ludwig and Löbel have shown that the pressure of urine in the pelvis is always very low and cannot exceed 10 mm. of mercury.

This compression doubtless occurs under other abnormal pelvic conditions, as in the presence of ovarian and fibroid tumors, and pyelitis also occurs here, but how frequently is not determined. Admitting the ureteral compression, which seems amply demonstrated, how shall we explain the very evident predilection for the right kidney in these cases? In the 25 cases reported by Olshausen, of which 12 were unilateral, 10 occurred on the right side. Stadtfeldt's statistics show the same. Vinay claims that this is due to the normal inclination of the uterus to the right, which is intensified in pregnancy and rotates in the axis of greatest development a little to the right.

This is a valuable suggestion if it can be proven that

the predilection for the right kidney is found solely in pyelonephritis of pregnancy. Guyon reports 26 cases of pyelonephritis, in which 22 were unilateral and 12 on the right side; but as 11 cases occurred in men the statistics are not confirmatory. Furthermore, Faytt has carefully obtained the measurements from the external surface of the uterus to the ureters in a series of 30 cases, and it was invariably found that the left ureter was nearer the uterus than the right. The pressure of the head in one of the oblique diameters is also suggested by Vinay as a possible influence. Guyon and Albarran have shown that when the urine stagnates for any reason a change occurs in the mucous membrane (congestion and desquamation), which renders infection easy.

It would be rational to expect a majority of these cases would be infected from the bladder, the inflammation beginning as a cystitis and traveling up; but, as a matter of fact, the lesion is usually primary in the pelvis of the kidney and ureter, developing through the intervention of the circulation, blood and lymph, and the bladder may be infected secondarily, although it shows extreme tolerance. That this is possible is shown by the experiments of Reblaud and Bonneau, who ligated aseptically the ureters of 4 rabbits, and injected into the vessels of the ear of two of them, cultures of streptococci, and bacillus coli into the ears of the other two, and in all cases produced pyelonephritis, and in each found the microbe in the pus.

Posner and Lewin ligated the urethra and mechanically closed the anus of rabbits, and the bacteria from the intestine appeared in the urinary passages, but this did not occur if the urethra alone was ligated. If the vessels of one kidney were ligated at the same time, that kidney remained free from infection. The infective agent was found by them to be the bacillus coli in a majority of cases, and this was confirmed by Reblaud in 3 cases, Vinay 3 cases, and Weiss in one case. Melchior also considers this germ the most common, not only in cystitis, but in pyelitis and pyelonephritis.

Symptoms and Clinical Course.—Quite rarely, as in 2 cases reported by Reblaud, the disease begins insidiously, but usually the onset is sudden, sometimes accompanied by chills; the pulse is rapid, 95 to 120 per minute; temperature rises to 101° or 102°; headache, vague pains in the limbs, tongue coated, digestion disordered, complete anorexia, occasionally vomiting, and diarrhea, or constipation. Shooting pains appear in back and side, and radiate from lumbar region down the groin. Urine at first scanty, dark, and slightly albuminous, signalizing the transition of kidney to pyelitic process. This fact was first signalized by Rayer and repeated by A. Robin in cases of spontaneous pyelitis, independent of pregnancy, in which infection took place through the blood. Reaction of the discharge is distinctly acid, and the addition of nitric acid often shows albuminoids and a disc of urates. When allowed to stand, a deposit of pus usually occurs, and the characteristic epithelium of the pelvis of the kidney, as well as bacillus coli, is often observed. The quantity of urine is a little over one quart in the 24 hours. Examination of the bladder shows no involvement. Examination of kidney region, on the contrary, usually shows the kidney enlarged, and the presence of considerable muscular resistance. Other viscera negative.

The temperature shows great oscillations, but usually goes down after purgation. The pyuria also fluctuates, but does not disappear until the patient recovers. Cystitis may appear secondarily. The disease does not usually last long unless relapse occurs, which is not frequent, then the same symptoms reappear with a greater intensity, or the disease may recur later in the same pregnancy as reported by Gouilloud, or in successive pregnancies, as in the first of Vinay's cases.

The termination in simple cases is distinctly favorable, but the possibility of extension to the other kidney must be kept in mind; thus Bardleben reports a case where the pyelonephritis followed labor, pus from right kidney, urine clear from left, nephrectomy; fatal termination after 4 days, and autopsy revealed a fresh pyelitis of left kidney. The prognosis must be considered with reference to the mother, the child and the pregnancy. The disease usually lasts from 8 to 14 days, and rarely terminates fatally, in spite of the grave intensity of the symptoms, which at first fill the attendant with apprehension. This severity soon diminishes, and only a slight lumbar pain is left, which in turn disappears.

If a relapse supervenes upon the already weak maternal state the condition is very serious. The effect upon the child if the disease is of brief duration is not injurious, but as the weeks go by the child as well as the mother becomes greatly emaciated and fetal death may occur. Abortion occasionally occurs from the violence of the symptoms, but usually gestation continues without interruption. In Vinay's 9 cases premature labor occurred 3 times; of Navas' 11 cases 2 aborted and 2 women died after delivery.

Pyelonephritis occurring a short time before labor does not appear to affect the labor unfavorably, while the disease, as a rule, promptly terminates after the evacuation of the uterus.

The diagnosis is not difficult if the physician is alert. At first it might be confused with typhoid, hepatic colic, intestinal or lumboabdominal neuralgia, but the location and direction of the pain as well as its variable intensity in connection with the general symptoms will permit these to be excluded. Painful uterine contractions can be excluded by palpation. Ovaralgia and right-sided salpingitis are excluded by pelvic examination per vaginam. Appendicitis is rare in pregnancy, and the pain is differently located. The examination of the urine locates the disease in the urinary tract and the differentiation from cystitis can usually be made by the absence of the local symptoms. If no objective

igns point out the kidney affected, catheterization of he ureters by Kelly's method is indicated, or if this is mpossible on account of the deformity of the bladder, lue to the pregnancy, or even in lieu of catheterization, he Harris instrument can be employed with excellent esults if no cystitis is present.

The more common location of the pain on the right ide, its radiation down the groin, the pyuria and the bsence of demonstrable cystitis suffice to make the liagnosis clear, while enlarged kidney, bacillus coli and pithelium of the kidney-pelvis in the urine simply add ertainty. It must be remembered, however, that yelonephritis usually begins with symptoms that are eferable entirely to the bladder, and in some cases here is neither pain nor fever, the pyuria being the nly symptom.

Treatment.—Since the disease is usually self-limited nd disappears as a rule inside of two weeks, the object f treatment should be to relieve pain and combat the nfection in the urinary and alimentary tract. For he first, morphin in some form is essential. Vesi-ants should not be used near the kidneys. Creasote s strongly recommended by Weber. The balsams are seless. The bowels must be kept open by saline lax-tives, and fluids (water) given by mouth in large uantities.

In my own case the heart was supported by strych-in throughout the latter portion of the disease, while n attempt was made to disinfect the canal by giving a apsule of quinia, salol and boric acid, or large doses of rotropin. No marked benefit was observed from ither. The question of induction of labor is certain o arise in many cases. Vinay strongly condemns the roposition, on the ground that the lesion is unilateral, nd so long as the other kidney remains active, no pos-ble danger can exist from eclampsia or autointoxica-on.

It is certain that some cases will prove fatal unless ie uterus is evacuated, and judgment must be exer-sed in emptying the uterus before the patient be-omes so exhausted that interference is not warranted. ne cannot fully indorse Vinay's position, that "if the rocess is intense, nature will expel the fetus, as in her intoxications; while, if not intense, both mother id child survive." If the process is not intense, the uestion of artificial abortion will not arise, and if se-re, it remains a matter of judgment and personal quation, in which the rights of the mother must be nsidered first.

When labor does occur, or is induced, the condition the mother will not permit the labor to be prolonged, id forceps or version must be employed under strict ntiseptic precautions.

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FINSEN PHOTOTHERAPY.[1]

By GEORGE G. HOPKINS, M.D.,
of Brooklyn, N. Y.

I EXHIBIT a tube built after the description given by Valdemar Bie, M.D., of Finsen's phototherapy apparatus, published in the PHILADELPHIA MEDICAL JOURNAL of October 7, 1899. The photograph portrays the complete apparatus. The difficulty of securing a lamp of 80 amperes, or 22,000 candle-power, has been very great. Quartz crystals of sufficient size to concentrate rays are scarce.

Those who have read Bie's article will notice some changes in the construction of my lamp-frame, but the lamp and tube are built according to description.

No. 1 is a metal disk set in a band of iron; a second and third band are built into the frame to give it firmness and stability. These bands are secured together by round iron bars 1.5 cm. in diameter; the ends of these bars are rounded out to serve for attachment to the ceiling by iron plates.

No. 2 is an iron tube secured firmly into the head disk and braced to one of the uprights on a level with the second ring; into this tube is run a bar of iron, with a Y at its lower end; into this Y the lamp is secured. The sliding motion up and down, and rotation, are controled by a clamp screw shown in the picture.

No. 3 shows an open quarter circle attached to the head of the lamp, and a clamp-screw attached to the Y regulates the tilting motion of the lamp. With these two arrangements, the lamp can be quickly shifted into any desired position and held absolutely free from vibration. This does away with the pulley and stay cords of the Finsen mounting.

No. 5 is a metal band which hides the lamp when it is placed in proper relation to the focussing tube.

No. 6 is an arm secured to the lower band of the frame at an angle of 45° to receive the rings of the rods for holding the collar that receives the focussing tube.

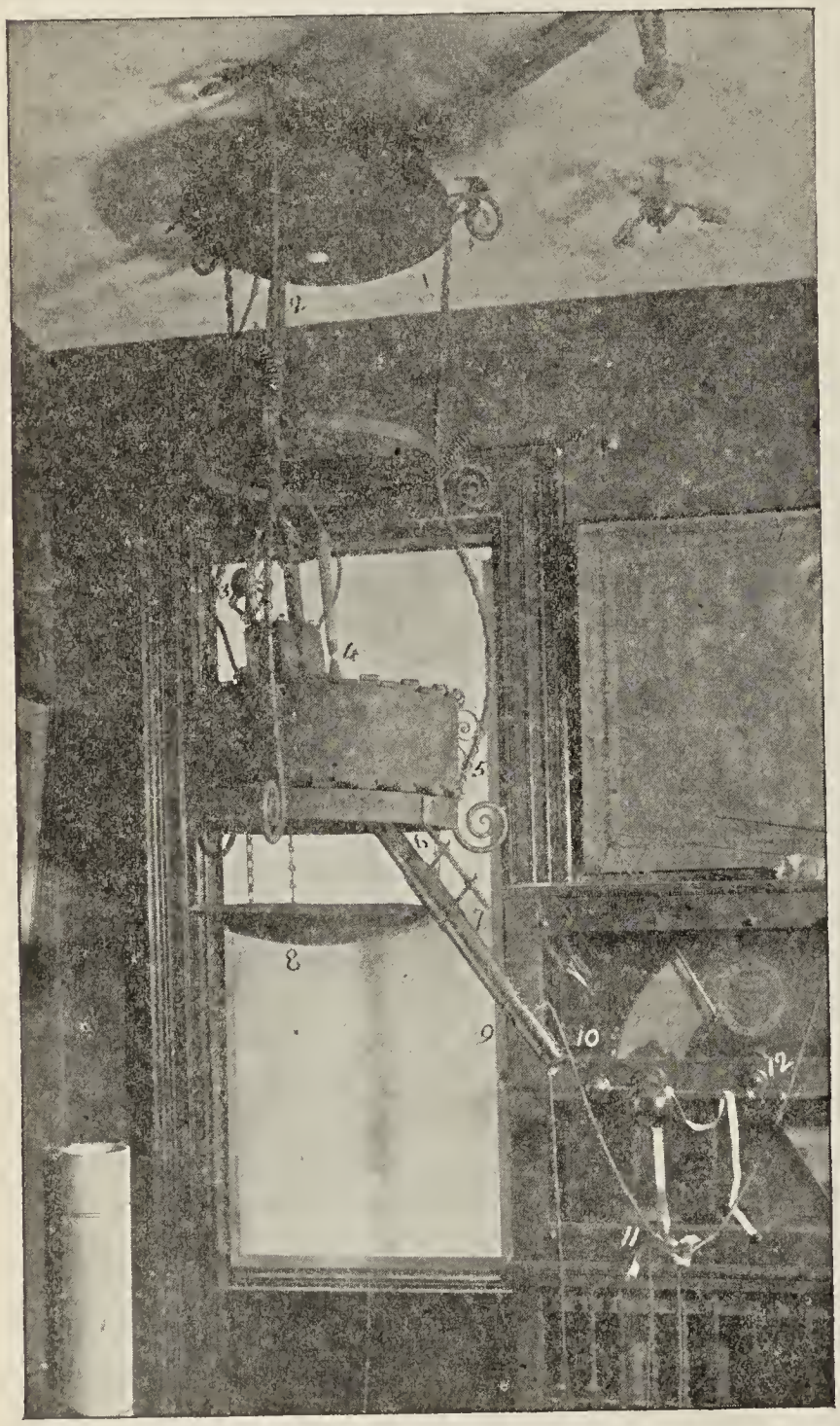
No. 7, the tube, is constructed like a telescope, the lower tube sliding into the upper one. In the head of the tube, which is concealed from view, there are placed two quartz lenses having a focal length of 12 cm. These lenses collect the ultraviolet rays principally, which have a short wave length and pass

[1] Presented to the Kings County Medical Society.

through quartz more readily than through glass, the blue and violet passing through either with facility; these rays are passed on in lines parallel to the long axis of the tube. At the lower end of the tube the light impinges upon two other quartz lenses, with a focal distance of 10 cm.

No. 8 is a pan for catching sparks from the carbons.

No. 9 shows the junction of the lower tube with the upper one. At the lower end of the tube is a



water-chamber which is filled with distilled water, that the red and yellow rays may be intercepted, cooling those that pass on, as the first two lenses do not intercept *all* the heat-rays.

No. 10 is a water-jacket, with a tube for inflow and outflow, surrounding the water-chamber. Through this, cool water is kept flowing to prevent the distilled water from becoming overheated. The blue, violet, and ultraviolet rays of light are thus concentrated in great density 10 cm. from the distal end of the tube.

No. 11 is the apparatus which is designed to receive the germicidal rays and transmit them to the diseased surface. This consists of a brass ring into which is set a convex lens and a plate of quartz with a water-space between them, into which two tubes open, one for ingress, the other for egress of the water. This tube is secured firmly to the surface by elastic tapes.

No. 12 shows the water-supply tube for jacket and skin lens.

The prism reveals only blue, violet, and ultraviolet rays emerging from the tube.

Cases will be reported as soon as they have advanced far enough under treatment to warrant conclusions.

AN IMPROVED METHOD FOR THE CONTROL OF HIGH TEMPERATURE OF THE HUMAN BODY WITH A MINIMUM OF SHOCK AND DISCOMFORT TO THE PATIENT.

BY CARLOS C. BOOTH, M.D.,
of Youngstown, O.
Attending Surgeon to the Mahoning Valley Hospital, Youngstown, O.

DURING the past winter I was one of the many unfortunate sufferers from rheumatism, and during the month of April, while convalescent, I noticed that certain conditions of the weather affected me. Being desirous of knowing the condition of the atmosphere on such occasions, and we not having a Weather Bureau Station in our city, I purchased a few meteorologic instruments, among them a wet and dry bulb hygrometer. On observing the depression of the wet bulb, caused by the evaporation of the water from the gauze, which is applied tightly to the bulb containing mercury, the idea came to me of applying this scientific principle to a fever-patient, who was suffering from persistent high temperature.

After looking up all available authorities on hydrotherapeutics I was unable to find this principle applied in this manner for the reduction of temperature of the human body, therefore, at my first opportunity, gave it a trial.

The first case on which it was tried was through the kindness of Dr. J. S. Zimmerman, attending physician to the Mahoning Valley Hospital, who had in the medical ward a case of typhoid fever, with persistent high temperature. The patient had been sick about 10 days, and the temperature ranged from 103° to 104.5°. She was delirious, very weak, pulse 140, and with all the symptoms of extreme prostration. I directed the nurse who had the case in charge, to strip the patient entirely of all clothing, and to place beneath her a rubber sheet, and over her one thickness of a piece of ordinary cheesecloth two yards long and the usual width, one end having been split the necessary distance, so that each leg could be covered separately, and the balance of the cloth applied to the abdomen and chest, using separate pieces for each arm. The weather being warm, the doors and windows were opened and the patient was properly screened from observation. I directed her to use water at about the temperature of the body, squeezed from a sponge over the entire anterior surface of the body, therefore securing practically the same arrangement as the wet-bulb thermometer, the water causing the cloth to fit skin-tight, and to wet the gauze freely as often as necessary to supply the water for evaporation. She found it necessary to do so about two to three times an hour.

First Application: August 6, 11 A.M., temperature 103°; 12 M., temperature 100°; 1 P.M., 99°; 2 P.M., 98°; patient complained of being cold, and the gauze was removed, and the patient covered up. This was a reduction of 5° in three hours without shock.

Second Application: 5.30 P.M., temperature 104°; 7.30 P.M., 101°; 8 P.M., 99½°. Reduction of 4½° in 2½ hours without shock.

Third Application: 10.30 P.M., temperature 104°; 11.30 P.M., 101°. Gauze taken off. Reduction of 3° in one hour.

Fourth Application: August 7, 7.30 A.M., temperature 103°. The gauze was moistened occasionally until 1 P.M., when the temperature was 98.5°. The gauze was left on but not moistened, and at 3 P.M. the temperature was 100°. The gauze was moistened again, and at 6 P.M. the temperature was 99.5°; at 8.30 P.M., 104°; 9.30, 103°; 10.30, 101°. We found it necessary to put it on only once on the 8th, at 7.30 P.M., when the temperature was 103°; at 8.30 it was 102°, and at 9 o'clock, 100°. The gauze was moistened 3 times. The gauze was not applied on the 9th and 10th at all, as the temperature did not reach above 101.5°.

On August 11, 8 P.M., the temperature was 104°. The gauze was moistened, and at 9 P.M., the temperature was 104°; at 10 P.M., 103°; at 11 P.M., 103°. In this application that the result was not favorable was because of the fact that the percent of relative humidity was 100°, consequently there was no evaporation.

The gauze was not applied again until 3 P.M., August 13, when the temperature was 103°. At 6 P.M. it was 101°, having gradually come down.

The next and last application was made August 14, at 5 P.M., the temperature being 104°. At 8 P.M. it was 101°. This was the last application found necessary to be made to this case. From the beginning of my method in this case, the pulse, nervous system, temperature, strength, in fact every symptom, rapidly improved, and the case went on to complete recovery.

All that is claimed for this method is, that it is more convenient, more easily applied, less dangerous, cheaper and pleasant to the patient, warm or hot water being used, than any other method that I have been able to find or know of having been put into practice; any one who can read a thermometer being competent to carry out the treatment. As one can see, it is based upon the old scientific instrument, the hygrometer, and is not a theory. Our experience with it in several cases by several physicians is that its action is practically certain, and not as unpleasant to the patient as the present best-known treatment, that of Brand, for the reduction of high temperature.

For the benefit of those who are not familiar with the hygrometer, I would say that the difference between the thermometers varies in degrees from 0° to 30° or more, the greater the difference between the two thermometers, the drier the atmosphere, consequently the more rapid the evaporation.

When the percent of relative humidity is 100, as it often is in the evening, night or early morning, or during or after storms, evaporation will be nothing, or very little; therefore it becomes necessary to heat up the atmosphere in the room, when evaporation will become more rapid.

We find in the application of this method, it is better to open the windows and doors so as to get a free circulation of the air. Of course, this is practicable in summer when the weather is warm, in the winter-time it would be necessary to heat up the room, as stated.

I do not claim anything for this treatment, except the reduction of high temperature, which, as we all know, is attended by an improvement in the grave symptoms that have been caused by high temperature. I also claim that by its early use it prevents the development of grave symptoms, and that it reduces the temperature so gradually that there is but a minimum of shock.

THE "SATURATION METHOD" IN THE MANAGEMENT OF LAPAROTOMY.

BY STEWART LEWIS, M.D.,

of Brooklyn, N. Y.

SINCE the early days of modern abdominal surgery, the methods of preparation and after-treatment of these patients have been many and various. Until quite recently, but one *principle* has ever been employed to deprive the system of water, thus stimulating the absorptive power of the peritoneum. Recent literature on the subject, however, impresses the reviewer with the fact that the methods on which the leading authorities are most enthusiastic are those tending to *exactly the opposite condition.*

Just a few points in evidence. Dr. L. H. Stimson has for years advocated copious draughts of water as an important part of the preparation of patients for laparotomy. Dr. Kelly devotes nearly a page of his "System of Gynecology" to an enthusiastic advocacy of the postoperative saline enema. Dr. A. T. Bristow's favorite order is "fill up the lymphatics as soon as she will bear it." The administration of saline solution by the intravenous, intraperitoneal, rectal, or cellular methods, is a daily practice in the combating of shock and hemorrhage. Let us add the verdict of the physiologic chemist: "Many of the constituents of the body contain water as a part of their composition, and when this water is driven off, their condition beeomes so altered as to render them entirely unfit for the performance of their duty." (Witthaus, "Essentials of Chemistry.") Look at the water-starved patient! The parched lips and tongue, the clutching at the surgeon's sleeve with a prayer for "just a mouthful of water"; the bounding wiry pulse that speaks of a circulation struggling under a load of toxins. Look at the urine record,—scanty, high-colored, high specific gravity, a urine which may act on the mucous membrane of the bladder almost like a caustic. Are not these potent arguments?

But in abdominal section drainage of the tissue-fluids is necessitated by, first, the preliminary purgative; second, by keeping the stomach empty to avoid ether-vomiting; third, by the loss of blood. Let us then lay down a principle. *In laparotomy drainage of the tissue-fluids is an unavoidable evil. It predisposes to shock, tends to limit absorption, metabolism and excretion and to the production of many unpleasant symptoms, and should be*

provided against, limited and promptly restituted in every possible way. The application of this I have called the "saturation method" for want of a better term, although it can scarcely claim the dignity of a method. It forms a part of the system which we have used at St. John's Hospital with very excellent results.

In the preparation of patients, we have held two principles of primary importance. *A.* The intestinal canal should be, as far as possible, *empty* and free from bacteria or their products. *B.* The tissue should be fluid-saturated to the physiologic limit. Why not have the patient in this condition when shock and hemorrhage are *expected*, instead of rushing to produce it when these have occured. Theoretically this might be supposed to favor hemorrhage—practically it does not.

A. Failure in this point may result (1) in annoyance to the operator by the distended intestines; (2) in postoperative flatulence, painful and even dangerous; (3) in intestinal toxemia which predisposes to vomiting nephritis and suppuration, and may be even directly fatal. We find that by limiting the diet to that which will produce the minimum of either gas or toxins, by several mild purgations instead of one imperfect or excessive and exhausting, and by the use of intestinal antiseptics, three or four times daily, these factors may be *absolutely eliminated*, the bowel at time of operation being almost flat.

The final cleansing is a matter of vital importance. Eighteen hours previous to operation, two or three grains of calomel are given in single or divided doses and combined with some cholagogue, such as the ordinary a. b. s. pill, to antidote the depressing effect of calomel on the liver. Six hours previous, four quarts of normal saline by enema should be given in Sims' position, very slowly and with especial care to insure long retention. *The usual saline cathartic is omitted.*

B. Observe that the preceding method is not only *thorough*, but that the tissue-fluids are not drained by the usual saline cathartic, but are *reinforced* by the saline enema. *For 48 hours preceding, copious draughts of water, 6 to 8 ounces every two hours, are administered.*

After-operation comes in the process of restitution: (1) Each patient while still narcotized is given a quart of saline by enema. This is best given while the patient is still on the operating-table, as the half-conscious patient is certain to expel it. In the presence of shock, of deficient renal elimination or of toxemia, these enemas are repeated sometimes even hourly and with great care to insure retention. (2) As soon as ether-vomiting has ceased, the administration of hot water is begun. This must be in quantities sufficient to reach the stomach hot, not in teaspoonful doses to arrive lukewarm and be promptly vomited.

The good effects of this treatment are shown in greatly better morale of the patient. Shock is greatly lessened. Headache, excessive thirst, and wiry pulse are rare. The urine is increased in quantity and specific gravity much lessened. The irritable bladder is unknown and postoperative nephritis almost so.

I was first led to study this subject by observation of the effects of the routine use of postoperative saline enemas in the services of Dr. Hopkins, at St. John's Hospital. In the use of this method enthusiasm has increased with experience.

ABDOMINAL HYSTERECTOMY AT 79.

BY J. F. BALDWIN, M.D.,
of Columbus, Ohio.

JUNE 22, 1899, I operated on Mrs. A. F., on account of sarcoma of the fundus of the uterus. Although the vagina had undergone senile atrophy, I had hoped that I would be able to operate through that canal, but after the patient was under an anesthetic I found the disproportion between the canal and uterine body so marked that I decided to operate through the abdomen. The operation was made in the usual way, but, owing to the extreme age of the patient, was done as rapidly as possible, the abdominal incision being closed by through-and-through sutures of silkwormgut instead of in layers as usual. The patient's convalescence was absolutely uneventful, and she left the hospital just three weeks from the day of operation. She completed her 79th year while in the hospital.

Surprise has been expressed at my operating at such an extreme age. My reasons for making the operation were, in brief, that the patient's general condition was good; there was no arcus senilis nor any evidence of atheromatous degeneration of arteries. The disease seemed to be progressing very slowly, but was giving her a great deal of pain. I saw no reason why there should not be a successful result. If successful, I thought it would add some years to her life and relieve her of her pain. Even if the disease should recur its progress would almost certainly be very much less painful. If she should fail to survive the operation, on the other hand, she would be saved much prolonged suffering. As a matter of fact, when she left the hospital she stated that all of her discomfort during the three weeks subsequent to the operation was much less than what she had experienced daily for several months from her disease.

While I have seen reports of the removal of ovarian tumors from women much older than my patient, I do not recall having seen any report of abdominal hysterectomy made in one so old. Certainly the case is rare enough to justify placing it upon record.

The Prince Regent of Bavaria has given for the current year a total of 11,350 marks to 13 recently licensed physicians in sums of 725 to 1,100 marks, as Reise-stipendien, or travelling fellowships.

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Save us from our Misrepresentatives!—Now that ongress has once more reassembled the people must ncc more resume the tremendous labor of prevcnting ıe crimes against civilization and science by some of ıe people's official representatives. For us the most nportant is the attempt, undertaken and represented y the antivivisectionists, to legislate against scientific ıedical progress and the lessening of the great com- on burden of disease and death. Senator Gallinger as reintroduced the Antivivisection bill as Senate bill o. 34. It is a wearying struggle, but we must resume with cach session of Congress. Eternal vigilance is ere the price of liberty in a most literal sense. Every ıysician should send protests to his represcntatives in 'ashington, and in any other way bring all right in- ıences to bear to prevent these rccurrent attempts at il legislation.

Even the Coroner is compelled to protest at the rious cartload-dumping of samples of drugs in the alls of private houses throughout whole cities. The oroncr of Philadelphia issues a warning that these adache-powders, secret drugs to kill pain, pills, and ncoctions galore, for all conceivable purposes and to tisfy the mania of the self-druggers, are often poi- nous, and that the lives of children into whose hands ey fall or are thrust, are endangered. Inquests show at insanities and sudden deaths may be traced to the e of these nostrums. It is a national disgrace, this turnalia of the quacks and venders of medical hum- gs, and the laws should be made effective against the olerable pest.

A Percentage on the Profits.—We have received many advertisements of a "sanitarium" located in w York City that the city appears to have been most oroughly circularized. Such institutions formerly rank from the publicity which they now seem to art. That they escape the law is probably due to the t that they cunningly make it appear as if they are ofessional. Can we not prevent the double wrong? ıe following paragraphs are quoted from the circular:

> After careful and exhaustive consideration of the question, wed from the standpoint of ethics as well as that of busi- ss expediency, I have concluded that in the future a cash count of 20% from the gross charges collected, shall be owed physicians for every case referred by them to the itarium.

Relative to the institution I need only say, that for the past ten years it has served the profession well in the treat ment of the organic and functional diseases of the female sexual organs, as well as that class of obstetrical cases which in the judgment of the attending physician require special operative interference.

Testing Treatments for Consumption.—Contrary to the wishes of the management of St. Luke's Hospital, New York, the public has learned the fact that a scientific test is being made there of Professor Francisque Crotte's electrical cure for tuberculosis. Professor Crotte claims that by means of static electricity he is able to convey into the system of a person affected with pulmonary tuberculosis a sufficient quantity of formic aldehyd to destroy the tubercle-bacilli, and that by this method he is able to cure 75% of the early cases, and 30% of the more advanced cases, of the disease. The results obtained in this hospital will not be published until sufficient opportunity has been given the medical board to ascertain the scientific merits of the treatment.

There comes to us an indignant letter from a manufacturer who, in reference to the foregoing and similar exploitations of secret treatments, asks us "what encouragement there is for honorable manufacturers and dealers to do business on strictly ethical lines." Well, all that can be answered, is that two wrongs do not make a right, and because others do not act professionally that is no reason why the rest of us should throw duty to the dogs, and compete in the debauchery too sadly prevalent already. Moreover, if tests are to be made, it is better that they be made by scientific men, and the fallacies and trickeries ruthlessly exposed, than that sham tests should prolong the life of a fraudulent remedy.

An Old Physician and his Surgery-Door.—In 1807, William Case, the son of an old New England Loyalist, left Pennsylvania, and settled near the end of Lake Ontario, at the place now occupied by the city of Hamilton. One of his sons, William Ira Case, known in the neighborhood for three generations as old Dr. Case, passed away on December 2, aged 92. The old doctor, his father, and son, had lived in the same house for many years, and the city had grown up around it till it was one of the landmarks. In the *Canada Medical and Surgical Journal*, 1883, there is a description of the old surgery-door of the house, which was probably unique

in the annals of the profession. "The patients' entrance is in a side street, and a small porch protects the visitor. The steps are well worn and the native grain is everywhere visible in the wooden surroundings. There is neither bell nor knocker, and the door presents interesting, and, so far as we know, unique evidences that votaries to this Esculapian shrine have not been lacking. On the panels at different heights are three well-worn places where the knuckles of different heights of successive generations of callers have rapped and rapped. The lowest of the three, about three feet from the floor, represents the work of 'tiny Tim' and 'little Nell,' so often the messengers in poorer families. Higher up and of less extent is a second depression, where 'Bob' and 'Sis' have pounded, and, highest of all, in the upper panel a wider area, where the firmer fists of the fathers and brothers have, as the years rolled on, worn away the wood to nearly half its thickness. Such a testimony to the esteem and faith of successive generations of patients is worthy of preservation."

Medical Inspection of Schools.—In June, 1898, at the instance of the Public Education Association, the Board of Health of Philadelphia commenced school-inspection by its corps of 15 Assistant Medical Inspectors. With so small a force, visiting only two schools a day each, and in addition to their other duties, it is no wonder that very little has thus far been accomplished. Each school was reached only once in two to four weeks. This inspection was instituted in cooperation with the Committee on Hygiene of the Board of Public Education, and also of the Superintendent of the Parochial Schools. During the 13 weeks, October, 1898, to February, 1899, more than 1,000 cases of disease were tabulated from the public schools, notably skin-diseases, inflammation of the ear, and diseases of the oral and respiratory tract.

The Annual Report of the Public Education Association, of March, 1899, urged anew the importance of *daily* inspection. This fall the *Public Ledger* has renewed its efforts, and recently President Huey, of the Board of Public Education, has taken steps to secure, through the medical colleges and the hospitals, a volunteer corps adequate to the task. Full harmony and cooperation exist between the Bureau of Health and the Board of Education's special committee, and the prospects are good for the prevention of the spread of disease through the schools. While the primary purpose is public safety, a secondary educational purpose will be served in preventing interruptions of schoolwork through illness, and in the report of many conditions prejudicial to the health of school-children.

The volunteer feature is the only one to regret. The Public Education Association and the County Medical Society were of the opinion that the money could have been secured to establish a paid corps by January, 1900. They also suggested that the Bureau of Healt was the proper authority for a health measure, and tha only by the Bureau of Health could the parochia schools, day nurseries, etc., be included. Dr. S. D Risley, Dr. B. Alex. Randall, and Dr. William Camp bell Posey, all of the special committees of both socie ties, have made valuable contributions both practica and literary to the subject of defective sight an hearing in schools.

Both societies passed resolutions commendatory o the action of the Board of Education, but urged th appropriation of $45,000 by Councils for a paid corps They tabulated school statistics and found the averag daily attendance in public schools exclusive of high schools in October, 1899, to number 128,000; in th parochial schools (1898–1899) 28,000. Allowing a average of 3 schools, or 1,000 children, to each phys cian, they proposed about 150 physicians. They in terested the Director of Public Safety and the ne Superintendent of Parochial Schools. The joint com mittee, waiting upon Councils' Finance Committee t explain their appeal, met with a courteous and co dial reception. Miss Dora Keen, of the Public Educa tion Association, explained the spread of disease through the schools and the efficiency of the daily in spection of all ailing children to protect public healt and to avoid interruptions to the city's costly schoo system. Dr. J. Madison Taylor, of the County Med cal Society, argued the economic side of preventio The advance-sheets of a chapter on medical inspectio of schools, for the 1897–1898 Report of the U. S. Com missioner of Education, were sent to leading counci men. Altogether, so much interest has been arouse that the appropriation will probably not be difficult t secure whenever President Huey is ready to ask for i

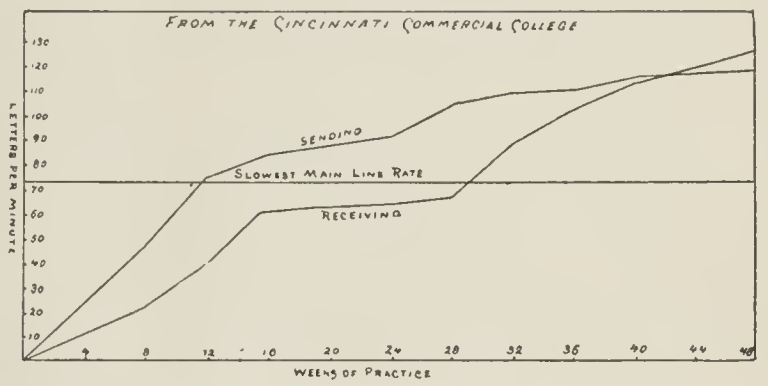
The work has passed its experimental stage in oth cities to an extent to warrant recognition of the fa that medical services should be paid for if desired.

Quarantine and Protective Serums.—It is a que tion to what extent our Goverment is bound to prote the health of the individual citizens. In this countr at least, the quarantine question is so involved ar there is such a conflict of authority between the N tional, State, and local quarantine systems that we a not very sure where we stand in relation to any cont gious disease. When, therefore, one of our correpon ents writes us a vigorous letter in favor of more ene getic measures against the plague, we are in dou whether, unless our administrative methods are altere the suggestions could be adopted. The facts up which he bases his recommendations are: (1) T plague is spreading; (2) 100% of the cases are fata (3) vaccination will prevent 95%, and the serum w cure 90% of all cases; (4) it requires four years make the curative serum properly; (5) the serum w conserve all its properties for an indefinite length

me. Now, although we might object to some of the neral facts and figures, we admit that on the whole s statements, although hyperbolical, are sufficiently teresting to supply food for reflection. If it is true at it requires four years to make the serum, it would em only rational to commence the manufacture at ice and upon a large scale. Then, whether we had iarantine or not, the Government would have a supply i hand for shipment to any district in which the fection broke out. Unfortunately, clinicians in the ient are by no means united in the belief that the rum will cure 90% or any percent of the cases upon ich it is used. Inoculations also, although elaborate itistics have been quoted to prove their efficiency, ve not been as yet sufficiently generally employed, id manifestly it is impossible, in view of the recent scovery of the serum by Yersin, to make any posi-e statement about the conservation of its powers. evertheless, as the manufacture of serum is compara-ely easy nowadays, there is no reason why the Gov-nment should not start some of its bacteriologic boratories upon the manufacture of at least a reason-e quantity. Instead of quarreling over the pathogen-ity of certain modern microorganisms, as much uld probably be learned and more of a practical lue attained by some procedure of this nature.

A Psychologic Experiment and Its Lesson.—Un-r the suggestive caption, "The Hierarchy of Habit," of. W. L. Bryan, of Indiana University, discusses his vestigation of one phase of professional skill. He has idied most carefully the acquisition of the telegraphic nguage. It appears from a large number of tests ade upon students and operators that there is a more less uniform order of progress in acquiring this mod-n artificial language. During the first two or three onths of his study the student of telegraphy rapidly d regularly advances in his power to send and re-ive letters and words. He can usually send faster an he can receive. When he has reached a sending-te of 40 letters a minute, more or less, his tests show at he stands still for several weeks, and that he makes ly trifling advances. By no amount of practice, ill, effort, or training, can he raise his speed to any nsiderable degree; but he remains upon this first ateau of his novitiate, helpless to bring himself up to letters a minute, which is the rate of the slowest ain line upon which he can get employment. During is time he thinks in and watches for the combination dots and dashes which make up the telegraphic let-'s. The simpler combinations at last become auto-atic, but he still must think out his *j*'s, his *q*'s, and *x*'s. The more frequently repeated words lose their ters and stand out in his mind and to his ear as tities. He catches the *the*'s, the *and*'s, and other mmon words, even in sentences written so rapidly at he recognizes no other letters. If he doggedly persists sending and receiving, week in and week out, for 3 or 4 months, he is surprised at last by increased facility in his receiving-ability, and in 2 or 3 weeks is on a slow wire in a small office. He has passed to the second plateau of the student, but the first of the professional operator.

The student's progress in sending and receiving is not exactly coordinate. Most operators progress more regularly and rapidly during the first months of their study in their ability to send, but later their receiving-ability outstrips that of sending, and always remains far in advance of it. The operator usually stays on a slow wire for several months, or even for 2 years, before he makes his second plateau, and is able to go into a large office and upon a rapid commercial wire. Many students give up their study towards what promises to be the end of the novitiate's plateau, and many renounce their places after having been a few months on a slow wire with no prospect of having increased their speed. Others, after several years of practice, find themselves rapid operators through force of business.



Curve of result, sending and receiving tests of a student from the Cincinnati Commercial College during 48 weeks' study and practice, showing more rapid sending-rate, at last surpassed, at beginning of second plateau, by receiving-rate.

Then, there are months or years of this commercial work before the operator reaches the plane of mastery upon which he becomes a press-despatcher. In this work he must receive a new code-language, in which a combination of 3 or 4 letters spells out a whole sentence or phrase, and he must sit for hours and translate this code into typewritten manuscript, with no possibility of correction. To do this he is obliged to copy from 6 to 8 words behind the receiver, and be ready at any minute to catch up with the receiver and put down series of figures or meaningless combinations of letters.

In several other occupations similar curves of progress have been recognized, and analogous plateaus of automatic assimilation have been demonstrated. The attitude of mind of each of these levels is quite different. The ideas and efforts which occupied and monopolized the attention of the student upon the receding level become automatic and forgotten, or are accomplished with a minimum effort when the succeeding one is attained. Almost every teacher has recognized the fact that at intervals whole classes seem to drop back or remain stationary in spite of every effort to arouse the members to enthusiasm and progress. Then,

unexpectedly, and without apparent reason, they awaken and accomplish a year's work in a few weeks. This is frequently and especially true in the acquirement of languages, of mathematics, of chemistry, of history, and of literature.

Would the practice of medicine furnish Prof. Bryan a fertile field of research? The medical student rises with a leap and a bound to the novitiate's plateau of medical skill, but when he is put upon the slowest wire, the resident staff of a hospital, he finds that he can not spell out the words of the most common diseases. He is the humble drudge of his seniors for 20 or 30 weeks. In the college everything came to him in the simplest, uncomplicated units,—the telegrapher's letters. Now he sees disease as a whole. In the last month of his service he rises to a higher plane, and grasps diagnosis. He seems to see through some of his patients as if they were made of glass, while others are dark to him; but he sees, and knows that he sees; or, perhaps he doesn't see, but he knows that he doesn't see. He now begins his private practice and finds new conditions, new combinations, new complications. The first years are a low, dreary level of rebuff, disappointment, and discouragement, of hard work under trying circumstances, of little progress, and of less inspiration. With health and industry the physician finally overcomes all these obstacles and rises to the plane of professional excellence which is recognized in the "good doctor." He may, and many do, make further progress to mastery, but usually this is only for the very few, and for them only in a part of the field of medicine, and at an expense of social and artistic life which most men do not choose to pay. The acquirement of medical skill is a greater task than the acquirement of the telegraphic language, and no novice on his dreary mesa should despair, but should plod manfully on, and make the common task of much diagnosis and treatment a part of his automatic existence.

Suggestions to Writers, No. 50.—"Dilatation" or "Dilation"?—A good deal of confusion exists between medical writers as to the use of the words "dilatation" and "dilation." As it is always preferable to use those words with the fewest possible syllables, because the energy wasted in writing, speaking and reading redundant words and syllables could be put to much better use, the shorter form is preferable. It is true that the dictionaries give both forms without comment. However, when it is discovered that etymology furnishes at least one good reason for using the shorter form, it certainly seems that there should be no question about its more general use. For instance, it is found that "dilation" is derived from the good old Latin word *dilatare*, whose past participle is plain *dilatus*. On the other hand, "dilatation" is derived from the later Latin of the scholastics and monks of the Middle Ages, who made it *dilatatio* and *dilatatus*. There is no reason for preferring the Latin of the monks to the original article as a source for English roots. As euphony is also better served by the use of the shorter form, we advise every one to employ it by preference. —*Cleveland Journal of Medicine.*

Philadelphia as a Center for Medical Education.—The preliminary lectures and preliminary weeks that follow before our large educational institutions get all their complicated rosters arranged, are now passed, and students and teachers now find themselves well into the hard work of the school-year. Philadelphia has always had claims to a place well toward the front among American centers for medical education. We certainly have the oldest medical school, the oldest hospital, and were the first to introduce systematic clinical teaching. Priority does not always mean superiority, but in this case we believe we may fairly claim that the extra years have been well used in establishing and endowing worthy institutions on a solid basis and in developing and systematizing methods of instruction which have stood the test by turning out doctors both practical and scholarly. As to the number of our schools we must admit that we have not half as many as several cities of less than half the population and resources of Philadelphia, but perhaps our institutions come a little nearer making real facts correspond with the statements of their catalogs as to advantages offered, than some other colleges and universities (?). There are medical schools, more than enough; quality is needed more than quantity; yet there seems to be no special reason why Philadelphia with about 1,350,000 inhabitants cannot as well support five medical schools as towns of the size of Oxford, England, or Heidelberg, Germany, support one. A large number of students is a questionable honor; at present there seems to be no great dearth of doctors, and while the schools may be congratulated on their full classes, perhaps we should condole with the public and the prospective physicians. In any case, the general prosperity of the country has had its reflex influence in bringing an unusually large number—about 4,000—of students to the city this year. These men may be certain that at any of our medical educational institutions they will find well-equipped laboratories, plenty of material for anatomic purposes, well filled, even crowded, clinics, and teachers of ability, thorough training, reputation, and enthusiasm. Probably no schools in this country have sent from their halls so many men who have made a name and fame as skilful practitioners, eminent scholars and teachers, and leaders in truly scientific medical progress, as our old-established institutions. There are several vigorous rivals, young and old, that are going to crowd us closely for the honors of the future, but to meet the competition the needed improvements are being constantly made.

The systematic study of psychophysiology in England is of comparatively recent date. We are reminded of this by seeing that Professor Sully, and with Dr. W. McDougall as his demonstrator, proposes to give a course of lectures on Experimental Psychology in University College, London. Such lectures have been given both in America and at the best known continental medical schools, but we have hardly ever seen them announced as forming part of an English medical curriculum. The Leipsic school, with Ernst Heinrich Weber as its mouthpiece, will always be associated with psychophysical methods of research, and there can be no doubt that this observer's inquiries into tactile and muscular sensation form the earliest genuine psychophysiologic work. The Weber-Fechner law which purposed to formulate the relations between stimulus and resulting sensation was directly suggested by Weber's experiments, though it was afterwards greatly generalized by Fechner, and it remains the best known piece of practical work directly dealing with the debatable province lying between the acknowledged territories of the physiologist and the psychologist. But these experiments date from sixty years ago. And since that time physiology has advanced by such enormous strides that to those who take no heed of beginnings the science may almost seem to have been invented during the six decades; while psychology, appearing now as the statistical investigation of the alienist, now as the illuminating lecture of the philosopher, now as the speculative anatomy of the physicians, and now as the inspired guess-work of the romancer, cannot be said to have been neglected. All this constitutes a double invasion of the intermediate ground, which has not yet resulted in the discovery of new laws, but which must conduce to this end, if there are new laws which can be made patent to our understanding. For this reason we consider the study of pyschophysiology worth a good deal more attention than has as yet been bestowed upon it by those who order the education of the medical student in different lands. England is behind America and behind Germany, but not very much, and in no medical school is the subject pursued with due ardor.

Analgesia by the Injection of Minute Quantities of Cocain into the Spinal Canal.—We recently called attention to Professor Bier's interesting method of producing anesthesia and to the successful results which have followed its use by Bier and later by Seldowitsch.

Our special correspondent from Paris writes us that Prof. Tuffier, surgeon to the Hospital Lariboisière, has just communicated to the Société de Biologie the results of his experiments upon surgical analgesia, from the spinal subarachnoid injections of between one and two centigrams ($\frac{1}{6}$ to $\frac{1}{3}$ grain), of cocain dissolved in one or two cc. of sterilized artificial serum. The injection was made as in lumbar puncture, and in ten minutes after there was complete surgical analgesia of the inferior extremities. The following operations have been performed under the influence of this cocain-injection: Resection at the tibiotarsal articulation, duration of the operation forty minutes; trephining of the tibia, duration of analgesia thirty minutes; resection of the knee, forty minutes duration; fracture of the thigh. In the last case the analgesia extended to the umbilicus nine minutes after the injection and lasted over one hour. Other cases were: Pirogoff amputation lasting forty minutes; amputation at the hip-joint and extirpation of the inguinal glands, thirty-five minutes; resection of the knee, duration of the operation fifty minutes. In some of these cases, the return of the parts to their normal sensibility was followed by intense headache and vomiting, but aside from this there were no other effects observed, and the cases went on to an uneventful recovery.

Biology and Medicine.—It is an unfortunate state of affairs that in this country the representatives of medicine and of the biologic sciences have no opportunity of meeting in public convention for an exchange of views and ideas. Such occasional intercourse would exert a mutually fructifying and educating influence. In Germany, at the annual meetings of the Association of German Naturalists and Physicians, an opportunity is given to medical men of becoming cognizant of the great advances in allied branches of knowledge, and of forming new concepts that at times profoundly influence the trend of subsequent investigation. This year, for example, at one of the general medical sessions, the following question was discussed—from the embryologist's standpoint—by Prof. Rabl, of Prague; from the pathologist's standpoint, by Geheimrath Marchand, of Marburg: "The attitude of pathologic anatomy and general pathology to embryology, especially to the blastoderm-theory." The addresses were most interesting, that of Rabl in particular containing many important observations. He dealt with the subjects of homology and specificity, basing his statements primarily on the failure that has attended several modern therapeutic measures, as the transplantation of animal tissues and the transfusion of animal blood. While transplantation and transfusion from man to man, from dog to dog, from cat to cat succeed, they usually fail when tissues or blood from one individual is transferred to another of a different species, as from dog to cat, from rabbit to man. It follows that there must be a morphologic and chemic difference between homologous tissues from different species of animals. This difference is well illustrated in the crystalline lens. The lens consists for the most of fibers which are arranged in radiating lamellas.

The number of these lamellas is fixed and definite for every species—thus, in the water-salamander it is 100,

in the spotted land-salamander, 221; in the gray water-frog, 900. In mammals the number of lamellas is much greater—4,300 in the horse, 3,500 in the cat, 2,600 in the hog, and in man, 2,180 on the average. These figures indicate how erroneous it would be to substitute the lens of one animal for that of another of a different species. And what is true of the lens is equally true of every organ or tissue of the body. Nor is this specificity confined to the developed tissues; it holds good during the embryonic period as well. The lens of a salamander differs from the lens of a lizard, for example, at every stage of its entire development. Not only the organs and tissues, but also the cells that constitute them, possess this specificity; even the germinal cell, the fertilized ovum, has its specific character.

Rabl looks upon the ovum, and the cell in general, as a bilaterally symmetric organism with polar differentiation. This conception of the cell he has thought to strengthen by mechanicoembryologic (entwicklungsmechanische) studies, with the result that he is able to classify animal ova in 3 groups: The first group is represented by the eggs of amphibia, amphioxus, ascidians, echinoderms, and medusas. If the two cells, after the first segmentation of the ovum, are separated, each develops into a perfect embryo or larva which only differs from the ordinary embryo or larva in being smaller. The second group is represented by the eggs of the Ctenophora, a class of Coelenterata. If in these the two primary segmentation-spheres are separated, two half-larvas of identical structure develop; while, normally, every larval ctenophore possesses eight meridional ciliated bands, each half-larva has only four. If, when the segmentation-sphere contains four cells, these cells are separated, each larva will be endowed with only two meridional bands; in other words the total number of bands in all the segmental larvas is equal to the normal number. The third group is represented by the eggs of the gastropods and snails. If the two primary segmentation-cells are separated, the one only produces elements of the outer and inner blastodermic layers, while from the other elements of these two as well as the middle layer are developed. These interesting researches show how early the differentiation of cells begins; they probably also throw light on pathologic questions, the more so as the study of the cell is daily becoming of greater importance in scientific medicine.

The Philadelphia County Medical Society has realized the importance of such questions for the physician; one of its meetings last season was devoted to a consideration of heredity, the principal address being delivered by Professor Conklin, the noted biologist. We trust that both the local and national associations will foster a beneficent intercourse with our brother-scientists, which has borne such splendid fruits in the home of science, Germany.

Table of Contents of the Philadelphia Monthly Medical Journal for November, 1899:

1. Lectures on Orthopedic Surgery. By JOHN RIDLON, A.M., M.D., of Chicago; and ROBERT JONES, F.R.C.S, of Liverpool.
2. The Classification and Nomenclature of the Ray Fungi. By LUDVIG HEKTOEN, M.D., of Chicago, Ill.
3. Habit-Disease and the Tobacco-Habit. By GEORGE M. GOULD, M.D., of Philadelphia.
4. General Considerations on the Pathology of the Serious Forms of Chronic Osteomyelitis and their Complications. (Being the inaugural lecture to the course on surgical pathology, delivered October 16, 1899.) By CHARLES GREENE CUMSTON, B.M.S., M.D., of Boston, Mass.
5. Methods of Teaching Operative Surgery. By C. C. WARDEN, PH.B., M.D., of Nashville, Tenn.
6. The Hospital and the Nurse. By CHARLES K. MILLS, M.D., of Philadelphia.
7. Progress in the Work and Organization of Nurses During the Past Year. By MAUD BANFIELD, of Philadelphia.
8. History of the Evolutionary Processes that Led to the Discovery of the Circulation of the Blood by William Harvey. By P. C. REMONDINO, M.D., of San Diego, Cal.
9. A Key to the Study of Mental Diseases.—Heredity as a Factor in Causation. By HIRAM A. WRIGHT, M.D., of Detroit, Mich.
10. Some Points in the Diagnosis and Treatment of Laryngeal Tuberculosis. By P. S. DONNELLAN, M.D., of Philadelphia.

Improvements in Army Medical Service.—W. H. Devine, (*Boston Medical and Surgical Journal*, August 17, 1899). During the last five years Massachusetts has accomplished a number of signal improvements in **the medical service of its militia** which other States could copy, with profit to themselves and the nation. These improvements are: (1) Physical examination for recruits; at first voluntary, now mandatory. (2) Rations to be used at camp. Something after the pattern of the army ration, but modified for adaptation to State service. (3) School for medical officers. One session annually. (4) Company bearers; four privates in each company specially trained in emergency and first-aid work. (5) System of red tape patterned after regular army; but modificd for State service. As a further advance, Devine offers the following suggestions, the adoption of which will greatly improve the efficiency of the army medical service: (1) That professorships of military medicine be established in every reputable medical college. (2) That until such time as professorships are established, the State provide a course on required subjects. (3) That physical examination of officers and men be made mandatory. (4) That troops at State encampments conform as nearly as possible to duties required in service on the field. (5) That every medical officer receive commission. (This pertains to contract surgeons.) (6) That one or more men in every company be detailed for regular instructions in ambulance corps, to prevent possibility in the future of the country losing the service of men especially trained for this service. (7) That one medical officer be selected in each regiment or brigade for his surgical ability. (8) That a corps of trained female nurses be organized in every State. (9) That divisional hospitals, in the broad sense, be abolished, and that small brigade and divisional hospitals be established for special cases, such as surgical and contagious. (10) That volunteers follow, as closely as practicable, the regular army, so that when called into service the two branches may work in harmony. (11) That, in addition to present instruction in "first aid," a course in prevention of contagious diseases, etc., be given. (12) That the reserve staff of medical officers be formed in each State and be composed of ex-members of the medical department of the National Guard. [D.R.]

Correspondence.

A CORRECTION.

To the Editor of The Philadelphia Medical Journal :—

In Sajous' "Annual and Analytical Cyclopedia of Practical Medicine," Vol. IV, my name by some error has been appended to the article on "Diseases of the Lens," with the production of which I had nothing whatever to do. I am informed that this excellent presentation of the subject was written by Dr. F. W. Marlow, of Syracuse, N. Y., and he should have the credit of it.

Edward Jackson.

Denver, Col., December 7, 1899.

I cordially approve the publication of the above notice, regretting that Dr. F. W. Marlow, of Syracuse, N. Y., the author of the article mentioned, should have been temporarily deprived of the great credit due him for his able contribution.

Chas. E. deM. Sajous.

HYDROSTATIC METHOD OF DETERMINING SIZE AND LOCATION OF STOMACH — IMPROVED TECHNIC IN PRACTISING LAVAGE.

By E. T. RULISON, M.D.,
of Schenectady, N. Y.

To the Editor of The Philadelphia Medical Journal :—

After removing the entire contents of the stomach, substitute a glass funnel for the metal one, and then introduce into the stomach, supported by the hand of the patient, water from a graduated vessel until the patient signifies that his stomach is full. By placing the funnel next to the body, when the water in it becomes stationary, a mark may be made upon the skin which will indicate the height of the water in the stomach, or the location of the cardiac. The amount of water used will give approximately the capacity of the stomach—hence, size and location may be practically determined without employing more difficult methods—save for corroborative evidence. I have also noticed that in using the stomach-tube the funnel should always be held upright, filled before raising and lowered before all the water is out, keeping the tube constantly filled with water until removed. This prevents air being forced into the stomach; prevents the explosive expulsion of stomach-contents and enables them to be more carefully studied as they make their appearance. This method of keeping the tube always full has another advantage (when there is any solid food in the stomach to remove) and that is that the weight of liquid in the long arm of the siphon is greater and has a sustaining suction power you can not get in any other way.

INTESTINAL ANASTOMOSIS-FORCEPS.

By ANGUS McLEAN, M.D.,
of Detroit, Mich.

To the Editor of The Philadelphia Medical Journal—:

In the Journal of December 2, there appears a letter from Dr. John A. McKenna, of Philadelphia, in which he presents his claim to priority of invention of an anastomosis-forceps, and wishes to share the credit of this device with C. Downes and myself. I do not think he should accuse anyone of modifying or making "trifling changes" in something he admits was not published, but simply spoken of in a local medical society, and no one outside of those present at that time had ever heard of.

My first pair of forceps were devised early in 1898, before the reference was made to his forceps in the Philadelphia Medical Society; these forceps were similar in structure to the Downes', but I did not find them satisfactory at all times, and especially when the larger rings were used, for the pressure over the clamped portion was not equal, and the portion within the distal part of the rings would slip out upon manipulation. I tried heavier rings to overcome this objection, but I found that the intestine within the proximate portion would be crushed when sufficient pressure was made with the clamp to hold the intestine within the distal portion firmly. I then reversed the rings, as shown in the Journal of October 21, bringing the tip of one clamp against the shoulder of the other, thus producing an equal pressure.

I accept Dr. McKenna's statement, admire his loyalty to Dr. LaPlace, and have no objection to his sharing in the credit of the invention, but I would suggest that he give some credit for independent thought on the subject, if not originality, to those with whom he wishes to divide the honor.

The Transplantation of Skin-flaps.—H. Wagner (*Beiträge für Klinische Chirurgie*, Heft 1, Band 24) reports 51 transplantations of skin-flaps from Mickulicz's Clinic at Breslau. In 30 cases there was complete healing, in 8 partial healing, and in 13 failure to obtain a favorable result. In the technic of the operation the most careful antiseptic precautions are absolutely necessary. In the later cases only water, soap, and alcohol were used, without any disinfectant material at the time of the operation. The hands were prepared in the usual manner and washed with sterilized salt-solution. Old granulations must first be removed from the wound with a sharp curet; the grafts may be best taken from the inner surfaces of the thigh, for here the defect may be closed without leaving any disturbing after-effect. The use of the fixation-sutures is not generally necessary after the flap is adjusted. The site of transplantation is covered with a boric-acid ointment dressing, and the first change of dressing is made 9 or 10 days later. If the transplanted flap is observed after the fifth day it looks dark-bluish red or rose-colored; in rare cases white and waxy. Frequently there are yellowish blisters of serous fluid on the surface; the dark color is due to saturation with blood and not a sign of failure. After the flap has become adherent the sensation in the transplanted area is entirely lacking for 6 to 8 weeks, when it begins to manifest itself, extending from the periphery inward, hence it seems probable that the nerves grow inward from the surrounding area, but not from below upward. Failures result from infection, improperly placed flaps, profuse hemorrhage beneath the flaps, or because of insufficient vascular supply to the wound-surface. In the treatment of leg-ulcers the greatest enemy is the bacillus pyocaneus. This method is used in cases of scars following burns with very successful results; also in filling defects after the removal of tumors. In the case of defects of the hand or fingers the Thiersch method gives much better results. The same is true in the treatment of ulcers of the leg or in any case in which the grafts are taken from another person. In the treatment of ulcers of the leg by this method there were 32% of complete failures and 24% of partial failures. The method is perhaps best adapted for cosmetic operations about the face, and very good results have followed its application in the treatment of defects of the hairy surfaces. On the whole, Wagner does not speak enthusiastically of the results of this operation for general purposes and believes the Thiersch operation is generally more successful. [M B T.]

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending December 23, 1899:

Tuesday, December 19—College of Physicians, Section on Ophthalmology.

Wednesday, December 20—College of Physicians, Section on Otology and Laryngology.

Thursday, December 21—College of Physicians, Section on Gynecology.

The mission chapel property adjoining and occupied by the Municipal Hospital, which was presented to the city of Philadelphia by Dr. George Woodward, formerly a member of the Board of Health, and now a member of Common Councils, has been finally accepted by the city. The only conditions attached to the gift are that the building and grounds shall be used for hospital purposes.

The Widener Industrial Home for Crippled Children is the name of an institution to be founded by Mr. P. A. B. Widener, of Philadelphia, at an expense of $2,000,000. Mr. Widener announced his plan in a communication to the Mayor last week, in which he asked that certain streets not yet opened be stricken from the city plan, so that the plot of ground that he had purchased might remain uncut. It is proposed that the institution shall be a home-hospital, where skilled surgical and medical attendants will provide the treatment demanded by each patient, and where in addition each child will receive during treatment as his or her condition may warrant, not only elementary and grammar-school training for the younger patients, but technical training in addition for the older, which will fit them to earn their own living when discharged. Special attention will be given to instruction in those trades which are adapted to the feeble-minded.

College of Physicians of Philadelphia—Section on General Medicine.—At a meeting held December 11, DR. ALFRED STENGEL reported a case of **so-called splenic anemia,** occurring in a child, aged 3 years. The patient had been well until about a year ago, when she had a severe attack of gastroenteritis. Following this she had spells of vomiting, her abdomen increased in size, and she became pale. Examination revealed a greatly enlarged liver and lymph-glands and the blood-count was: Erythrocytes, 2,920,00, leukocytes, 7,600, hemaglobin, 30%. The differential count of the leukocytes was as follows: Polymorphous neutrophiles, 50%, mononuclears, 17%, lymphocytes, 31%, eosinophiles, 1.6%, myelocytes, 0.4%. Later a number of nucleated red corpuscles were found. The following classification of cases of splenic enlargement and anemia in children was proposed: *A*. Without leukocytosis. (1) Primary—true splenomegaly; (2) secondary—following rachitis, syphilis, etc. *B*. With leukocytosis. (1) Primary—leukemia; (2) secondary—von Jaksch's disease, anæmia infantum pseudo leukæmia. It was stated that the case reported probably belonged in the second group of *A*—among the secondary anemias with enlargement of the spleen, and it was doubted that there exists primary splenic anemia. In the discussion, DR. H. A. HARE referred to a case of splenic anemia that he had reported some years ago. This patient presented a marked lymphocytosis and later developed diabetes mellitus.

DR. J. A. SCOTT reported a case of **mitral stenosis** and exhibited the specimen, from a female patient, aged 54 years. The patient had had numerous attacks of rheumatism, but the physical signs seemed to indicate myocardial alterations rather than valvular lesions. Reference was made to the diagnosis of mitral stenosis and to the literature of the subject.

DR. M. HOWARD FUSSELL read a paper entitled, **The position and the color of the ring in Heller's test for albumin in the urine.** Reference was made to the uncertainty of the position in the minds not only of students but also of physicians of the different rings in this test. It was stated that there is often present a color ring which is lowermost in the test-tube and tends to diffuse through the acid, next there is the whitish cloud of albumin just above the juncture of the acid and the urates, and some distance above this there may be the ring due to the urates.

DR. JOSEPH SAILER read a paper entitled, **The withdrawal of liquids from the diet of diabetes mellitus.** Observation seemed to indicate that the increased quantity of urine voided in diabetes resulted from an increased activity of the secretory functions of the kidney; that the thirst is the direct result of this, and not vice versa; and that the withholding of liquids does not decrease the quantity of urine secreted, in fact the secretion may go on until alarming symptoms manifest themselves.

DR. H. D. BEYEA reported a case of **ovarian cyst associated with diabetes** in which operation was followed by disappearance of the diabetes. Extensive reference was also made to the few similar observations reported in the literature.

Vital Statistics of Philadelphia for the week ended December 9, 1899:—

Total mortality		412
Diseases.	Cases.	Deaths.
Pneumonia 64, congestion of the lungs 2		66
Pulmonary tuberculosis		56
Heart-disease 33, fatty degeneration of the heart 4, inflammation of the heart 1, neuralgia of the heart 1		39
Apoplexy 21, paralysis 4, softening of the brain 2		27
Diphtheria 23, membranous croup 4	167	27
Inanition 10, marasmus 4, debility 8		22
Bronchitis		18
Carcinoma 17, sarcoma 1		18
Cystitis		15
Convulsions		11
Casualties 5, burns and scalds 5		10
Inflammation of the brain 8, congestion of the brain 2		10
Nephritis 9, uremia 6		15
Typhoid fever	43	8
Scarlet fever	55	3
Gastroenteritis 6, edema of the lungs 6, pericarditis 1, peritonitis 5, cyanosis 4, abscess 3, diabetes 5, senility 3, suicide 3, cirrhosis of the liver 2, gastric hemorrhage 2, influenza 2, intestinal obstruction 2, septicemia 2, pertussis 2, asphyxia 1, asthma 1, anemia 1, cholera infantum 1, diseases of the brain 1, drowned 1, dropsy 1, gangrene 1, pulmonary hemorrhage 1, nasal hemorrhage 1, hepatitis 1, neuritis 1, appendicitis 1, rupture of the heart 1, surgical shock 1, suffocation 1, tumor of the brain 1.		

The Fifteenth Annual Report of the Secretary of the Pennsylvania State Board of Health treats of many subjects of general importance and interest. Among them is that of the legislation of the past winter in the interest of public health. The State Board of Health had presented two bills for the protection of the public water-supplies; one, instructing and empowering the State Board of Health to make a special sanitary survey of the waters of the State; the other, to prevent the pollution of the water supplies of municipalities. The secretary reports:

"The first of these bills failed entirely, as similar bills had failed before. The second, owing to the impressive object lesson offered by the epidemic of typhoid fever prevailing in Philadelphia, as a result of the excessive and vile pollution of the Schuykill River, passed, but in a dilapidated and emasculated condition, applying only to cities of the first class and forbidding only one form of pollution, that by human excreta. It marks distinct progress in our legislation, how

ever, as it recognizes two principles of prime importance, the first that the State is responsible for the preservation of the purity of public waters; and the second, that the proper body through which the authority of the State should be exercised in this matter is the State Board of Health. The New Jersey State Board of Health has been more fortunate in its efforts, a law having been approved March 17, 1899, 'to secure the purity of the public supplies of potable waters' in that State. This law gives 'the State Board of Health general supervision, with reference to their purity, of all rivers, brooks, streams, lakes, ponds, wells, springs or other reservoirs in this State, the waters of which are, or may be used as, the source or sources of public water-supplies for domestic use, together with the waters feeding the same.' The law passed by our own Legislature confers upon the State Board of Health certain guarded powers for the preventing of the pollution of the Schuylkill and Delaware rivers as being sources of water-supply for Philadelphia, a city of the first class; but, as it provides that all expenses incurred under its provisions shall be met out of the regular biennial appropriation to the Board, which was already entirely inadequate to meet its routine expenses, it will readily be appreciated that comparatively little can be accomplished under its provisions."

In order to avail itself, however, as far as possible of the authority thus conferred, the Board adopted, at the first meeting following the passage of the law, very stringent regulations for the prevention of the pollution of the waters of the Schuylkill River and its tributaries. This regulation has been sent to the several boards of health of municipalities bordering on the Schuylkill with the recommendation that it be adopted as a local regulation also. A considerable number of very serious sources of pollution have been already abated, under the authority of the new law.

Pittsburg (Pa.) Academy of Medicine.—At a meeting held November 13, DRS. SMALL and SIMPSON each reported cases of **diphtheria** in children occurring in houses where mother had just been confined. In both cases the puerperium was perfectly normal. DR. J. H. ANDERSON reported a case of **rupture of the spleen** in a young man, due to a fall of 25 feet. Severe pain in epigastrium and left hypochondrium developed on third day, the only symptom previously noted being dilation of both pupils. The abdomen was opened and found full of blood and the spleen removed. Patient died the following day. Dilation of the pupils is believed to be a common symptom of severe visceral lesions. DR. R. W. STEWART spoke on the **Posterior or deep urethra and its common diseases.** The compressor urethrae muscle is the real sphincter of the urethral canal and a very valuable one. A discharge anterior to this muscle cannot flow back of its own accord, and one posterior to it cannot flow forward except during urination. A gonorrheal inflammation rarely extends back of the bulbous urethra if left to itself, and when it does so it presents an entirely new set of symptoms. When inflammation of the deep urethra does occur it is most frequently due to an extension of a gonorrhea, from the anterior urethra; when an injection is used it is rare to find any evidence of disease of deep urethritis before two weeks. The examination of the first and last portions of urine passed at any one time (having previously flushed out the anterior urethra) will show that most of the pus is in the first portion; in cystitis the reverse is true. Chronic inflammation of the deep urethra does not always arise from a gonorrhea, but it is the most common cause. Other causes are sexual excesses, masturbation and ungratified sexual desire; it is also occasionally seen in gouty or lithemic individuals. Disease of the deep urethra is not without danger to life, as by simple extension, by continuity, it may and does produce in turn cystitis, ureteritis, pyelitis, pyonephrosis, death. In the treatment of inflammation of the deep urethra, aside from the ordinary remedies, by far the most important is the injection into the deep urethra with a suitable syringe, of a solution of silver nitrate, 2 to 10 gr. to 1 fluidounce. In reply to numerous questions by Drs. Simpson, Bagley, Anderson, Heckel, Ward, Small, and Haworth, Dr. Stewart stated that it was not necessary to wash out the anterior urethra before giving a deep urethral injection, as the infecting agent is already present in the deep urethra. He was not aware that any particular part of the urethra was responsible for metastatic processes. The sinus pocularis is the homolog of the uterus, but he knew of no observations upon malformation of this organ or the prostate gland. The period of time that should elapse before sexual intercourse may be safely resumed is a disputed question. No hard and fast rule can be given, but each case must be judged for itself. Personally he was opposed to irrigation in acute inflammations. Extension of inflammation along the vas deferens to the testis is supposed to be simply extension by continuity, but why it traverses such a long canal is an open question. He had never used methylene-blue or atropin, nor had he ever seen a case of metastatic gonorrheal ophthalmia as distinguished from the ordinary gonorrheal conjunctivitis. It was a fact that gonococci are organisms of low vitality and are very readily destroyed. Even exposure to light and air kills them. For this reason very simple methods suffice and there is but little danger of transmitting the disease from patient to patient with instruments. He has never seen a case due to this cause. In 19 out of 20 cases of posterior urethritis he uses nothing but silver nitrate in the proportion stated. In old cases he may pass a few sounds first.

NEW YORK.

New York State Medical Society.—The business committee consists of Dr. Wendell C. Phillips, 350 Madison Ave., New York, chairman, Dr. Henry L. Elsher, of Syracuse, and Dr. Chauncey P. Biggs, of Ithaca. Members wishing to present papers should place themselves immediately in communication with the chairman of the committee. The annual meeting will be held in Albany, January 30 and 31, and February 1, 1900.

Eastern Medical Society of the City of New York.—At the annual meeting, held December 8, the following officers were elected for the ensuing year: President, Dr. Abram Brothers; first vice-president, Dr. J. Guttman; second vice-president, Dr. A. Hymanson; secretary, Dr. R. Abrahams; treasurer, Dr. J. Barsky. Chairman Committee on Ways and Means, Dr. H. Siff. Chairman Committee of Ethics, Dr. E. K. Browd. Trustees, Drs. H. Illoway (chairman); L. J. Ladinski and H. Levien. Committee on Admission, Drs. S. Mosseson, R. Hochlerner, M. Girsdansky, Ch. Goodman and George I. Miller.

The New York Association for Improving the Condition of the Poor.—The fifty-sixth annual report of this association shows that during the past year it aided 28,020 people, comprising 5,940 families, 421 single persons with homes, 675 homeless men and 194 homeless women. The value of this relief was $27,000. Through the Cooper Labor Bureau 443 men and boys were placed in positions regarded as permanent. In connection with the fresh-air work it should be noted that 15,317 people were taken last summer on day-excursions, and 1,490 women and children were kept at the home on Coney Island for an average period of 10 days each.

The State Charities' Aid Association.—At the twenty-seventh annual meeting of this association, the resignation of Joseph H. Choate as president, made necessary by his absence at the Court of St. James, was announced. Mr. Choate was one of the incorporators of the association. His successor is Professor George F. Canfield. The other officers elected are: Vice-president, Mrs. William B. Rice; treasurer, Charles S. Fairchild, and librarian, Mrs. Henry Oothout. With an expenditure during the past year of $10,714 this association has been able to oversee the care of 60 dependent children in Queens and Nassau counties,

make visits of inspection to the almshouses and public hospitals in 43 out of the 61 counties, and place 637 destitute children in families, or with their mothers in situations. A total of 462 mothers and babies were under its care during the year, of whom only 1 mother and 4 children died.

Flaws in the Proposed Pharmacy Bill.—It was reported that Dr. Nelson H. Henry would introduce into the next Legislature a pharmacy bill drafted by the New York State Pharmaceutical Association, but he has taken occasion to publicly express the opinion that in its present form it could never hope to pass the House. He pointed out that the language of the bill was exceedingly vague, and the powers which it proposed to grant would conflict with those already granted to the Board of Health, and, in other ways, would be inadvisable. While expressing himself as in favor of shorter hours for drug-clerks, he stated that this should be made the subject of a separate bill, and not, as in the pharmacy bill, be made only one paragraph. An iron-bound 8-hours-law was not sufficiently elastic to meet the demands made upon pharmacists, but he thought the plan proposed by him last year, of limiting a drug-clerk's work to 140 hours in each 2 consecutive weeks, would prove more acceptable in practice to both employers and employed.

A Charity Trust Proposed.—In keeping with the trend of the time is the suggestion that the 2,000 charitable societies of New York consolidate. The scheme has met with popular favor, and some of those most closely identified with charity work have expressed their approval. The chief advocates are John P. Faure and Theodore Sutro, and it is announced that a meeting to consider the feasibility of the project will be called in the near future. It is proposed to adopt a system similar to that in operation in Liverpool, by which all of the moneys for charitable purposes are collected through one organization at an average of 1.5% for collection. The fact that many charitable organizations cover several departments of the same field, and that the work of different societies occasionally overlap, affords an additional argument for consolidation. There can be no doubt that an immense saving would be effected by such concentration of effort, for, in the one item of the cost of collecting the moneys donated to charitable purposes, it is estimated that, in New York, it varies all the way from 10% to 50%.

The Public Receive Treatment from a Druggist at Their Own Peril.—In an opinion, just handed down by Justice MacLean of the Supreme Court, it is held that a person receiving emergency treatment from a druggist cannot recover damages should the treatment be followed by untoward results. The case in point was that of Ferdinand Roth, a butcher, against the drug firm of Arneman & Behrens, of Eighth Avenue, to recover $10,000 damages. The allegation was that Roth had gone to the defendant's drug store to have a cut on his thumb treated, and that the clerk had bandaged the wound, and had given the plaintiff a small bottle of carbolic acid, with directions to keep the dressing wet by the application, from time to time, of a few drops of the acid. It was alleged that, as a result of this treatment, inflammation and blood-poisoning had supervened, necessitating the amputation of the thumb. The defense moved for a dismissal of the complaint on the ground that druggists were not permitted by the laws of the State to practise medicine or surgery; that the plaintiff should have gone to a qualified physician and surgeon for treatment, and that if any action at law could be maintained, it could only be against the drug clerk. The Court took the same view, and dismissed the complaint, as already stated.

Medical Directory of New York, New Jersey, and Connecticut.—The first issue presents the names of 11,625 registered physicians, of whom 9,199 are in New York, 1,481 in New Jersey, and 945 in Connecticut. It also contains the names of dentists and pharmacists in those States, making a grand total of 19,161 names in the volume. There is, in addition, much useful information regarding hospitals, charitable institutions and medical societies, together with the by-laws of many of the societies, and State laws regulating the practice of medicine, dentistry and pharmacy. The special alphabetic lists constitute a particularly useful feature, as these enable one to readily find old friends whose exact location is not known. The compilers should be congratulated on not having fallen into the too common habit of curtailing the information regarding the country practitioners in order that more space may be given for the display of the society membership and hospital appointments of their brethren in the large cities. Altogether this tastefully bound book of 880 pages reflects credit upon the medical associations publishing it, and it should prove a handy work of reference to all classes of practitioners. Dr. E. Eliot Harris, of New York, is the editor of the volume, which may be obtained of Dr. Ogden C. Ludlow, 2309 Seventh Avenue, New York City, by enclosing a money order for $2.00 for each copy.

Privileged Communications.—A recent court decision in Rockland County emphasizes once more the law regarding privileged communications. A Mr. Jong having been injured on the Erie Railroad, was attended by Dr. William Coe McKeeby, a surgeon in the employ of the railroad. While in attendance, Dr. McKeeby secured the patient's signature to a written statement concerning the manner in which the accident had occured. When the doctor was called upon to testify on behalf of the defendant he was asked whether the plaintiff had not observed the train before it struck him. Opposing counsel entered an objection to this question, on the ground that it was incompetent being a privileged communication between physician and patient, and this objection was sustained by the court. However, the judgment rendered in favor of the plaintiff was subsequently reversed by the Second Appellate Division in an opinion by Justice Willard Bartlett, who held that the prohibition in section 834 of the Code of Civil Procedure relating to communications between physicians and patients extends only to *such communications as are necessary to enable the physician to act in his professional capacity*, and does not extend to admissions by the patient of facts having no possible relation to the professional conduct of the physician. This decision permitted the surgeon to testify that, during his visits to the plaintiff, the latter had informed him that he had not observed the train until he was struck.

The Quarantine Comedy.—The quarantine comedy has run another week without any material changes in the make-up of the caste. The chief actors continue to proclaim from the housetops that when doctors disagree "horse-sense" must decide, meaning by that, their own sense, or lay-judgment. Dr. Doty is supposed to be conciliatory, while the coffee-merchants no longer see any humor in the situation and, laying aside their personal differences, unite against their common enemy, *i. e.*, the officials of the health-department. While this is being enacted in New York, Boston quietly announces her willingness to permit vessels coming

at the present time from Santos to dock and land their cargoes after proper disinfection at quarantine. Passed Assistant Surgeon H. D. Geddings, of the United States Marine-Hospital Service, in his report to the Surgeon-General, states that so thoroughly have all precautions been taken regarding the coffee-steamer, that no danger to the public health need be apprehended. He adds that while the first cultures from the plague-patients had proved negative, they had subsequently succeeded in developing the disease in guineapigs by inoculation. Dr. Doty has given out the statement that bacteriologic examination of the rats found in the hold of the steamer *Taylor* has not shown, in a single instance, evidence of infection with the bubonic plague. Some apprehension was aroused by the sudden death of one of the quarantine stevedores, but the autopsy proved that death had resulted from fatty degeneration of the heart. President Murphy granted a hearing to the coffee-merchants and representatives of the steamers on Saturday, but no definite decision was arrived at further than that no change would be made in the policy already promulgated regarding the first steamer to arrive from Santos. The coffee-merchants, in their petition to the Mayor and to President Murphy, state that cargoes of coffee from Santos have received prompt discharge at British, German, French, Belgian, and Dutch ports, and that for the last 4 years coffee has been coming to New York constantly from ports in Asia where bubonic plague has existed, and yet in no instance has infection resulted.

Buffalo Academy of Medicine, Surgical Section.—At a regular meeting held December 5, the Academy formed a new section designated the *Section on Opthalmology, Otology, Rhinology and Laryngology*. DR. CHAUNCY P. SMITH read a paper entitled, **the value of normal salt-solution,** in which he called attention to the toxicity of water introduced into the circulation in excess of proportion, as outlined in the experiments of Bouchard and Kocher; the error being the introduction of too great a volume, *i.e.*, 2,000 to 2,500 cc., when a hemorrhage amounting to 2 or 3 pounds of blood has occurred. He discussed its use under the following heads of irrigation: To restore volume to the blood following hemorrhage; to lessen shock; to "wash the blood," as the French term it. It is in irrigation that the salt-solution is so valuable; as a large part of surgery is the treatment of wounds, any fluid which will do the least damage to the cells is the best. Large quantities of solutions of mercuric chlorid produce necrosis, thrombosis in vessels, etc., thus hindering tissue-regeneration and causing slow repair; and there is large loss of its germicidal action by conversion into the inert albuminate. This is true of all other germicides which depend upon chemical reaction for their efficacy. He has used salt-solution baths in cases of burns of the third degree, and while in the cases reported the burns were in area equal to from two-thirds of to the whole body and therefore probably fatal, the patients all improved under the use of scrubbing and immersion in salt water. In these cases he also used normal salt-solution as an enema and as an intravenous injection. He recommends an anteoperative high enema of normal salt-solution in order to combat shock from lowering of temperature and loss of blood. In the treatment of shock he believes in the efficacy of often repeated small, *i.e.*, 500:1000 cc., enemas. DR. EUGENE A. SMITH said that in general peritonitis there was hope for the patient by the use of irrigations of the peritoneum with normal salt-solution, but that it was necessary to use large quantities. He described a case of purulent peritonitis following appendicitis in which he used 12 quarts, noticing the gradual fading of the patches of exudate upon the peritoneum until almost invisible. In the treatment of shock he had noticed the rapid absorption of saline solution when injected under the breast; his method being to inject a small quantity under one breast and then to repeat the operation under the other breast, alternating until the desired effect is reached. DR. S. Y. HOWELL thinks that there is no denudation of the endothelium by the use of plain water; he uses high enemas for shock, and in abdominal operations believes that postoperative thirst is almost entirely relieved thereby; for emergency use, he thinks liability of complications in the use of salt-solution. DR. H. D. INGRAHAM thinks that extemporaneous salt-solution is better than plain water and emphasized its remarkable effect in overcoming suppression of urine following an anesthetic. DR. C. E. CONGDON claims that flushing the abdomen is injurious and, therefore, has abandoned the use of irrigations, relying entirely upon his ability to wipe off the peritoneal surfaces and upon the use of a drainage-tube, trusting largely in the ability of the peritoneum to handle residual fluids; he reported no fatalities in his last 25 cases of purulent peritonitis treated in this way.

DR. C. F. DURAND read a paper on **Prostatic hypertrophy,** in which he gave the histology, embryology, comparative anatomy and analogy of the prostate. He classifies hypertrophy of this organ into (1) uniform enlargement, (2) increase of the stroma or fibroid hyperplasia, (3) increase in the glandular elements, (4) tumor-formation. Intrinsically, hypertrophy of the prostate was unimportant, but was secondarily important because of its effect upon the urethra and upon other glands and structures.

DR. F. H. MILLINER read a paper on **Desiccated suprarenal capsule in acute coryza.** While its use internally or hypodermically requires careful watching, locally applied the drug is never followed by any alarming manifestations. When applied to a congested condition of the nasal mucous membrane, such as is present in an acute coryza, there is a rapid whitening and shrinking of this membrane. The aqueous extract is prepared as desired for use by dissolving 20 gm. of the dried extract in one-half an ounce of water and filtering through cotton. After cleansing the nose and nasopharynx with an alkaline wash, the solution is applied either on pledgets of cotton or by means of an atomizer, and the patient is relieved of a very distressing condition for several hours.

NEW ENGLAND.

Boston University Medical School. — Dr. John Preston Sutherland, the Registrar, has been elected Dean of the Faculty, to succeed the late Dr. I. Tisdale Talbot, who held the office of Dean for 27 years—since the foundation of the school.

Thurber Medical Association of Milford, Mass.—At a meeting held December 7, a paper was read by the Secretary, Dr. J. M. French, on **The treatment of acute croupous pneumonia by the members of the Thurber Medical Association.** This paper was in the nature of a collective investigation report, having been compiled from the answers given by thirty members of the association to a series of twelve questions as to their methods of meeting the various indications in cases of this disease. Among the subjects dealt with were diet, local applications, means used to sustain the heart, reduce high temperature, control the cough, etc.; also their practice with reference to bleeding, use of opiates, alcoholics, cold bathing, and any special methods employed. The discussion was opened by Dr. George M. Garland, of Boston, who emphasized the importance of treating the patient rather than the disease, and named the stomach, the heart, the fever, and the lungs, as the four important factors to be considered in treatment. Dr. Z. B. Adams, of Framingham, who followed, strongly advocated bleeding in certain types of the disease.

Suffolk District Medical Society.—At the meeting of the Surgical Section last week DR. CHARLES L. SCUDDER presented for discussion the subject of the **Open treatment of fractures.** He took the position that the end results of fractures of the lower extremity as treated by the present method were unsatisfactory in many particulars. This conclusion was reached after a careful analysis of 150 or more cases of fracture of the lower extremity treated at the

Massachusetts General Hospital during the past few years. These cases were traced to the final results, and the details will shortly be published in tabulated form. Dr. Scudder emphasized the fact that statistics of this kind were inconclusive and often misleading unless the individual cases were carefully studied. He also maintained that with the perfection of aseptic treatment of wounds and the development of skiagraphy certain classes of fractures, in view of the poor results of general methods, should be treated by incision and mechanical fracture. The importance of massage as affecting the immediate and ultimate results in cases of fracture, particularly when the break is near a joint was strongly emphasized. He pointed out the fact that if massage were combined with the present accepted methods, the results would probably be much more satisfactory. Cases illustrating the open treatment in fractures of the clavicle, humerus, and patella were shown.

Boston Medical Library Association.—Ground has been broken for the new $100,000 building to be erected on the Fennay, near Boylston street, and is within the Park System of the city of Boston. The lot has nearly 100 feet front, and is 75 feet deep. The building is to cover 5,000 square feet, but is so designed that it can be extended over the rest of the lot if occasion requires. The front has an elevation of 3 stories, surmounted by a pitched slate roof, but the stories are so high in the clear that an extra story is gained in the extension or L. The main entrance, which is in the center of the Fennay front, opens into a hall octagonal in form, to the left of which lies the nurses' directory, including office, parlor, chamber, toilet-room, etc. To the right is a smoking-room and supper-room. In the rear of the entrance-hall there is a suite of rooms containing a hall seating 100 people, suitable for the business meetings of the society, and the smaller medical bodies that will have headquarters in the new structure. The whole of the second floor of the main structure is a single handsome apartment, 70 x 32 feet, and 18 feet in the clear. This is Holmes Hall, named in honor of Dr. Oliver Wendell Holmes, who was long a member of the Library Association and its most eloquent advocate. The librarian's quarters are in the extension in the rear. The state room is admirable, rising to the top of the building, and giving five stack stories, a glass roof and glass floors giving fine light from top to bottom. The third floor, above Holmes Hall, is designed to be an assembly room, with seating capacity suitable for the great gatherings of the profession. In the extension on the third floor, there will be rooms for the Massachusetts Medical Society if it decides to make its headquarters there. The purpose of the building is to afford New England a central rallying place, like the Academy of Medicine in New York and other cities.

CHICAGO AND WESTERN STATES.

To Benefit a Hospital.—The Chicago Maternity Hospital will soon put on sale a "Lullaby Calendar for 1900" at book stores and stationers' shops, under an arrangement by which the profits will be given to its support.

Purposed Hospital for Tuberculous Patients in Chicago.—Recently a meeting of the Citizens' Committee was held for the erection of a hospital to cost $150,000 for the treatment of consumptives. Nearly $10,000 has been subscribed.

The National Jewish Home for Consumptives, located in Denver, Col., was formally dedicated last week. President Grabfelder, of Louisville, and Rabbi Friedman, of Denver, delivered the principal addressess. The Home was built by the Jewish Order of B'Rith, but is not intended for the care of members of that Order of Jews alone.

Medical Inspectors in Chicago.—Some 200 applicants have been examined for positions as medical inspectors for the Board of Education. There are 50 places to fill, the Civil Service Commission offering the examination for the eligible list. The questions were prepared by Health Commissioner Reynolds and Dr. W. S. Christopher, a Trustee of the Board, who with Dr. John Neely, of the Health Department, constituted the Examining Board.

Chicago Neurological Society.—At a meeting held December 4, DRS. HUGH T. PATRICK and SYDNEY KUH reported cases of **amaurotic family idiocy,** and DR. C. H. BEARD presented water-color drawings of the changes in the fundi of these cases.

DR. RICHARD DEWEY read a paper on **Addiction to drugs, especially in the medical profession.** A lengthy discussion followed this paper, with the consensus that physicians were addicted to the use of drugs more frequently than is generally supposed.

Smallpox in Chicago.—Dr. H. Spalding, of the Chicago Health Department, and Dr. J. A. Egan, Secretary of the State Board of Health, recently made a trip to Dixon, Ill., where they went to examine cases of suspected smallpox. They reported that conditions in Dixon were such that precautions must be taken to prevent the spread of the disease to Chicago. Many of the cases are in children attending the public schools and the Normal School. The disease was considered chickenpox by those who had it until Dr. Nelson, an inspector for the State Board of Health, examined the cases and pronounced them smallpox.

Chicago's Marine Hospital.—The United States Marine Hospital is approaching its fiftieth anniversary, and a fitting celebration will soon be held. It is one of Chicago's oldest protections to public health. Public attention was first called to the necessity of making provisions for the care of the sick and disabled sailors in February, 1846, when a meeting was held to take action under the act of 1798 establishing the service. A new operating-room has recently been constructed on the East side of the central portion of the building, which opens into the main hall near the surgical ward. This department has been well equipped with modern instruments and appliances, including an x-ray machine.

Chicago Medical Society.—At a clinical meeting, held December 6, DR. WILLIAM E. SCHROEDER presented a case of **osteoma of the external ear,** and one of extensive **varicose veins.** DR. A. H. FERGUSON presented a case of **tuberculosis of the lung** treated by drainage and iodoform emulsion, with apparent recovery. DR. F. KREISSL gave a cystoscopic demonstration of **chronic gonorrheal cystitis,** and 3 **gonorrheal ulcers** in the vertex of the bladder in a patient 56 years of age. The symptoms given by the patient, his age, and the residual urine might lead one to the diagnosis of prostatic hypertrophy. The case demonstrated the importance of cystoscopic inspection in chronic ailments of the urinary passages. He spoke of the value of the cystoscopic examination as a means of establishing the presence or absence of obstructing nodules, their number, location, and size, and the possibility of exact work when galvanocaustic incision is decided upon. DR. ROBERT T. GILLMORE showed a case of **fracture of the upper third of the left femur** of an infant which occurred during the rapid extraction of the breech with the blunt hook. The condition of both the mother and the child demanded immediate delivery.

SOUTHERN STATES.

The Practitioners' Society of Dallas (Tex.) was organized December 1, with Dr. Lawrence Ashton, as president; Dr. J. B. Titterington, vice-president, and Dr. C.

L. Johnson, secretary. The next meeting will be held at the residence of the president, December 18.

Southern Surgical and Gynecological Association.—At a meeting held in New Orleans, La., December 5, 6 and 7, the following officers were elected for the ensuing year: President, Dr. A. M. Cartledge, Louisville, Ky.; vice-presidents, Dr. Manning Simons, Charleston, S. C., and Dr. William P. Nicholson, Atlanta, Ga.; secretary, Dr. W. E. B. Davis, Birmingham, Ala.; treasurer, Dr. W. D. Haggard, Jr., Nashville, Tenn. Atlanta, Ga., was selected as the place for holding the next annual meeting; time, second Tuesday in November, 1900.

CANADA.

Sir William MacDonald, who has given so freely to McGill, has announced his intention of founding a second Chair of Geology, to be known as the "Dawson Chair," and has endowed it with $62,000. He has coupled with the gift the condition that Lady Dawson is to enjoy the income from this amount during her lifetime.

Death of Sir William Dawson.—McGill University has suffered a great loss in the death of its emeritus Principal, Sir William Dawson, at the advanced age of 74. Sir William was at the head of affairs for 38 years. Owing to his untiring zeal he built up what was a very weak cause into a stable and extensive fabric. McGill University to-day is largely the work of Sir William Dawson. For some years he had been gradually failing, having suffered from a series of hemiplegic attacks, and cerebral hemorrhage finally carried him off. His work as a geologist and as a religious writer has made his fame world-wide. He was an able administrator and greatly beloved by all with whom he came in contact.

Montreal Medico-Chirurgical Society.—At a regular meeting held November 24, DR. D. D. MACTAGGART showed the specimen from a case of **ruptured diaphragm.** The patient was a man who had fallen some distance but sustained no external injury. The physical signs pointed to hemathorax. At the autopsy a tear in the diaphragm was found and the stomach and spleen were in the left thoracic cavity.

DRS. SCHMIDT and C. F. MARTIN showed a case of **aortic endocarditis** in an infant 6 weeks old, which was either intrauterine or had come on shortly after birth. The mother had been suffering from a leukorrheal discharge.

DR. D. A. SHIRRES showed the brain from a case of **porencephaly** which had started in fetal life and was due to obliteration of the left middle cerebral artery. The convolutions in the case supplied by this vessel were very small and undeveloped. Dr. Shirres traced the degeneration through the pons, medulla, and cord, and showed that in the degenerated side of the cord the dendrites showed a tendency to pass over in the direction of the healthy part as if there was an attempt at the impulses passing down the unaffected side.

DR. JAMES BELL reported a case of **obstructive jaundice** in a male, aged 53, upon whom he had operated. He had performed a cholecysto-duodenostomy with the Murphy button. He had found the gallbladder greatly distended, but no stones. The man subsequently died of hemorrhage. His symptoms had been pain over the liver and recurring jaundice. DR. J. A. NICHOLLS showed the specimens from this case. He had found at the autopsy hemorrhage into the peritoneal cavity and the bowel, due to capillary oozing. The button was intact and there was ulceration and tearing. All the bile-passages were greatly distended, the pancreas was very hard and fibroid, and its duct was the size of the little finger. In the duodenum below the bile papilla was a lesion of the mucosa apparently acute. A careful search failed to reveal any stones. He was of the opinion that there had been a gallstone which had obstructed both the bile and the pancreatic ducts, and which had passed in the interval before the operation.

DR. F. R. ENGLAND recorded a case of **rupture of the rectum** in a little girl, due to falling on a broomhandle which passed up the anus. She was brought to hospital 36 hours after the injury. He did a laparotomy, sutured the gut together, and in spite of the severe collapse the patient recovered.

DR. G. A. CHARLTON showed a specimen of **hammer-toe** and discussed its etiology. Cases were due to shortening of the tendons or to alterations in the lateral ligaments, and sometimes to changes within the joint.

MISCELLANY.

Obituary.—DR. WILLIAM LOCKWOOD, formerly a leading physician of Norwalk, Conn., committed suicide by taking carbolic acid in his apartments in Brooklyn, N. Y., last week. No cause can be assigned for the act.—DR. FREDERICK I. JOHNSON, Maspeth, Queen's Borough, N. Y., December 10, aged 30 years.—DR. L. W. EVANS, Templeville, Queen Anne County, Md., December 1.—DR. STEWART B. CARLISLE, Mount Vernon, N. Y., December 7.

Health-Reports.—The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, U. S. Marine-Hospital Service, during the week ended December 8, 1899.

SMALLPOX.—UNITED STATES.

			Cases.	Deaths.
CALIFORNIA:	San Francisco	Nov. 23	3 cases in 48th Regiment U. S. Vol.	
DISTRICT OF COLUMBIA:	Washington	Nov. 25–Dec. 2	2	
ILLINOIS:	Dixon	Dec. 3	125	
LOUISIANA:	New Orleans	Nov. 25–Dec. 2	2	
"	Shreveport	Nov. 25–Dec. 2	1	
MASSACHUSETTS:	Chelsea	Nov. 25–Dec. 2	3	
MICHIGAN:		Nov. 25	Reported in 6 places.	
NEW YORK:	New York	Nov. 25–Dec. 2	2	
OHIO:	Cleveland	Nov. 17–Dec. 2	1	
VIRGINIA:	Portsmouth	Nov. 25–Dec. 2	3	1

SMALLPOX.—FOREIGN.

BELGIUM:	Ghent	Nov. 4–18		3
BRAZIL:	Rio de Janeiro	Oct. 22–Nov. 3	200	123
ENGLAND:	London	Nov. 11–18	1	
INDIA:	Bombay	Oct. 23–Nov. 7		7
"	Madras	Oct. 28–Nov. 3.		1
MEXICO:	City of Mexico	Nov. 12–19	1	1
RUSSIA:	Moscow	Oct. 28–Nov. 4.	1	1
"	St. Petersburg	Nov. 4–11	9	5
"	Warsaw	Nov. 4–11		9

YELLOW FEVER.—UNITED STATES.

LOUISIANA:	New Orleans	Nov. 25–Dec. 2	1	

YELLOW FEVER.—FOREIGN.

BRAZIL:	Rio de Janeiro	Oct. 23–Nov. 4	6	3
CUBA:	Havana	Nov. 22–29	11	8
"	Santiago de Cuba	Nov. 15–22	1	

CHOLERA.

INDIA:	Bombay	Oct. 23–Nov. 7		2
"	Calcutta	Oct. 1–21	33	

PLAGUE—FOREIGN.

AUSTRIA:	Trieste	Nov. 4	1 death, sailor on Ottoman liner Polis Mytilini.	
INDIA:	Bombay	Oct. 23–Nov. 7		165
"	Calcutta	Oct. 1–21		134
"	Kurrachee	Oct. 22–Nov. 4	3	6
PARAGUAY:	Asuncion	Oct. 7–24		10

Changes in the Medical Corps of the U. S. Army for the week ending December 8, 1899:

REYNOLDS, Captain FREDERICK P., assistant surgeon, relieved from duty in the department of Porto Rico and directed to proceed to New York City, telegraphing the Adjutant-general of the Army upon arrival for orders.

RAYMOND, Major HENRY I., surgeon, granted extension of one month on surgeon certificate's leave.

STILES, Captain HENRY R., assistant surgeon, order of November 17, relieving him from further duty at Benicia Barracks and directing him to proceed to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty, is revoked.

TEN EYCK, Captain BENJAMIN L., assistant surgeon, leave extended 20 days, on account of sickness.

ATKINSON, ROGER T., acting assistant surgeon, to proceed from Wakefield, Mass., to San Francisco, Cal., for assignment to duty at the U. S. general hospital, Presidio.

EVE, ROBERT C., acting assistant surgeon, will proceed from Fort Terry to his proper station, Key West Barracks.

KIERSTED, HENRY, acting assistant surgeon, to proceed from Philadelphia, Pa., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

THOMPSON, LOUIS A., acting assistant surgeon, to proceed from Dayton, O., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

REYNOLDS, Captain FREDERICK P., assistant surgeon, granted leave for one month.

MEYER, HERMAN, acting assistant surgeon, relieved from further duty in the division of Cuba, and will proceed to New Orleans, La., and report by letter to the Surgeon-general of the Army for annulment of his contract.

SMITH, BAT, acting assistant surgeon, to proceed from New York City to Washington, D. C., and report to the Surgeon-general of the Army for further instructions.

CHIDESTER, WALTER C., acting assistant surgeon, will proceed from Dayton, O., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

ROBBINS, CHANDLER P., will proceed from Louisville, Ky., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

LAWRASON, GEORGE B., acting assistant surgeon, will proceed from Washington, D. C., to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

STILES, Captain HENRY R., assistant surgeon, relieved from further duty at Benicia Barracks, and ordered to proceed to Madison Barracks for duty.

O'HARE, FRANK J., acting assistant surgeon, relieved from further duty at Fort Myer, and ordered to proceed to San Francisco, Cal., and report to the commanding general, department of California, for assignment to duty.

SMITH, BAT, acting assistant surgeon, granted leave for 30 days.

DUCKER, Major ORLANDO, brigade surgeon, is relieved from duty as commanding Las Animas hospital and will report to the chief surgeon of the department of Havana for duty in his office.

DE WITT, Lieut. Colonel CALVIN, deputy surgeon-general, will proceed by the first available commercial steamer sailing from New York to Havana, Cuba, if one sails before a transport, and on arrival will report to the commanding general division of Cuba, for assignment to duty.

Changes in the Medical Corps of the U. S. Navy for the week ended December 9, 1899 :

DICKSON, D., medical director, promoted to medical director.

HARMON, G. E. H., medical inspector, promoted to medical inspector.

DUNBAR, A. W., passed assistant surgeon, detached from the "Resolute," when placed out of commission, and ordered home to wait orders.

MCCLANAHAN, R. K., assistant surgeon, ordered to the Washington Navy Yard.

GARTON, W. M., assistant surgeon, detached from the Washington Navy Yard and ordered to the "New York."

CARPENTER, D. N., assistant surgeon, ordered to the Boston Navy Yard.

Changes in the U. S. Marine-Hospital Service for the 7 days ending December 7, 1899 :

MEAD, F. W., surgeon, granted leave of absence for one day. December 7.

MAGRUDER, G. M., surgeon, to proceed to New York, N. Y., and report to Surgeon L. L. Williams (Immigration Depot) for special temporary duty. December 2. To proceed to London, England, for duty. December 4.

PERRY, T. B., passed assistant surgeon, relieved from duty at New York, N. Y., and directed to proceed to Baltimore, Md., for duty and assignment to quarters. December 1.

WERTENBAKER, C. P., passed assistant surgeon, to rejoin station at Wilmington, N. C. December 1.

SMITH, A. C., passed assistant surgeon, to proceed to New York, N. Y., and report to Surgeon L. L. Williams (Immigration Depot) for special temporary duty. December 2. To proceed to Hamburg, Germany, for duty. December 2.

BLUE, RUPERT, passed assistant surgeon, to proceed to Genoa, Italy, for duty. December 4.

SPRAGUE, F. K., passed assistant surgeon, to proceed to Antwerp, Belgium, for duty. December 4.

GREENE, J. B., passed assistant surgeon, relieved from duty at Boston, Mass., and directed to proceed to New York, N. Y., and report to Surgeon L. L. Williams (Immigration Depot, for special temporary duty. December 4.

TABB, S. R., assistant surgeon, to proceed to Savannah Quarantine Station (Georgia) for temporary duty. December 2.

GREENS, S. B., assistant surgeon, to proceed to New York, N. Y., and report to Surgeon L. L. Williams (Immigration Depot) for special temporary duty. December 2. To proceed to Havre, France, for duty. December 5.

HOBDY, W. C., assistant surgeon, to report at Washington, D. C., for special temporary duty and then to rejoin station at New York, N.Y. December 1, 1899. Relieved from duty at New York, N. Y. (Stapleton) and directed to report to Surgeon L. L. Williams (Immigration Depot) for special temporary duty. December 4. To proceed to Southampton, England, for duty. December 5.

CORPUT, G. M., assistant surgeon, upon being relieved from duty at Baltimore, Md., to report at Washington, D. C., for special temporary duty; then to proceed to New York, N. Y., reporting to Surgeon L. L. Williams (Immigration Depot) for special temporary duty. December 1.

THORNBURY, F. J., assistant surgeon, relieved from duty at San Francisco, Cal., and directed to proceed to the San Francisco (Cal.) quarantine station for duty. December 2.

GOLDSBOROUGH, B. W., acting assistant surgeon, granted leave of absence for two days. December 1.

Foreign News and Notes.

GREAT BRITAIN.

According to the report of the *Lancet's* special commission to investigate the composition of cigarets, there is no ground for the charge that phosphorus, opium, arsenic, or mercury is used in making them. But nothing of the kind is needed to make them harmful when children smoke them excessively.

The first annual dinner of the English **Association of Public Vaccinators** was held on the last Saturday in November, when Mr. Chaplin, the Secretary of the Local Government Board, spoke at length in favor of the New Vaccination Act, and advocated the formation of a Vaccination League whose special duty it should be to counteract the mendacious influence of the Anti-Vaccination League.

According to the *Lancet's* correspondent at Cape Town, the bullets of Mauser rifles do not make as severe flesh wounds as those of the Martini-Henry gun; the wounds are aseptic and heal with surprising rapidity. The reports are continuously repeated that the Boers fire on hospitals, and do not respect the Red Cross signal.

Professor T. E. Thorpe, F.R.S., has recentiy been appointed official examiner of the London water-supply, for the Local Government Board, in succession to the late Sir Edward Frankland. He is a very great chemist. He is the author of the excellent "Dictionary of Applied Chemistry" and is principal chemist to the Local Government Board laboratories. But, eminent man as Professor Thorpe is, there are those who think that the present state of the London water-supply, and the social problems that are involved in bettering it, call for an official examiner whose time is a little less fully occupied with other work and whose attainments have been more specially directed to the chemistry, and in particular the bacteriology of water-supply. Medical men in London do not see the expediency of doubling, in the person of one man, two such highly important officials as the examiner of the London water-supply and the chemist to the Local Government Board.

Epidemic Diarrhea.—Dr. Arthur Newsholme, the Medical Officer of Health for Brighton, the most popular watering place in England, made an excellent contribution to the study of epidemic diarrhea in a recent address to the Incorporated Society of English Medical Officers of Health,

which body he is the president. He stated himself to have en repeatedly struck with the relative immunity of certain itish towns from diarrhea, as evidenced by the statistical formation furnished by the Registrar-General, and as a nsequence he had made a study of the conditions prevail- g in the affected and unaffected places. He found that e fundamental condition favoring epidemic diarrhea was n unclean soil, the pestilent poison from which infected e air," and he concluded with the following deductions:— It is clear that towns with a high temperature and a ficient rainfall, especially in the third quarter of the year, ffer severely from diarrhea. This relationship is so close it the towns may be classified meteorologically in the ler in which they should stand in reference to diarrhea, d their true relative position as to domestic and municipal nitation may be ascertained when we know whether they cupy a better or worse position on the list of towns than t which their meteorological place would indicate as htly belonging to them; (*b*) it is clear that among popu- ions living on impervious and rocky soils diarrhea is not prevalent, probably because polluting fecal and other or- nic impurities do not cling to or soak into such soils. (*c*) arrhea is most prevalent where the systems of removal of vage and house refuses are the least satisfactory. The ex- tionally good position of certain towns in which pail- sets are largely used, must be regarded as due to the favor- e climatic and physiologic position of these towns, prob- y aided by efficient municipal scavenging; and it is most certain that their position might be still further im- ved by the general adoption of a water-closet system. th sanitarians and statisticians are agreed that Dr. wsholme's address was a highly valuable one.

The British General Medical Council started its ter session on November 28 under the presidency of Sir lliam Turner, and proceeded to waste time hard. This s the fault, not of the Council, but of certain individual mbers. On the first day Mr. Carter followed the opening ech of the president with a long story controverting ngs that had been said by Mr. Victor Horsley. Mr. Victor rsley's allegations had been made publicly and in lan- ge of the freest kind, so that Mr. Carter was only claiming ght in replying in terms of the greatest indignation and rn, but it is doubtful if he crushed his adversary so effect- ly as he would have done by simply pointing out the ces where Mr. Horsley had made misstatements. And it ertain that the General Medical Council are not assembled a cost to the profession of £200 per diem to hear such lippics. Mr. Horsley in reply allowed that he had "inad- tently misrepresented" the Society of Apothecaries, an aission which may possibly do him considerable harm en standing again for the position of a Direct Repre- tative of the medical profession on the General Medical ncil. The whole episode has created an unpleasant pression on the medical profesion. On the second of the Council's session Mr. George Brown, another ect Representative, moved several long resolutions, only of which found favor with his colleagues, and none of ich dealt aptly with any particularly pressing medical iness. Mr. Brown's motions dealt (1) with the issuing by London Obstetrical Society of certificates of proficiency trained midwives (this practice he wanted to see oped at once and the issuers of the certificates treated as famous persons, in a professional respect," and removed n the medical register, but the Council refused to take view); (2) with the necessity of establishing a higher standard of medical education and examination (this motion Mr. Brown was not prepared to speak to, but his request for postponement was negatived and the motion was lost); (3) with the advisability of the Royal College of Physicians of London, the Royal College of Surgeons of England, and the Apothecaries' Society of London joining to hold common qualifying examinations (this motion found favor with the Council by 11 votes to 8, but nothing will follow upon it as the position of London University is not yet defined, and unless London University also joins the scheme the unity of medical education in London that is aimed at by the resolution will not be secured); and (4) with the advisability of the Royal College of Physicians and Surgeons in Ireland joining with the Apothecaries' Hall of Ireland to hold common qualifying examinations (this motion Mr. Brown asked leave to withdraw as the Irish representatives in the Council would not support it, but his colleagues refused to allow the withdrawal and negatived the motion, which was supported only by its proposer and seconder). Mr. Brown does not appear to know his own limitations.

CONTINENTAL EUROPE.

Licensed Physicians.—Last year Munich made 179 candidates licensed physicians; Würzburg, 139; and Erlangen, 59.

Prof. Raymond, chief of the Charcot Clinique at Salpêtrière, has been granted a year's vacation to recuperate his health. His place will be occupied by Prof. Gille de la Tourette.

The director of the Military Academy of Medicine and Surgery at St. Petersburg has been authorized to admit female physicians in the hospitals for diseases of women and children.

Prof. Metchnikoff, acting director of the Pasteur Institute, has declined a request from the Boers to send them a supply of antiplague serum, giving as a reason for this refusal that there was not enough serum in Paris to control an epidemic of the plague should it gain a footing in the city.

The Viceroy of India and the Plague.—According to the *Lancet*, Lord Curzon, the Viceroy of India, has been recently making a circuit of the plague hospitals and segregation camps at Poona. His personal inspection is likely to be productive of good and has already given the greatest satisfaction to the native community. He gave an admirable address in Poona in favor of inoculation against plague, supporting his advocacy by the force of his own personal example, for Lord Curzon and the whole of his party were inoculated against plague before leaving Simla on their tour of inspection—a course which he cordially commended to all placed in a similar position. He said in part: "If I find, as I do find, out of 100 plague seizures among uninoculated persons, the average number who die is somewhere about 70 to 80%, while, in a corresponding number of seizures among inoculated persons, the proportions are entirely reversed and 70 to 80%, if not more, are saved—and these calculations have been furnished from more than one responsible quarter —I say figures of that kind cannot fail to carry conviction, and I altogether fail to see how, in the face of them, it is possible for any one to argue that inoculation is not a wise and necessary precaution."

Two Cases of Tumor of the Chorioepithelium. F. Schlagenhaufer (*Wiener klinische Wochenschrift*, No. 18, 1899) reports two cases of deciduoma maligna, the first of which was mistaken for varix of the vagina, but further examination revealed the true diagnosis—a case of metastatic chorioepithelial tumor. [W.K.]

The Latest Literature.

British Medical Journal.

November 25, 1899. [No. 2030.]

1. A Modern View of Cancer. GILBERT BARLING.
2. The Incidence of Cancer. ARTHUR JACKSON.
3. The Prognosis and Modern Treatment of Appendicitis. D'ARCY POWER.
4. On the Prevention or Anticipation of Shock in Surgical Operations. B G. A. MOYNIHAN.
5. The Treatment of Surgical Shock by Large Doses of Strychnin. J. BASIL HALL.
6. The Relation of Bacillus Coli Communis to Other Organisms in the Urine. J. L. MAXWELL and W. BRUCE CLARKE.
7. A Method for the Removal of Foreign Bodies from the Nose and Ear. CHARLES A. STURROCK.
8. The Treatment of Acute Tropical Dysentery. H. J. JERVIS.
9. Hypodermic Injections of Quinin in Intense Malarial Fevers. E. J. ERSKINE RISK.
10. A Case of Tetany Due to Exposure to the Sun. HERBERT FOX.
11. A Case of Compound Comminuted Depressed Fracture of the Calvaria, with Fracture of the Base of the Skull. T. HILLHOUSE LIVINGSTONE.

1.—Baring believes that the **increase in cancer** is in the main apparent and not real, and is due to more active death-certification, a very large number of cases having been transferred during the later years from deaths due to indefinite causes to death from cancer. He looks upon cancer as due to infection, a cancerous tumor being the local expression of an irritation induced by a parasitic body invading the tissues from without. He believes further that cancer is in the first instance a local disease capable in its early stages of being completely eradicated, and that it is not the expression of a constitutional tendency which makes its removal by operation a mere palliative and not a possible cure. There may be, in people who are subjects of cancer, a susceptibility of tissue which renders the absolute cause of cancer active in them when it would die out or remain inactive in others who have not that susceptibility or tendency. Much can be done in lessening the mortality of cancer by appreciating its local origin, by its early recognition and by early and complete removal of the growth. This should include not only the removal of the cancer itself, and not only the group of lymphatic glands most likely to be affected whether they are or not, but should include also all the lymphatic vessels, small or large, between the primary cancer and its lymphatic "catch" glands. This is only possible at present in a few situations, such as the tongue, lip, and breast. In the stomach and intestines the discontinuity of the parts attacked with the tissues around offers a remarkable opportunity for successful operation if only early diagnosis can be made. The question of early exploratory incision in suspicious cases should receive careful attention. [S.M.H.]

2.—Jackson believes in the **parasitic origin of cancer.** Diseases lowering the general health of the patient have a marked influence upon the growth of cancer. It is not improbable that the prolonged epidemic of influenza through which we are passing may be one of the possible explanations for the apparent increase of cancer in late years. The question of heredity in cancer, like that of tuberculosis, depends upon the fact that in persons in whom there is an hereditary tendency to cancer the tissues are more liable to be attacked by the cancer-parasite than those of others in whom there is no such tendency. The cancer-parasites probably enter the system by way of the stomach. They must be absorbed into the blood, for it is only by the blood that they can be conveyed to some organs of the body in which they are ultimately found. During their sojourn in the blood there exists no trace of any remarkable action. Cancer-organisms are probably of fairly general prevalence, so it is likely that some one or other of the tissues of the body exerts an inhibitive influence upon their growth and development. It would seem in the light of certain facts that the blood itself exercises a restraining influence over the growth of these parasites, and that an efficient blood-supply might be an important factor in determining the first laying down of cancer. The favorable seats of cancer, such as the female breast and the uterus, which are from their function liable to periods of excess of hyperemia followed by a time of atrophy and diminished blood-supply, would rather confirm this view. Since there is no apparent reason why the number of these infecting organisms present in the blood should be greater at one time than another, one must conclude that during the period of more active tissue changes these parasites are destroyed either by the blood or the tissues themselves. Another class of cancers which have an entirely different mode of origin from those mentioned are those occurring in such highly vascular parts as the lips, tongue, and other parts of the gastrointestinal tract. It is possible that in this region cancer may originate as a consequence of the direct implantation of the parasite, and that this explanation of the existence of cancer in this region is the proper one, would seem probable from the localities in which in practice one most commonly meets it. However necessary this blood-supply must be for the continued growth of cancer when once formed, it is not particularly necessary, nor, indeed, favorable to the primary deposition of cancer. Otherwise, carcinoma of the breast would most likely occur in the years during which the breast is most highly vascular rather than at the time when it begins to atrophy. If there is any property in the blood which is destructive to the cancer-parasite, such property is not shared by the lymph, since it is by means mainly of the lymphatic system that cancer, when once formed, is disseminated, and the far greater readiness with which carcinoma is transmitted by the lymph-system seems to be another point showing that the blood has an effective control over the growth and propagation of cancer. Ovariotomy, either combined with removal of carcinoma of the breast, or performed subsequently in consequence of recurrence, or undertaken as a last resort in inoperable cases, sometimes produces remarkable amelioration of symptoms, and often total disappearance of cancerous growths of the breast. It is suggested that the sudden flushings which occur after the artificially produced, as after natural menopause, may have something to do with it. Thyroid extract has an undoubted effect in some cases of cancer in retarding its progress and in occasionally causing actual diminution of existing tumors. The effect is probably due to some destructive or absorbent action resorted to or conferred upon the blood by the extract. The day will probably come when a specific for cancer will be discovered. Until then the best-known treatment is early and complete removal, not only of the growth itself, but where practicable, of the neighboring lymphatic glands as well. The medical profession should not only look upon cancer as a purely local and curable disease, but educate the public to a similar view. [S.M.H.]

3.—Power says that in **appendicitis** the simple inflammations end in resolution or become chronic, forming adhesions or leading to sclerosis of the appendix. Realizing this, he says that a surgeon is not required in a case of simple appendicitis running a natural course and occurring for the first time in a patient who is otherwise healthy. But the medical attendant should be ready to summon the surgeon at the first unfavorable sign. The examinations should be carefully carried out, the physician depending on sight and touch. The swelling in the right iliac fossa is at first purely inflammatory and does not necessarily, or even usually, mean abscess. The majority of cases of appendicitis recover and in the first attack it is said to be 3 to 1 against a recurrence. It is to be remembered that the symptoms of appendicitis may be temporarily almost annulled by the use of appropriate drugs and still the inflammatory process continue. Symptoms which should lead to a primary laparotomy are change in aspect of patient, quickening of the pulse, respirations becoming less abdominal in type, increasing intestinal obstruction with vomiting when the patient is at rest. **Secondary laparotomy** should be done when a large abscess has been allowed to form; when repeated crises show that there is some permanent disease of the appendix; when after recovery there remains some trouble in the right iliac region, as slight pain or discomfort, or perhaps a thickening which is tender to pressure; and lastly, when the future location of a patient who has had several attacks will place him beyond the call of a surgeon. [G.B.W.]

4.—Moynihan calls attention to the use of various agents, chiefly heat and strychnia, "so as to prevent, **to anticipa**

shock," and suggests the employment of larger doses of strychnia than are usually given. [G B.W.]

5.—Hall employs **strychnia** in large doses **in severe shock** and says that he has yet to see the case that displays symptoms of overdosing. He reports 2 cases. Case I was that of an embolism occurring during an operation. There was a collapse and impending death. The injection of ¼ gr. of strychnin was followed by recovery. Case II was one of profound shock from the removal of a large ovarian tumor. The injection of ¼ gr. of strychnia was followed by immediate recovery, but death took place 9 hours later. Hall says, that while ¼ gr. is a rather large dose and should not be given as a routine practice, there is scarcely any use of giving less than $\frac{1}{100}$ gr. when strychnia is really indicated. The effects of the drug are most marked when there is a failure of respiration especially. [G.B.W.]

7.—Sturrock suggests the use of **suction in the removal of foreign bodies** from the nose or ear. He employs a piece of rubber tubing attached to an ordinary syringe. [G.B.W.]

8.—Jervis has had excellent results in the treatment of **acute tropical dysentery** with magnesium sulfate. Eleven cases treated were cured on an average of from 5 to 8 days. [S.M.H.]

9.—Risk has used hypodermic injections of 10-grain doses of quinin sulfate dissolved in half its bulk of tartaric acid and 10 minims of distilled water, in the **comatose and cerebral forms of remittent fever,** especially when constant vomiting precluded all medication by the mouth, and when anal and rectal enemas were not absorbed. His results were very favorable. The typical remittent fever of St. Lucia is characterized by the estivoautumnal plasmodium of malaria, two or three in each red cell attacked; pigmented spheres, flagellated and moribund, are found in fair quantity. [S.M.H.]

10.—Fox observed a boy, aged 13 years, who had been sitting in the sun all of the preceding afternoon. On returning home he complained of headache and fever. He went to bed and wakened about 5 A.M. complaining of pains in his arms and legs and inability to move. Examination showed his hands and feet to be rigidly contracted in the position met with in **tetany.** His kneejerks were markedly exaggerated; he was very nervous and frightened, but, apart from the conditions of his hands and feet, in good health, and there was no gastric or intestinal disturbance. He was treated with a calomel purge, and a 10 grain dose of ammonium bromid every four hours. The spasm gradually relaxed and he was able to walk and use his hands at the end of five days. Exposure to the sun was the only cause which could be ascertained. [S M.H]

Lancet.

November 25, 1899. [No. 3978]

1. The Comparative Mortality of English Districts. H. FRANKLIN PARSONS.
2. The Nature and Significance of Rigors in Disease. SIR DYCE DUCKWORTH.
3. The Influence on Health of Chemical Preservatives in Food. ALEXANDER G. R. FULLERTON.
4. Red Coloration of the Feces Simulating the Presence of Blood. ALFRED H. CARTER and C. A. MACMUNN.
5. Acute Diabetes Mellitus Supervening in a Case of Diabetes Insipidus; Coma; Death. EDWARD J. BLACKETT.
6. A New Method of Skin-Grafting. THOMAS H. KELLOCK.
7. Hydatid of the Liver; Suppuration, Bursting Into a Bronchial Tube, Drained, and the Cyst-Wall Removed Through Incision into the Lung; Recovery. JOHN JONES.
8. A Case of Primary Abscess of the Kidney. J. STEWART.
9. Ptosis Produced by Intracranial Lipoma. R. HILL.
10. Note on a Case of Needle-Point in the Finger for Nine Months; Radiograph. W. H. COATES.
11. A Case of Snake-Bite Treated With Calmette's Antivenene Serum; Recovery. S. J. RENNIE.
12. Note on a Twisted Pedicle. A. C. BUTLER-SMYTHE.
13. A Case of Hernia Through a Congenital Opening in an Abnormal Fold of Peritoneum. W. B. PARSONS.
14. A Case of Multiple Fracture. H. A. LEDIARD.
15. Two Cases of Traumatic Epilepsy; Trephining; Recovery. R. H. COWAN and E. H. MONKS.

2.—According to Duckworth, **rigors are nervous manifestations** affecting the vascular system, and the phenomena illustrate the condition of spasm of small bloodvessels such as is met with in states of shock or collapse. The particular nervous center or tract involved is not exactly known, but it is connected with or actually forms a part of the coordinating or medullary center for cardiac, vascular, and respiratory movements. This is also in intimate relation with the thermotaxic center. This center is probably excited by the unusual differences existing between the temperature of the surface of the body and that of the interior. A contraction or spasm of the small bloodvessels occurs in consequence. Irritation of the sensory nerves, especially of those of some mucous surfaces, may readily induce rigors. The mechanism is the same, and irritation conferred by the afferent nerve setting up a reflex process through the medullary center. The occurrence of a rigor at the beginning of an illness is a very important matter, and it is recognized as marking the first day of the onset of disease. Rigors of ague are due to dosages of plasmodia which are at specifically definite intervals discharged into the blood. Chills sometimes quicken into activity inherent mischievous powers of many microbes which may be innocent, even though lodged in our bodies, until rendered harmful by such exposure and the depressing conditions connected with it. The occurrence of rigors in the course of many diseases suggests the possibility of suppuration or of some source of toxic infection. It is possible always to determine the precise cause of rigors in disease. [S.M.H.]

4.—Carter and MacMunn report 3 cases in which there occurred a red **pigmentation of the stools** of a **kind liable to be mistaken for blood.** The first case occurred in an old man suffering from chronic valvular disease and febrile toxemia in cystitis. The second case was one of typhoid fever, and the third one of acute pneumonia. Portions of the stool set aside for inspection showed streaks of redness upon the surface. After further exposure and repeated agitation the whole mass of the stool became of a blood-red color. Careful examination of the specimen by MacMunn led him to the following conclusions: (1) that there was no blood present. (2) That bilrubin and biliverdin were absent. (3) That the pigment coloring the feces red was closely related to stercobilin, though differing from it in some slight particulars, probably due to the incompletely metabolized condition in which it was excreted. (4) That the feces at first contained chromogen which on exposure to the air became converted into the corresponding pigment. [S.M.H.]

5.—Blackett reports a case of a man, aged 54 years, who, after working vigorously at a fire between the hours of 2 and 5 A.M., suddenly became attacked with great thirst, debility, and polyuria. The amount of urine voided averaged from 7 to 8 pints daily. Frequent examinations showed no trace of albumin or sugar. The specific gravity ranged from 1006 to 1010. The case was considered one of **diabetes insipidus.** He improved under treatment. About 7 months later, while feeling very well, he exerted himself unduly in his professional work throughout a period of a week, following which he felt great weakness and lassitude. A month later, while driving, he vomited several times and began to suffer from great dryness of the mouth. His pulse was found at this time to be very weak and rapid, and cardiac failure was feared. The temperature was subnormal. During the following night he became slightly comatose, and the following day he was still drowsy and his urine was found to have a specific gravity of 1026 and to contain a large quantity of sugar. The evening of the following day he became very drowsy, the coma deepened persistently, he became unconscious and died after a few hours, having been in a state of coma for a period of 36 hours. The onset of the disease in this case was attributed to the occasions of mental worry and shock that the subject had experienced. [S.M.H.]

6.—Kellock believes that the best method of covering raw surfaces, resulting from burns and other injuries, is by the **implantation of a flap of the whole thickness of the skin.** He advises performing this operation without anesthesia and finds the pain caused by cutting the graft trifling. The success of this method is greater if the flap of the whole thickness of the skin be surrounded by a narrow fringe of epithelium. When this thin edge is spread out with care and exactness it adheres rapidly, and by fixing the main part of the graft assists in assuring its growth.

[The favorable opinion which Kellock has of the method of skin-grafting by the use of grafts, including the whole thickness of the skin, does not coincide with the experience of most operators. Wagner has recently reported a series of cases from Mikulicz's clinic in which he had 32% of complete failures by this method. We also question whether most surgeons would agree that the pain of cutting skin-grafts without anesthesia is trifling. M.B.T.]

7.—A girl, 8 years old, came under observation with a smooth, rounded elastic tumor in the right epigastric region continuous with the liver; there was no pain, tenderness, hydatid thrill, or other symptoms. The child's general health was good, but there was shortness of breath and a feeling of tension in the abdomen. Surgical intervention was refused. Three months later the girl was taken with cough, dyspnea, and acute pain in the right inframammary region with signs of consolidation of the lung, and a short time after this she had an attack of suffocation followed by coughing and the expectoration of about an ounce of prune-juice colored, offensive material, after which the tumor was found less tense. An incision was made below and internal to the nipple, sinus forceps were thrust through the pleura into the lung-tissue, and on separating the blades fetid pus escaped. The finger passed into the wound entered a cavity about the size of a walnut from which a tract descended directly downward. From the wound was then extracted the wall of a **hydatid cyst** larger than an orange. After the operation, cough gradually disappeared and was unattended by expectoration. Rapid recovery followed. [M.B.T.]

8.—A woman, 35 years of age, came under observation for pain in the left side with cough, night-sweats and elevation of temperature. Her previous health had been excellent. The cough continued, and on careful examination a tumor was found in the left hypochondrium and lumbar region. It was smooth and felt solid and nonfluctuating. With the belief that the pain, elevation of temperature, and sweating might possibly come from **abscess of the kidney,** an incision was made in the lumbar region, and upon opening the kidney about 16½ ounces of thick, creamy pus escaped. It is thought that the intense cough, which at first was the most striking symptom, was due to irritation of the right pneumogastric nerve which descends on the posterior wall of the esophagus, and sends twigs in the left renal plexus. [M.B.T.]

9.—A woman, who had suffered from ptosis, which did not yield to treatment, died somewhat later from apoplexy, and at the necropsy an **intracranial lipoma** was found occupying the sella turcica and covering half of the left middle fossa of the skull. [M.B.T.]

10.—A girl pushed a **needle in her finger** while washing a floor. Two pieces came out during the next two weeks, but the girl continued to complain of pricking sensation in the finger. This was thought to be imaginary, although the girl was not neurotic, but, after 6 months, a remaining part of the needle was localized by the x-rays and removed. [M.B.T.]

11.—A boy, 12 years old, while lying asleep on the ground, felt something bite his left little finger, but, being drowsy, he went to sleep again. He was shortly awakened by great pain in the arm and shoulder, which parts became swollen and discolored. This was followed by vertigo and blindness, and when first seen was in a stupid condition, the respiration was labored, bloody froth was oozing from the mouth, there was complete paralysis of the left side, and the heart's action was irregular and intermittent. Twelve cc. of **Calmette's antivenene** was injected hypodermically and a stimulating enema was administered. While this was being accomplished breathing ceased and the heart-beats were only 4 per minute, and getting feebler. Artificial respiration was commenced and carried on for 20 minutes, by which time the serum had accomplished its work. The boy steadily improved, and in 5 days was convalescent. Rennie believes that the value of the serum has been fully proved by experiment and actual practice. This case shows that it may be successful even in most extreme conditions, and it retains its properties for almost any length of time. [M.B.T.]

12.—Butler-Smythe describes a case of papillomatous, **ovarian cystoma with a long pedicle,** twisted with 3 half turns from without inward, not strangulating the pedicle, but allowing the vessels to pulsate freely. The operation for its removal was successfully performed. [W.K.]

13.—A man, aged 62, complained of uneasiness in the abdomen, but no actual pain. He had vomited bile-stained fluid, his bowels had not moved for 10 days, and for several years he had been troubled with chronic constipation. His condition became worse, although at no time was there pain, tenderness or marked abdominal swelling. Death followed 6 days after the first symptoms of obstruction. A necropsy was performed and a loop of ileum 44 inches long was found to have passed through **an opening in an abnormal fold of the peritoneum.** The bowel was dark-colored and edematous, but still glistening in appearance. The abnormal fold of peritoneum measured 3 inches in length, extending from the left side of the pelvis to the sigmoid flexure. It consisted of two layers of peritoneum and presented two oval openings ¾ inch in diameter. [M.B.T.]

14.—A man of 21 was injured by a vicious horse running violently against a stone gateway and knocking him off and causing **multiple fractures.** There was a large wound on the right forehead with a fissured fracture of the frontal bone; the lower jaw was broken on each side near the angle and on the right side also near the condyle; and there was a compound fracture of the right femur in its lower third. The upper end of the latter fragment projected through a wound on the anterior surface of the thigh. The wounds were antiseptically treated. A moulded external splint was applied over the jaw and the fracture of the thigh was put up in an extension-apparatus. The second night after the operation the patient's temperature arose and he was almost constantly delirious for over a week. Abscess formed at the seat of injury in the thigh and forehead, but healing eventually followed, and the patient left the infirmary practically well at the end of 13 weeks. [M.B.T.]

15.—Two successful cases of **trephining for epilepsy** are reported. A man, 55 years of age, fell downstairs and afterwards suffered from total aphasia. Three days later he was taken with epileptiform convulsions affecting the right side of the face and the right arm. The clonic spasm lasted several minutes. Trephining was performed over the right motor center area, the dura was seen to bulge and on incising it a large blood-clot presented; the clot was broken up and washed out and the wound lightly packed with iodoform gauze. On the same day the patient spoke distinctly for the first time since the injury. From this time he continued to improve and is now working and perfectly well. In a second case, a girl of 19, was admitted to the hospital with the history of having been struck on the right side of the head by a shuttle when working in a factory 3 years previously. Since then she had suffered constantly from epileptic attacks. On shaving the head there was no sign of a scar. The convulsive movements were confined to the left side of the body, hence trephining was performed over the right motor areas. A fine curved director was used to explore the brain-substance, but nothing abnormal could be discovered. The cavity was lightly packed and the wound rapidly granulated and healed. During 11 months since the operation no convulsions have occurred. It is thought that the depletion of brain-substance at the time of operation may have relieved acute cerebritis and this brought about a cure. [M.B.T.]

New York Medical Journal.

December 9, 1899. [Vol. lxx, No. 24.]

1. A Case of Hourglass Stomach (Stomach *en bissac*). Operation. Recovery. CHARLES GREENE CUMSTON.
2. The Early Diagnosis of Aneurysm of the Arch. WILLIAM PORTER.
3. Fibrolipomatous Tumor of the Epiglottis and Pharynx. E. FLETCHER INGALS.
4. Ventral Fixation of the Uterus without Laparotomy. FRANK SUGGS.
5. Dry Heat of High Degree as a Therapeutic Agent. C. E. SKINNER.
6. The Army Ration. CHARLES SMART.
7. The Potentialities of the Physician. KENNETH W. MILLICAN.
8. Report of a Case of Membranous Dysmenorrhea. ROBERT E. COUGHLIN.
9. Puerperal Fever *versus* Antistreptococcic Serum. EDWARD F. BRENNAN.

1.—A woman of 47 was suffering with severe pain in the right side and in the epigastrium, with occasional vomiting

after eating. The pain in the right side was thought to be due to movable kidney, and nephropexy was performed, resulting in complete relief. The woman continued to suffer distress from her stomach, however, and an exploratory operation was undertaken. An incision was made at the outer border of the rectus muscle, and on opening the abdominal cavity the pylorus was found perfectly normal, but at the junction of the lower with the middle third of the lesser curvature was found a strictured area joining the normal lower third with the dilated upper two-thirds of the viscus, the condition of typical **hourglass contraction of the stomach.** The strictured portion admitted 3 fingers and was joined to surrounding structures by adhesions. After loosening the adhesions an incision was made in the long axis of the strictured portion, the opening was stretched at a right angle and sutured, as in the Heinke-Mikulicz operation for stenosis of pylorus. The abdominal incision was closed in the usual way, and rapid recovery followed. For the first 6 days the patient was nourished by nutrient enemas, after which she gradually returned to her usual diet, and since the operation she has had no trouble from her stomach, and continues in good health 6 months later. [M.B.T.]

2.—Porter, in discussing the early diagnosis of **aneurysm of the arch of the aorta,** calls attention to the fact that pressure upon the recurrent nerve from aneurysm or thoracic tumor does not necessarily produce aphonia. The laryngeal images may be seen to be normal in appearance and function, except in one respect. Where there is paralysis of one recurrent nerve, most frequently the left, the corresponding chord may be seen in the cadaveric position, while the opposite chord may cross the median line making phonation possible. In these cases, however, unequal tension of both chords in the unequal vibration will produce hoarseness and monotonous voice and inability to reach a high note. The only subjective symptom of this stage may be a more or less constant laryngeal cough. The bilateral adductor paralysis, sometimes present when one recurrent nerve is involved, is due to the fact of one recurrent center taking on increased and compensating action when the other fails, and being stimulated beyond the normal, in time fails in its function. The dyspnea of aneurysm, when it is distinctly laryngeal, is associated with and dependent upon motor-paralysis of one or both sides. There may also be dyspnea from pressure on the brachial plexus with consequent bronchial spasm. A frequent indication of aneurysm of the aorta is pain in the region of the fifth or sixth dorsal vertebra. Auscultation of the left interscapular space may reveal an arteriodiastolic murmur not heard elsewhere, or else a systolic murmur due to the beating of the aneurysmal sac against the left bronchus. Another auscultatory phenomenon is the presence of the systolic sound or thud in the brachial artery similar to that observed in aortic insufficiency. A method of examination which Porter recommends is as follows: A large bougie with a very distensible lower end is passed down the esophagus opposite to the site of suspected aneurysm. The impulse is conveyed to the distal end of the tube and measured. This may be accomplished by the ordinary esophageal bougie being covered at the end with goldbeaters' skin. It is then introduced into the pharynx distended with water, and connected with a U-tube, which is also filled with colored water. If the U-tube is passed down near the cardiac orifice the heart-impulse is sufficient to produce some vibration in the tube, especially if there is hypertrophy; but if the tube is placed approximately opposite the aortic arch very little impulse is noted in the normal case, but in the case of ancurysm it is easy to note a more or less distinct vibration which can be seen and estimated in the bent glass tube. He also recommends auscultation of aneurysms of the arch by way of the esophagus. A solid esophageal sound with a cylindric end is passed in the usual way. To the outer end a hardened disk is secured. To this end a stethoscope or the autoscope of Autten is applied. Through the dense medium of the solid bougie the bruit is conveyed to the disk with great plainness. The vibrations of the latter are then determined by the autoscope. [S.M.H.]

4.—Suggs suggests a method of performing **ventral fixation of the uterus** without an abdominal incision. An incision is made through the posterior vaginal fornix into the Douglas culdesac, any uterine adhesions are broken up with the finger, and the tubes and ovaries are examined and treated as indications demand. With two fingers and a tenaculum the uterine fundus is then brought down backward through the vaginal opening, and by using a specially devised needle the fundus is sutured to the anterior wall through the vaginal incision, pressure being made from without in order to make the abdominal wall accessible. The sutures are tied together over a small piece of gauze and the vaginal incision is closed with a few catgut sutures. The advantages claimed for the operation are those of a simple vaginal incision over a laparotomy, and those of a ventral fixation over other methods. [W.K.]

5.—Skinner concludes an exhaustive article on **dry heat of high degree as a therapeutic agent** as follows: Hot air is a pain-relieving agent of unequalled value in those conditions where its application is indicated and possibly because of its very constant effectiveness, rapidity of action and of the absolute absence of deleterious effects. In rheumatism its action is so profound in connection with judiciously chosen drugs that it may almost claim a positive curative power of its own. Many cases cannot be cured by drugs without it, and in all cases the cure is much hastened and the victim maintained in greater comfort during the attack. On the other hand, it appears to be incapable of breaking up the disease without the aid of drugs. It is capable of stimulating tissue-repair to a remarkable degree, as is shown by its effect upon sprains. It is capable of favorably influencing septic inflammation of serous membranes, as is shown by its action on peritonitis and pleurisy. It economizes nervous energy by relieving pain and other more or less dangerous conditions in pneumonia, thus preventing the use of sedatives and cardiac stimulants. [S.M.H.]

6.—See this JOURNAL, December 9, p. 1097.

8.—Coughlin reports a case of **membranous dysmenorrhea** occurring in an unmarried woman, aged 31 years. The mass expelled from the uterus resembled early decidua very much in every respect. It was a triangular-shaped sac with three openings, rough and irregular on its outer surface and smooth on the interior. The mass resembled very closely the product of conception, but Coughlin is certain of the virginity of his patient. [W.K.]

9.—Brennan reports a case of **puerperal sepsis** occurring in a primipara, aged 20 years, who had been attended by a midwife. Sepsis developed on the fourth day. Curetment was urged, but the husband absolutely refused to permit any operative interference. Intrauterine douching, suppository treatment, and repeated injections of antistreptococcic serum were employed. The patient ultimately recovered. [W.K.]

Medical Record.

December 9, 1899. [Vol. 56, No. 24.]

1. Electrostatic Currents and the Cure of Locomotor Ataxia, Rheumatoid Arthritis, Neuritis, Migraine, Incontinence of Urine, Sexual Impotence, and Uterine Fibroids. WILLIAM JAMES MORTON.
2. The Nature of Expert Testimony, and the Defects in the Methods by which it is now Adduced in Evidence. W. A. PURRINGTON.
3. The Differential Diagnosis between Chronic Joint-Disease and Traumatic Neuroses. REGINALD H. SAYRE.

1.—Morton especially recommends the sparkgap currents which he has previously described. He believes that **electricity augments metabolism** and thus accomplishes good results. He claims to be able to prognosticate arrest of the disease in the first and second stages of locomotor ataxia if electricity is properly used, and records cures in several cases of rheumatoid arthritis, large reduction in the mass of a uterine fibroid, and other good results. [His enthusiasm for electricity is not generally shared. D.L.E.]

3.—Sayre notes as points indicating **inflammation of joints** the rapidity of the occurrence of symptoms after the receipt of an injury, the presence of fever and local elevation of temperature, spasm of the muscles controiling the joint, constancy of painful and tender points and sudden painful awakenings during sleep. The general habitus of the patient, subnormal general temperature and lack of elevation of local temperature, simulation of spasm and shifting pains indicate hysteria. Rapid atrophy usually denotes nerve-injury. [D.L.E.]

Medical News.

December 9, 1899. [Vol. lxxv, No. 24.]

1. The Bacteriology of Yellow Fever Once More. G. SANARELLI.
2. Some Peculiar Phases of Typhoid Fever. E. G. JANEWAY.
3. Typhoid Fever as Seen in Bellevue Hospital. A. ALEXANDER SMITH.
4. Varicocele, Movable Kidney, Mammary Carcinoma, Recurring Appendicitis. CHARLES MCBURNEY.
5. Large Perineural Fibroma Involving the Entire Sciatic Nerve-Sheath. RUDOLPH MATAS.

1.—Sanarelli in a final reply to his critics states: (1) That the **Babillus icteroides** is undoubtedly found in patients who are ill with **yellow fever,** and in cadavers of those who have died of the disease. Although at first, as a result of very imperfect facilities, he was able to isolate it from only about one half the cases examined, later investigators have been able to isolate the Bacillus icteroides in a much larger proportion of patients. He therefore states (2) that the Bacillus icteriodes may be isolated in practically every case of yellow fever. He criticises the work of Agramonte, who found in a rather doubtful case the Bacillus icteroides, the colon bacillus, and a form of typhoid bacillus, and concluded that the case was one of typhoid fever, perhaps complicated by a secondary infection. He then draws a third conclusion, that the Bacillus icteroides is found only in those sick with yellow fever or in the bodies of those dead from the disease. No one has succeeded in finding it in a patient sick of any other disease or in an individual dead of another disease. In animals all the lesions characteristic of the disease in human beings cannot be produced, but there is a marked fatty degeneration of the liver similar to that produced by phosphorus and not produced by any other microorganism. Sanarelli believes that the Bacillus icteroides produces in animals all the symptoms and all the anatomic lesions which can be considered especially characteristic of yellow fever in human beings. The serum-reaction which Reed and Carroll obtained so readily with the serum of yellow-fever patients and cultures of the hog-cholera bacillus, does not impress Sanarelli as being entirely satisfactory. He does not believe that it has been shown that the Bacillus icteroides can only be agglutinated by blood of yellow-fever patients, or from those convalescing from the disease. He does not pay much attention to Novy's argument that the bacillus should not be able to resist cold, considering this factor of much less importance than direct clinical demonstrations of its pathogenicity. He also takes occasion to ridicule Havelburg. [J.S.]

2.—Janeway reports some interesting **complications of typhoid fever.** In 3 cases tetany developed. Psychoses not rarely occurred and in some cases the patients developed suicidal tendencies. Among the eruptions are herpes labialis, and in one case complicated by catarrhal jaundice, a petechial rash. In some cases, typhoid fever may complicate puerperium, causing considerable anxiety. The differential diagnosis from appendicitis is also often difficult. In some cases there is a remission during the second week. In conclusion, Janeway remarks that rectal temperatures should be more frequently taken in the early stages of the disease, as they are more trustworthy. [J.S.]

3.—Smith reports from one of four medical services of Bellevue the records of 104 **cases of typhoid fever.** About one fourth the patients were in poor physical condition on admission. About 15% to 19% used alcohol immoderately, and 34% to 43% were abstainers. Chills or chilly sensations were present in about 50% of the cases. Diarrhea was present in 50%. Epistaxis in about 41%. Spots failed to occur in 20%, and enlarged spleen could not be detected in 20 cases, and Widal's reaction was absent in 10 cases and present in 49. Ehrlich's reaction was absent in 15 cases and present in 44. Relapses occurred in 8 cases. There were 10 deaths. Among the complications were pregnancy in 4 cases, pneumonia and nephritis in 1 case, and in 5 cases the plasmodium of malaria was demonstrated during the convalescence. In 3 cases, there was phlebitis. Among the causes of death were perforation 2, pneumonia 1, hyperpyrexia 2, edema of the glottis 1, and peritonitis 1. The latter case was due to an attempt to aspirate the intestine for the relief of tympanites. Three patients died, apparently from exhaustion. Hydrotherapy was used in about half the cases. The others were treated with intestinal antiseptics. Milk was the main diet, but the patients were also given animal broths, white of eggs, and koumyss. Solid foods were not given for 8 or 9 days after the temperature had reached normal. [J S.]

4.—In a case of **movable kidney** McBurney fastened the organ in place, stripping the capsule from the cortex for some distance and then stitching the flaps thus made to the deep edges of the muscular wound. The whole wound was then packed and allowed to granulate up from the bottom. In another case, one of **carcinoma of the breast,** he made an incision which instead of running upward into the axilla was directed more towards the end of the clavicle and then carried somewhat down the arm. This allows an easy approach to the axilla after the pectoralis major and minor muscles have been cut through near their insertions. After the axilla had been cleaned the whole mass of muscle glands and tumor were removed from the chest. In the dissection of the axilla all bleeding-points were tied and all important nerves carefully avoided, especially the subscapular. [This operation resembles very closely the method of Kocher in that the pectoral muscles are first cut through near their insertions. The method McBurney used for treating the **appendix** is briefly as follows: Divide mesoappendix, tying it off in sections; turn back a cuff of peritoneum near base of appendix and cut the fibrous and muscular coats at a low level; the stump is then inverted into the cecum and with a pursestring suture the peritoneum is drawn over it. G.B W.]

5.—The patient, suffering from the **fibroma of the sciatic,** was a mulatto, 22 years of age. The growth had been developing for 10 years without much disturbance, until 3 years ago. The actual length, as felt through the skin, was 17.5 inches, and the affected knee was 5 inches more in circumference than the normal knee. The main points of interest presented by the case are, the existence of a primary perineural fibroma originating in and involving the entire sheath of the sciatic and its branches. The fibroid condition was diffuse and lacked definite capsulation. The preservation of the entire sciatic nerve-trunk and its large popliteal divisions, in spite of the blending of the neoplastic tissue with the neurilemma, which was completely surrounded by the mass. The slow and painless growth of the tumor. The extirpation of the tumor and excisions of more than 3 inches of the popliteal vessels whose walls were adherent to the growth. The comparatively small area of sloughing, only the toes and heel. The useful walking-stump left to the patient after a secondary partial and atypical amputation of the tarsus to remodel the stump. [G.B.W.]

Boston Medical and Surgical Journal.

December 7, 1899. [Vol. cxli, No. 23]

1. Tumor of the Pituitary Body. G. L. WALTON and F. E. CHENEY. Pathological Report. F. B. MALLORY.
2. Special Preparations of Patient, Surgeon, Instruments, Sutures, etc., and Points in Technic of Operations for Hernia. J. COPLIN STINSON.
3. Acute Universal Eczema, with Special Reference to its Etiology. ALBERT E. BROWNRIGG.
4. A Case of Chronic Cyanosis without Discoverable Cause, Ending in Cerebral Hemorrhage. RICHARD C. CABOT.
5. An Early Sign of Tuberculosis. THOS. F. HARRINGTON.

1.—Walton, Cheney, and Mallory report the case of a physician, who, at the age of 26, noticed slight ocular disturbances. He had high intellectual ability and marked physical vigor. He was large with large extremities and features, his nose was broad, and his lips thick, the jaws were large and the teeth were separated. The hair was dry and the beard scant. In early life, he had been operated upon for spina bifida. The ocular symptoms consisted of a slight blur. About a year later, his eyes were again examined, and it was found that he had complete hemianopsia of the left eye for white and colors, although vision to a certain extent still persisted in this region. There was also some impairment in general vision. The examination of his nervous system showed only one symptom, impaired virility. He was able to practise, and was noted for his skill at golf. Later the headaches became more severe, there was a tendency to sleep, and the vision became still weaker. He lost his skill

n operating, and abandoned surgery. He finally died about ½ years after the onset of the symptoms. **A perithelial ngiosarcoma** was found occupying the sella turcica. The nterior portion of the pituitary body was still present. The uthors conclude that peculiarities resembling those of kromegaly may point to **structural defect of the pituitary gland,** a defect sometimes furnishing the starting oint for a new growth later in life. The combination of eneral symptoms of brain-tumor with optic atrophy and oss of the temporal field of vision is strongly in favor of ituitary tumor. Hemichromanopsia is not essentially of entral origin. [J.S.]

2.—Stinson, in his technic for **hernia operations,** uses or cleansing of the hands of the operator and skin of the atient the alcohol and bichlorid (1 : 2000) method. After nmersing the hands in the bichlorid they are rinsed off in erile saline-solution and dried with a sterile towel. Instruents, dressings, etc., are sterilized by boiling. Stinson does ot use iodoform as one part of the dressing. As suture-aterial he advocates catgut for the buried stitches and ligares, and silk for the external wound. The catgut is prepared y placing in an ether bichlorid solution 1 : 2000 for 3 days; is then chromicized and sun-dried. After this it is boiled alcohol in the vessel in which it is to be kept. After the ernia has been opened and the contents returned to the bdominal cavity the wound is closed by several rows of firm ntinuous sutures of catgut; when sepsis is to be thought robable from the condition of the parts drainage should be nployed and is most easily accomplished by rolling a strip gauze loosely in rubber or guttapercha tissue and placing e end of the thusly improvised drain into the bottom of the ound and the external end being kept in contact with ther absorbent gauze or cotton. The silk sutures should be moved on the twelfth day. [G.B.W.]

3.—Brownrigg reports a case of **universal exanthema** ccurring in a deaf-mute who had had diarrhea followed by nstipation. The eruption covered the entire surface. It as vesicular in character with the formation of crusts. The ritation was so intense that it was necessary to restrain the tient. The urine contained a trace of albumin, some fine anular and hyaline casts, and a great excess of indican. cal treatment failed to give relief. The intestinal disturbice was then treated by strict diet and salol and the patient pidly recovered. [J.S.]

4.—Cabot reports the case of a woman, 46 years of age, o from time to time had periods of collapse, during which e face became cyanosed. When examined, she was obrved to be **remarkably cyanotic;** the urine contained trace of albumin; there was excessive polycythemia with rresponding increase in the leukocytes. The heart was parently normal. Slight injuries caused free hemorrhage. ere were occasional imperative movements of the limbs, d finally in one attack she developed hemiplegia, the mptoms of paralysis steadily increasing until her death. the autopsy, there were found a small hemorrhage from e middle meningeal artery, and passive congestion of all e organs. [J.S.]

5.—Harrington believes that a **widely dilated** state of th **pupils** is to a certain extent **an indication** of **tuerculosis** or of a tendency to tuberculosis. He does not ntend, however, that the sign is infallible, but simply sugstive. [J.S.]

Journal American Medical Association.

December 9, 1899. [Vol. xxxiii, No. 24.]

Early Recognition of Pulmonary Tuberculosis. S. A. KNOPF.
The Repair of Old Lacerations of the Pevic Floor. M. L. HARRIS.
Extirpation of the Uterus, Its Appendages, Tumors, etc., Without Ligatures or Retention Clamps. HENRY PARKER NEWMAN.
La Grippe. J. E. GILCREEST.
Cerebral Hemorrhage. J. M. AIKEN.
The Scope of the United States Pharmacopeia. ELI H. LONG.
Surgical Treatment of High Myopia. H. V. WÜRDEMANN.
Very High Astigmatism. T. D. SCHNEIDEMAN.

1.—Knopf calls attention once more to the important truth so often emphasized of late, that a negative result following bacteriologic examination for tubercle-bacilli, even if often repeated, should not cause the physician to set aside conclusions arrived at by a careful physical examination. As bacilli are not often found in the sputum early in the disease, bacteriologic examination is not of great value in the **early diagnosis of pulmonary tuberculosis.** The use of tuberculin for diagnostic purposes is strongly advocated as an aid of the greatest diagnostic value. The other usual diagnostic means are discussed. While the use of the x-rays is of much confirmatory value it is not thought that one can diagnose with them lesions not appreciated by physical examination. [M.B.T.]

2.—In his discussion on the **repair of lacerations of the pelvic floor,** Harris takes the position that the pelvic floor depends for its support absolutely on the continuous activity of the intact muscles which enter into its formation, and that the fasciæ are in themselves entirely inadequate to furnish the support required. Lacerations of the muscles may be associated with laceration of the cutaneous perineum, or this part may be intact. The correction of the condition resulting from lacerations of the muscles must be sought in shortening the muscles torn; in a removal of the cicatricial tissue intervening between the separated torn ends, with a restoration of the continuity of the muscles. The Emmet operation and all denudation methods fail to restore the real muscular pelvic floor. If laceration of the cutaneous and mucous surfaces has occurred coincidently with the muscular tear, denudation may be performed, otherwise Harris makes an incision which is carried up each lateral wall of the vagina from 3 to 5 cm., a little posterior to the center. The vaginal wall is raised in a flap exposing the puborectalis and ventral portion of the pubococcygeus, which are the muscles that most often undergo the greatest elongation as the result of laceration. Should the muscle have been so ruptured and its ends so retracted that its edge can not be distinctly felt, the incision is made along the line which the muscle should occupy, and careful dissection made for separated ends. The ends of the muscle will be found connected by cicatricial tissue. When the muscle has been freed, forceps should be placed on either side of the portion to be resected, so that the ends when cut shall not retract. The portion resected should correspond to the point of laceration, if found, or when no distinct separation is found, to about the center of the muscle. The extent of the piece resected will depend on the amount of separation or the degree of lengthening and relaxation. The ends of the muscle are then sutured together with an interrupted or continuous catgut stitch and the vaginal wound is carefully closed. This operation is believed to restore the pelvic floor to its normal condition, and has been followed by good clinical results. [M.B.T.]

3.—See PHILADELPHIA MEDICAL JOURNAL, Vol. III, p. 1335.
4.— " " " " 1330.
6.— " " " " IV, p. 18.
7.— " " " " 15.

Journal of Nervous and Mental Disease.

November, 1899. [Vol. 26, No. 11.]

1. Rigidity of the Spinal Column. PHILIP TENNER.
2. Alveolar Sarcoma of the Right Middle Fossa of the Skull.
3. A Case of Internal Hemorrhagic Pachymeningitis in a Child of Nine Years, with Changes in the Nerve-Cells. WILLIAM G. SPILLER and D. J. MCCARTHY.
4. Sensory Disturbances in Epilepsy and Hysteria.
5. Purulent Encephalitis and Cerebral Abscess in the Newborn Resulting from Infection through the Umbilicus.

1.—Tenner reports a case of rigidity of the spinal column occurring in a man of 29 years, without distinct neuropathic heredity, or rheumatism, or injury. He and his brother are, however, color-blind. He had specific urethritis, and possibly syphilis, and for a long time he has suffered from irregular pains, chiefly in the back, but also in the other regions. He has had chorea, and some twitching or tic of the eyelids and muscles of the neck. The spine, apparently, is completely rigid; there is a kyphotic curve in the upper dorsal region and no concavity in the lumbar region. There is no tenderness either to direct pressure or to percussion. There

is difficulty in crossing the knees or extending the legs when sitting. The patient is always taller in the morning than in the evening. Posture-treatment was without result. Another patient, 44 years of age, had an epileptic sister, but no history of previous disease, except a severe attack of lumbago and a severe cold, accompanied by pains in the back. He complains of pain in the ears, particularly on the left side. The spine is almost completely rigid. The same curvatures that were noticed in the other case are present. He has lost $1\frac{3}{4}$ inches in height. There is very much diminution of respiratory movement; otherwise, he is healthy. The third patient, a boy of 16, had had infantile spasms, and has many mental stigmata of degeneration. He is a somnambulist, has strabismus, and deformity of the chest. The spine is rigid, there is a kyphotic curve, but no other symptoms. In the first two cases, Zenner believes that the trouble was chiefly muscular. [J.S.]

2.—The patient, a girl of 11, had had a tooth extracted, followed by severe pains in the ear and side of the face, and subsequently facial paralysis. Intelligence was unimpared, but a small ulcer developed in the cornea. The reactions of degenerations were present in the muscles of the paralyzed side; there was complete anesthesia of the cornea and the other parts of the face supplied by the right fifth nerve. Gradually, vision was impaired, hearing became imperfect, choked disc developed in the right eye, and the patient died. The case showed the gradual involvement of the second, third, fifth, sixth, seventh, eighth, and ninth nerves on right side. The diagnosis was, therefore, made of tumor of the right middle fossa of the skull, and the autopsy confirmed this; the tumor proving to be an alveolar sarcoma, probably arising from the dura. [J.S.]

3.—Spiller and McCarthy report a case of hemorrhagic pachymeningitis occurring in a child of 10 years, who had been an imbecile since birth. About a year before death, she had been gradually emaciating. The heart was weak, and towards the last she had difficulty in swallowing. She died apparently from exhaustion. At the autopsy, the signs of congenital syphilis were present; there was a collection of dark fluid beneath the dura on the left side, and one area was found to be covered by two layers of false membrane; the one next to the dura being vascular, and the more superficial, paler. The brain was small, the occipital lobes failed to cover the cerebellum. The liver was displaced downwards, microscopic examination of the nervous substance showed swelling of the cells which were apparently somewhat vacuolated. There were numerous greenish, red corpuscles in the nervous tissue, and the capillaries were greatly proliferated. Stained by Weigert's method there was a curious deep pigmentation of the cells. The white water of the cord was apparently normal. The nerve-cells showed changes similar to those found in the cortex. A curious change was found in Purkinje's cells of the cerebellum; stained with potassium ferrocyanid and acid alcohol they were found to contain a considerable amount of granular pigment, composed in part of iron. The authors suggest that edema of the cortex may explain the curious appearance of the nerve-cells, but admit that there is no justification for this view. In cases reported by others, they also mention the possibility that the changes were due to cachexia. In animals upon which various experiments were performed, a new membrane was detected, if the animal had been allowed to survive for several days. In a case of a dog that had remained alive for five weeks, the new membrane was very distinct, and contained cells with elongated or oval nuclei. Similar cells were found in the membranes of cats' dura which had irrigated by direct application of hydrochloric acid. [J S]

Bulletin of the Johns Hopkins Hospital.

June, 1899. [Vol. x, No. 99.]

1. The Duties and Dangers of Organization in the Nursing Profession. GEORGE M. GOULD.
2. A Pin in the Vermiform Appendix. JAMES F. MITCHELL.
3. The Presence of Typhoid-bacilli in the Urines of Typhoid-Fever Patients. NORMAN B. GWYN.
4. A Case of General Infection by the Diplococcus Intracellularis of Weichselbaum. N. B. GWYN.
5. A Pin in the Appendix Vermiformis. D. C. MORIARTA.

2.—Mitchell publishes another case of **appendicitis caused by pin in the appendix.** The laparotomy showed an appendiceal abscess and a pathologic anastomosis of the tip of the appendix, with the ileum through which a pin had passed producing a perforation in the opposite wall of the ileum. The patient was a colored boy 7 years old and there was no history of the ingestion of the foreign body. No definite cause of death was found. [D.R.]

3.—The results obtained by a number of observers in **the examination of the urine in typhoid fever for bacilli** are tabulated by Gwyn, as follows: (1) In quite a high percentage, perhaps from 20% to 30% of all cases of typhoid fever, typhoid bacilli may be present in the urine. (2) When present they are usually in pure culture, often so numerous as to make the freshly voided urine turbid, and may then be detected by a coverslip examination. (3) Appearing generally in the second and third week of illness, the organisms may persist for months or years, probably multiplying in the bladder, the urine being apparently a suitable medium for their growth. (4) Though often showing evidences of cystitis, and marked renal involvement, the urine containing bacilli has usually only the characteristics of an ordinary febrile urine; the presence of bacilli has no prognostic importance, and their disappearance or persistence without having induced local change is the rule. (5) Lastly, as shown by Richardson, irrigation of the bladder with mercuric chlorid, and the internal administration of urotropin, a compound of ammonia and formaldehyd, seem to be safe methods of removing the bacilli; 30 or 60 grains of the latter quickly removing all bacilli in six cases. The author then reports a number of cases from the Johns Hopkins Hospital. In most of the cases pyuria and signs of bladder-irritation had been present in others the urinary condition aroused no suspicion. Case I was one of cystitis of 4 years' duration. The cystitis had come on shortly after an attack of typhoid fever. Pure cultures of the typhoid bacillus were obtained on aspiration of the bladder. Case II had shown acute cystitis at the end of a relapse 6 weeks from the onset of the fever. Typhoid bacilli were obtained in large numbers in pure cultures from the urine. Under irrigations of mercuric chlorid, 1 : 50,000 the condition cleared up. In Case III, in which the Widal reaction had never been obtained, examination of the fresh urine showed the typhoid bacillus. The urinary condition improved on bichlorid irrigation. Case IV pyuria developed in the fifth week of illness. In Case V cystitis developed 3 months after an attack of typhoid fever. The typhoid bacilli were present in abundance in the fresh urine. In the next case a severe nephritis and cystitis developed in the third week of illness. The freshly drawn urine was turbid from the presence of pus and innumerable bacilli. It could be calculated that 500 millions of bacilli were excreted in each cc. of urine. Under urotropin, 10 grains thrice daily, the bacilli disappeared, but eventually reappeared in considerable numbers. In another case pyuria and signs of cystitis developed in the third week, and numerous bacilli were found. Under urotropin, 5 grains thrice daily, the bacilli disappeared and the pyuria improved; but in spite of the fact that the urotropin was continued, both bacilli and pus reappeared on the eleventh day of treatment. Treatment was continued, and in 6 days more bacilli disappeared entirely. In the last case one of typhoid septicemia, innumerable typhoid germs were found in the urine. Urotropin reduced the number of organisms greatly, but the patient died. Until the appearance of a marked Widal reaction in this case, the urinary condition gave the only reliable indication of the nature of the illness, and the author suggests that in cases where the Widal reaction is delayed a **bacteriologic examination of the urine** should be instituted. The infected urine can be readily rendered sterile in a half hour by the addition of an equal volume of 1 : 40 carbolic-acid solution. [D.R.]

4.—Gwyn reports a case of **general infection** by the **diplococcus intracellularis** of Weichselbaum. The patient was 24 years of age and was admitted as a typhoid fever suspect. Rigidity of the muscles of the neck and back developed, the pulse was rapid, the temperature 100.2° respirations 44. Both elbows, the right wrist, the right knee and several joints of the hands were swollen and red. Leukocytes were 37,000. The temperature before death rose to 105.5°. The diplococcus intracellularis was obtained by

lumbar puncture, and from the fluid of the knee; likewise from the blood. The autopsy showed the organism only in the characteristic lesions of brain and cord. No serum-reaction could be obtained. Of special interest is the fact of the separation of the organism from the inflamed joints, for it throws light upon the cause of the arthritis not infrefrequently associated with the acute infections, and particularly with cerebrospinal fever. [D.R.]

Deutsche medicinische Wochenschrift.

October 26, 1899. [25. Jahrg., No. 43.]

1. The Theory of Cumulative Action. L. LEWIS.
2. The Nature of Diabetes Mellitus. H. LEO.
3. The Course and Prognosis of Tuberculous Pneumothorax. U. ROSE.
4. Weil's Disease. W. RICHTER.
5. Simultaneous Appearance of Two Distinct Brain-tumors. BEHRENDSEN.

2.—Leo has done some work on the hypothesis that **diabetes is due to a toxic agent** in the body which interferes with the functions of the tissues and juices which result in breaking up the sugar. He thought it possible that if such toxic agent existed it might be demonstrated by administering some of the secretions or excretions of diabetic cases to animals. It was difficult to get exudates, and therefore he took the urine and administered it to dogs. He found that oftentimes by giving, by the mouth, sugar containing urine, he caused a marked melliturla; but this sometimes did not appear. So instead of administering urine by the mouth he tried the intraperitoneal method. He also freed the urine from urea so that this substance might not confuse the results. He has thus experimented with 12 dogs, and with the urine from 6 diabetics. In three mild cases there was a constant negative result, but in three moderately severe cases there was always a positive result, though a slight one, the excretion of sugar being usually about 2% or 3%. A more complete report will appear in the future. [D.L.E.]

3.—Rose discusses **tubereulous pneumothorax** only. There have been 22 cases of pneumothorax in the Bethany Hospital in the last 8 years in which 19, or 86%, were tuberculous. Of these 19 only 3 were women, the percentage of pneumothorax in phthisical women being decidely lower than in the men; in the former 2.5% of all the fatal phthisical cases, in men 6.3% of fatal cases. It was most frequent between the twentieth and fortieth years. Contrary to the usual experience, right-sided pneumothorax was more frequent than that of the left side. Of the cases 15 were fatal; 1 was discharged unimproved, and 3 recovered. Death did not follow so rapidly in these cases as West states it usually occurs. Only 7 of them died within the first month, while West states that 90% usually die in the first month. All three of the women died. Ten cases were purulent, 7 serous, and in 2 there was no exudate. Pyopneumothorax is, of course, much more dangerous than any other form. Concerning its treatment he says that if there is no evidence of marked involvement of the lung, further than some implication of the apex, and no other distinct complication, one may hope to produce cure, and should therefore do resection of the ribs; but even in many other cases resection of the ribs should be carried out, since mere aspiration is of little practical value. Eight of the cases here reported were operated upon, and, although none were cured, Rose insists that the improvement after the operation is often very striking, and that the operation can be carried out with slight anesthesia and with very little shock. The fact that the operation is to be advised in most cases even when far advanced cannot be questioned, but the prognosis after the operation must always be doubtful. Of the 7 cases of hydropneumothorax only 4 died; 1 was discharged unimproved, and 2 recovered, one of them having evidence of distinct involvement of the lungs and the other unfortunately dying of meningitis after the hydropneumothorax was entirely cured. The postmortem showed that pleural adhesions had formed over the lung surface. [D.L.E.]

4.—The attack began with fever, pain in the chest, stupidity, and an eruption of herpes. The spleen was tender and the general appearance was that of typhoid for 4 days, but the herpes spoke somewhat against this; the stools were not characteristic, the temperature rose very rapidly from the beginning, there was no distinct tumor of the spleen and an eruption was absent. There were subsequent evidences of severe congestion of the left lung with perhaps a little consolidation. Soon after, however, the diagnosis became clearer, since the liver enlarged, the urine became dark in color and contained bile, the patient complained of severe muscular pains, was jaundiced, and became more and more gravely ill and stupid, and died suddenly after complete anuria. The postmortem showed bilateral hemorrhagic nephritis, edema of the lungs, and **hyperemia of the mucous membranes** in general. The liver was a pale-yellowish brown color, was not enlarged, and contained a moderate amount of fat; the tissue seemed otherwise normal. [D.L.E.]

5.—The case reported is that of a boy of 14 who had injured his head 4 years before, and had had nausea after this; but this symptom vanished. Subsequently it was noticed that he used his left hand more than his right, and that his right leg seemed weak, and letters written home from school were not clear. Later, he had severe headaches in the left frontal region. Examination showed normal reaction of the pupils, with slight left-sided ptosis and paresis of the abducens; the right facial nerve was paralyzed; the right arm and leg were weak; the kneejerks were normal on the right side, but excited on the left. Sensation was decreased on the left side, as the sense of location was poor. The ophthalmoscope showed no distinct changes, but there was marked double vision. He had some temperature. The diagnosis was considered doubtful, but an abscess was considered possible, as was a neoplasm in the left hemisphere. The child died with Cheyne-Stokes breathing and with final high fever. The postmortem showed on the left side beneath the pons a tumor 1 cm. by 2 cm. by 3 cm. in size, of hard consistency, of pure white color, which is said to have been a **cholesteatoma.** Also, in cutting through the left hemisphere, there was found a tumor of the usual appearance of a **glioma,** 12 cm. by 7 cm. by 5 cm. in size, which had ruptured into the left lateral ventricle. To the rupture was attributed the occurrence of convulsions shortly before death. The case is considered unique. [D.L.E.]

Deutsche Zeitschrift für Nervenheilkunde.

September 7, 1899. [Band 15, Heft 3 u. 4.]

12. La Maladie des Tics Impulsifs. Mimic Spasmodic Neurosis. KÖSTER.
13. Contribution to the Knowledge of Hyperhydresis Unilateralis Faciei. SEELIGMÜLLER.
14. The Etiology of Peripheral Paralysis of the Ulnar and Median Nerves. WEBER.
15. Tracts Descending from the Corpora Quadrigemina, the Pons, and the Cerebellum. PROBST.
16. Lesions of the Cauda Equina. V. BECHTEREW.
17. Contribution to Chronic Ankylotic Inflammation of the Spinal Column. VALENTINI.
18. Chronic Ankylotic Inflammation of the Spinal Column. BREGMAN.
19. The Skin and Tendon Reflexes in Cases of Nervous Disease. STRÜMPELL.
20. Contribution to the Knowledge of Thomsen's Disease. SCHOENBORN.
21. Erythromelalgia and Clinical Anatomic Notes. SACHS and WIENER.
22. Autochthonus Thrombosis of the Cerebral Sinuses. v. VOSS.
23. Cortical and Subcortical Motor Aphasia, and their Relation to Dysarthria.

12.—Köster reports the following cases: A man, 49 years of age, whose mother and grandmother had suffered from the same disease, and whose son was afflicted with moral insanity, noticed the first symptoms at the age of 6. These consisted of snoring or snuffling inspiration. Later there was imperative movement of the right arm, and an irresistible tendency to expectorate, and often to emit curious expressions, such as 40,000. He has a tendency to rhyme ordinary words, but otherwise is able to attend to his business. There were slight signs of degeneration in the teeth, transient twitching in the face, and from time to time he would place the right hand between the collar and the neck. Slight changes in the weather or emotional disturbances increased

the movement. Second, a girl of 11, who had difficulty of getting along in school, frequently had attacks in which she twitched the shoulders and made faces. From time to time she would cry out unintelligible words, and sometimes made ridiculous or improper motions. There were slight symptoms of degeneration. Köster believes that this disease, which usually is associated with degeneration, is probably the result of the exhaustion of certain centers of coordination, and as the diminution of these inhibitory influences progresses, the condition will grow gradually worse. He reports a third case with somewhat similar symptoms in which the diagnosis of **hysteria** was confirmed by the discovery of stigmata. The patient, a man of 26, with old luetic infection, had for 3 years subjective movements in the face and left shoulder. There was hypoalgesia of the whole left side of the body, increasing patellar reflexes, but otherwise the patient was normal. Suggestive treatment was employed and the patient rapidly became better. [J.S.]

13.—Seeligmüller reports 5 cases of **unilateral excessive secretion of sweat.** The first patient, a man of 54, had had an attack of apoplexy, with paralysis of the right side of the body, and some diminution of tactile sensation. There was delayed perception of pain and temperature. It was noticed that the right side of the body was moister than the left, and that there was a bedsore on the right buttock; and when exposed to the heat of the sun, there was profound perspiration of the right side. A year later the latter symptoms persisted, but the others had improved slightly. The second patient, a man of 25, with neuropathic antecedents, had had a severe sickness, coming on with headache, vomiting, and fever, with unconsciousness for 2 days. There was loss of speech, but no other paralyses; some diplopia, difficulty of hearing, and vertigo. It was noticed that the patient kept the head turned toward the right. There was no pupillary difference, but slight increase of the tendon and cutaneous reflexes of the right side. The sensory symptoms consisted in hyperesthesia of the right side of the body, slight diminution of taste in the right half of the tongue. Hypodermic injection of pilocarpin produced hyperhydrosis of the left side of the face. Repetition of this treatment gradually produced equalization of the perspiration. The third patient, a man, 30 years of age, noticed, after an attack of influenza, weakness in the legs, some interference with seeing, and tremor in the left hand. Later, the characteristic symptom-complex of multiple sclerosis developed, and the patient then observed marked perspiration on the right side of the face. This was confirmed by the results of an injection of pilocarpin. The disease is probably due to development of some local sclerotic foci. The fourth patient, a man of 34, had had several attacks of inflammation of the lungs, and one attack of cerebral disease. The skin in general was pale, but the right side of the face was somewhat redder, and upon the cheek and nose there were numerous drops of perspiration. The right cheek was also slightly wetter than the left, and the left pupil more dilated than the other. Some caseous glands in the right side of the neck were subsequently removed without alteration in the symptoms. These consisted of an excessive secretion of sweat in the right side of the face, whenever pilocarpin was injected, or warm drinks taken, and, therefore, the pressure upon the cervical sympathetic nerve could not have been the cause. At the autopsy, a central tubercle was found in the first to the fourth cervical segments. The fifth patient, a man of 33, had inequality of pupils and the characteristic symptoms of syringomyelia. Injection of pilocarpin produced excessive sweating on the right side of the face. Seeligmüller gives a brief description of this condition and 41 references to the literature on the subject. [J.S.]

14.—Weber reports the case of a man, 43 years of age, who had dislocated his right elbow-joint at the age of 16 years. Recovery had occurred with deformity. Later the patient, after a prolonged period of severe exertion, noticed swelling of the elbow-joint, with pain on the ulnar side of the forearm, extending into the fourth and fifth fingers. When examined, there was characteristic claw-hand, weakness of the muscles supplied by the ulnar, and marked disturbance of sensation on the ulnar side of the forearm and hand. These muscles gave the characteristic reactions of degeneration. Upon examination of the arm, a cord-like body was found, which extended from the internal condyle upwards, representing an ulnar nerve about three times its normal diameter. Pressure upon this caused paresthesia in the hand and arm. The second patient, a woman of 33 years, developed weakness of the right hand. At the age of 6 weeks, she had had smallpox, with subsequent suppuration in both elbow-joints. At the age of 30, she noticed weakness, tingling, and pain in the right forearm and hand. When examined, there was slight indication of claw-hand and the other symptoms of ulnar involvement. Some of the muscles gave the reactions of degeneration. Also, in the left hand, the fourth interosseous muscle gave stronger contraction to anodal closure. Examination of the elbow-joints showed the existence of an old atrophic chronic arthritis. Weber also reports the case of a boy, 18 years of age, who, after dancing for many hours, had a **paralysis** of the left hand and **disturbance of sensation** involving the area supplied by the median nerve. Weber considers interesting the fact that dancing was the etiologic factor. [J.S.]

15.—Probst contributes a careful anatomic article upon certain **tracts of fibers in the pons medulla and tegmentum.** He has been able to study the column of v. Monakow which follows the direct cerebellar tract, so far as the restiform bodies, and then proceeds directly to the pons. This bundle contains both ascending and descending fibers—the former terminating in the red nucleus, the latter extending as far as the sacral region of the spinal cord. The decending fibers pass from this tract into the anterior cornua of the spinal cord. After lesions of the corpora quadrigemina, a tract of descending fibers is found which go into the gray matter of the Sylvian aqueduct. They pass above the red nucleus, and finally enter the interolivary region, decreasing rapidly in number as they decend. This he calls the anterior corpora quadrigeminal tract. As a result of these experimental lesions, Probst was also able to determine that the fibers from the anterior portion of the corpus to the nucleus of the fifth nerve lie ventrally, and those from the posterior region dorsally. This cerebral trigeminal root appears to be motor in function, and to have some relation to chewing and swallowing. Additional degenerated groups of fibers were found in the region lying just opposite to the substantia reticularis of the pons; some of which decussate and terminate in the nucleus recticularies. There is also an hitherto undescribed bundle in the posterior portion of the tegmentum that in the pontine region lies dorsally, and gradually approaches the posterior longitudinal tract. It decussates, enters the dorsal portion of the substantia reticularis, and finally enters the lateral columns of the spinal cord. It is manifestly a motor tract. A descending tract arises from Deiter's nucleus, and passes through various structures in the medulla to the anterior columns of the spinal cord. It also contains ascending fibers and probably has an important role in conveying stimula to the cerebellum. All these tracts form a close relation between the corpora quadrigemina, pons, medulla, cerebellum, and spinal cord. The numerous anatomic details in this paper cannot be satisfactorily given in a brief abstract. [J.S.]

16.—V. Bechterew, after a brief consideration of the **symptomatology of caudal lesions,** describes the following case: A physician, who had a malignant growth in the left testicle, with metastasis, subsequently experienced severe pain in the scar. Later this became more severe, and there was some disturbance in the gait. There was extreme hyperesthesia of the abdomen and of the legs. An operation consisting of the removal of the scar was performed, and immediately afterward it was observed that the patient was completely paraplegic, and suffered from intense pain in the lower portion of the spinal cord and the lower extremities. The slightest movement caused exquisite suffering. There was muscular atrophy in both the legs and thighs; some contractions of the flexor tendons, and complete anesthesia of the perineum and scrotal region. Finally, a tumor developed in the lower portion of the abdomen, chiefly on the left side, which was slightly tender. From time to time lancinating pains in the legs and a sensation of burning in the bladder added to the suffering. Finally, as a result of progressive exhaustion and some disturbance of swallowing, which caused the patient to refuse all nourishment, death occurred. At the autopsy, a huge tumor was found growing from the root of the mesentery. The organs, however, did not appear to be compressed, but the lumbar vertebrae were involved, and the second and fourth were

fractured, probably during the second operation. Degenerative changes were present in the anterior and posterior roots of the cauda, and in the posterior columns of the cord. The case is chiefly interesting on account of the distribution of anesthesia, which was as follows: The posterior surface of the thigh, leg, and abdomen, the anterior surface of the leg, and the peritoneal and scrotal surfaces. In the other parts of the leg, there was some diminution in sensation and marked hyperesthesia of the abdomen. [J.S.]

17.—Valentini reports 2 cases of **inflammatory ankylosis of the spinal column and the hip-joint.** The first was a man of 30, who, at the age of 24, had received a severe injury to the shoulder and lumbar region. This was followed by pains in the back, then in both legs, and finally complete immovability of the spinal column and the hip-joint. There was some grating in the joints. There was some interference with motion in the knee-joint; the muscles gave normal reactions; the reflexes were not altered. The second patient, a man of 32, had had rheumatism at the age of 15. Later, there was some deformity of the joints of the toes. The patient then developed pain in the lumbar region, shoulders, and gradually ankylosis ensued in the spinal column, shoulders, and hip-joints. The electric reactions and reflexes were normal. Valentini believes that there are four diseases apparently closely resembling one another to which his cases bear some affinity—chronic articular rheumatism, arthritis deformans, spondylose rhizomelique, and ankylosis of the spine with intercostal neuralgias. [J.S.]

18.—Bregman reports an additional case of **chronic ankylotic inflammation of the spinal column** in a man 38 years of age. Ten years before, he had a severe attack of dysentery lasting for 3 months. At the age of 32, some inflammation of the throat occurred, and two years later, he noticed gradual bending of the back, with occasional severe pain in the legs, and finally in the shoulders. There was marked kyphosis which could not be reduced by any mechanical procedure; some tenderness over the vertebrae; the joints, with the exception of the shoulders, which were slightly painful on movement, were not involved. This case, therefore, represents the form of spondylose rhizomelique, described by v. Bechterew. [J.S.]

19.—Strümpell contributes an exceedingly thoughtful article upon **the reflexes.** It is not possible to give a thorough abstract of this, but a few of the principal thoughts are so important that we shall endeavor to reproduce them. The irritation required for producing cutaneous reflexes, as ordinarily employed, is the needle-point. This can only irritate a very small number of sensory nerves. Nevertheless, in certain instances, particularly in cases of paraplegia, reflex action is manifested in a number of muscles. An extraordinary point in this connection is the fact that prolonged cutaneous irritation is sometimes necessary before the reflex appears, that is a sort of summation of stimuli. In one case of paraplegia produced by glioma of the dorsal region, it was necessary to continue the irritation for two or three seconds, and occasionally for a period as long as 20 seconds. In another case of compression of the dorsal cord by a carious vertebra, the period was 30 seconds. This is of practical importance, because it might readily be said that the reflexes were absent, when, as a matter of fact, they merely required prolonged stimulus. This delayed reflex action is sometimes associated with delay in the transmission of sensory impulses. A somewhat similar phenomenon is the summation of local stimuli; that is to say, if a number of regions in the skin are irritated at the same time, the reflex, otherwise absent, sometimes appears, and is usually more vigorous. This summation of local stimuli may be produced by stroking instead of merely pricking the skin, and it is particularly to be observed in connection with the cremasteric and plantar reflexes. A combination of both forms occurs in the reflexes produced by tickling. Another form of irritation are thermic stimuli, particularly the application of cold. This may be active when the perception of cold, as a sensation, is entirely absent. Heat-stimuli, curiously enough, are very much less active. Strümpell also calls attention to what he calls the reflex opening contraction. When the needle is thrust into the skin, no reflex may occur until it is suddenly withdrawn. This is analogous perhaps to the reflexes produced by sudden blows, for it is well known that gradually increasing pressure sometimes produces no reflex. On the other hand, if this pressure is suddenly released, the reflex may occur. The **reflex agenie zones** are those areas in the skin from which reflexes may be elicited. These zones are not, however, constant in all conditions and in all persons. They are usually more pronounced near the extremity of the limbs, and it is possible that their upper boundaries, if low, indicate a lower transverse lesion of the spinal cord. Sometimes, however, when the reflexes are greatly exaggerated, their upper boundaries are higher than normal. The curious feature is the remarkable nonsensitiveness of the upper extremity to the cutaneous reflexes, particularly if the areas are paralyzed. Often in cases of paralysis due to central lesions with preservation of sensation, although movements of defense may occur in the other arm, the paralyzed area shows no twitching. In one case the cutaneous reflexes were present shortly after an embolic hemiplegia, but soon disappeared. The vigor of reflexes is usually dependent upon the number of muscles involved, and this is in turn upon the degree of irritation employed. The character of the reflex depends somewhat upon the portion irritated; thus, if it is the leg or foot, there is usually contraction at the knee; if the thigh, there is sometimes extension. The contraction of the muscle is usually tonic. In regard to the tendon reflexes, the important question is whether they are actual reflexes or not. Strümpell discusses the various theories, and concludes that their great variability in nervous lesions cannot be ascribed purely to alterations in the muscle-tone. He therefore believes, in opposition to Gowers, that the genuine reflex nature of the tendon-reflexes should no longer be doubted. The only form of irritation are mechanical shocks. No form of cutaneous stimulation will produce these reflexes. A single irritation may cause a number of muscles to contract. This mechanical irritation may affect the bones, periosteum, or the tendons. Strümpell believes that we cannot abandon the theory of two reflex arcs, an upper and a lower, although certain facts appear to speak in contradiction to this. The most important of these is the usual absence of the tendon-reflexes in cases of complete transverse lesion of the spinal cord. This, however, does not invariably occur, for Barbé was able to obtain the patellar-reflex in men for as long as 8 minutes after their decapitation; nevertheless, it is the general rule, and Strümpell is rather inclined to believe that it is caused by local alterations in the lumbar cord, that are probably secondary to the lesions above, perhaps the result of the degeneration of the pyramidal columns. He is not willing to accept the theory of toxic influence. Strümpell, in conclusion, attempts to explain the nature of the reflexes. In human beings with their capacity for complicated voluntary movements, they cannot be looked upon as important. In the lower animals, however, they form, in some cases, the larger portion of vital activity. It seems reasonable, therefore, to regard them in man as rudimentary functions. [J.S.]

20.—Schoenborn reports the case of a man, 23 years of age, and apparently healthy, who 5 years previously had had blood-poisoning from a slight cutaneous wound. From that time there was some difficulty in movement in the left leg, and later he had a curious **"stepping" gait,** lifting the feet unduly high above the ground. About 3 years later there was gradually increasing weakness of the arms, particularly in the forearms and hands, and there appeared to be slight stiffness in the muscles. No sensory disturbances, either pain or paresthesia, were ever noted. Upon examination, there was found marked atrophy of the muscles of the hands, forearms, and the leg. There were no fibrillary twitchings, and the electric reactions were those characteristic of **Thomsen's disease;** that is to say, slow contraction that persisted after the electric impulse was withdrawn. It is possible that in the muscles of the hands this was combined with the reaction of degeneration. The muscles of the arms, the deltoid, and the thighs were well developed. The patient then recalled that he had some difficulty in chewing, being unable to open the mouth rapidly after vigorous closure, and the same was found to be true in the other muscles of the body, all of which gave the characteristic myotonic reaction. Excised portions of the deltoid showed changes characteristic of progressive spinal muscular atrophy. Sensory disturbances were entirely absent. The reflexes were exaggerated. Examination of the patient's mother and sister failed to reveal any sign of Thomsen's disease, nor were there any cases known in their ancestry. This case probably represents the combination of

Thomsen's disease and of one of the forms of **muscular atrophy.** It appears to be difficult, however, to decide just which form this is. Multiple neuritis and the mental form of muscular atrophy appear to be excluded on account of the absence of sensory disturbances and the preservation of reflexes; the spinal form of muscular atrophy on account of the absence of fibrillary twitchings. Perhaps the family form of progressive muscular atrophy described by Hoffmann resembles this disease most closely. However, in this case there were no psychical disturbances. The relation of the two diseases, whether accidental or otherwise, is difficult to determine. It is possible that Thomsen's disease represents a "form of trophoneurosis" of the muscles, whose proper source and location should be sought for in the central trophic apparatus; it cannot be denied, however, that the association is purely accidental. [J S.]

21.—Already noticed in Report of Proceedings of Neurological Society. [J.S.]

22.—v. Voss reports a case of a woman, 35 years of age, who had had an injury to the head at the age of 16, and severe pains at the age of 30. At the age of 32 she noticed severe headache in the left side of the head, apparently similar to migraine. Physical examination was negative. There was slight pain upon movement of the left shoulder. The muscles were considerably emaciated. The head could could not be moved backwards very freely, and the left brachial plexus and the spinal column were tender. The tendon reflexes of the upper and lower extremities were greatly exaggerated, but there was no ankle-clonus. Sensation, with the exception of hypesthesia in the left arm and hand, was normal. Later, the patient complained severely of headache which was rather variable in intensity; there was gradual impairment of vision, and tinnitus in the left ear. Choked disc developed; there was vomiting, rigidity of the cervical vertebrae, and gradually exhaustion leading to death. There was no elevation of temperature at any time. At first a diagnosis of pachymeningitis cervicalis was made. On account of the pains in the arm, this was changed to brain-tumor. At the autopsy a firm adherent **thrombosis** was found **in the transverse and longitudinal sinuses,** and there was some increase in consistency in the brain-substance of the left hemisphere. An old tuberculous nodule was found in the right lung. The second patient was one observed by Runeberg. The patient, after a severe attack of acute nephritis, from which he recovered, suffered from headache, and was brought to the hospital almost entirely unconscious and in a very restless condition. The pupils became immobile. The patient was absolutely comatose, and died, the clinical diagnosis being meningeal hemorrhage. At the autopsy, thrombosis was found in the longitudinal and right transverse sinuses. v. Voss collects 7 other cases from the literature, and from a study of these, endeavors to determine the characteristic symptoms of this condition. The cause is various, infection, embolism, or injury. The situation is almost invariably in the longitudinal and transverse sinuses, and commonly there are associated capillary hemorrhages in the meninges. In these cases the symptoms commenced suddenly with headache, delirium and occasionally tonic and clonic convulsions in the extremities. Jactitation was present in 2 cases, and in one the movements resembled chorea minor. The temperature was usually normal. In several cases there was agonal rise, and in one case fever. Other disturbances of the pupillary reaction occurred in about one-half the cases. The course may last for several months, or, perhaps, as occurred in the first case, for a longer period. The differential diagnosis from acute inflammation of the pia arachnoid is most difficult, both diseases having in common, headache, rapidly developing coma, and convulsions; but in meningitis, fever is almost invariably present; in sinus thrombosis, rarely. Usually, in the latter disease, some cachectic condition has preceded and is associated with it. In all but one of the 9 cases the diagnosis was not made. One was diagnosed as brain-tumor, and in others uremia, encephalitis, abscess, etc., were suspected. v. Voss believes, however, that a case of anemia or chlorosis that develops severe headache and the signs of brain-disease, may possibly be one of thrombosis. [J.S.]

23.—Fraenkel and Onuf, being dissatisfied with the criteria heretofore employed in the **differential diagnosis of cortical and subcortical motor aphasia,** have endeavored to decide this question, and to determine the localization of the lesions that cause the two conditions. In order to do this, they had at their disposal 5 cases of motor aphasia with one autopsy, 2 cases of dysarthria with an autopsy, and in addition they collected 104 cases from the literature of the subject. According to them, the distinction between subcortical and cortical aphasia consists essentially in the ability of the patient to employ or not internal speech. It is desirable to discover a method for testing this that will apply equally well to persons able to read and to illiterates. They decided that the best test of the existence of the internal speech was to have the patients count to themselves. For this purpose they were given a pack of cards and directed to lay every fifth, sixth, seventh, etc., aside, while counting them. If the patient could do this and failed to employ any artificial method of determining the proper card to be discarded, it was supposed that internal speech was intact, and that probably the lesion was subcortical. If, on the other hand, the patient was unable to do this, the lesion was probably in the cortex. Of course, it is important to be certain that the patient has understood the nature of the task imposed. In a study of 104 cases collected from the literature, they divided them into pure cortical lesions, pure subcortical, and a combination of the two. These three groups were then extensively subdivided. Localized lesions in Broca's center existed in only 7 cases. In regard to the relation of dysarthria to aphasia, the authors formerly believed that as long as a center of motor speech and the tract of fibers passing from it to the peripheral speech mechanism was intact, neither motor aphasia nor dysarthria could exist. However, the lesion in a case of theirs in which the latter symptom was pronounced, showed that their opinion was incorrect. It was found that the posterior central convolution was completely destroyed, but that the anterior convolution and Broca's center were uninvolved. They attempt to explain this by supposing that not only Broca's center, but also the centers for the muscles involved in speech, are concerned in the motor speech mechanism (utterance-center?). The existence of internal speech was only noted in 3 of the 104 cases from the literature. In one of these it was lost, and the lesion was cortical; in 2 it was present and the lesion was subcortical. [J.S.]

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[Festschrift in Celebration of the Centennial of the Medical Clinic in Leipzig.]

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    a. Experimental Investigations of the General Pathology of Circulatory Disturbance in Acute Infectious Diseases. ERNST ROMBERG, HANS PASSLER, CARL BRUHNS, W. MÜLLER.
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1.—See Editorial, p. 1043.

2.—Hering, having had the opportunity of studying a case of **strabismus** in which the function of both retinas remained intact, endeavored to find out what was the psychic perception when there was divergence of the visual axis. In regard to the knowledge of the direction of the fixed object, it was found that the subject was accurate with either eye, showing that an independent innervation existed for each bulb, for when one eye was used for fixing, the axis of the other was of course directed elsewhere. It appeared that the subject is able to disregard the picture perceived by the other eye, using only one at a time, and by preference apparently the right. Thus, when a small square containing letters was fixed with one eye, and then a similar square with other letters was placed in the visual axis of the other, it was impossible for the patient to read the latter until he was permitted to fix it with the other eye. Curiously enough, he was able, however, to localize both squares with considerable accuracy. There was no proof that retinal pictures outside the fovea were formed in either eye to correspond to the foveal picture of the other; and, therefore, binocular vision could not have existed. [J.S.]

3.—Heubner reports 13 cases of **febrile disease in which the diagnosis was uncertain or impossible during life,** and in several of which the autopsy was either not obtained or failed to give a satisfactory explanation. The first patient, a man of 47, had suffered for 4 months with a remittent fever and rheumatic pains. There was a weak systolic murmur, but no other physical signs. The patient was greatly emaciated, weak, and pale. At the autopsy there were found a septic endocarditis and a necrotic splenic infarct. The second patient, a man of 51, had suffered for 9 months from an irregular remittent and intermittent fever. The appearance of the patient was very poor, and there were an irritative eruption all over the skin. Finally, just before death, he developed dyspnea, vomiting, a rapid pulse and stormy action of the heart. At the autopsy there were found old chronic interstitial myocarditis, ulcerative endocarditis of very trivial character and infarction of the spleen and kidneys. The third patient, a man of 46, had had a heart-murmur for some years, with occasional symptoms of embolism. Three months before his death he developed fever and chills, and occasionally was confused. He became cachectic and finally died. The autopsy showed again ulcerative endocarditis, myocarditis, and splenic infarct. The fifth case, a boy of 12, developed fever as a result of pleurisy, first serous, then hemorrhagic. In the course of this, symptoms of septic endocarditis developed. The whole course of the disease lasted about four and one-half months. The sixth and seventh cases occurred in children, girls of 4 and 7 years, who suffered with persistent fever for many months. Careful examination of all the organs failed to reveal any cause for this, but there was always pain in the abdomen when attempting to climb stairs. Finally pus was found in the urine, and a diagnosis of pyelitis was made. The eighth case, a girl of 10, had remittent and intermittent fever for two months. At the end of this time, swollen lymph-glands rendered the diagnosis of tuberculosis likely. The ninth case, an infant girl of 11 months, had an intermittent fever of 4 months' duration that subsequently recurred at intervals for a considerable period. No cause, except insufficient nourishment, could be assumed for this, but later, symptoms of tuberculous disease of the hip appeared. The tenth patient, a girl of 9 years, had an irregular fever for a period of 4 months. As the only cause for this appeared to be disturbance of digestion, she was submitted to a cure at Carlsbad, and the fever disappeared. The eleventh case, a boy of 2 years, had intermittent fever for months. No cause could be detected for this, nor for the twelfth case, a girl of 11, who had 3 severe attacks of intermittent fever, with final complete recovery. Careful examination of the organs was negative, with the exception of slight tenderness over the stomach. The thirteenth case occurred in a man of 40 years, of unusual physical development, in apparent health. He suffered 3 months from an intermittent fever for which no cause could be detected, and finally made a perfect recovery. Heubner believes that the above cases are such as not infrequently occur, and indicate the extreme difficulty of accurate diagnosis in many instances. It is particularly important to call attention to them, because, from their nature, they cannot properly be noticed in the ordinary textbooks. He discusses the possibility of some mild infectious process that runs its course very slowly. [J.S.]

4.—Birch-Hirschfeld, after a brief review of the important articles on the subject of **primary pulmonary tuberculosis** by various writers, gives a description of his own researches that have convinced him that tuberculous pulmonary consumption in the first stage presents itself as a rule "*as tuberculosis of the mucous membrane in the medium-sized apical bronchus.*" As a preliminary, he gives a careful description of the anatomy of the bronchial tree, partially obtained by means of casts with Wood's metal, and partially by means of Röntgen-ray pictures of bronchial systems filled with some metallic substance. He gives a résumé of the results of his investigation in a table which he compares with those of Aeby. The statistics of the Leipsic Clinic from which his material was obtained, show that in the years 1895,-96-97, there were 3,067 bodies autopsied of which 41.86% had tuberculosis of the lungs. In 23.3%, this was the cause of death. In 3.4%, although far advanced, there were other complicating conditions. In 11.97%, there were old cicatrized pulmonary lesions, and in 2.8%. very early lesions. Altogether, there were 826 cases of sudden death either as the result of accident or acute disease, and in 35 of these the changes characteristic of latent or commencing focal pulmonary tuberculosis were present. Of these about 25 cases were used in the statistics of the present paper with 7 additional ones from other sources. Ordinarily these lesions are readily overlooked. They can usually be found if the lung is carefully palpated before any incisions are made. Under these circumstances, an area of induration should be examined, not by cutting down upon it, but by cutting through the bronchus in that region. In these 32 cases, 28 showed the primary lesion in the wall of the medium-sized bronchus. In some cases there was only a tuberculous bronchitis in the early stages; in others there were metastatic foci. Three cases apparently had a primary interstitial tuberculosis. In one, the primary lesion was apparently in the pleura; in another, a child of 6, in the lymph-glands, and in a third in the interstitial tissue of the left upper lobe. These 3 cases may be explained by assuming an

invasion along the blood-channels, possibly secondary to some other tuberculous lesion in the body. In none of Birch-Hirschfeld's cases was there any ground for believing that the primary lesion was a tuberculous bronchopneumonia. A case of Curschman's, however, apparently showed this peculiarity. Among other cases, he quotes as an illustration of the earliest form the case of a woman dying of puerperal fever, who had an isolated encapsulated lesion in a bronchus of the fourth class, involving the mucous membrane and the submucosa. He also gives the notes of a number of other cases illustrating various phases of this condition. From such lesions occasionally hemorrhages may occur that are not necessarily of serious importance, but perhaps may assist in the expectoration of the infected masses. It is sometimes difficult to determine the relation of the bronchus to the tuberculous lesion, particularly in the smaller bronchi without cartilage, for the wall is rapidly destroyed and the lesion involves the surrounding pulmonary tissue. Concerning the situation of the lesions in 34 cases observed by Birch-Hirschfeld, the right upper lobe was affected in 24, in 8 of these there were apparently lesions of about similar advancement in the left lobe. In 22 of these cases, the cheesy nodules were found in the distribution of the apical bronchus, and only twice in the lower part of the upper lobe. Twelve cases involved the apex itself, and in 10 the lesion was 5 to 7 cm. lower. The posterior portion of the lung was more frequently affected than the anterior. It seems, therefore, to follow, that the bronchi in the posterior portion of the lung offered better opportunities for the deposition of inhaled tubercle-bacilli. In 7 cases, the left superior lobe was involved alone; in 8 in association with the right. In all 15 cases the lesion was in the distribution of the apical bronchus, 10 times at the apex, 4 times in the posterior subapical area, and once in the anterior subapical area. Why this particular portion of the lung should be so subject to tuberculous lesions, it is difficult to explain. In cases of anthracosis, it is often noticed that the greatest amount of pigment is deposited in the posterior portion of the upper lobe. It appears probable that in this region there is diminished inspiratory force, and therefore any foreign body entering it is less liable to be removed. This weakness is probably produced by certain structures that hinder the respiratory function, chiefly by diminishing the amount of space in which the lung can expand. This morphologic alteration may be produced by various of the common deformities of the chest, particularly flattening of the thoracic wall, so that the posterior portion of the lung is compressed. As long as the bronchial system is intact, it probably offers considerable resistance to the deposition of tubercle-bacilli. In conclusion, Birch-Hirschfeld makes a few practical remarks. He believes that the ideal therapy of these conditions would consist in the prevention of the necrosis of the tuberculous lesion and the preservation of normal resistance to tuberculosis possessed by the infiltrated portions of the bronchial system. The most important element in diagnosis is possibly percussion, although it may be that such lesions in the future will be diagnosed by means of the Röntgen-rays. [J.S.]

5.—Ruppert reports the **chemical studies upon a case of alcaptonuria.** The specimen contained only **homogentisinic acid.** This is obtained by treating the concentrated and acidulated urine with from one to two times its bulk of ether for an hour. The latter is then withdrawn, evaporated, and the remainder usually boiled in water. It is then precipitated with acetate of lead, filtered, and the filtrate allowed to cool, when crystals appear. The lead can be removed from the salt by means of hydrogen sulfid. Homogentisinic acid consists apparently in a modification of tyrosin; that is, the omission of the ammonium radical. The melting-point is 138°, but the crystals become a firm mass at a temperature as low as 100°. Ruppert confesses that he is unable to solve the problem of the origin of this substance, being dissatisfied with the common explanation that it is due to a modification of tyrosin. [J.S.]

6.—Hankel reports the following remarkable case of **traumatic aneurysm of the aorta.** The patient was stabbed with a small knife just above the upper end of the sternum, the thrust being downward. The following day, the only serious symptom consisted in an increase of a previously slight dyspnea. This gradually increased, until 17 days after the injury the patient died. At the autopsy there was found just beneath the manubrium sterni a tumor, about the size of the fist, that contained clotted blood. Upon the evacuation of this it was found to consist of connective tissue with a smooth internal wall, and to communicate by a small opening with the aorta. This was evidently due to injury to the outer wall of the aorta at the time of the stabbing, that was rendered possible by the fact that the patient had an extreme deformity of the spine, and corresponding bowing of the sternum. When in the upright position, with the head thrown back, the aortic region was very near the suprasternal notch, and when the patient lay down the sternum sank and pressed it downward, and thus contributed to the closure of the wound. [J.S.]

7.—Strümpell contributes a long and valuable article upon the **pathology of multiple neuritis** based upon his investigations in 4 characteristic cases. The first patient, a man of 32, an alcoholic, noticed first, weakness in the legs, then vomiting, followed by rapid emaciation. Paresis then appeared in the arms and legs, and became so pronounced that the patient was obliged to give up work. When examined, there was paralysis of the arms and legs, with abolition of the tendon-reflexes, and considerable disturbance of sensation, particularly in the legs. Later, the patient developed hallucinations, weakness of memory, slight fever; the diaphragm shared in the paralysis, and death resulted. At the autopsy there were the symptoms of chronic pachymeningitis, moderate hydrocephalus, chronic pleurisy, and passive congestion of the liver, spleen and kidneys. No distinct microscopic changes were found in the brain, but in the cord there was a hydromyelia in the cervical region with proliferation of the neuroglia tissue. The anterior roots in the cervical and lumbar regions were somewhat paler than those from other portions, and by the Marchi method, distinct changes could be found in the other fibers. Distinct degenerative changes were also found in the peripheral nerves of the extremities. The second patient, a man of 21, previously healthy, excepting for an attack of psoriasis, noticed pains in the legs, then right-sided facial paralysis, and weakness in the arms and legs. There were no distinct sensory disturbances. The paralysis became complete, the patient emaciated, there were slight tactile hypesthesia of the arms, the muscles of the face showed distinct reactions of degeneration, and the patient died as a result of paralysis of the diaphragm. At the autopsy there were pneumonia, general swelling of the lymph-glands, possibly syphilitic in nature, degeneration of the fibers in the peripheral nerves, but no distinct changes in the cord excepting degeneration of the fibers in the anterior roots. The cells of the anterior cornua were normal. There are three possible explanations for the development of polyneuritis: the poison circulating in the blood acts either upon the nerve-cell, or upon the nerve-fibers, or it destroys the entire neuron. Strümpell is rather in favor of the latter possibility, and explains the absence of changes of the ganglion-cells in some cases by supposing that the toxin has acted only for a short time. When the cells are particularly involved, it is justifiable to speak of poliomyelitis. The hydromyelia found in the first case, he regards as merely an accidental complication, and as representing a condition by no means uncommon. A curious feature in both cases was the fact that the degenerated muscles showed distinct transverse striations. Finally, he expresses himself as believing that the absence of faradic contractility in the degenerated muscles and the slow contraction to galvanism represented the true reaction of the muscle deprived of its nervous influences. The third patient, a man of 48 years, without bad habits, but suffering from catarrh of the nose and severe headaches, noticed pain in the back and left arm. Then there was weakness in the arm, in the legs, and the muscles of the face, the patellar reflexes were lost, and there was pronounced ataxia. The paralysis became complete and involved both sides of the face, then gradually the patient recovered, and finally regained power. The cases of diplegia facialis and polyneuritis are rather rare. The fourth patient, a man of 39 years, an alcoholic, had pains in the legs, followed by paresis and some disturbance of memory. He suddenly developed deafness, and when examined it was found that he had loss of hearing for the middle notes of the register. There was extreme disturbance of motion in the legs, tenderness over the superficial nerves, and over the muscles of the calves, and reactions of degeneration in the muscles. Later, he developed a psychosis characterized by confusion, that is, loss of knowledge of time, place, and persons; he

took no interest in himself, had occasional hallucinations, complete loss of memory for recent events, but almost complete recollection of the general knowledge he had acquired as school-teacher, such as questions in geography, literature, history, etc., and throughout the whole period of his disease he was capable of performing complicated mathematical problems, and writing was unaffected. Gradual improvement occurred, his intelligence became normal, and the power returned to his legs, and in the course of time he was able to resume his occupation. Aside from the psychosis, the most interesting symptom, according to Strümpell, in this case, is the deafness. The last case shows very clearly the nature of these polyneuritic mental disturbances; that is to say, they consist of inability to reason and to utilize new conscious impressions. Strümpell characterizes them as actual weakness of memory in contradistinction to amnesia, which represents the loss of knowledge earlier acquired. The etiology of this condition is sufficiently clear when there has been a previous general poisoning, particularly with some of the chemical poisons. It is much more difficult to explain it when it occurs without distinct cause. The cases may be due to infection or to some intoxication, but these suppositions are purely hypothetic. [I.S.]

8.—Scheube gives a brief analysis of the literature of the so-called **climatic buboes.** These occur in many parts of the world. In general it can be said that they are most frequent on the eastern coast of Africa, in Madagascar, in the East Indies, Sumatra, and the West Indies. During Scheube's residence of four years in Japan, he observed 16 cases. In 15 of these the inguinal glands were swollen, in one the crural glands. In only one case was the disease bilateral. In 4 suppuration occurred. Fever was present in a few cases, but was usually slight. In all cases, of course, injury, venereal disease, or any other etiologic condition was carefully excluded. The majority of cases occurred in September, October, November and December (10), one occurred in January, and 5 in the months of March, April and May. This corresponds to the observations of other authors. Scheube, in discussing the nature of this disease, feels confident that there is no basis for Cantlie's opinion, that it represents a mild form of bubonic plague. [J.S.]

9.—Lenhartz contributes a brief clinical paper upon the **results of saline infusions.** He divides the diseases in which these were practised into (1) the acute infections; (2) diseases in which nourishment was necessarily withheld for prolonged periods, and (3) various forms of purulent peritonitis. Three cases of severe typhoid fever were treated; 2 resulted in recovery after all hope had been abandoned, and one in death from lobular pneumonia after considerable improvement in the symptoms. In addition, there were one case of croupous pneumonia, one case of diarrhea, and one of severe dysentery; all recovered. Two cases of ileus, or intestinal obstruction, with fecal vomiting and collapse, were also given numerous injections, and in both, recovery occurred without operation. In the second case, an abscess subsequently developed, which was evacuated. Among the cases of purulent peritonitis, there were 2 of subphrenic abscess, 2 of perityphlitis, and 3 of general purulent peritonitis. The last case was one of puerperal sepsis, due to streptococcus infection. The amount of liquid employed varied between 200 and 1,000 ccm. per injection, repeated sometimes as many as eight times per day. In nearly all cases there was immediate improvement in the pulse, relief of the pain, diminution in the restlessness, and improvement in the general condition. The injections act in a variety of ways. They probably increase the intravascular pressure, promote the excretion of injurious substances, the latter occurring particularly in case the injections are frequently repeated, and therefore they seem to aid in combating the infectious process. Lenhartz prefers the subcutaneous to the intravenous injection, and in one case of general infection, noted suppuration at the site of puncture. [J.S.]

10.—Dippe reports the case of a woman, 43 years of age, who had previously had manifestations of **hysteria,** having had **grandes crises.** At the age of 41, she received a severe blow upon the abdomen followed at once by severe pain. One month later, her temperature began to be regularly measured, and it was found that she had a remittent fever, almost septic in type, that sometimes went as high as 40° C., and on one occasion reached 41½° C. No local cause for this fever could be detected. The patient was exceedingly nervous, irritable, and excited. Finally, an operation was performed, when it was found that all the pelvic and abdominal organs were absolutely normal. As a result of the operation, the patient became perfectly well. Dippe believes the case one of **hysteric fever** due to the autosuggestion that an inflammation of the peritoneum existed. [J S.]

11.—Vierordt has had the opportunity of observing in the years of 1897 and 1898, 32 cases of **empyema,** 15 of which were **due to the pneumococcus.** Altogether 4 of these 15 cases, most of which occurred in children, ended fatally. He divides these into 2 classes: those in which death was caused not by the pyemia itself but by the complications resulting from the pneumococcus infection, and, second, those in which small localized collections of pus difficult to diagnose occurred, that usually disappeared after the evacuation of the exudate. As examples of the first group, he reports 4 cases occurring in children or young infants; 2 of these had in addition to the empyema a pneumococcic purulent peritonitis, and the other 2, purulent pericarditis. One of these cases was remarkable because the exudate was contained in a mesh-work of connective tissue, and formed only a thin layer upon the surface of the lung, so that its recognition was exceedingly difficult. All 4 were remarkable for their malignancy. He also reports 3 cases in which the exudate was small and often only detected after repeated examinations. All recovered, and in all pneumococci were found that in 2 cases were shown to be virulent by inoculation experiments. In conclusion, Vierordt reports 7 cases that served to show how exceedingly important it is, particularly in children who appear to be especially susceptible to pneumococcic infection, to evacuate the pus as soon as its presence is recognized. The first, a girl of 6 years, whose parents had died of tuberculosis, was found at the autopsy to have been suffering, in addition to purulent peritonitis, from a pneumococcic osteomyelitis. Nothing but the pneumococcus was found. The other cases presented nothing particularly noteworthy. [J.S.]

12.—Beneke, after a brief discussion of the **forms of metastasis in malignant tumors,** and the fact that their mode of growth may be influenced by the situations in which they develop, describes a series of interesting cases characterized by the development of tumor elements in the serous cavities, absolutely independent of any of the surrounding tissues. The first, a man of 74, had a carcinoma of the cardiac opening of the stomach, with metastases to various organs, including the pleura. The pleural cavity contained, in addition, a dark-reddish fluid in which numerous rice-grain-like bodies, somewhat resembling the cysticercus cellulosa, were floating freely. These had absolutely no connection with the pleura. A similar cyst was found in the right adrenal body, and some free cystic formations in the main branch of the hepatic vein. The cyst in the adrenal body microscopically showed the characteristics of an embryonal formation. Those in the pleura were composed of concentric layers of carcinomatous cells, often as many as 10 or 15, enclosing a cavity filled with a cloudy fluid containing carcinomatous cells. Sometimes this central cavity was lined by a layer of stroma cells resembling endothelium. The cystic bodies in the hepatic vein seemed to be almost completely deprived of any stroma, and consisted exclusively of the cells. None of these cysts contained bloodvessels, but sometimes elongated cells, resembling fibroblasts, could be detected in the wall. In the metastatic growths in the viscera, a similar tendency to cavity-formation in the center was observed, that Beneke ascribes to the tendency of this cell to reproduce the formation of the parent-epithelium; that is to say, extending in two directions, producing a surface, and, as a result, forming a cavity instead of growing as a solid mass. He draws from these groups the following conclusions: (1) That the carcinomatous cells, after complete separation from the stroma containing bloodvessels, are capable of proliferating, provided they are surrounded by a favorable medium; (2) that metastatic growths derived from the epithelial lining the stomach have a tendency to form in layers and produce cavities provided they are subjected to no mechanical hinderance. Of course, we do not understand how this occurs, but it certainly appears to be the rule. The slight deviation from the normal growth, that is the arrangement in many instead of in a single layer, is so common in malig-

nant tumors that it cannot be considered as an important alteration. Beneke goes on to consider the theory formerly suggested by him, that the more malignant a tumor is the greater the loss of the normal functions on the part of its cell; thus, in squamous epitheliomas with a tendency to horny degeneration, this tendency is diminished whenever the tumors become exceedingly malignant and grow rapidly. He then reports 2 cases of metastatic carcinoma which differ from the foregoing by the fact that the cells had no tendency to grow together in an organoid form. The first, a man of 42, had a primary tumor of the right thigh bone, and in the peritoneal cavity there was found a considerable quantity of free fluid containing numerous free cells. There were extensive matastases to the other organs. Another patient, a woman of 40, had a primary tumor upon the lobe of the ear, and again a collection of fluid was found in the peritoneal cavity containing cells. In case 2 these cells showed a marked degree of fatty infiltration, but the fluid was entirely free from leukocytes. In the last case the cells were interesting, inasmuch as the primary tumor was a melanotic sarcoma, and they contained a considerable amount of pigment. It evidently had irritated the endothelial layer of the peritoneum for there was considerable proliferation in this structure. [J S.]

13.—To be treated editorially.

14.—Windscheid has performed a number of **experiments** upon frogs, rabbits, cats and dogs **with scopolamin,** the active principle of scopolia atropoides, with the formula $C_{17}H_{21}NO_4$—an alkaloid apparently identical with hyoscin. The results of his experiments showed that upon cold-blooded animals it acted in weak doses to increase the rapidity of respiration, and in large doses to decrease it. Still larger doses had a narcotic effect and produced paralysis, but death did not result. In rabbits there was dilation of the pupil and increased rapidity of respiration. Upon cats and dogs, its chief action was upon the motor system. It produced paresis and some ataxia. With very large doses dogs showed curious imperative movements. No effect was noticed upon the respiration in cats, and in dogs the results were contradictory. No case of death occurred. Upon the frog-heart that had been paralyzed with muscarin it produced the renewal of the pulsations. It was found in the urine of cats and rabbits to which it had been administered. Therapeutically, it has been used in whooping-cough and asthma with good results, in epilepsy with doubtful results. Its chief service has been in insanity on account of its hypnotic effect. Erb has suggested its employment in various forms of tremors. Fränzel employs it for the night-sweats in phthisis. Clousen has recommended its use in asthma. Its mydriatic qualities lead to its employment in ophthalmoscopy. Occasionally unpleasant results are produced, as in a patient of Windscheid, 0 0002 producing severe collapse and loss of consciousness for an hour. The initial dose, therefore, should not exceed 0.0001. In paralysis agitans, in the treatment of lead palsy, senile tremor, and multiple sclerosis, and in idiopathic or essential tremors, the drug is apparently of considerable value. Windscheid also employs it to control hyperhydrosis, when it should be given shortly before retiring. It appears to be very rapidly eliminated, and therefore does not fatal poisoning cause. [J.S.]

15.—Dolega has performed a number of experiments in regard to the **physiologic action of massage, muscular exercise, etc.** He finds that the massage of small parts of the body, such as the forearm, does not cause increase in blood-pressure. Prolonged light massage of the skin causes slight increase in blood-pressure. More vigorous massage of the muscles causes a sinking of blood-pressure. As a result, he believes that massage produces alterations in the blood-pressure, and, therefore, in the movement of the blood. Massage also has an influence upon distant organs, as a result of reflex action. Even the central nervous system may be affected. Passive movements are particularly valuable, either to prevent bad results of inactivity of the limbs or joints or to correct them when they have occurred. Physical exercise is employed particularly in reference to heart-disease, and it is found that there is considerable difference in its effects according as the patient has or has not valvular lesion. Resistant movement continued for five minutes upon a healthy, vigorous man had no effect. Persistent muscular effort caused an increase in the frequency of the pulse and elevation of the blood-pressure; thus, rapid running up and down stairs caused both these changes with diminished pulse-volume at the radial. In 2 cases of compensated mitral insufficiency, the increased frequency of the pulse was accompanied by sinking of the blood-pressure. Vigorous rapid movements caused increased rapidity of the pulse, which became unequal, and diminution of the blood-pressure. Systematic respiratory gymnastics in cases of valvular disease with rapid heart caused diminution in the frequency of the pulse with increase in the blood-pressure. In conclusion, Dolega belives that healthy persons are not affected by the resistant movements, but that in cases of rapid heart some improvement in the pulse-frequency may be obained. Usually the effects wear off in the course of 15 minutes. Massage and mechanotherapy is, therefore, a form of treatment that, when intelligently used, can be of great value in both local and general disease. [J.S.]

16.—His reports the case of a man, 54 years of age, who some hours after severe muscular exertion became unconscious and fell to the ground injuring his face and head. Four days later, he had a similar attack, during which cramps occurred in the muscles of the face. These attacks recurred with some frequency, and he finally was admitted to the hospital. Physical examination showed slight enlargement of the area of cardiac dulness, and very faint indistinct heart-sounds. The pulse varied between 36 and 34 beats per minute. Later the frequency diminished considerably, frequently dropping at times as low as 12 beats per minute. After a few hours, the patient had epileptic cramps with loss of respiration and delayed pulse. The next day the pulse suddenly ceased, and another epileptic cramp occurred. No pulse-beats could be detected for 23 seconds, when they recurred with increasing frequency. Similar attacks subsequently occurred, during one of which it was noticed that there was a faint singing murmur heard to the left of the sternum in the second intercostal space, of greater frequency than the ventricular contraction. A few days later, it was also noted that the veins of the neck were distended and pulsated synchronously with this singing murmur, the rate being about 104 beats per minute. Later, the attacks assumed a new type. There was Cheyne-Stokes respiration, finally cessation of respiration, then the attack, while the heart continued to act. Finally the pulse disappeared, while the Cheyne-Stokes type became more pronounced, and then after an interval of 10 or 12 seconds recurred. The patient finally died. No autopsy could be obtained. This is evidently a case similar to that described by Adams and Stokes, to which Huchard has given the name, **Maladie de Stokes-Adams;** the essential characteristic being the bradycardia associated with attacks of unconsciousness. His calls attention to the fact that bradycardia is not a suitable designation, because evidently the auricles pulsate at a rate many times faster than do the ventricles during the attack. Neither do the symptoms occur with those described in hemisystole; that is, a venous pulse twice as rapid as the perceptible arterial pulse, because there is no insufficiency of the tricuspid, and no definite relation between the rate of the venous and the arterial pulse. His, therefore, assumes that for some reason or other the auricles and the ventricles pulsate asynchronously. Three explanations for this are possible: Either there is some disturbances of the muscles of the ventricles; some disturbances of those portions of muscle that convey the irritation to the ventricle; or, finally, abnormal influence on the part of the vagus nerve. These conditions may occur together. Of the three types observed in the convulsions, the first with cessation of the pulse, pallor, dyspnea, convulsions, dilation of the pupils, and stupidity, might be due to disturbance of the muscles. The second type, in which the pulse ceased for a time, and the respirations were irregular; and the third type, in which the attack commenced with apnea and then cessation of the pulse indicate the involvement of the medulla oblongata. [J.S.]

17.—Kockel reports a number of cases in which **calcareous infiltration of the pulmonary tissue** occurred. The first, a woman of 35, had metastatic cancer of the skeleton. The second, a woman of 54, also had cancerous invasion of the bones of the pelvis. Four subsequent cases had profound cyanotic induration of the lungs without involvement of the skeleton by any growth, and a fifth had marked stenosis of the mitral orifice. In the 4 cases of cyanotic induration there was considerable iron pigment mixed with the calcareous material. Kockel notes that

the infiltration usually begins in the elastic fibers, and rarely infects the larger vessels, but usually involves the smaller ones. A distinction into the macroscopic and microscopic form, that is palpable and not palpable, calcareous infiltration may be made, but this does not correspond to any distinctive feature in etiology; destructive bone-processes occasionally being associated with a deposition of fine pigment and cyanotic infiltration with deposition of pigment in large masses. In general, it may be said that microscopically the calcareous material appeared in the form of minute glittering granules that became crystalline when either sulfuric or oxalic acid was poured upon the tissue. This acidulation is occasionally associated with gas-formation. In but one case of the 7 were giant cells present. In a number of cases, bacteria were present in considerable number in the pulmonary tissue, and Kockel regards them as the result of a secondary affection brought about by the diminished resistance of the pulmonary tissue. In several of the cases, extensive thrombosis of the smaller vessels was present, and Kockel admits with Birch-Hirschfeld that this may be the essential etiologic element of the process. In conclusion he suggests the term heterotopic calcification for the deposition of calcareous material in organs where it does not normally occur, and believes that this is due to the diminished vitality of the tissues and a deficiency of nutriment, or to some toxic parasitic influence. [J.S.]

18.—Westphal reports an exceedingly interesting case of **syringomyelia,** of which we can give only the essential details. The patient, a woman of 45, developed, at the age of 41, a weakness in the left arm and leg. This soon extended to the other side, and finally resulted in paralysis of all four extremities. This paralysis was spastic in type, and associated with great exaggeration of the tendon-reflexes and contractures of the muscles. Just before death the paralysis became flaccid in type. During the whole course of the disease, there were no muscular atrophies. The sensory symptoms consisted of attacks of pain in the legs, occasionally extending into the back and abdomen. The bladder and rectum remained intact. In the second year of the disease, the patient complained of severe pains in the left leg associated with hyperesthesia and paresthesia. Later there was disturbance of the temperature-sense in this region. There was loss of muscular sensation. Trophic disturbances did not occur until shortly before death, when there was decubitus and ulcerations of the mouth, although changes were found after death in the medulla. The only symptoms during life were fibrillary twitchings and pains in the jaw. There had been a definite history of luetic infection and a diagnosis was made, therefore, of pachymeningitis cervicalis syphilitica, although the loss of temperature-sense and the peculiar course of the disease lead to the suspicion of syringomyelia. At the autopsy a cavity was found reaching from the third cervical to the third lumbar segments. It involved particularly the posterior cornua, and sent a long cleft into the left column of Goll. The amount of destruction diminished very rapidly in the lower regions of the cord. The cavity was surrounded by gliotic tissue and contained villous projections of the same material. The bloodvessels in the neighborhood showed very marked proliferation. There was some chronic proliferative vasculitis. The central canal did not appear to be involved in the lesion, being represented at all levels a small mass of cells, sometimes with persistent, sometimes with obliterated lumen. In a few situations it was doubled. There was no surrounding gliosis. Neither was there any indication in the cleft itself that it arose from the central epithelium, for in no place was epithelium found lining it. There was destruction of ganglion cells in the cervical region where the cavity was largest, and in the column of Clarke on the left side; there was degeneration of the cerebellar column on the right, and severe degeneration of both lateral pyramidal columns. The left posterior column was markedly degenerated, particularly the column of Goll. There was asymmetry of the medulla; the left side being smaller. The brain appeared to be normal. The changes in the medulla accounted for the symptoms of bulbar paralysis. Westphal is of the opinion that the lateral fissures found in this organ in some way are favorable to the subsequent development of cavities and fissures in the spinal cord. These cavities and fissures apparently stand in some direct relation to the vascular conditions, for the bloodvessels are increased in number, their walls show various degrees of disease, and they are frequently surrounded or pass into degenerated areas. Another point in regard to these fissures is their symmetrical distribution, and the reference of their direction to that of the motor nerves, so that it appears that Gudden is correct in assuming that they correspond to some embryonal stage. The changes in the meninges are also of some importance, for they doubtless aid in producing degeneration of the fibers. The filet also shows traces of degeneration. The fibrae arcuatae lying most posteriorly from the fissures were destroyed and led to degeneration of the ventral segments of the filet on the opposite side. It is impossible to go into all the details and deductions from them, of which Westphal speaks. He makes the interesting suggestion, however, that the degeneration of the pyramidal tracts may be partly due to injuries received at birth when their resistance is very much less than that of the other columns of the cord. He reports two other cases: One, a woman of 39, a chronic alcoholic, who had received two severe injuries. There was disturbance of consciousness, diplopia, but muscular power was good. Later, there were cataleptic phenomena and dilation of the right pupil. At the autopsy, numerous minute hemorrhages were found in the medulla oblongata, and there was a cavity in the spinal cord, reaching from the cervical to the lumbar region. In the brain, there was a pachymeningitis interna hemorrhagica, involving the whole of the right dura. The discovery of the syringomyelia in this case was accidental, but Westphal holds that the clinical history indicates that it is not possible to deny a relation between this disease and traumatism. The third patient, a woman of 61, had, in addition to dyspnea resulting from kidney and heart disease, a marked atrophy of the left arm involving the skin, muscles, and bones, with trophic changes in all. The reflexes were increased, and there was some doubtful disturbance of the temperature sense. At the autopsy, there were found general miliary tuberculosis, pachymeningitis interna hemorrhagica, and a cavity in the spinal cord, extending through the cervical and lumbar regions. The condition had been suspected on account of the atrophy of the left arm. [J.B.]

19.—Rosenblath reports the case of a rope dancer, 15 years of age, who fell to the ground and was then struck by another falling performer. He became unconscious at once, and remained so for 8 months, when death occurred. It was impossible to attract his attention by sound, but occasionally there was a slight expression of pain upon needle-pricks, and he sometimes made some movements of defense or discomfort when the stomach tube was passed. The pupils were unequal; there was complete paralysis of all four extremities with loss of the reflexes. Later there was some rigidity. Occasionally spasms, that could be elicited by rapid movements of the limbs, occurred, and not infrequently clonic spasms in the muscles supplied by the facial nerve. From time to time the patient gnashed his teeth. Ultimately, the rigidity of the muscles increased, the limbs became partially flexed, but at the same time there was a tremendous atrophy of the muscles, some of which failed to react to the faradic current. Decubitus, erysipelas, and spastic arthritis developed and caused death. At the autopsy, the bones of the skull were found much thicker than normal. The brain was very small, weighing 810 gms. There was slight edema of the arachnoid, the gyri were small, the ventricles dilated, and in some situations the cortex had disappeared. Microscopically, there was found degeneration of the pyramidal columns in the cord, extending as far upward as the pons. In the brain, there was atrophy and hydrocephalus, and areas of softening in the left frontal lobe, in the left parietal lobe, and throughout the white substance and the central ganglia. Even the corpus callosum was involved. There was also very marked disappearance of fibers in the cortex. This extreme **atrophy of the brain** is apparently responsible for the loss of consciousness, and the ultimate rigidity of the limbs. As there was no trace of injury to the skull, we must assume that all the lesions were produced by the bruising of the brain-tissue produced by the shock. [J.S.]

20.—Schüffner gives the following **method for staining malarial organisms:** First spreading the blood upon a glass slide according to the technic of Jancso and Rosenberger. The blood is collected back of the edge of a glass slide, held obliquely upon the one to be smeared, and the

smearing accomplished by pushing the glass slide forward, the blood following it by capillary contraction. Second, hardening in the air, preferably moist air, in a place protected from the light for from 6 to 30 hours. Third, fixation in solution of formalin 1%, glycerin 5%, for from 5 to 10 minutes. Fourth, washing in spring water one-fourth to 1 minute with the object of removing the hemoglobin from the cells. Fifth, staining with hematoxylon; and sixth, washing. The prolonged hardening in the air has the effect of preserving almost perfectly the outline and structure of the organisms. Morphologically, he finds that the quartan parasite does not cause marked alteration in the blood-cells. The tertian parasite causes the cell to swell and become pale. The parasite of pernicious fever sometimes causes the cell to shrink and become irregular in outline. At the same time they become darker in color. The tertian parasite has a peculiar effect upon the red cell in causing in it a sort of granulation or irregularity of outline. This granulation never occurs with the quartan parasite. The pernicious parasite produces fine tracings in the cell. Schüffner, therefore, believes with the majority of observers and in contradiction to Laveran that the tertian and quartan parasites are distinct, although he admits that the differences are quantitative rather than qualitative. The most important is, according to his opinion, the formation of the fine granules. These can be explained as a necrobiotic change in the cells, as fragments of the hemoglobin, or as products of the parasite. He prefers the last explanation. He has been unable in any of his cases to stain the chromotine substance in the plasmodium, and is, therefore, still uncertain as to whether a nucleus exists and, if it does, what constitutes it. [J.S.]

21.—Bruhns has examined 60 cases of **secondary syphilis** and 4 cases of **malignant syphilis,** with reference to **changes in the spleen.** In the former group, 4 cases showed distinct splenic tumor that was distinctly palpable. In the latter, 2 cases, or 50%, showed the same change. It is very likely that enlargement of the spleen occurs much more frequently in secondary syphilis than these figures would indicate, but of course it cannot be recognized by the methods of physical diagnosis at our command. In 2 cases of malignant syphilis the enlarged spleen was persistent. [J S]

22.—Graupner reports an interesting case of **hereditary tremor** occurring in three members of one generation, and and in one member of the succeeding generation. The first patient, a man of 76 years, noticed tremor at the age of 49. It affected first the upper extremities, and after many years, involved also the lower extremities. It is a typical intention-tremor in type, is rather irregular in character, and of moderate frequency. The head was entirely free. No other symptoms existed, and the patient's intelligence was better than normal. During the course of the disease, he had one attack of loss of consciousness. His brother, 76 years of age, had a similar condition, and his daughter, now 45, had had tremor since early childhood, involving only the upper extremity. In addition, she noticed that she became fatigued after walking. The fourth case, a sister of the first two cases, developed curious twitchings of the muscles of the face at the age of 53. Later, the muscles of the tongue, and those moving the lower jaw became also involved. There was also an intention-tremor of the upper extremities. At the age of 62, the patient had had an attack of vertigo, followed by paresis of the muscles of the right leg, which lasted for several days. Unfortunately, there is no note of the family history of these cases or whether any cases of similar tremor existed among the ancestors. The tremor resembles that found in multiple sclerosis, in some respects that found in paralysis agitans, but can be distinguished from these on account of the absence of any other symptoms. It differs from Huntington's chorea by the fact that it is more pronounced upon intended movement, while in the latter disease, the tremor disappears under these conditions. Moreover, there are apparently no disturbances of intelligence. It, therefore, appears that this is a familiar disease characterized by the existence of a single symptom, that is a tremor particularly affecting the upper extremities, increased by intended movement. [J.S.]

23.—Oettingen and Zumpe found **tetanus-bacilli** in a wound of a patient who had run a splinter into her finger, and also obtained them from the locality in which the infection had occurred. They, therefore, undertook to discover how frequently tetanus-bacilli could be recognized in the tissues of animals inoculated for experimental purposes. They inoculated 73 animals with various forms of infected material, with 45 deaths. In 20 of these 45 animals, tetanus-bacilli were recognized, especially in cultures made from the heart and spleen. The cultures were made by placing the entire heart and spleen or a portion of other organs in bouillon, and examining them at the end of 2 or 3 days. At this time, tetanus bacilli could usually be recognized in the midst of other varieties, and the characteristic odor was present. The organs were also placed in moist petri dishes, and allowed to remain in the incubator; then fixed, hardened, and sections cut. Under these circumstances, tetanus-bacilli were found in the heart, and particularly in the tissue of the spleen. This experiment was carried out on 16 mice, with 5 positive results, and 29 guineapigs, with 15 positive results. It apparently made a considerable difference whether the animals were inoculated with fragments of wood upon which the bacilli had been dried, or with fresh bouillon-cultures. Under the latter circumstances, organisms were much more frequently found in the tissue. A metastasis apparently takes place by means of the blood-current. [J.S.]

24.—Freudweiler reports the case of a woman, 31 years of age, who, in her eighth year, had had suppuration in the left elbow-joint. One year before her death she noticed swelling in the glands of the neck. These were removed, but soon reappeared, and in addition there were evidences of swelling in the glands of the abdomen. She soon developed ascites, cachexia, and persistent diarrhea, but improved markedly upon arsenic administered subcutaneously. She soon relapsed, however, and was admitted to the hospital, where it was found that a subcutaneous abscess existed on the anterior wall of the abdomen. There was no leukocytosis. The abscess finally perforated, and an enormous quantity of pus was removed; 740 ccm. on the first day and smaller quantities on the subsequent days. The patient improved for a time, but subsequently had several attacks of vomiting, in one of which she went into sudden collapse, with signs of internal hemorrhage, and died. The pus removed from the abscess contained no pathogenic microorganisms. At the autopsy the lymphatic glands were found generally enlarged. There was a small amount of pus in the peritoneal cavity into which the fistula from the abscess opened. The stomach contained a single enormous blood clot and two ulcers. The duodenum was a mass of ulcers, some of which penetrated the pancreas and had opened one of the arteries. Microscopically, there was found general hyperplasia of the lymphoid tisue; the hyperplastic cells breaking through the capsules of the glands. In addition, there was distinct tuberculosis, alteration in the center of some of the glands, that is cheesy softening containing tubercle-bacilli. Freudweiler calls attention to some of the interesting features of the case. First, the **enormous empyema of the abdomen.** He supposes that this was the result of the rupture of a suppurating gland into a pre-existing ascites. He considers the abscess sterile on account of the absence of pathogenic microorganisms and adhesions between the coils of the intestines, but fails to understand why it should have penetrated through the abdominal wall. It is usual in these cases for death to occur as a result of internal hemorrhage. He considers the change in the glands as true sarcoma in opposition to the theory of Kundrath. The relation of lymphosarcoma to tuberculosis has been noticed by several writers, and he accepts the theory of Ricker that it is likely that the infectious process gives rise to more or less neoplastic formation, although a mere accidental complication cannot be excluded. [J S.]

25.—Schichhold has examined the **urine** of 17 cases of **typhoid fever** in order to determine the presence of typhoid bacilli. He found them present in 5 cases. He concludes that it is possible for the typhoid bacilli to be excreted in the urine, but only when there is actual disease of the kidneys, either a specific typhoid infection or some complication. Therefore, typhoid bacilli are found in the urine shortly after symptoms of renal involvement and may appear independently of the occurrence of roseola. They are usually virulent and may remain in the urine for some time after the convalescence has set in. Under certain circumstances they may remain and multiply in the bladder, and then be found for long periods. [J.S.]

26.—Strumme reports a case of **severe gout** occurring in a woman, 48 years of age. There was cachexia, swelling

of the lymph-glands, and the evidences of Bright's disease, edema and high fever, and the patient died. Gouty deposits were found in the joints and in the kidneys. The interesting feature was the presence of **amyloid degeneration** in all the organs tested. [J.S.]

27.—Steiner has studied the statistics of **1,157 cases of pneumonia** from the Medical Clinic at Leipsic. Of these, 23 recovered on the third day or earlier, that is about 2% of all cases. In one of these, after three days of normal temperature, there was a secondary rise with critical fall. All the cases occurred in men. Steiner calls attention to the fact that about two-thirds of all the pneumonia cases occurred in the half year from December to May. He classifies his cases as follows: 6 in which the disease involved the entire lobe of the lung; 11 in which the disease was circumscribed, and difficult to detect either by percussion or auscultation; 5 in which the diagnosis was made from the general symptoms, while percussion and auscultation were negative. In nearly all cases the symptoms commenced suddenly, and in the first group of six the physical signs were characteristic. The fever was invariably high, ranging between 39° and 40°. The sputum was also typical. In the second group, the disease commenced suddenly. Herpes was frequently present. The physical signs were doubtful. The fever was high, and the symptoms disappeared suddenly. In the third group, the most positive feature in the diagnosis was the existence of the pneumonic sputum containing diplococci. In conclusion, Steiner remarks that the pneumonias of brief duration usually occur in persons between 17 and 25 years of age, and are probably the result, first, of increased resistance on the part of the individual; second, of diminished virulence on the part of the microorganism. These forms of pneumonia usually occur in groups indicating a sort of epidemic character. The physical signs can rarely be detected before 36 hours have elapsed. The type of disease is characterized by sudden commencement and critical fall in temperature. It is to be distinguished from febris herpetica in that the eruption occurs after the fever has disappeared. [J.S.]

28.—Freudweiler, at the instigation of Eichhorst, has analyzed the **clinical histories of 475 cases of carcinoma** in order to determine whether in any of them there were febrile manifestations that could not be ascribed to any complicating conditions, and found that no less than 117 of these had fever, which was probably due to the activity of the carcinoma. No cases were included in this list unless the temperature exceeded 38° C., and a sharp distinction was made between paroxysmal elevations of temperature and those persisting for several days or weeks. There were, therefore, 4 groups of cases; those with continued fever, those with remittent and intermittent fever, those with fever resembling that observed in malaria, and those with paroxysmal temperature-elevations. Very few of the cases showed a continuous fever during the whole period of observation. All cases in which some complication existed, such as peritonitis, the result of perforation, that would otherwise account for the symptoms, were excluded. An interesting fact developed that in carcinoma of the liver and gallbladder, fever was invariably present, occurring in all 17 of the recorded cases. Of the types of fever represented, the continuous was perhaps the least frequent, occurring in 7 cases. Remittent and intermittent fevers occurred in 41% of the febrile cases, and in 10% of all cases of carcinoma. Fevers of the malarial type, coming on with chill and perspiration, occurred in 8 cases, and those in which the maximum was reached comparatively slowly, that is in the course of a day, were 4 cases. Finally, there was a group of 5 cases in which the fever was somewhat irregular, one being remarkable for the fact that the temperature gradually rose to its maximum, which persisted for three weeks, and was followed by a period of freedom from fever lasting at first a week and then for shorter intervals; 38.5% of the cases had paroxysmal fever. The cause of fever, of course, is possibly due to secondary infection. However, in at least 17 cases, any other form of infection could be positively excluded, and it seems certain, therefore, to Freudweiler, that the carcinoma can of itself cause elevation of temperature. Clinically, the fever appears to be a relatively unfavorable prognostic sign, the great majority of cases in which it appeared dying shortly after their admission to the hospital. [J.S.]

29.—Curschmann reports 3 cases in which the most interesting feature is a **curious alteration in the structure of the liver.** The first, a woman of 51, previously healthy, had a year before her death a severe attack of pain inthe epigastrium. These attacks were repeated at frequent intervals, and then, after a long period, one occurred associated with complete loss of appetite and daily vomiting. There was slight jaundice and profound prostration. There was not, however, complete obstruction of the common duct. Fever was very moderate, and the patient died as a result of exhaustion. At the autopsy it was observed that the liver was dark-brown in color, but of normal form and size. The consistency was slightly softer than normal. The ductus arteriosus (?) was enlarged and contained a gallstone. A sound could, nevertheless, be passed through it. At the junction of the cystic duct, there was a small abscess which apparently did not communicate with any of the surrounding structures. The substance of the liver contained numerous small focal lesions, which microscopically were found to consist of small areas of necrosis, but no trace of suppuration. They were surrounded by proliferative connective tissue, infiltrated with round cells. The gallducts were absolutely normal. The second patient, a woman of 43, had had attacks of severe pain for 2 years before her death. Her condition was diagnosed as biliary colic. Later she had complete loss of appetite and frequent vomiting. She developed a moderate degree of icterus, her physical signs were negative, and she finally died of exhaustion. The common duct contained two gallstones. The substance of the liver was soft and brown, and microscopically resembled almost exactly that of the other case. These 2 cases are in accord because the severe lesions in the liver appeared to be associated with the presence of gallstones in the duct that did not produce complete obstruction. Both gave a history of frequent attacks of biliary colic which usually diappeared very rapidly. Death in both occurred as a result of gradual emaciation and exhaustion. The lesions discovered resembled those produced in the lower animals as a result of occlusion of the common duct, but apparently have never been hitherto described in human beings. Experiments, particularly those made by Naunyn, indicate that the bacterium coli communis is capable of producing necrotic changes in the tissue of organs, and Curschmann believes that this is probably what occurred in these two cases. He then reports a third case, in a woman of 38 years, who had had frequent attacks of biliary colic, sometimes associated with jaundice. She gradually developed profound prostration and died. At the autopsy, a small fragment of the liver was examined and found to present changes similar to those in the other two cases. [J.S.]

30.—Miller reports the peculiarities of a microorganism that was found in the sputum of a woman suffering apparently from a pneumonic infiltration at the base of the right lung. This microorganism was an **encapsulated diplobacillus** that gave the following cultural and staining characteristics: It was decolorized by Gram, facultative anaerobic, coagulated milk, produced a trace of indol and formed acids, and in saccharin media gas. It was pathogenic for guineapigs and white mice. It apparently is closely related to the diplobacillus of Friedländer. [J.S.]

31.—Hirsch, after a thorough review of the literature of the **heart-weight,** and the discussion of the advantages of various methods proposed, adopted for his own work the technic suggested by Müller, that consists essentially of removing the large vessels close to the auricles, just above the semilunar valves, and then dissecting off the fat in the epicardium. In 6 cases of obesity, he found that the actual weight of the heart-muscle was disproportionately very greatly reduced, ranging from 0.00286 to 0.00417 of the body-weight. In two cases of carcinomatous cachexia with marked emaciation of the general muscular system, the weight of the heart was again greatly reduced, being actually 192 and 203½ grams, and proportionately 0.004 or less. In 61 cases of tuberculosis with more or less emaciation, similar results were obtained, that is, the proportion of the cardiac to the body weight was normal; the absolute weight of the heart being greatly reduced in the more cachectic individuals. Hirsch, as a result of these investigations, concludes that the activity and size of the voluntary muscles have a distinct influence upon the activity and size of the heart-muscle, that is to say, persons with well-developed muscles have large, well-developed hearts. When obesity exists, the weight of the heart corresponds not to the weight of the

body, but to the weight of the voluntary muscles, and in cases of emaciation, as the result of cachexia, the heart participates in the changes. In 22 estimations made upon pregnant women, it was observed that there was a slight diminution in the proportional weight of the heart. which Hirsch ascribes probably to the increase in fat. He then summarizes his results as follows : that the size of the heart-muscle is the expression of the work performed by it; the influence of the quantity of blood upon the work of the heart could not be determined in any of his own cases ; the activity of the glands and of the central nervous system apparently makes no exceptional demands upon the activity of the heart, excepting perhaps the form of hypertrophy occurring in Graves' disease. [J.S.]

32.—Hensen reports the case of a man, 32 years of age, who had suffered for 16 years with pains in the left side of the occipital region. Eight days before admission to the hospital, there had been an attack of dizziness with vomiting, and weakening in the legs. When admitted, aside from slight exaggeration of the reflexes, there were no characteristic symptoms. Later the gait became irregular and staggering, so that sometimes it was necessary to support the patient. There was persistent headache and severe vertigo that was increased if the head was bent to one side or the other. Potassium iodid, rest and ice to the head caused very marked improvement. He was, therefore, allowed to get up, but was then seized with vomiting and intense headache. The pupils were widely dilated; they did not react to light, and the patient was obliged to sit up continually. He then became comatose and died. In the fourth ventricle **cysticercus racemosus** was discovered. There was intense venous hyperemia of the lungs, spleen, kidneys, and liver, and some tuberculosis at the apex of the right lung. The ventricles were greatly dilated ; the ependyma was proliferated and beneath it were found some cavities lined with ependymal epithelium. Hensen has collected 27 cases of this disease, and undertakes to give some indication of its symptomatology. Sometimes there are absolutely no symptoms. In 6 of 27 cases the discovery of the parasite was entirely accidental. In other cases there were epileptic attacks. The cause of the **hydrocephalus** appears to be pressure upon the veins of Galen. In some cases in which the lateral ventricles were involved, the hydrocephalus did not occur. Hensen believes that perhaps the chief cause is the occlusion of the aqueduct of Sylvius which prevents the normal movement of cerebrospinal fluid. Among the clinical symptoms are headache, vertigo, and vomiting. Occasionally there is choked disc ; in other cases it is absent. The localization, of the headache is various; sometimes the head was kept in a peculiarly constrained position. In 7 of these cases there was uncertainty of the gait. Psychical disturbances occurred only late in the course of the disease. In one case there was slight anesthesia of the left side of the face; in others there was slight nystagmus. The pulse was usually decreased in frequency. Diabetes either with or without sugar was present in several cases, but in other cases in which definite pathologic alterations were found, the clinical symptoms had been negative. This Hensen explains by supposing that the increase in intracerebral pressure is very slow. The 27 cases collected are carefully tabulated. [J.S]

33.—(*a*) Romberg, Passler, Bruhns, and Müller have undertaken a series of experiments with the purpose of determining whether in certain **infectious diseases the fall of the blood-pressure** is the result of central or peripheral vasomotor paresis or of weakness of the heart. In infectious diseases, the pulse may either be soft and apparently partially empty—a condition not associated with definite anatomic changes—or it may be irregular, unequal, and small. a condition associated with dilation of the heart-muscle. Various methods may be employed for increasing the blood-pressure—either vigorous massage of the abdomen from below upward, compression of the descending aorta above the diaphragm, certain irritations of the peripheral nervous system, and an insufficient supply of oxygen, that is, asphyxia. If the vasomotors are paralyzed it will be found that abdominal massage or compression of the aorta will produce an increase in the blood-pressure, whereas peripheral irritation and asphyxia produces no increase. If the heart itself is weak, all these reactions are negative. The methods used in experimentation were to infect animals with certain germs, for which purpose the Bacillus pyocyaneus, diphtheria bacillus, and the pneumococcus were employed, and then to test the blood-pressure in the various stages of the disease by each form of infection. It was found that in the first stage, no alteration in the blood-pressure occurred; that is to say, increase was obtained by all four forms of stimulation. When collapse was threatening, experiments showed that the heart was still vigorous, but that vasomotor symptom was considerably impaired, and the same is true of animals in a stage of complete collapse. The authors conclude that the weakness of the circulation occurring in rabbits inoculated with various pathogenic germs is produced by paralyis of the vascular system, and that the heart remains unimpaired. Experiments with chlorobromin indicated that the peripheral portion of the vasomotors were intact, and therefore it seems reasonable to conclude that the paralysis is of centric origin; that is to say, it is due to depression of the centers in the medulla. Occasionally, however, in the last stages of the disease, the heart itself becomes weak. In cases in which the aorta was compressed, a slight difference occurred between normal and diseased animals. In normal animals, there is a rapid increase in blood-pressure and then a gradual decrease. In the diseased animals, the initial rise was much less pronounced. This the authors ascribe to the relaxation of the vascular system, and the impossibility of producing in it a sudden high degree of pressure. In animals inoculated with diphtheria, the difference was still more pronounced, and the diphtheric heart therefore probably corresponds to the weak normal heart. Any changes produced in the last stage of the disease; that is, irregular and slow pulse, are probably due to a parenchymatous degeneration of the heart-muscle. Comparison of the symptoms and characteristics of the disease in the animals and in human beings indicate that the same conditions are true in both. [J.S.]

(*b*) Pässler, in view of the results of the preceding experiments, undertook to test various **vasomotor stimulants** in animals that had been infected with pyocyaneus and pneumococci. Digitalis in the form of digitalin produced a slight rise in the blood pressure, of moderate duration. Repeated injections produced a lower and briefer elevation. Alcohol injected subcutaneously appeared to have a very bad effect. In some cases the blood-pressure was not altered ; in others there was a distinct tendency to depression. In no case was there any indication of impairment in the cardiac force. The animals unfortunately could not take alcohol by the gastrointestinal tract, and the results are, therefore, not absolutely unquestionable. Ether always produced increased weakness in the circulation. Strychnia had no effect unless used in doses sufficiently strong enough to cause spasm. Ergotin was entirely negative. Camphor produced increase in the blood-pressure which lasted for a considerable time, and could be repeated with good effect. The difficulty was the irregular absorption of the substance, and therefore, the imperfection of the dosage. Caffein produced a very favorable effect. The increase in the blood-pressure lasted for 1½ hours, and repetition seemed to be equally beneficial. Its effect was more prolonged than that of camphor and the dosage very active. It is not certain, however, that it will restore the completely paralyzed vasomotor centers. Coriamyrtin, a drug suggested by Riban, appeared to be of the greatest value. Even small doses that did not produce spasm caused pronounced increase in the blood-pressure, which sometimes persisted for one and three-fourth hours. If the spinal cord were cut in the cervical region, the coria myrtin had no effect, and it therefore appears to stimulate the vasomotor center in the medulla. It differs from caffein in producing slowness instead of increasing the frequency of the pulse-rate. Infusion of an artificial serum produced very slight effect, but what there was appeared to be favorable. In conclusion, Pässler believes that in cases of vasomotor weakness due to infection, the most useful drugs are caffein and coria myrtin, and next to these is camphor. Strychnia and ergotin and the other substances mentioned are of little or no value, and are often very injurious. [J.S]

(*c*) Hasenfeld has produced an **artificial endocarditis** in animals infected with pyocyaneus, and found that in spite of the severe infectious process, the heart hypertrophied distinctly and this hypertrophy could be recognized in as short a time as a week. [J.S.]

(*d*) Hallwachs has made sytematic investigations of 14 **hearts** from cases of **diphtheria** in order to determine

whether an acute myocarditis existed or not. Sections were made horizontally through the entire muscle of the heart, it was hardened in Müller's fluid, and imbedded in paraffin. The lesions were very various, and particularly their distribution was very irregular. The degeneration of the muscle-fibers was particularly striking. The transverse striation was indistinct or completely absent. The longitudinal striation was very marked, and sometimes in the center of the fibers there were areas of rarefaction giving rise to the appearance of vacuoles. Fatty degeneration of the fibers was invariably present when the tissue was examined in the fresh state. The nuclei were multiplied; interstitial round-cell infiltration appeared invariably after the ninth day. It did not bear any distinct relation to the degeneration of the muscle-fibers, being found in areas where normal fibers existed or where they were greatly degenerated. Finally, there was also considerable proliferation of the connective tissue. The first case had died with symptoms of heart-weakness, and in all there were very pronounced myocardial changes. In patients dying before the local symptoms had completely subsided, the myocardial disease was not nearly so pronounced as in the preceding. Finally, in 4 cases without cardiac symptoms, no changes in the myocardium were found. Hallwachs concludes that the disease of the heart-muscle always represents an injurious action of the diphtheric poison upon the heart-muscle. It is probable, however, that the postdiphtheric manifestations are not due to the action of the toxin, but are the result of some other infectious process involving the muscle weakened by the previous disease. [J.S.]

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2. Teratoid Tumors in the Region of the Sacrum from a Clinical Standpoint; with Reports of a Number of Cases. FRANZ KIDERLEN.
3. A Contribution of Cases Concerning the Surgery of the Liver. ALFRED LIPSTEIN.
4. The Formation by Operation of Anastomosis between Ureter and Bladder (Uretero cystoneostomia) N. A. SOKOLOFF.
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6. Total Resection of the Diaphysis of the Long Bones in Cases of Acute Infectious Osteomyelitis. PAUL JOTTKOWITZ.
7. Observations on Gonorrheal Inflammation of Joints in the "Chirurgischen Universitätsklinik in der königl. Charité zu Berlin." ERICH BENNECKE and F. KÖNIG.
8. (2) Military Surgery and Surgeon of the Seventeenth and Eighteenth Century. ALBERT KÖHLER.

1.—Matthiolius', article on **operations in epilepsy** is a rather exhaustive discussion of statistics. He reports 4 unpublished cases in detail and 160 others less elaborately, which have been collected from literature. In 31.1% of these 164 cases no results were obtained. In 20.1% the time of observation after the operation, was too short to allow of any conclusive judgment being made. 15.2% were bettered by the treatment, the majority of these permanently so. The cured cases reached 14.6%, *i. e.*, 24 cases, of which 7 were observed for over 3 years, 13 over 1 year and 8 over half a year. In short, 29.8% of cases were benefited by the operation, while 70.2% were not. The cases of traumatic Jacksonian epilepsy show a larger percent of favorable results than observed in general epilepsy. Also the death-rate after operation is much greater in the general epilepsy than in the cases in which the seizures are localized. [G.B.W.]

2.—Kiderlen reports 1 case of **teratoma of the region of the sacrum** from his own experience in detail, and gives in tabulated form 122 other cases collected from the literature. His case was that of an unmarried woman, 24 years old, who had been suffering from a recurrent osteomyelitis of the arm and thigh, and of which she was finally discharged from the hospital cured. About 6 months later she returned to the hospital with an enormous swelling on the left gluteal region. After negative exploratory punctures, the diagnosis of sarcoma was made. At the operation, however, 2 cysts were found: one was filled with a brown, pus-like, but odorless fluid, and the other, which was the smaller of the 2 cysts, with sebaceous material, in which was found a quantity of blond hair. The diagnosis of the larger cyst was enterocystoma, and of the smaller was dermoid cyst. The cysts were removed, and the patient made a good recovery. Kiderlen concludes his extensive article with the following sentences. Judging from researches over the developmental history, it is impossible to draw a distinct border between the monogerminal and the parasitic sacral tumors. Because of the doubtfulness of the beginning of many of the tumors of late growth, it is too arbitrary to pronounce them all of parasitic origin. Of clinical interest are chiefly those tumors of the rump possessing a presacral position. These form, as to their clinical and therapeutic connections, a common group. Because of their rapid growth, these tumors should be extirpated as soon as possible, without any consideration of the age of the patient, who is apt to be very young, ahd who, without operation, would in all probability die. Especially in adults and in women because of complicating delivery is the operation most strongly indicated. The operation possesses a most favorable prognosis and the procedure adopted should be carried out in accordance with the atypical features of the case. [G.B.W.]

3.—**Surgical treatment of the liver** is greatly embarrassed by the difficulty of approach to the larger part of the organ. Access to the upper anterior surface may be gained either by resecting the rib cartilages, carefully avoiding the pleura, or by displacing the liver after cutting through the ligamentum coronarium and triangulare. Hemorrhage from the liver parenchyma is most troublesome, but is probably best controled by hot air as suggested by Holländer. As to the amount of liver which may be safely resected, Ponfick has shown that three-fourths of the liver of a rabbit may be resected without any evil results. Lipstein reports, as operated on at the Heidelberg Clinic during the past 6 years, 4 cases of abscess of the liver, 3 of tumor and 1 echinococcus. Of the 4 cases of abscess 3 died and 1 made a complete recovery. In the case that recovered the etiology was very obscure, but the symptoms were most plain and characteristic. One of the fatal cases was of malarial origin and the other two appendical. The 3 cases of tumor operated on, were 1 syphiloma, 1 sarcoma and 1 adenoma. Recovery took place in the syphiloma, while the other two died, one shortly after the operation and the other from a recurrence. The case of echinococcus demanded resection of a portion of the cartilages of the ninth and tenth ribs in order to furnish sufficient room for drainage, but the patient made a good convalescence. [G.B.W.]

4.—The indication for **ureterocystoneostomy** is the existence of a ureteral fistula. Fritsch has collected some 200 cases of fistula of the urether, and believes this estimate to be too small. Sokoloff's reports indicated a case from his own experience, in which there was a vaginal ureteral fistula. At the operation the lower part of the ureter was found so firmly bound down by adhesion that it was impossible to dissect it free, so it was cut through at the lowest possible point between two ligatures. The upper end of the ureter was then brought down and fastened to the posterior wall of the bladder with suture, but so as to allow a short portion of the end to hang free. The bladder was opened for 1½ cm. and the free end of the ureter pushed into it, and its wall reunited above it. The operation was a complete success, the patient making a good recovery. Nineteen other cases are briefly reported. Sokoloff concludes his article with the following sentences: Ureterocystoneostomy deserves the recommendation of all physicians, it gives a small mortality, is easily carried out and generally affords good results. Because it protects patients from numerous operative procedures and restores the parts to an almost normal anatomic relation, it is to be preferred to either nephrectomy or the vaginal operation. The intraperitoneal method gives better results and is easier in the technic than either the extraperitoneal or combined method. In the implantation of the ureter, it is absolutely essential that the ureter be sutured in an oblique direction. Ventrofixation of the bladder aids in obtaining the wished-for results. [G.B.W.]

5.—This case of **multilocular echinococcus** showed from the clinical standpoint, a hard, slightly movable tumor situated on the center of the right ilium about three times the size of a man's fist, and reaching from the sacroiliac articulations to the trochanter major of the femur. On the

under surface were points of fluctuation. There was a fistula in about the middle of the tumor, from which a thin and at times flocculent fluid was excreted. The growth was removed and a portion of the ilium chiseled away with it. The growth on examination proved to be a multilocular echinococcus of bone and probably originating in the crest of the right ilium. It possessed the following peculiarities: (1) the parasitic mother-cyst was wanting; (2) it was exclusively an exogenous growth; (3) there was an exclusive formation of sterile daughter-cysts; (4) there was an absence of a sclerotic capsule, but on the other hand there was a progressive growth into the surrounding tissues. [G.B.W.]

6.—Jottkowitz **removed the whole diaphysis of the left femur** of a 3 year-old child. The patient had an acute multiple osteomyelitis with the formation of abscess and fistula. Operations, consisting in opening up the fistula and abscesses and in limited removal of the bone, failed to effect a cure. Therefore, total resection of the diaphysis was decided upon. An incision was made in the lower third of the outer side of the thigh and the femur sawed through with a wire saw. The bone was easily pulled down because of the thickened periosteum being already separated from the bone by the disease. Although the periosteum was thickened it was still soft, except for a short distance just above the knee where calcification had begun. The wound healed by granulation and the suppuration stopped. The child began to walk 10 weeks after the operation, at which time there was 3½ cm. shortening. The x-rays at 5 months after operation showed a good, strong deposit of bone along the line of the old femur. The leg steadily improved until 1½ years after the operation there was only 1 cm. shortening. [G.B.W.]

Revue de Médecine.

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1. A Study of Typhoid Infection in the Dog. R. LEPINE and B. LYONNET.
2. Rhizomelic Spondylosis. A. LERI.
3. Multiple Sclerosis Consecutive to Tuberculous Arthritis of the Shoulder. M. LANNOIS and J. PAVIOT.
4. On a Case of Cancer of the Duodenum of the Perivaterian Form, Involving the Biliary Passages and the Head of the Pancreas without Causing Progressive Icterus. A. DESCOS and L. BÉRIEL.
5. A Note on the Condition of the Nerve-Cells of the Spinal Cord and Cortex in a Case of Convulsions of Infectious Origin in an Infant. M. D. OLMER.

1.—The studies were begun by feeding a dog on bouillon cultures of typhoid bacilli. No effect was observed, and the blood did not show any agglutinative power; another evidence of the resistance offered by the stomach. Virulent cultures were then introduced directly into the small intestine, and the dog was killed 20 hours after the operation. Ligatures had been placed around the bowel and removed after the injection, and there was a circular constriction found at this point; otherwise there was absolutely no lesion found excepting enlargement of the mesenteric glands; the blood did not react by agglutination. Then a loop of the intestine was isolated by Thiery's method, and typhoid bacilli were injected into this loop. The blood showed marked agglutination in the first case, and there was a severe peritonitis; the autopsy showed lesions of the intestine similar to those seen in man. Bacilli were found in the mesenteric glands in pure culture, but the cultures from the liver and spleen were sterile. Another experiment of this kind gave less marked results, although there was some ulceration of the intestines. Injection of virulent cultures were made into the mesenteric vein. In 10 trials of this kind there were the following evidences of general infection: The spleen showed the bacilli 8 times; 1 case was doubtful, and 1 case was negative. The liver gave 8 positive results and 1 doubtful; the kidneys 7 negative and 2 positive; the lungs 1 positive, 1 doubtful, 1 negative; the heart-blood 3 negative results, 1 positive; the brain 1 negative result. Then injections of virulent cultures were made under the intestinal peritoneum. The results were as follows: 7 experiments showed in each instance the typhoid bacillus in the spleen, and 5 times it was found in the liver. It was not found in the kidneys, but in 3 of the 5 searches it was found in the bone-marrow. **Injection of a virulent culture** into a vein of the larger circulation was carried out 7 times, and evidences of **general infection** were found in some of the organs in all instances, and in most of them they were found throughout the system. Injections were then given into the trachea. The first animal died rapidly, probably of the toxemia. The same was true of the second case, but in the third case it produced a typical red hepatization. The animal had no fever, however, and toxemia had probably much to do with the death. A number of other similar experiments with a like result were carried out. [To be continued. D.L.E.]

2.—The article is to consist of the report of 2 cases here detailed and the records of the autopsy upon one of the cases previously reported by Marie. It will be finished in the next number and the abstract will include the whole. [D.L.E.]

3.—The important parts of the case are given in the title. The chief clinical peculiarity was that the most noteworthy symptom was a progressively increasing weakness of the right side which ultimately amounted to **hemiplegia.** The face was not involved. The reflexes were exaggerated and there was an epileptoid twitching. The cases ended with bulbar symptoms. The difficulty in diagnosis was considerable, owing to the disease of the right shoulder and the possibility of tubercular involvement of the spinal cord. The autopsy showed that there was no tubercular disease of the spinal column, however, nor of the cord, but the latter showed scattered areas of sclerosis. The vascular lesions were particularly intense in the sclerotic area, and this is believed to be strong evidence that in the beginning the lesions were due chiefly to the involvement of the vessels. The authors express strong conviction that the spinal disease was dependent upon the disease of the shoulder through toxemia [an expression that is based chiefly upon speculation, because the suppurating arthritis gave opportunity for a mixed infection, and it is difficult to say which, if either, produced the multiple sclerosis. D.L.E.]

4.—The clinical history of the case is of interest because of its negative nature, so far as any signs of involvement of the bile-passages is concerned. The woman had had **biliary colic** long before, with mild attacks. Later she had prolonged disturbance of digestion with marked emaciation and cachexia, and the only diagnosis that seemed at all probable was cancer of the stomach. The autopsy, however, showed **cancer of the duodenum** involving practically the whole wall of the bowel at the ampulla of Vater and for some distance above and below. This had involved the head of the pancreas also, and the bile-duct had dense and thickened walls, and, microscopically, showed cancerous involvement. In spite of this, instead of being contracted, these passages were dilated, the enlargement being attributed by the authors to the loss of elasticity in their walls and the consequent passive distention from accumulation of bile. That the case showed no obstruction of the common bile-duct and that there were no evidences of closure of the pancreatic duct is thought by the authors to be sufficient proof that the disease did not begin at the ampulla of Vater, but about it since if it had involved it at first, it would have been closed rapidly by the infiltration, as is usually the case; while the perivaterian disease, they think, merely caused the canal to become less elastic and ultimately to dilate. [D.L.E.]

5.—The case recorded was that of a female child of 2 months. It was admitted to the hospital with **diarrhea** and was suddenly taken with a convulsion, without fever after the diarrhea had been controlled. The convulsions were most marked on the left side. They were sudden, and were followed by rigidity of some seconds' duration, which was irregularly interrupted by **convulsive attacks.** The child died seven days after the convulsions were first noted. Portions of the spinal cord and of the motor region of the cortex were hardened and examined. Normal conditions were found in the spinal cord, but distinct lesions were found in the cortex. The protoplasm of the ganglion cells took a diffuse color and distinct granules were found only rarely. The protoplasmic prolongations were few and imperfect in form. The nuclei were swollen, and oftentimes displaced to the sides of the cells. Frequently one could not distinguish a nucleolus. Many of the capillaries of the cortex were filled with microorganisms which resembled the bacterium coli. The lesions, therefore, resemble those which have been reported by others in similar conditions. [D.L.E.

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.

THE DOSE OF HEROIN—A CORRECTION.—In an abstract of an article on Heroin in Cough, by Herwirsch, which appeared in the issue of the JOURNAL for December 2, 1899, the dose of heroin is stated to be ½ to ⅓ of a grain, whereas the dose suggested by Herwirsch in his original article is $\frac{1}{12}$ to ⅛ of a grain.

The Treatment of Acute Indigestion in Infants and Children.—Taylor (*Pediatrics*, December, 1899) writes that washing out the stomach and cleaning out the alimentary canal to rid it of all irritating substances is the first step indicated in the treatment. The second indication is to insure absolute rest. All food, and especially milk, should be withheld until vomiting ceases. When vomiting subsides, albumin-water, made by adding the white of one egg (with brandy and salt) to one pint of boiled water, may be cautiously administered. He has observed good effects from tincture of nux vomica and copper arsenite, $\frac{1}{10}$ of a drop of the former, alternately every three hours, with $\frac{1}{150}$ of a grain of the latter, to children from 2 to 6 months of age. The milk-diet should not be resumed until all symptoms of disease have disappeared. If the symptoms of the intestinal form of indigestion predominate, the milk should be withheld until the stools present a normal appearance. The abdomen and extremities should be kept warm throughout the entire period of the disease. With older children no solid food should be allowed, and even milk during the hot months is contraindicated until all symptoms have subsided. Barley-water, and the various broths (strained) may be given at regular intervals. In these cases nux vomica and copper arsenite should be given. Later, when all symptoms have subsided, pasteurized milk, to which formalin has been added in the proportion of one drop of 40% solution to the pint, may be given.

Impetigo of the Head and Face in Infants.—Kistler (*Riforma Medica*, August 12, 1899), recommends the following application:

℞.—Salicylic acid..... 2 parts.
Bismuth subnitrate..... 40 parts.
Ointment of rose-water.....100 parts.
Powdered starch..... 15 parts.

Protargol in Affections of the Eye.—Emmert, of Berne (*Lancet*, October 14, 1899), publishes a report on 350 cases in which he used protargol. Simple acute conjunctivitis he treats by the application of 2 drops twice or three times a day of a solution varying from 1 to 3% (from 4 to 12 grains to the ounce). He also bandages the eyes at night and each eye alternately in the daytime with protargol vaseline in a strength of from 5 to 20% (from 20 to 80 grains to the ounce). This is spread on soft linen rags and a small quantity of this salve seems to permeate into the tissues of the conjunctiva and there exercise the desired curative influence. These bandages must be covered with wadding and a certain amount of pressure applied. Cases of conjunctivitis are relieved in from 2 to 3 days, very severe uncomplicated cases in from 5 to 8 days. Protargol, while containing a high percentage of silver, has the advantage of being much less irritating than many other silver-solutions recommended of late, not to speak of the nitrate, and causes no eschar. Cases of severe ophthalmia neonatorum could be dismissed recovered in from 6 to 18 days, iced compresses (pads) being superadded to assist the recovery. Thus protargol should be used as a prophylactic remedy instead of the usual silver-nitrate solutions used in lying-in-hospitals. Emmert also recommends protargol in cases of eczematous keratitis and ciliary blepharitis and he has seen beneficial effects from its use in various forms of dacryocystitis.

Sodium Salicylate in Headache.—Brunton (*British Medical Journal*, November 4, 1899) says that in persons who are liable to headaches he generally prescribes sodium salicylate, 15, 20 or 30 grains at night, with 10, 20 or 30 grains of potassium bromid. This mixture acts better than either sodium salicylate or potassium bromid alone, and it will usually prevent the occurrence of a headache in the morning. If the headache should come on, he recommends that the dose should be repeated, and in the case of people who suffer from very violent and often recurring headaches, he gives them the salicylate not only morning and night, but 3 times a day in small doses, either immediately before or after meals. For the depression and weakness which the salicylate is liable to produce he associated ½ a dram of aromatic spirits of ammonia. Although patients may take sodium salicylate for years without apparent harm, it is known theoretically that salicylic compounds have a tendency to produce anemia, and therefore it is advisable in some patients to give with the sodium salicylate, when the latter is used regularly, a little iron.

Urotropin in Genitourinary Diseases.—Thompson (*Boston Medical and Surgical Journal*, November 4, 1899) summarizes his conclusions concerning the therapeutic action of urotropin as follows: (1) A urinary sterilizer, antiseptic and acidifier—prompt and reliable in action,—moderate in dose, which, if adhered to, renders it both nontoxic and nonirritating to all parts of the animal economy. (2) In virtue of its peculiar affinity for the urine, into which it passes unchanged, and where it parts with formaldhyd, it is apparent that its action in genitourinary lesions is likely to be complete and certain. (3) Its decisive and lasting effect, and especially its comparative singleness of action—which last is a most desirable property—should give it a place in the list of medicinal specifics. (4) From the observations reported thus far, urotropin has appeared to be most frequently indicated in chronic disease, where it has produced exceptionally good results. (5) In the writer's personal experience the diuretic action of the drug was not marked enough to render it deserving of claim to such a virtue.

Mercurol in Syphilis.—Ahman (*Arch. f. Derm u. Syph.*, Bd. xlviii, April, 1899) reports 30 cases of syphilis in which he used, with great satisfaction, mercurol, a preparation containing from 40 to 80% of mercury in fine amorphous particles. Seventy-five grains were used daily for a period of five or ten days, and subsequently every other day. The remedy was placed in woolen bag which was worn next to the skin. Mercury was recovered from the urine in every instance. The duration of treatment ranged from 30 to 40 days. The writer regards this method of treatment as more effective and cleanly than ordinary inunction.

Iodalbacid in Syphilis.—Iodalbacid is a combination of iodin with albumin, containing about 10% of iodin. The relation between potassium iodid and iodalbacid is similar to that between glucose and starch. Zuelzer (*British Medical Journal*, September 2, 1899; *Archiv f. Dermatol. u. Syph.*, Vols. xliii and xliv), of Zurich, who has made a careful study of the action of this compound, finds that iodalbacid never produces so acute an excess of iodin, liberated in the tissues, as potassium iodid. Iodalbacid is also practically not eliminated by the kidney, and hence during its sojourn in the body not only is its action (in liberating iodin) slower und steadier, but its excretion from the system is slower. Hence, its action is also more protracted. In numerous cases of syphilis and psoriasis in which potassium iodid produced symptoms of iodism, the administration of iodalbacid was found to be quite free from such effects. The largest part of doses of potassium iodid administered in late syphilis passed through the body too readily to affect morbid tissues, such as gummas. In all these respects iodalbacid is superior in its persistence. Accordingly, potassium iodid is indicated in cases in which the first rapid action of iodin is desired, as in florid tertiary eruptions; but in all cases in which a protracted iodin treatment is desired, and when it is necessary that the total amount of iodin administered should be absorbed, and iodism avoided, iodalbacid should be prescribed. Fifty cases of syphilis were treated with iodalbacid with good results. Three to five grains in capsules could be taken for the purpose.

Mercurol in Acute Gonorrhea.—Fraley (*Therapeutic Gazette*, November 15, 1899) states that mercurol is an organic compound of mercury with nuclein, containing about 10% of mercury. It exists as a light, brownish-white powder, and is soluble in water, especially when the latter is warm, but is insoluble in alcohol. It is employed in solutions of from 0.25% to 2%, the diluent being normal salt-solution. In most cases treated by Fraley a 1% solution was used, which is

equivalent to a 1 : 1000 solution of mercury. The patients were instructed to inject every two hours, to hold the injection in for two minutes, and to report every day for microscopic examination of the discharges. Fourteen cases were under observation a sufficient time to draw conclusions, of these 6 were cured in less than 4 weeks, 3 practically cured in 3 weeks, 3 distinctly improved in 16 days, and 2 not improved, though temporarily much benefited. The best results were in the cases with simple anterior urethritis. In those cases which involved the posterior urethra the results were not so good, but the writer thinks this may have been due to the remedy having been used in too weak solution. Judging from the rapid improvement of these cases under the use of potassium permanganate, it may be fairly assumed, according to the author, that the latter is the better agent for irrigation, while mercurol is superior for injections. Fraley concludes that an unirritating remedy which has cured gonorrhea in a period averaging less than 4 weeks is one that is not to be despised, remembering that the length of treatment in the hands of good physicians averages 6 weeks before a complete cure is effected.

The Night-sweats of Phthisis.—Knopf ("Pulmonary Tuberculosis," 1899), writes as follows concerning the treatment of night-sweats: "To prevent night-sweats the patient should take a glass of cold milk with a little cognac before retiring; he should never retire hungry, and should always have some light lunch on a table near his bed, so that he may eat something if he wakes in the night feeling faint. Again, if the patient is in the habit of waking up at a certain hour in the morning bathed in perspiration, he should be waked two hours earlier and given egg-nog or another light lunch. Sometimes it will be necessary to give him a sponging off with water and vinegar, or water and lemon-juice, and the administration of atropin, agaricin, etc., also may be indicated. But once, when all remedies had failed, I resorted to the following hydrotherapeutic procedure, which worked so well that I now prescribe it in most cases of severe hyperhidrosis, before experimenting much with medicinal agents. Several thicknesses of rather coarse linen, folded in the form of a shawl, or better yet, three different cloths,—one narrow one for each apex like a broad shoulder-strap, and another wider one to wrap around the chest,—are soaked in water at a temperature of about 55° F., wrung out and then closely applied over the apices and around the thorax. A thick flannel band, somewhat wider than the compress, is wrapped over this, and the whole is fastened in place and remains thus all night. The patient usually feels no discomfort, sleeps well, and sweats but slightly, if at all. In the morning the compress is removed and the chest and shoulders are rubbed thoroughly dry. If the consumptive is relatively strong and experience has demonstrated to the attending physician that an occasional sweat-bath does not exhaust the patient too much, and, on the contrary, lowers his temperature and improves his general condition, this method of combating a hyperidrosis is perfectly justified. Through the sweat-bath the excretory action of the skin is considerably increased and a larger quantity of toxin thus more rapidly eliminated."

Amyl Valerianate in Cholelithiasis.—Pouchet (*Journal des Practiciens*, No. 45, 1899) recommends, on account of its solvent action on cholesterin, the use of amyl valerianate for gallstones. According to the author 4½ grams of this agent will dissolve 1 grain of cholesterin. The drug may be given in capsules or in emulsion, in doses of 3 to 12 grains a day. The following formula for an emulsion is suggested:

R.—Amyl valerianate	10 grains.
Oil of sweet almonds	2 drams.
Pulverized gum arabic	80 grains.
Sirup of quince	1 ounce.
Distilled water	2 ounces.

Stypticin in Uterine Hemorrhage.—According to the *American Journal of Medical Sciences*, December, 1899, Mederhoff (*La Gynécologie*) reports 26 cases in which stypticin was used in the treatment of uterine hemorrhage from various causes. He began with less than a grain, increasing the dose to 6 grains. If administered hypodermically, from 1½ to 2 grains were used daily. No bad effects were noted in any instance. The writer concludes that stypticin has a distinct hemostatic action, especially in metrorrhagia, which is not due to the inciting of uterine contraction. It seems to act rather upon the central nervous system (vasomotor). Stypticin is a pure hemostatic, and has no effect on the morbid condition which causes the hemorrhage. Lavialle and Ruyssen, according to the same authority, think that stypticin is closely allied to hydrastinin in its physiologic action upon the central nervous system. Its hemostatic effect is doubtless due to lowering of the arterial pressure, so that the formation of thrombi is favored. Excessive doses in animals cause complete muscular relaxation and slowing of the respiration, followed by overstimulation and death from tetanus.

Intravenous Injection of Antidiphtheric Serum in Grave Cases.—The *American Journal of the Medical Sciences* quotes from the *Annales de Médecine et Chirurgie Infantiles*, for August 15, 1899, an article by Gagnoni, in which he reports 3 cases of grave diphtheria complicated by croup, with symptoms of imminent suffocation, in young children, which, with the advice of Sclavo, of Siena, he treated by intravenous injections of antidiphtheric serum. The results were most satisfactory, the temperature falling to normal, stenotic symptoms disappearing with the expulsion of false membrane.

Chlorosis. — Alksins (*Klinische-therapeutische Wochenschrift*) has obtained excellent results with the following combination containing hemogallol in chlorosis:

Arsenous acid	1 grain.
Extract of nux vomica	10 grains.
Hemogallol	160 grains.
Mucilage of acacia, Sugar	sufficient quantity.

Make into 60 pills, one after meals.

Red Meats and the Restriction of Liquids in Chronic Nephritis.—The *Boston Medical and Surgical Journal* for November 16, 1899, quotes an article by Von Noorden (Verhandl. d. Cong. f. innere Med., 1899, p. 386), commenting on the meat-diet which is laid down for nephritic patients. It has grown to be a custom to allow such patients only the white meat of fish, birds and veal, while the white meat of pork is already looked at askance; dark meat, no matter what its source, is struck out by many physicians. Many patients, who literally follow this diet, develop in time such a repugnance to white meat that they limit their meat-diet to the smallest quantity. Their albuminous food sinks little by little in amount until their nutrition is lowered and their strength diminished. Give them the variety of dark meat and appetite and strength return. This is the practical side of the question. On the other hand, is there any common sense in the exclusion of these dark meats? "I have not found in all the literature a single exact clinically experimental basis for this, but only hypothetic affirmations over the greater content of irritating products (especially nitrogenous extractives) for the kidneys in brown meat." As for these extractives, the physiologic textbooks put down creatinin as exceeding 0.3 and 0.4% in the white meat of poultry and rabbits, but it never reaches in beef 0.3%. The essential difference between white and brown meat rests in the amount of coloring-matter, whose chemical constitution is not yet accurately known.

Against these empty claims, copied from book to book, of the harmfulness of dark meats for the patient with Bright's disease (or, for that matter, gout), von Noorden records the following: A patient, with chronic parenchymatous nephritis, who took one-half pound poultry daily for five days, excreted the same amount of nitrogen and a trifle more albumin than he did in the next five days, in which instead of the poultry he took an equivalent amount of nitrogen in beef.

He has also found that in many cases a restriction of the amount of fluids to 42 or 50 ounces can be of extraordinary advantage. This treatment is peculiarly applicable to those cases with cardiac asthma and dilation of the heart. There is relief from the asthmatic attacks, the establishment of restful sleep, and, proportionately to the small amount of fluid ingested, a copious diuresis, and above all an undoubted diminution in the cardiac area. This proportionately favorable condition can last several months. Moreover, he has found that patients with interstitial nephritis suffer no diminution in the elimination of the important metabolic products by the restriction of liquids to 1¼ liters.

Original Articles.

THE SIMPLEST AND MOST USEFUL ANASTOMOSIS FORCEPS.[1]

A Practical Test.

BY ANDREW J. DOWNES, A.M., M.D.,
of Philadelphia.
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IN an article on "Intestinal Anastomosis Forceps" in the PHILADELPHIA MEDICAL JOURNAL of February 4, 1899, may be found the following description: "After suture the forceps is for removal unlocked and slightly opened. The thumb and index-finger of one hand hold the sutured bowel on the blade as the other hand rotates the handle." Before the appearance of this in print I had demonstrated to quite a number that the reverse of this was just as practical. Namely that the thumb and index-finger could push or roll the sutured bowel within the hollow of the blade while the handle was held fixed by the other hand, except slight depression just before complete withdrawal of the instrument. I repeat in this second article that removal of the forceps is the easiest part of the operation.

I have missed an opportunity of using these forceps during life. Operations on the intestine of the cadaver are not satisfactory unless death has been very recent. In a short time the intestine loses its life appearance and physical characteristics. It becomes sloppy, thin and macerated. It is preferable to demonstrate these forceps on chamois skin made into the shape of the intestine. On June 7, 1899, I had practically the same test as an operation during life. A moribund patient in St. Mary's Hospital was ordered to the operating-room. She died just before entering it. I obtained permission from her brother to make a limited abdominal examination. She was placed on the operating table and her abdomen rapidly opened. The intestine was hot and preserved nearly all its life function. A V-shaped section of the small bowel and mesentry was made. A fixation-suture was introduced uniting the bowel edges at the mesenteric junction, and two others one-third of the circumference of the bowel distant through all the coats. The forceps were now easily introduced, so that the inflanged edges of the bowel were between the blades with the handle emerging opposite the mesentery. The forceps were now locked and union of the bowel rapidly made by a running suture, beginning and ending at the point of emergence of the handle. Next, the forceps were unlocked, removed and the closure completed; the final tie and only knot being made between the proximal (start) and distal end of the silk suture-material. In removing the forceps the handle was held fixed while the thumb and index-finger of the other hand pushed the united bowel within the hollow of the loosened blades, thus easily extracting the instrument as a whole without having rotated the handle at all. During extraction the bowel was allowed to remain within the abdominal incision. Complete end-to-end union was accomplished in six minutes, and was done with all the precision and care that one could use on the living subject.

From this practical test, equivalent to an operation during life at least as to the removability of the forceps and from other tests on the dead intestine and the chamois, it is not too much to claim that this forceps is the ideal anastomosis medium. It is simple, practical, and assists in making a properly-sutured end-to-end anastomosis of the bowel. It will be a revelation to surgeons operating within the abdomen when a true conception of its adaptability to the use for which it is intended strikes them.

The proper position in most cases for the handle to

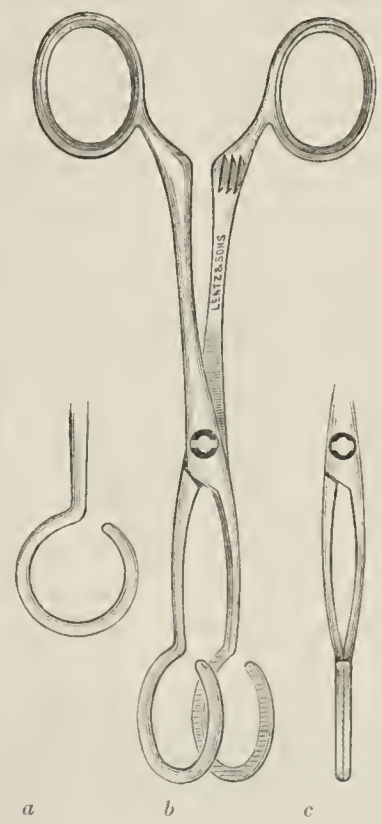


FIG. 1.

emerge is opposite the mesentery. There will, however, be cases in which the mesentery, from inflammation and exudation, is thickened, shortened, and more or less fixed so that there is wanting a sufficient degree of mobility of the bowel and mesentery to bring the bowel out of the abdominal incision, or to easily roll the united bowel within the hollow of the blades. In these cases, after the introduction of the forceps, the handle should be so adjusted as to get as much rotation as possible in the manner described in my first article. Therefore, between pushing the bowel into the hollow of the blades and rotating the handle, I maintain that it is impossible to conceive of a case in which these forceps can be introduced that they cannot be more easily removed. This is my answer to all objectors or critics of these forceps. That they can more easily and much more quickly be removed in any and all positions

[1] Read December 6, 1899, before Philadelphia County Medical Society.

within the intestine than they can be introduced, and nobody denies their easy introduction.

I have recently altered the length of the forceps, and have given them a better spring and locking catch. As now made it is a practical and very useful instrument for other purposes than that for which it was originated. It is an excellent sponge-holder, and as such I now constantly use it. It makes a good cyst-forceps and tongue-tractor, and will be found a serviceable hemostatic forceps especially for broad oozing surfaces deep in the pelvis. Adding its proper anastomotic function it will probably be found indispensable in every operating set of abdominal instruments. This admittedly simple instrument will be found immeasurably superior to compound anastomosis forceps, and it behooves surgeons looking after the interest of the patient alone to give this statement consideration. It is far preferable for the surgeon to continue in the trend of the day and become adept in immediate anastomosis than to depend on the assistance of complicated instruments. In the drawings, Fig. 1, (*b*) shows the forceps open, (*a*) is a view of the bowel-blade, and accurately depicts the proper circular shape and the smallness of the open segment; (*c*) shows the accurate opposition of the bowel blades when clossd. The locking catch at the handle, with the first catch in action, allows the blades to be one-fourth of an inch apart, but gives considerable pressure between the blades with the last catch caught. There are two practical sizes of these end-to-end forceps for the adult intestine. The smaller blade should have an outside diameter of one inch, the larger with the same diameter one and three-sixteenth inches. For children, a blade with a diameter of three-fourths of an inch will fulfil all indications. It is

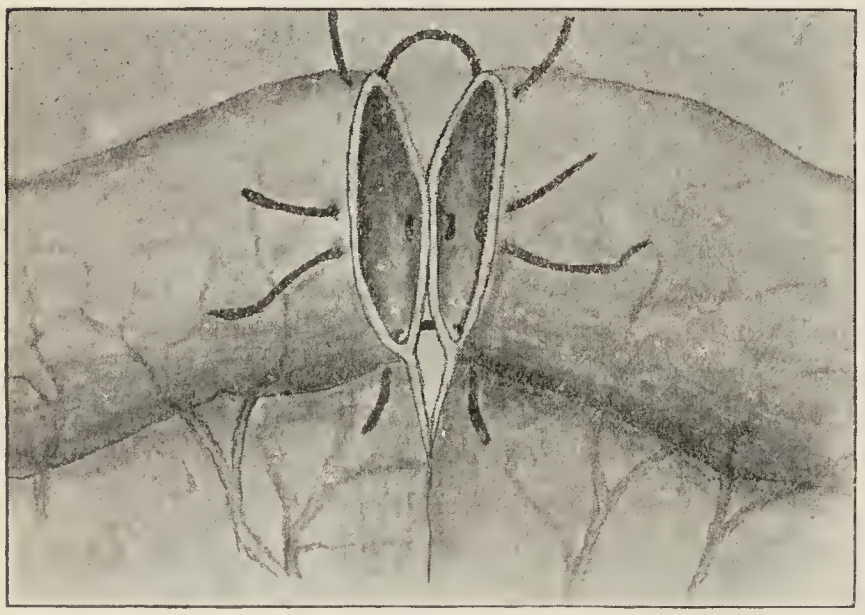


FIG. 2.

difficult to see why there should be more than three sizes. A small size may always be used to unite bowel of larger diameter, while a large size may be made to unite a bowel of less diameter than its own. It must be remembered that the bowel is distensible, and that after the introduction of the preliminary fixation-sutures, even the colon-size forceps can be introduced and used within the small bowel.

Fig. 2 shows one method of applying the fixation-sutures. The double stitch through all the coats is taken to obtain a fair degreee of inflange before the introduction of the forceps. The double stitch is not at

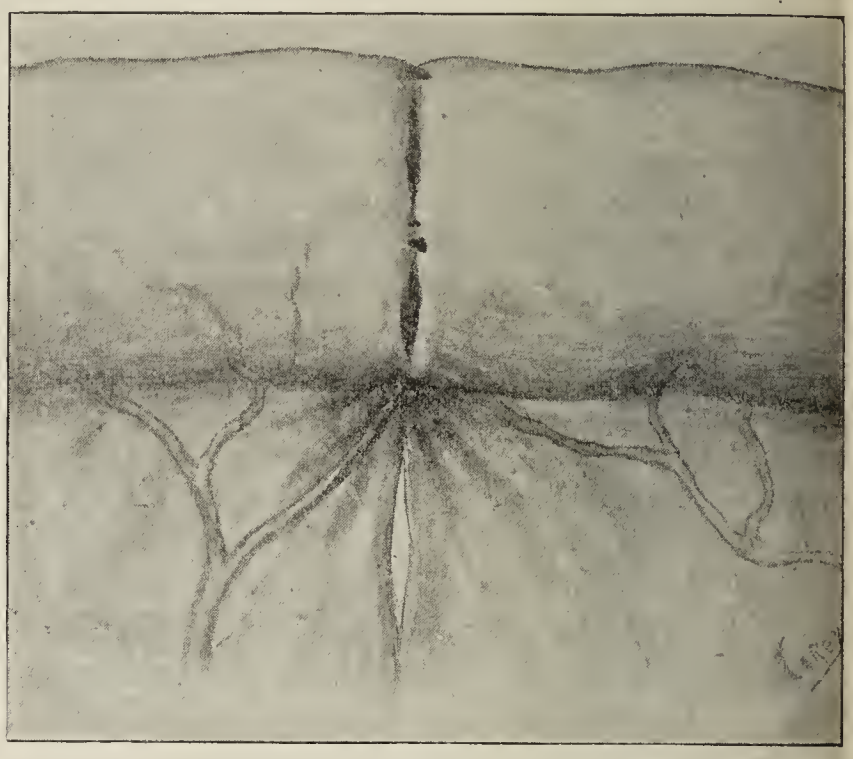


FIG. 3.

all necessary. The individual judgment of each surgeon will guide him in this step of the operation. The first stitch at the mesentery as here taken will be found to have considerable advantage in that if it is properly applied we control the bloodvessels in the triangle at the mesenteric margin. The second stitch should be taken directly opposite the mesentery. The third and fourth stitches midway on each side of the bowel between these first two. In the practice-test above described I used only three fixation-stitches. It is possible to acquire sufficient dexterity to dispense with all but the mesenteric stitch and easily inflange the bowel ends between the open blades, thus shortening the time materially. Once inflanged the pressure in the blades will hold the bowel edges apposed.

In Fig. 3 the preliminary sutures are tied and the bowel is ready for the introduction of the forceps.

Fig. 4 shows the forceps introduced and locked in the generally useful position, the handle emerging opposite the mesentery. This cut also shows the bowel united by a simple continued suture. The knotted continuous suture will be found to have advantages in that by it each stitch will be placed at right angles to a cross-section of the bowel, with the further advantage of offering a little " slack " in a distending bowel.

No difficulty should be encountered in the union of bowel of unequal caliber. There are two methods of preliminary fixation. In the first method, four equally distant points are approximated, leaving redundancy of the large bowel opposite the mesentery to be united before introducing the forceps, the balance of the opera-

tion being now as in bowel of equal caliber. A second and preferable way (Fig. 5) is to divide the redundancy of the larger bowel between the four fixation-sutures as follows: First stitch at mesentery; second uniting the point of each bowel most distant from the mesentery;

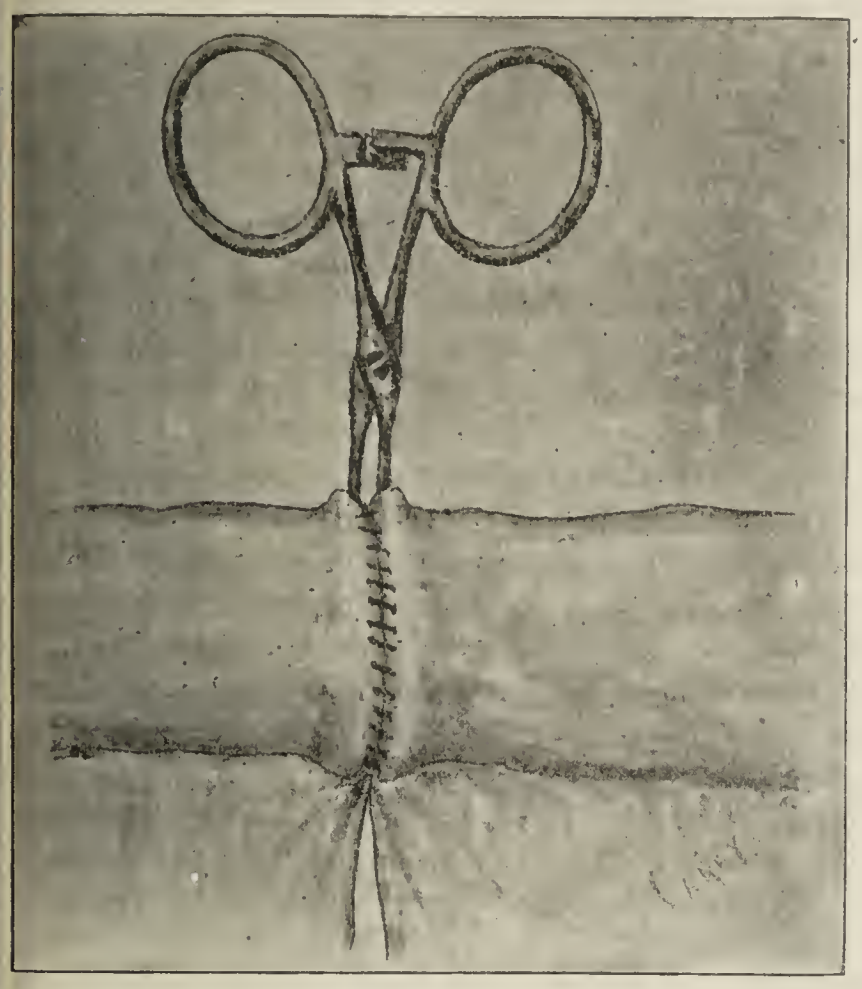


FIG. 4.

third and fourth stitches uniting the corresponding middle points of the bowel between the first two stitches and then proceeding as in bowel of equal caliber, using forceps applicable to the smaller bowel.

Fig. 6 shows three views of the bowel and mesentery

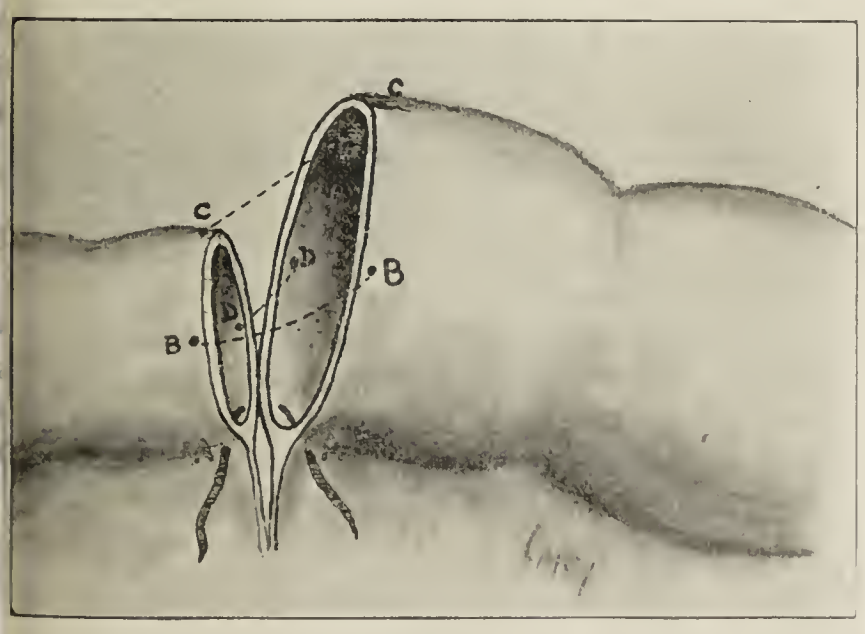


FIG. 5.

in cross-section with the forceps in place and indicates clearly the method of removing the forceps by rolling the bowel within the hollow of the blades, and the depression of the instrument as the final step. For a view showing removal by rotation of the instrument, the reader is referred to the article of February 4, 1899, in this journal

A brief allusion to the development of anastomosis mediums leading up to these forceps is timely. The earlier mediums, beginning with Senn's and including Abbe's, Brokaw's, and others, were a set of rings for introduction one in each segment of the bowel, to hold in apposition when brought together the inflanged ends of the bowel, that accurately sutured union could be obtained. Even Murphy's button, the greatest advance up to this time, possessing the distinctly original and ingenious feature of permanent spring pressure, and each modification of this button, consists essentially of two rings to hold the inflanged edges in opposition. These were all nonremovable mediums so called.

I was among the first to advocate and use immediately removable mediums. As elsewhere stated, in 1896 I made an end-to-end anastomosis on a dog, using a medium consisting of two spherical ends with a constricted neck between, around which the inflanged

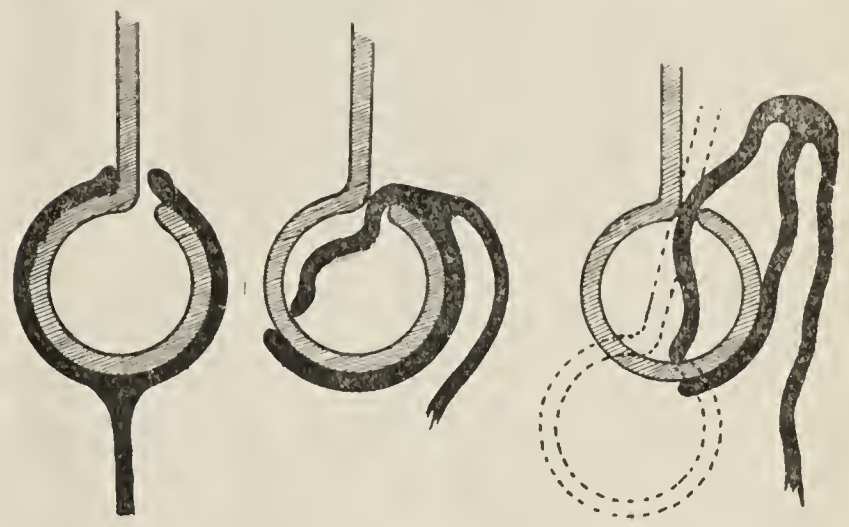


FIG. 6.

edges of the bowel were united, this medium being removed just before completion of suture, practically as we are now using the forceps. Few can claim any particular originality in surgery. We all lean on every step of advance that precedes our own work. To Dr. Laplace belongs the credit of having now come forward with metal rings attached to a handle for removal just before complete suture. He made use of a complete but segmented ring of an ovoid shape as part of a compound instrument removable in parts. Dr. Genella and I, independent of each other, made a simple forceps with circular blades with a small open segment for removal. Dr. Genella's evolution stopped here. His method was impractical. He introduced and removed separately the halves of his forceps. I am at least entitled to the credit of having devised and demonstrated the use of a simple forceps containing perfectly circular fenestrated rings with a small segment left open for *introduction and removal as a whole.*

Finally, a word as to the reasons for insisting upon my advocacy of these forceps. As medical men, we should aim at the greater good. We owe our developed

ideas to the profession. Intestinal anastomosis is a very live question. Malignant and tuberculous lesions of the bowel should be more early diagnosed. Gangrenous hernias should not be treated by making an artificial anus as has been done. The bowel should always be resected as in malignancy and tuberculosis. Many other conditions necessitating the same procedure, resection, are met with when least expected. The possession of an instrument as simple and as extremely practical as this forceps as a generally useful part of one's "kit" and as constantly at hand as our knives, scissors and hemostatie forceps, will, in the hands of a good surgeon, give much better results than when non-removable mediums, rubber bags or compound forceps are used, in that it can be used quite as quickly as the first and more so than the others. In the future it would seem that the choice should be between mediate anastomosis by an instrument not less simple or generally useful than these forceps and immediate suture.

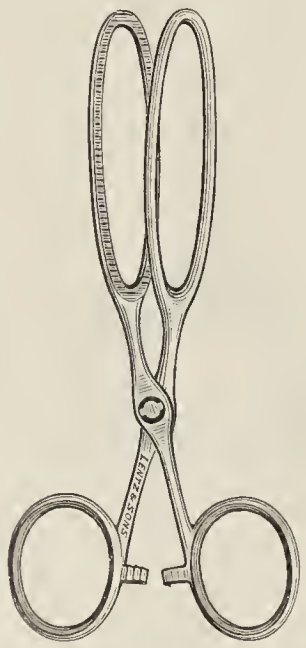


FIG. 7.

I am among those who believe that immediate anastomosis can be done very quickly. I recently resected a tuberculous cecum and performed immediate end-to-end union in six minutes. My forceps happened to be in the hands of the artist preparatory to this article. I regret not having had them, for notwithstanding the recovery of the patient I feel certain that I could have united the bowel more cleanly, and could have applied the sutures more accurately and have avoided a fistula had I used these simple forceps.

For lateral anastomosis, bowel to bowel, in these days seldom called for, or anastomosis of stomach to intestine, the large-sized circular blade may be used and will enable one to nicely approximate into a circular opening inch-and-a-half incisions. The technic is as follows: An inch-and-a-half incision is made into each surface. Two fixation-sutures are made, merely uniting the middle points of each cut to similar points of the opposing cut-surface to be approximated. The forceps are introduced, with the slits in the surfaces to be united, between the blades. With a little manipulation and lateral traction, the blades, being lightly pressed together, we convert the slit into a diamond shape and practically into a circle. The blades are now firmly pressed together and sutures rapidly made around the approximated surfaces, beginning and ending at the handle, which should emerge from one end of the opposed slits. The forceps is easily removed by rotation of not more than one-third of a circle, and a stitch or two completes the union. The lateral anastomotic opening thus obtained will immediately and easily allow the passage of the largest end-to-end Murphy button. Should a larger opening be desired, when suture is accomplished up to the handle, it may be continued, uniting for some distance the opposing surfaces. The forceps are now removed, the incisions increased the length of the extra suturing and the remaining one side of the unsutured opening closed.

The multiplication of unnecessary instruments should be decried. The more exact one's conception of the work to be done the simpler and less numerous the instruments, especially in abdominal surgery. In a previous article I advocated the lateral anastomosis forceps shown in Fig. 7. One size only is required, and will enable the making of an anastomotic opening $2\frac{1}{2}$ inches long. They are removed by direct traction from a very small unsutured part of the opening which is then closed by a few stitches. While an extremely simple and useful instrument for lateral anastomosis, I maintain that it is easily possible to dispense with it and rely on the forceps with the incomplete circular blades to accomplish the same result just as effectively and just as quickly.

NOTE.—I performed circular suture of the colon, just beyond the cecum, using this forceps, Dec. 12, at St. Mary's Hospital. Results in a future communication.

THE LAW OF THE ACTION OF MEDICINES.

BY ELMER F. GOULD, M.D.,
of Carthage, Mo.

"All true science begins with empiricism—though all true science is such exactly in so far as it strives to pass out of the empirical stage into that of the deduction of empirical from more general truths."
—THOMAS H. HUXLEY.

[Concluded from page 1138.]

THE vascular system must have begun, in the "older Scolecida, with a very simple coelom, a body cavity, filled with blood, and which surrounded the intestinal tube. The inner visceral wall of the coelom is, naturally, formed by the intestinal fibrous layer, the other parietal part by the skin-fibrous layer." (Fig. 2.) If the skin system is the most original and least specialized in function, and the intestinal system next in order, it follows from the manner of its development, according to the Gastraea theory, that the vascular system is the most recent and highest in degree of specialization. It should, therefore, be least susceptible to the action of drugs. Dropping now the consideration of function-exciting drugs, it may be asked in what order the function-depressing drugs affect the various organ

systems. Here all observation and experience combine to make the answer plain and positive. The drugs usually classed as narcotics, exhibited in minimum doses gradually increased, affect (1) the skin-sensory system (cerebrum), (2) the intestinal system, (3) the neuromuscular system, (4) the vascular system. Of this class, opium naturally demands first consideration because of its wide and general use in medicine,—its properties have been more or less known for over eighteen centuries,—and the frequency of poisoning by the drug, taken purposely with suicidal intent, or accidentally.

Passing by its initial effect, which seems to indicate that it differs from stimulant drugs in degree, not in kind, opium exerts its first action on the skin-sensory system. This action is almost immediately extended to the intestinal system, indicating that the sensorium is scarcely as far removed in specialization from the exoderm proper as is the intestinal system.[1] It is clear, however, that opium acts secondly on the intestinal system, constipating the bowels and paralyzing peristalsis. It affects, thirdly, the muscular system. According to the National Dispensatory, "the muscles lose their coordinating action, and the gait is sluggish and staggering." It should be noticed that there is quite a wide margin of difference in the size of the dose required to affect the intestinal system and that required to affect the muscular system. If one-fourth grain of morphia be sufficient to exert a characteristic effect on the former system, probably more than one grain would be required to affect, in an equal degree, the latter system. Similarly, very considerable increase of the dose is necessary to extend narcosis from the muscular to the vascular system, and, as has long been known, the vasomotor system is last, by a very considerable margin, in succumbing to opium-poisoning, showing that this system is least susceptible to the action of drugs, as it is farthest removed, in development, from the exoderm.

Chloroform, administered as an anesthetic by inhalation, produces the same narcotizing effects in the same order. As is the case with opium, its action extends rapidly from the skin-sensory system to the intestinal system, with which fact surgeons are unpleasantly familiar. As the dose is increased, its advancing effect is announced by paralysis of the voluntary muscles, and finally of respiration and the heart. For the person undergoing surgical anesthesia, the entire distance between life and death is represented by the margin of difference in susceptibility to the action of drugs existing between the muscular system and the vascular system, following from the different degrees of specialization represented by these two systems. Thus, the connection between pharmacology and biology appears to be much deeper and more fundamental than has hitherto been conceived. It would seem even that pharmacology is directly bound up with morphology, and that, whatever may be the best way of expressing the relation, progressive development is the basis of the law governing the particular action of medicines.

By way of summary and conclusion it may be said, that since the body "in its perfect condition" consists essentially of one and the same kind of elements "variously modified," it would appear that a drug capable of affecting the functions of these cellular elements, in any one stage of development or specialization, will likewise affect them in any and all stages of modification or specialization if it be possible to sufficiently

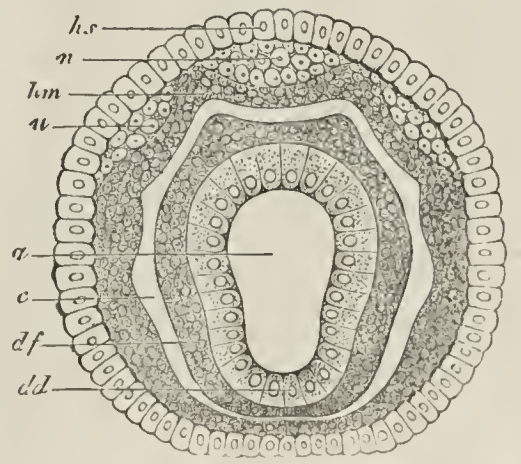


FIG. 3.—Transverse section through an embryonic earthworm: *hs*, Skin-sensory layer; *hm*, Skin-fibrous layer; *hf*, Intestinal-fibrous layer; *df*, Intestinal-glandular layer; *a*, Intestinal-cavity; *c*, Body-cavity, coeloma; *n*, Nerve-ganglia; *u*, Primitive kidney. (From Hæckel's Evolution of Man.)

"modify" the drug itself as to dose and manner of administration. Functions in general can be affected in only two ways, namely, they can be increased or diminished. By reference to the practical use of medicines, it has been substantially shown that certain drugs are capable of acting, and do act, in proper dose and manner of administration as function-exciters (stimulants) or as function depressors (narcotics) upon all of the great organ systems, the particular system affected depending on the size of the dose.

It is of course well understood that magnitude in dosage is not a mere matter of quantity, but consists, as is the case with forms of energy such as heat and electricity, of two elements, quantity and intensity. If the question is asked, What quality in medicines is more or less intense? or even, Why do drugs have a physiologic action at all? both questions may be answered with one word, namely, toxicity. Toxic, or poisonous, means no more than "capacity to operate a change of state in the animal economy" to such an extent as to produce disease or death. This quality of the various drugs used in medicine differs, doubtless, in degree and not in kind. The simplest herbs must be toxic (heterogeneous) in some degree, else they could not affect even the most susceptible organism; and this quality of drugs, in varying degree, rather than partic-

[1] There may be complete anesthesia of the skin without loss of consciousness, which, of course, is a function corresponding to greater specialization, and consequently less susceptible to the action of drugs. "The higher the state of intellectual development, the longer auditory sensations and consciousness persist" This quotation is from an article by Dr. S. O. Goldman, in the New York *Medical News*, of April 15, 1899, and its correctness was evidenced by a case reported in which complete anesthesia was continued 40 minutes, during which time the patient felt no pain, although consciousness was almost unimpaired. Commenting hereon the editor of the *News* said: "These cases of persistent consciousness in the higher or mental sphere during complete anesthesia are not so rare as might be thought from the infrequency with which they are reported. Most anesthetists of wide experience have had such cases. The phenomena are neglected because considered of no scientific value."

ular composition, operates their effect, whether stimulant or narcotic. This is proved to be true by the fact that drugs of varying nature, animal, vegetable, mineral, have the same physiologic action, as, for example, the diuretics, cantharides, colchicum, and the salines. As specific gravity names the quantity of matter in a given space, so "specific toxicity" may be employed to indicate the relation of intensity to quantity in drugs by virtue of which they produce effects, physiologic as well as pathologic.

Toxicity within certain definite limits stimulates function; but, as is well known, overstimulation decreases or suppresses the same. This fact explains the relation of stimulants to narcotics, and also shows how it is possible for one and the same drug to act as a function-exciter, or function-depressor, according to the size of the dose. Thus opium and ether in initial or minimum dosage, act pronouncedly as stimulants, though generally known as narcotics only. It appears, therefore, that by appropriate association of toxic intensity with quantity in dose, the proper magnitude fitted to increase or diminish any function of the animal economy, by adaptation to its particular degree of susceptibility as determined by developmental relation to the exoderm, can be, and actually is, produced.

But the administration of medicines works an alteration in the substance of cells which soon reaches its limits, whereby they are incapacited, for the time being, from further response. "Now to this there is an exact counterpart in our conscious experience; every sensation or emotion is most lively when first excited, becomes fainter after a time, and at last is so completely worn out that the continuation of the stimulus has no effect;"[2] the watchmaker is not conscious of the uninterrupted ticking of his clocks. Everybody knows that medicines continuously administered lose their effect, but we have learned to turn even this property of cells to good account in the treatment of disease, inasmuch as we have jumped from the gradually produced natural immunity which the system acquires with reference to the toxic substances of the pharmacopeia and of disease, to artificial immunity by serum-therapy and the antitoxin-treatment.

Finally, when reviewing the preceding facts and inferences with a view to arriving at an answer to the question, What results may reasonably be expected from the administration of drugs? it is found that these show forth the rationale of what is being demonstrated everywhere by clinical experience, namely, "Medicine is but the servant of nature. It may stimulate her to more energetic effort; it may restrain too violent action; it may guide aberrant action; but its power is in all cases limited to the modification or support of the natural processes, and it is the natural processes themselves that effect restoration to health?[3]

[2] Alex. Bain: Mind and Body.

[3] Dr. Wm. E. Quinn, in *Chicago Clinic* for April, 1899.

A CASE OF POSTAPOPLECTIC HEMIHYPERTONIA.[1]

Hemitonia Apoplectica (von Bechterew).

BY WILLIAM G. SPILLER, M.D.,

of Philadelphia.

Professor of Diseases of the Nervous System in the Philadelphia Polyclinic
Associate in the William Pepper Clinical Laboratory, University of Pennsylvania.

IN a paper recently published, v. Bechterew[2] alludes to the various forms of involuntary movement following hemiplegia; such as hemichorea, athetosis, tremor; in all these the hemiplegia is usually the essential feature of the case. There are cases of apoplectic insult, however, in which paralysis does not occur, or is of very short duration, and later only paresis is found; while convulsive tonic movements are intense, and may appear immediately after the apoplectic insult or some little time later. V. Bechterew separates these tonic spasms from other more common forms of post-hemiplegic convulsive movements, and he gives the name of hemitonia apoplectica to the unilateral increased tonicity developing immediately, or a short time, after an apoplectic insult and associated only with weakness of the spastic limbs. He reports 3 cases of this affection. In all three cases the disease began abruptly and before the tenth year. In the first case unconsciousness lasted a few minutes; in the second it lasted about 24 hours; and in the third 5 days. Prodromal symptoms were absent in all 3 cases. It was only in the third case that the spasmodic contractions followed the insult immediately; in the other 2 cases paresis of one-half of the body developed after the insult, and after some time (after a month in the first case, after 2 months in the second) when the paresis was much diminished and almost unobservable, tonic contractions of the affected limbs began, and gradually involved nearly the whole half of the body. Paresis was not entirely absent in the third case, but was not very great. In the first 2 cases an infectious disease preceded the "insult." Tonic contractions of the limbs of one side, and of the corresponding side of the face, were marked in all 3 cases. The spasms became weaker when the attention was not fixed upon the movements, and were increased by excitement. The positions of the affected parts varied from time to time according as the spasm predominated in certain muscles. These tonic spasms differed from muscular contracture in that the contracted parts could be brought into other positions by the contraction of antagonizing muscles. Many muscles, often antagonists, were in a state of hypertonicity, so that the spasm varied in intensity from time to time in different parts. Apparently the spasm did not entirely disappear during sleep. The spasmodic limbs did not assume the

[1] Read before the Section on General Medicine of the College of Physicians of Philadelphia, November 13, 1899.

[2] Bechterew, *Deutsche Zeitschrift für Nervenheilkunde*, Vol. 15, Nos. 5 and 6, p. 437.

usual positions seen in hemiplegia. Some of the affected muscles were hypertrophied. V. Bechterew believed that the predominance of the spasms over the hemiparesis after a cerebral "insult" indicated that the affection was one in which the pyramidal tract was irritated but only slightly injured, that the lesion was probably a hemorrhage near the internal capsule, and that it could not be in the cortex, as irritation of the cortical motor area causes clonic spasms.

No cases in literature are alluded to by v. Bechterew, and the following case, therefore, which corresponds fully with his description, is of some importance.

A. R., 19 years old, was sent to the clinic for nervous diseases of the Philadelphia Polyclinic by Dr. Charles Henry.

Family history: Her father died of "kidney, heart and liver disease." Her mother is living and well. Four brothers and three sisters are living and in good health. Two children in the family died of croup.

According to the history given by an older sister of the patient, A. had a normal birth, was not asphyxiated at birth, and was apparently perfectly healthy until she was three months old. At that age her mother noticed one morning that A. was not in perfect health. She may have had strabismus from the description given by the mother. The night following this day A. had repeated convulsions, and the following morning was unconscious and appeared to the mother to be dead. She recovered from this attack, and no bad results were observed following it until she began to walk at 10 months of age, when the power of the right side of her body was seen to be defective and the movements were spastic. The spasticity of the right extremities gradually increased until it attained the degree now present. Distinct paralysis could hardly have existed immediately following the convulsive attack at the third month, or it would probably have been noticed by the mother; paresis, however, may have been present, and it is questionable whether paralysis ever existed

Present condition: She is a well developed woman with no distinct atrophy of any of the muscles. Her gait is a little spastic on account of the spastic condition of the right lower limb, but she does not swing this limb from the hip, as is so commonly seen in hemiplegia, nor does she drag it. Her station is good. The right kneejerk is restrained on account of the spasticity of the lower limb; the left is normal. The toes of the right foot are usually flexed, but the condition is not one of contracture; it is one of tonic spasm and every few moments the degree of tonicity varies. No athetoid movements are seen in the toes. The right foot appears to be about the same size as the left.

When the right hand is at rest in her lap the hand is often slightly flexed at the wrist, and the fingers slightly flexed at all the articulations. The hand may remain in this position a long time, while the limb is at rest, without any evidence of athetoid movement. If A. attempts to elevate the right upper limb from the shoulder she accomplishes the movement without difficulty, but the right wrist becomes strongly flexed, the hand may be drawn around so that the back of the hand is turned away from the body of the patient, or at other times the palm may be turned toward her body. The condition is one of tonic spasm, and the spasms vary greatly in degree from time to time, and are increased by excitement. When she was told to make some movement with her left hand, such as removing her shoe, the position of the right hand and fingers changed from one of flexion to one of extension; the fingers were fully extended, but still in tonic spasm. At no time did this condition of great hypertonicity disappear from the right hand; it varied merely in degree, and the position of the hand changed according as the spasm predominated in one group of muscles or another, but the flexors were always most involved. It was impossible at any time to detect any athetoid movement. A. is able to carry objects suspended from her right hand, and can perform such work as wringing clothes, the powerful grasp of the right hand enabling her to hold the clothes firmly. She cannot venture to hold anything breakable with the right hand, as the spasm may relax and the object fall to the floor. When quiet and unobserved the spasm in the right hand is much lessened in intensity, and she may be able to use the hand to a surprising extent, according to the statement of her sister. At times the hand is forcibly flexed at the wrist, the fingers are flexed, and the thumb is firmly held between the middle and ring fingers; the hand may then be rotated towards the right or the left; at other times the hand is rotated at the wrist and the fingers are partially extended; at other times the hand is extended at the wrist, the thumb flexed into the palm and the fingers firmly flexed on the thumb. At no time has the spasm of the extensors predominated over that of the flexors. The right hand and wrist are considerably smaller than the left, the right forearm from the oleeranon to the styloid process of the ulna measures 24 cm., the left 25 cm.; this diminution in



Photographs showing some of the positions produced by the tonic spasms. These photographs were taken with an exposure of about ten seconds, which could not have been done had the spasms varied so rapidly as do athetoid movements. There is no regular sequence in these movements, and any of the contractions represented above may yield to any of the others. The hand may remain in any one of these positions an indefinite time—five or twenty minutes or longer.

size also indicates that the attack which occurred at the age of three months was probably one of apoplexy. It is necessary to emphasize the fact that *no permanent contracture exists, and that the movements do not resemble those of athetosis.*

The spasms exist in all parts of the limbs of the right side, but are most marked in the distal portions; and especially in the hand.

The face, more especially the right side, presents a markedly spastic appearance, and when the patient is much excited the face is drawn to the right.

Sensation in all parts of the body is normal.

Speech is normal, and the intelligence is commensurate with her station in life.

Such conditions of tonic spasm are found in cases of cerebral diplegia, and Freund especially has spoken of this disease occurring in the form of general spasticity. The affection known as Little's disease bears a resemblance in the spasmodic condition to v. Bechterew's hemitonia apoplectica, but Little's disease is a congenital affection and is bilateral. V. Bechterew refers to no cases in literature of hemitonia apoplectica, but I am convinced that the condition will be recognized occasionally.[3] The name chosen by v. Bechterew might be changed to *hemihypertonia postapoplectica;* hemitonia does not convey the idea either of increased tonicity or of diminished tonicity, inasmuch as tonicity is a normal property of muscles.

Athetosis may follow an apoplectic attack, it may be with only a little muscular weakness, and is not uncommon in cerebral diplegia. The form of movement in athetosis differs from the tonic spasms described by v. Bechterew, although it seems that either athetosis or hemihypertonia may follow a lesion near the inner capsule. In athetosis we do not have a tonic spasm holding the hand or foot in a contracted position for several minutes—five, ten or more minutes—then suddenly yielding to a spasm involving other muscles. In my case of hemihypertonia there is no overextension of the fingers, none of the slow almost regular movement seen in athetosis.

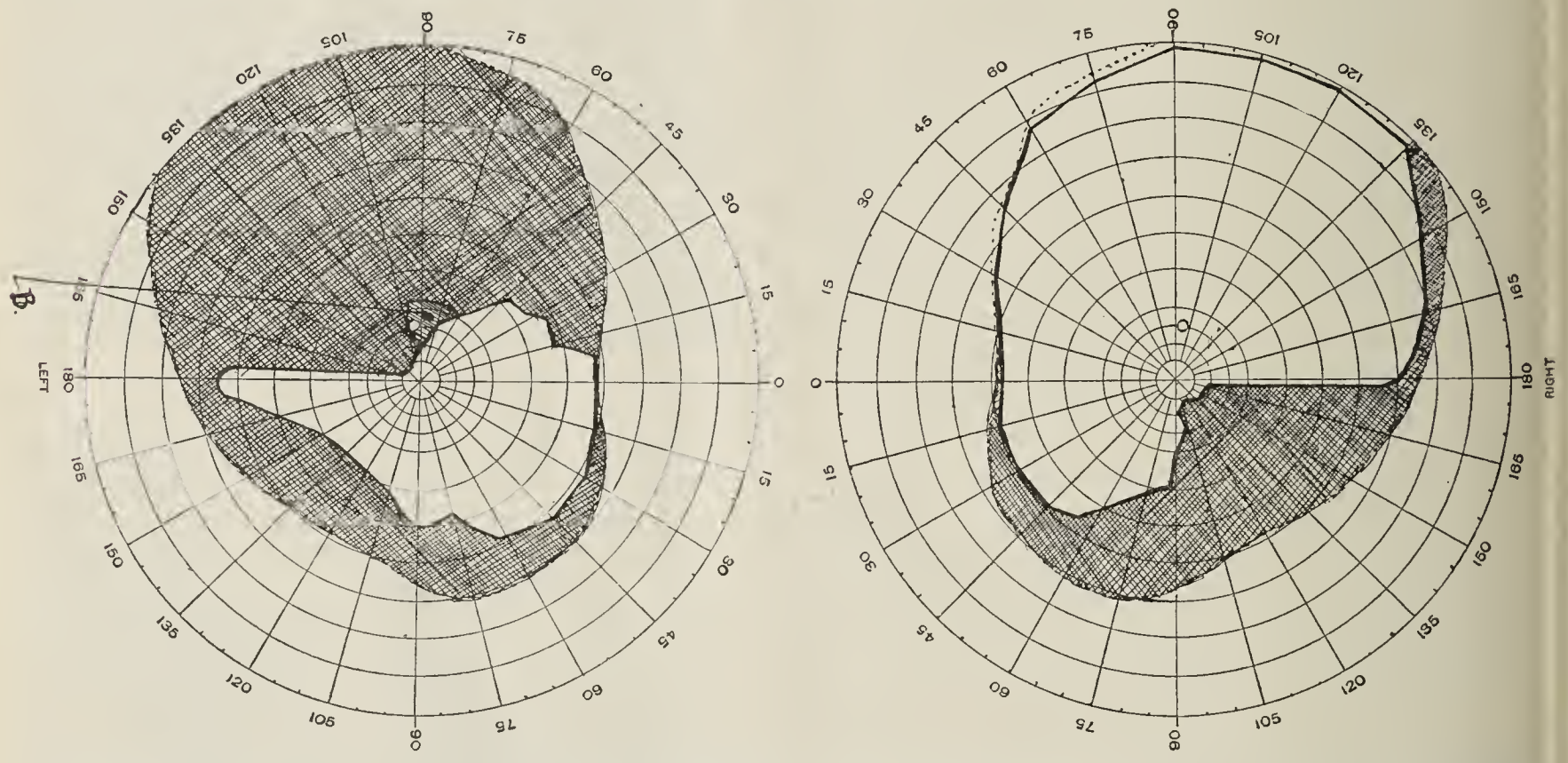
The condition which v. Bechterew describes should be clearly separated from other forms of posthemiplegic movement. *It is one of tonic spasm of one side of the body, associated with a little weakness, without contracture, coming on after an apoplectic insult, and probably due to irritation of the motor fibers at some point below the motor cortex;* to this condition v. Bechterew gives the name of hemitonia apoplectica, which I would suggest had better be changed to *hemihypertonia postapoplectica.*

Another case which has recently come under my care is reported in connection with this, because it shows hypertonia produced by irritation of the central motor tract in a different way.

R. A. B., 25 years old, a machinist, came to the clinic for nervous diseases at the Polyclinic Hospital on September 25, 1899.

His father died of phthisis at 65 years of age. His mother died of Bright's disease at 50. Six brothers and one sister are living and well. No nervous or mental diseases were known in the family.

Previous history: He has had none of the diseases of childhood. He has not used alcohol or tobacco. He had gonorrhea, but denies syphilis.



Form-fields by Dr. Wendell Reber, October 2, 1899. The white areas represent the portions of the visual fields remaining. B = area in which the test-object is poorly recognized. Test-object 10 min. Distance 10 in.

In 1890 or 1891, while diving, he was hit on the head over the right parietal region by a brick and his scalp was broken. The wound was not sewed up. He was unconscious for an hour and a half to two hours and a half after the injury. He was perfectly well the following day, but after about a year convulsions began. He then became excited at his work, the left leg and arm began to jerk, the convulsions became general, and he lost consciousness. Convulsions were as frequent as two or three daily, but under bromids decreased in number. In 1894 or 1895 he was trephined over the seat of the old injury. Convulsions decreased for about four or five months after this operation, but became numerous again. A second operation was performed in 1896 or 1897. The skull was opened again, more bone was removed and a blood-clot was found under the opening in the skull. Improvement occurred during five or six months following the operation, but the convulsions became severe again and a third operation was done in 1898. Again more bone was removed. Immediately following this third operation the left eye was almost completely blind, the left eyeball turned upward and outward, and the left arm and left leg were completely paralyzed. This paralysis lasted a number of weeks. He regained power in the leg first and afterwards in the arm,

[3] In the discussion following the reading of this paper Dr. F. A. Packard reported a case of postapoplectic hemihypertonia.

but complete power has not been regained even yet, although little weakness is now detectable. Convulsions began again about eight months after the third operation, and he has had at least twenty since this last operation. In one attack recently he voided urine. This he had never done previously.

Three years ago the index and middle finger and the terminal phalanx of the third finger of the left hand were torn off by machinery.

About 8 months ago the left fingers and hand began to flex involuntarily when voluntary movement of the hand was attempted. When the left upper limb was extended the muscles of the limb became very rigid.

The condition on September 25, 1899, was as follows: The station and gait were not strikingly abnormal. The left knee-jerk was active, the right normal. The left biceps-jerk and triceps-jerk were exaggerated. The pupils were equal and reacted to light and in convergence. Hypesthesia to touch and pain was found over the left side of the chest and over the left upper limb. The muscular power in the left upper arm and forearm was good, but when he attempted to use his left upper limb in elevation, or in flexion or rotation of the forearm, the arm became stiff. When he tried to move his left arm associated movements were seen in his right hand, and later associated movements were seen in the left hand after movement of the right hand. Massage and electricity have in part reduced the hypertonicity of the left upper limb.

He was sent to Dr. H. F. Hansell's clinic and Dr. Wendell Reber made a careful study of his visual fields. He reports: "Mr. B. presents *incomplete* bilateral left homonymous hemianopsia. The right field suggests tetranopsia strongly, and the left field is more nearly hemianopsic than tetranopsic. The right field seems to me to raise the question as to whether that field is going from tetranopsia to hemianopsia, or whether, as the patient's condition has improved, hemianopsia is giving way to tetranopsia, which in its turn will fade out entirely. This latter consummation seems to me highly improbable." Dr. Reber's diagrams of the visual fields are reproduced.

The defect is greater in the left eye, and this may possibly indicate that in the decussation at the optic chiasm more fibers pass to the eye of the opposite side than to the eye of the same side in this patient. This condition of the fields has been seen in other cases of hemianopsia and is interesting in view of Kölliker's assertion that in man the decussation at the chiasm is complete. Dr. Hansell informs me that the hemianopsic pupillary reaction is absent. After the third operation the man says he became almost blind in the left eye. I can explain this only on the supposition of injury by contrecoup during the operation on the right parietal lobe, and the smaller visual field in the left eye may possibly be due in part to this injury; but to explain the bilateral left homonymous hemianopsia, and the absence of hemianopsic pupillary reaction, one must resort to the theory that the removal of tissue from the right parietal lobe, and the sclerosis of the brain which followed the operations, have caused a lesion extending within the parietal lobe so far as the optic radiations, where they pass along the posterior horn of the lateral ventricle.

The hypertonicity of the left upper extremity is probably due to irritation of the right motor tract within the brain and below the cortex, as in my first case, and is possibly accentuated by a hysterical condition. The epileptic convulsions are probably the expression of cortical irritation, the cortical lesion evidently being very near the motor area.

It is not improbable that a subdural hemorrhage occurred at the time the head was hit with a brick, but the operations were too late to afford relief.

The existence of bilateral homonymous hemianopsia and of Jacksonian epilepsy in the same person resulting from one lesion, is of rather rare occurrence, inasmuch as hemianopsia is due to a lesion deep within or at the base of the brain, while the Jacksonian epilepsy results from cortical irritation. Hemianopsia may also result from a lesion in or near the calcarine fissure, but such a lesion would not be likely to cause Jacksonian epilepsy.

REPORT OF A CASE OF TYPHOID FEVER COMPLICATED BY SUPPURATING THYROID GLAND AND ORCHITIS.

By F. ALAN G. MURRAY, M.D.,
of Baltimore, Md.

CASES of typhoid fever, complicated by a thyroid abscess and an orchitis, seem to be unusual, as Keen, in his monograph, "Surgical Complications and Sequels of Typhoid Fever," gives only 10 cases of thyroid abscess and 32 cases of orchitis separately, and not one instance of the two combined. Of Keen's 10 cases of thyroid abscess, 7 began during convalescence; only 3 gave a pure culture of the typhoid bacillus; 1 gave the typhoid bacillus and the staphylococcus albus; the character of the bacterial infection in the other 6 cases was not given. In 4, the suppuration took place in preexisting goiters. Of 32 cases of orchitis and epididymitis noted by Keen, 21 occurred during convalescence, and only 6 were suppurative.

In Vol. XVI, "Twentieth Century Practice of Medicine," there are noted a number of cases of thyroiditis as complicating typhoid fever, but only a few of these went on to actual suppuration, and when they did, the typhoid bacillus was found in a still smaller percentage of the number. In looking over a number of books on the practice of medicine, very few mention the occurrence of thyroid abscess in typhoid fever, though all noted the occasional presence of an orchitis.

In the PHILADELPHIA MEDICAL JOURNAL of May 21, 1898, Dr. A. A. Eshner, of Philadelphia, writes on "Orchitis as a Complication of Typhoid Fever," and gives a tabulated list and brief history of 44 cases. Of these cases 10 suppurated, and the typhoid bacillus was cultivated from 5. Of the 44 cases of orchitis, 30 developed during convalescence from the typhoid.

The case reported below is one which came to St. Joseph's Hospital under Dr. C. B. Gamble's care, from Camp Meade, Pa., during the month of November, 1898.

Clinical History.—William B., age 22 years, bugler in 35th Michigan Regiment, came to the hospital November 2, 1898. He had been sick about one week, complaining of pain in back and limbs, nausea and vomiting, diarrhea, headaches and

tenderness in the abdomen. The temperature on entrance was 103°, pulse 115, respiration 24; the general condition one of typhoid.

Physical Examination.—A medium-sized man, lungs and heart clear, abdomen tympanitic, tenderness and gurgling in the right iliac fossa, a few rose-spots; area of splenic dulness increased, edge of spleen easily palpable. The right lobe of the thyroid gland was about the size of an ordinary egg, the left lobe not so large; patient said that he had had this enlargement for many years.

November 4. Blood-examination negative for malaria, but showed a marked leukocytosis. Widal's test was tried and was successful rapidly.

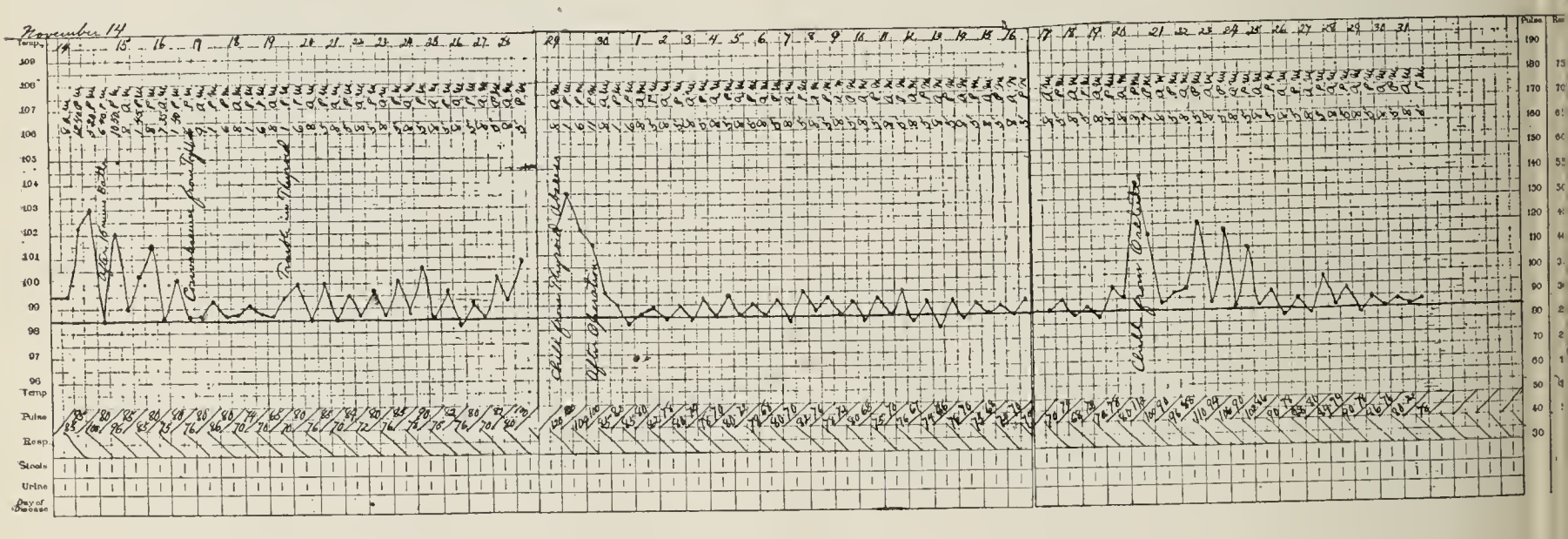
November 5. Patient had a nosebleed and complained of pain along course of the right femoral vein.

November 6. Had severe cramp in right leg, the muscles being drawn up in knots; the leg was wrapped up in cotton and sponge baths given instead of tubbing. The thyroid gland pained him on pressure and was somewhat enlarged; an ointment of ichthyol was applied to it.

November 7. The patient sweated a good deal during the night; the thyroid gland was more painful, the leg less so.

November 8. The thyroid gland was more swelled but not so painful.

November 9. Thyroid smaller and less painful. From this date until November 19 there was no more trouble with the thyroid, and the patient ran the ordinary typhoid course, and on November 17 his temperature became normal.



November 19. Patient complained of some difficulty in swallowing, and the thyroid was larger and more painful. The temperature here began to rise slightly and would go to 100° F. in the evening and back to normal in the morning, and continued doing so until November 28.

November 28. Patient felt sick all day, but did not have much fever.

November 29. Patient had a chill early in the morning and the temperature began to rise. At 1 P.M., temperature 103.5° F., pulse 130. The thyroid was enlarged and tender, with a red spot near the center, and fluctuation was made out. Blood-examination showed a considerable leukocytosis. At 8 P.M., under local anesthesia, an incision was made in the red, fluctuating spot, and, dissecting carefully downward to a considerable depth in the right lobe, a pocket was opened from which the pus welled up. About one-half ounce of pus was evacuated and a gauze drain inserted in the cavity. Cultures were taken from the pus onto slant agar, and several coverslip-preparations also made.

November 30. Abscess draining well, temperature nearly normal. Examination of the coverslips of pus showed bacilli about the size of the typhoid bacillus.

BACTERIOLOGIC REPORT.

December 1. Culture-tubes examined and a heavy growth over the surface of both slant agars. Microscopic examination showed a pure culture of bacillus. This bacillus was straight and about the size of the typhoid bacillus. It was very motile, darting across the field with a swimming and diving motion.

December 2. Bacilli still actively motile. Culture made on bouillon.

December 3. Bouillon-culture cloudy; hanging-drop showed bacilli actively motile, darting about, crossing the field in every direction. Specimens stained by Löffler's method for flagella. The bacilli had numerous flagella all around them, 8 and 10 being counted on some bacilli.

December 4. Culture made on milk. The bouillon-culture still actively motile.

December 5. Bacilli found in the milk-culture actively motile and the milk not coagulated.

December 6. Widal's test tried by means of the bouillon-culture and the patient's blood, but was not satisfactory.

December 7. Widal's test tried again in the same manner, but was not satisfactory.

Clinical History.—December 1. Patient doing well, the abscess draining freely, temperature about normal. Urinanalysis: Color amber; small precipitate; reaction acid; specific gravity 1012; albumin, no sugar. Microscopic examination showed coarse and finely granular casts.

December 9. Patient much improved, wound almost healed. Urinanalysis: Color pale amber; small precipitate; reaction acid; specific gravity 1010; trace of albumin, no sugar. Coarse and finely granular casts.

December 18. Cut on neck entirely healed, thyroid about its original size. From now until December 20, patient up and about the ward.

December 20. Patient went out for the first time to get his furlough papers; he was taken sick and was brought home in an ambulance. He had had a chill and his temperature was 103.5° F.; he was suffering much pain in his right testicle, which was swollen and red. He said that it had pained him for two days before this, but he had said nothing about it. There was no effusion in the vaginal tunic and the testicle was hard and very tender; there was a red spot on the inner side of the gland which gave an impression of pus or a small amount of fluid on palpating over it, but under hot applications the swelling and tenderness disappeared.

The patient had no urethral discharge of any kind at this time, or any time before while in the hospital, and also denied all history of venereal infection at any time. Unfortunately the urine was not examined during or after the attack of orchitis, so it cannot be said whether there were any further pathologic changes in it or not.

The patient was kept in bed 10 days, when, the swelling and pain being entirely relieved, he was allowed up and went home well on January 4, 1899.

Summary.—The case is undoubtedly one of typhoid fever from the clinical symptoms and course of the disease, the history of having been sick for a week or so before entrance to the hospital, the condition of the temperature and pulse, the rose-spots, the enlarged spleen, the diarrhea, the positive Widal reaction, and, above all, the cultivation of the typhoid bacillus from the pus of the abscess in the thyroid gland.

In the bacteriologic report we see the type of the bacillus, the motility, the number of flagella, and the growth on the different mediums, especially the growth in milk not coagulating that medium; all these points go towards justifying and proving in our opinion that we had the true typhoid bacillus to deal with, and the clinical history further substantiates and sustains this belief.

In regard to the failure of the Widal test with this bacillus, the fact that the test was made with the patient's own blood, when he was far advanced in convalescence from typhoid fever, and with the bacillus cultivated from his own pus, may have had something to do with its failure. Then again, occasionally the Widal test fails in cases of typhoid fever clinically most marked, even when done repeatedly, and under the most favorable circumstances. Though it was successful shortly after the patient entered the hospital, we must bear in mind the chance of our technic not being what it should have been. Nevertheless, after taking all things into consideration, we still think that we had a typical case of typhoid fever with a thyroid abscess, from the pus of which we obtained the typhoid bacillus in pure culture. In the beginning of the case occurred pain, etc., in the right leg, which at first sight might have been mistaken for a phlebitis, but which, on further examination and lapse of time, proved to be a simple muscular cramp. Next came the slight trouble which was present all during the illness, in the thyroid gland, and which eventually went on to suppuration, and this after the fever had, apparently, entered upon convalescence.

A study of the chart at this point will be interesting in showing when the temperature became normal, when convalescence set up, and then when the temperature began to have an up and down movement, on the pain and inflammation setting up again in the thyroid gland, at last culminating in the chill and high temperature and operation 10 days from the time the temperature began to rise after the establishment of convalescence.

Then the temperature remained practically at the normal point for 20 days, when the patient had another chill and high temperature, and orchitis developed fully; from this time on the temperature continued to drop toward normal, and 14 days later the patient was discharged cured.

Railroad Hygiene in Austria.—The following orders relative to the hygiene of the railroad stations and carriages have recently been promulgated by the direction of the State Austrian Railways: (1) The floors of all waiting-rooms, particularly those subjected to much traffic, and covered cars must be frequently washed; (2) from time to time the walls and the hangings, as far as their structure permit, must also be washed at least as high as the head reaches; (3) in the building and alteration particular attention must be directed to such cleansing; (4) cuspidors, of appropriate form and size, shall be placed in the waiting rooms and on the stairs.

REPORT OF A CASE IN WHICH DEFECTIVE SPEECH RESULTS IN SOME INTERESTING DERANGEMENTS OF CEREBRAL FUNCTIONS.[1]

By G. HUDSON MAKUEN, M.D.,
of Philadelphia.

Professor of Defects of Speech in the Philadelphia Polyclinic and College for Graduates in Medicine; Laryngologist to St. Mary's Hospital and the Frederick Douglass Memorial Hospital.

The patient is a lad, 15 years of age, of American birth and Irish parentage. He is the youngest of four children, all the others being normal. There is no family history of consumption or nervous affection of any kind. When the boy was 14 months old he had convulsions, followed by a severe and prolonged attack of meningitis. Full particulars of this illness cannot be obtained. He is of a somewhat nervous disposition and exceedingly bright and shrewd in many respects. An examination of the nose and throat reveals nothing that may throw light upon the cause of his trouble. His hearing is good and, except for letters and words, he has normal vision. His nasal respiration is now free, but there is a history of some obstruction in the nose during childhood.

The two central and the two lateral incisor teeth have been lost by decay, although the other teeth are in good condition. The tongue is structurally normal or nearly so, but its motor functions were very defective. As he protruded the tongue, he could point the tip in only one direction, namely, straight out, perpendicular to the body. He had no power to draw the tip downward, or upward, or in either lateral direction. It is interesting to note that his father also is unable to point the tongue upward toward the nose.

The muscular control of the lips was also defective and some of the movements necessary for the formation of words were either imperfectly made or altogether omitted. These limited and faulty movements of the tongue and lips resulted in a defective utterance of many syllables and words and a kind of mutilated speech which was very difficult to understand. Of the 40 elementary sounds in the English language, there were only 5 that he could not repeat from dictation. For each of these 5 he substituted another sound, as follows: for V and R, W; for G, D; for TH, soft, as in "thin," F; for TH, hard, as in "then," LTH. These substitutions, however, do not represent the extent of his speech-mutilations, for in conversation there were many faulty combinations and he omitted some sounds altogether.

There was a lack of confidence in himself and a general slovenliness of utterance that rendered his speech very difficult to understand. He recognized his own deficiency more than is usual in these cases. He knew that his articulation was defective, but he had no power to correct it, nor did he seem to have much desire to do so. The feeling that his speech was different from that of other children made him loth to enter into conversation. He was sensitive and in constant dread of being laughed at by his schoolmates. This sensitiveness is perhaps the greatest hindrance to improvement of speech in defective children. They all do one of two things. They either go into a kind of seclusion and refuse to make any effort toward development, or they become flippant and even mischievous. The child who has been made the butt of fun by his mates soon learns that it is pleasanter to try to be humorous than to be serious, for he knows that he will probably be laughed at in either case. Those in the first class grow discouraged and despair of ever being like other children.

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[1] Read at the Fifth Annual Meeting of the American Laryngological, Rhinological and Otological Society, in Cincinnati, Ohio, June 2, 1899.

So morbid do they become that it is not an unusual thing for them to absolutely refuse to try to speak at all. For such children, the average school is probably the place least to be desired, because the contrast between them and normal children is brought out so strongly that it adds to their discouragement and therefore does more harm than good.

The patient under discussion was of the second class. The humorous side of his nature was abnormally developed. He saw only fun in everything and refused to be serious. This peculiarity made him very popular with his playmates, but his arrested mental development rendered him companionable only to children of less advanced age. Although he has been in school for about six years, he has made but little progress in anything except arithmetic, for which he showed considerable aptness. His teacher informs me that he had special trouble with everything in which the use of letters and words was required. He was unable oftentimes to read the simplest words, and he could not remember the names of letters or words that he had learned, nor could he write words from dictation.

His writing was about on a par with his speech; his spelling of words was very defective and had very little similarity to his pronunciation of them. He was more proficient in the use of figures and he had no trouble in learning to read and write them. Arithmetic was his favorite study; indeed, it was the only one to which he could be persuaded to give much attention. Instead of applying himself to his own task, he would listen to another recite or play with something or tease some one. Even though he knew the answer to a question, he could hardly be persuaded to try to give it, but would look at the other boys and laugh. He was quick to understand spoken words, and there were other evidences of considerable intellectuality. He could do problems in mental arithmetic with some dexterity and his reasoning powers were good. He was by no means feebleminded, but there was manifestly some functional impairment in the action of the cortical visual word-center.

Two somewhat similar cases have been reported; one by W. Pringle Morgan, in 1896, which he calls congenital word-blindness. This patient was 14 years of age, and, to use Morgan's own words, "He has been at school or under tutors since he was 7 years old and the greatest efforts have been made to teach him to read, but in spite of this laborious and persistent training, he can only with difficulty spell out words of one syllable. . . . Words written or printed seem to convey no impression to his mind, and it is only after laboriously spelling them out that he is able by the sound of the letters to discover their import."

The second case was reported by H. Charlton Bastian, in 1898. The patient was a male, 18 years of age, with no history of family taint or severe illness except whooping-cough during childhood. He was very slow in learning to read. Arithmetic gave him little trouble unless he had to write out the problems. His memory for words was very defective, but for things and for what people had said it was excellent. His speech was fairly good and he only occasionally used wrong words.

It may be noted that these 3 cases occur in boys, 14, 18, and 15 years of age, respectively. They all have good family histories and present a considerable degree of intelligence. They were given opportunities for education, although mathematics was the only branch in which they made much progress. They all had great difficulty in learning and retaining the names of letters and in learning to read words and to write them from dictation. In Morgan's case there was no illness or injury of any kind, in Bastian's there was a history of whooping-cough, and in mine, of convulsions, followed by what his father called "brain fever," at the age of 14 months. Unfortunately, as I have said, the details of the illness were meager.

All 3 cases present symptoms of word-blindness. Morgan called his congenital word-blindness because there was no history of its having been acquired. Bastian does not give his a name, but he says "it happens occasionally that the visual word-center is either congenitally weak or else has undergone some damage in early childhood, in consequence of which its activity is lowered," and then proceeds to cite his case as an illustration of this fact.

In my case we have a definite though unsatisfactory history of an acute brain-infection in infancy, and it is quite possible that the disturbance in the visual word-center may be due to a direct damage to that portion of the brain, resulting from this illness, but it is more probable that it was secondary to some disturbance in the motor tracts, rendering among other things the development of normal speech impossible. This view is strengthened by the fact that a little special training of the motor centers has not only greatly improved his speech, but has increased his capacity for recognizing and retaining the visual impressions of words.

It is well known that when for any reason the development of the faculty of speech is delayed, there is a corresponding lack of functional activity in both the visual and auditory word-centers, as well as in those related areas of the brain employed in the use of language and thought. So great is the dependence of the functional activity of these special centers and their related areas upon the use of the faculty of speech that its lack of development, due entirely to mechanical obstructions in the peripheral organs, has in some cases led to a diagnosis of imbecility and even idiocy.

One of my first published cases of defective speech occurred in a boy who was supposed by his family-physician to be an imbecile, but after a slight operation on his tongue and a short course of training, he developed not only good speech, but also exceptionally strong mental powers, and he is now studying law suc-

cessfully in Philadelphia. His inability to use speech resulted in functional derangements of cerebration that were mistaken for incurable organic defects. Indeed, it is frequently impossible to determine offhand whether the defective cerebration be of functional or organic origin, and the only means of making the differential diagnosis is probably the employment of a course of systematic speech-training. This may be regarded as a specific treatment for all those purely functional disorders of the brain in which defective speech is a prominent symptom, whereas in cases having organic lesions its value may be limited. The special training of the subject of this paper has been in progress for only a few weeks, and yet the improvement has been little short of marvelous, and there is every reason to believe that with a continuation of the treatment, there will eventually be no trace of any defect, physical or mental.

His teacher writes me, "John is considerably better. His memory is particularly improved. While in arithmetic he is about the same, he learns his other lessons much more easily and retains them after he has learned them. In his reading he recognizes words and the letters and sounds of which they are composed more readily, and has not the same trouble in pronouncing them. He is by no means so restless in school as he was, and he takes much more interest in his lessons."

This case would seem to illustrate the importance of special training as a remedial agent in certain forms of feeble mentality characterized by defective speech and other motor disturbances.

RECTAL ADENOMAS.[1]

By WILLIAM M. BEACH, A.M., M.D.,
of Pittsburg, Pa.
Fellow of the American Proctologic Society.

An adenoma, adenocele, or adenoid tumor may be defined as an hypertrophy of gland-texture. The purpose of this paper is to note briefly the nature of these growths, and the value of the proctoscope in their early diagnosis and treatment.

The rectal mucosa contains villi, solitary follicles, and tubular glands of Lieberkühn. These structures must be reckoned with in the origin and development of rectal adenomas. Moreover, the submucous fibrous tissue forms the basis of another interesting species of growths in the rectum, which may be termed hard polypi. I shall use the term polypus synonymously with adenoma, since all growths upon secreting surfaces must for the most part contain the glandular element. These neoplasms are malignant and nonmalignant, the distinctive feature of the former being a "tendency to spread, as a thin layer between the muscular and mucous coats, occupying several square inches of the bowel while its thickness does not exceed a quarter of an inch" (Cripp), while in the latter, the growth is soft, has a fairly marked pedicle, and projects into the cavity of the bowel. "Adenocarcinoma is essentially a glandular or epithelial affection" (Stinson). The colloid variety has its origin in the tubular glands.

The nonmalignant adenomatous polypus with which only I shall deal in this communication, consists of certain varieties dependent upon the basis of origin and consistence of the mass. It is my belief that, since the line between malignancy and nonmalignancy of mucous hypertrophies in their evolution cannot be definitely drawn, the tumor benign in its incipiency may become malignant, for the reason that both contain the same structural elements, hence the importance of early recognition and removal of the same.

For my purpose I shall mention the following types of benign rectal adenomas: (1) The gelatinous, composed of elements of mucous membrane, and (2) the mixed, supplemented by the cellular tissue beneath.

The soft variety may be villous or glandular. The villous adenoma usually varies in size from that of a pea to a concord grape and is pedunculated, the pedicle being very short or as long as two or three inches. They are frequently found in children, though not rare in adults. Allingham states that the pedicle is sometimes torn from the wall by the fecal mass, and passed with it, thus terminating their existence spontaneously.

The glandular or cystic adenoma, on the contrary, has a shorter and thicker pedicle, but like the villous bleeds very easily, since both are supplied by a good-sized artery. A cross-section of the glandular tumor reveals viscid fluid and cellular tissue, the former containing epithelium and tubes. This type is more likely to become malignant. They may be found in large numbers, and may also be cystic. Van Buren applied the term polyadenoma to them. The papillomatous adenoid is usually disseminated and partakes of the nature of epitheliomatous generation. The glandular variety may be further represented by the dermoid. By the mixed adenoma, I mean the tumor which consists of the mucous elements and the submucous cellular tissue and is represented by the sarcoma and carcinoma, and of course unfavorable in their prognosis.

Location, it seems to me, is important in the discussion of rectal adenomas. Most authors teach that polyps rarely occur above the pelvic floor, or are at least indefinite as to where or how they can be located. From the nature of the case, an adenocele may be generated anywhere in the rectum, resting upon some element of the mucosa.

Proctoscopy, as practised by Martin, aids in definitely locating these growths and in disposing of them with comparative ease. One of his patients had a villous adenoid suspended from the third rectal chamber which completely filled the superior valve-strait on bearing down, and contributed symptoms toward com-

[1] Read at the initial meeting of the American Proctologic Society, Columbus, June 6 and 7, 1899.

plete obstruction. I witnessed its removal, which was skilfully effected by the use of the cold snare, resulting in complete abatement of his obstipation and obstruction. In the adenomas of the superior rectum, proctoscopy becomes a necessity in diagnosis and successful treatment.

Among the complications of rectal adenoids may be mentioned fissure, ulceration, fistula, hemorrhage, and pruritus ani. Small growths in the anal rectum are important, in that they may be the source of a persistent pruritus ani.

The symptomatology of these various forms does not differ essentially in children and the adult. Hemorrhage following a stool or a sudden profuse discharge of red blood would indicate strongly a bleeding adenoma. In some patients, mucorrhea, with tenesmus, occurs at frequent intervals, and if the growth is anchored in the lower rectum, it may appear at the anus with a procidentia recti, the result of straining, and may be mistaken for a hemorrhoid. Adenomas located in the movable rectum will provoke straining at stool, which, with the growth dragging down the mucosa, will often produce a procidentia of the upper bowel.

I submit the following case as an illustration of the importance of routine practice, with the proctoscope as a factor in early location and treatment.

Mrs. R., widow, aged 32, weight 110 lbs., had two children; said she had rectal trouble since she was 20 years old. She had been treated for chronic diarrhea, dysentery, bleeding piles, etc., with only temporary relief. She had exhausting hemorrhages at frequent intervals, was always thin and for the most part an invalid, and was barred from society since little warning preceded an attack. The anoscope revealed comparatively normal condition of the fixed rectum, but when the inspection was extended higher up, a cluster of bleeding tumors, three in number, were seen, anchored by half-inch pedicles to the posterior wall of the third rectal chamber. Their complete removal with the ecraseur and curetment of the base resulted in complete cessation of all her symptoms and she gained weight rapidly.

By means of the old methods of examining the rectum, it is well-nigh impossible to locate growths of the upper rectum, and the prognosis is accordingly uncertain. The newer proctology substitutes exact methods in diagnosis and treatment of nonmalignant adenomas that are most gratifying to both patient and surgeon.

CONCLUSIONS.

1. Rectal adenomas may be hard or soft; they contain the constituent elements of the mucosa and submucosa.
2. They may be malignant or benign.
3. Benign in their origin, they may become malignant.
4. Early recognition, made possible by the newer methods of inspection, is of the first importance.

A class of students in the Institute of Industrial Chemistry at Lille was asphyxiated by the escape of a large quantity of hydrogen-sulfid gas. In spite of the most energetic measures of resuscitation, one case resulted fatally.

A CASE OF APPENDICITIS (?).

BY H. B. BESEMER, M.D.,
of Ithaca, N. Y.

IN March, 1588, Henry, King of Navarre, wrote a letter in the fulness of his grief to Corisande, Countess of Grammont. The occasion was the death of the Prince of Conde. The wife of the Prince was accused of using poison, and was never acquitted in the minds of her friends, though after an imprisonment of 6 years the Parliament of Paris declared her innocent. I could not help diagnosing the case appendicitis, and give an extract from the letter:

"One of the greatest misfortunes that I could possibly apprehend has occurred. The sudden death of Monsieur the Prince of Conde. I lament his loss for that which he would have been, and for what he was. . . . . This unfortunate Prince, on Thursday, tilted at the ring, and supped in good health. At midnight he was seized with vomiting, which continued till near morning; he remained in bed the whole of Friday; at night he was better and supped, slept well, rose on Saturday morning, dined standing upright, and after dinner played at chess. Suddenly he left his seat, and walked backwards and forwards in his chamber, conversing first with one and then another. Suddenly he exclaimed, 'bring me a chair, I feel great weakness;' he was scarcely seated when he became speechless, and immediately after surrendered his soul."

Was it a three-days case with rupturing abscess and shock, or do the symptoms rather fit a dose of poison, say at evening meal on Thursday, and another at "dining" on Saturday?

Stricture of the Esophagus.—C. D. Aaron (*The Physician and Surgeon*, September, 1899). The diagnosis of obstruction in the esophagus is not difficult; the difficulty lies in ascertaining the cause and nature of the stricture. It is of first importance to determine whether the obstruction is due to some pressure from without or within the esophagus, hence we must examine the neck for enlarged glands or infiltration of the cellular tissues, and make careful auscultation to determine whether aneurysm is present. The vertebral column should be examined to determine that the pressure does not result from abscess due to caries. Stricture in a patient beyond 40 years of age, with emaciation and cachexia, probably results from carcinoma. If, on passing the esophageal tube, an obstacle is encountered, and, upon removal, blood and mucus cling to the tube, carcinoma must be suspected. Spasm of the muscular coats sometimes simulates strictures; in hysterical, nervous patients sacculated esophageal diverticulum may also give rise to symptoms of stricture. A medium-sized soft-rubber stomach-tube should always be the first thing introduced, and patience is of more importance than force. If, on removing the soft tube, no mucus and blood are found clinging to it, it is safe to use a stiffer tube, provided a diagnosis of aneurysm may be excluded. Trosseau's olive-pointed sounds are valuable in locating the stricture, and the location is of aid in determining the cause. Strictures from ulceration of the cardia occur low down, while cicatricial stricture following the taking of corrosives are usually high up near the entrance of the esophagus. Three cases are reported in which a new form of electrode, which is depicted, was used successfully in the treatment of esophageal stricture. [M.B.T.]

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See Advertising Page 27.

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The American literary physician in one important particular is unique. Many physicians have played with literature, and many litterateurs have pretended to be physicians, but in no country except our own have the two callings been successfully and synchronously united in one man. Should a European physician write a novel as popular as *Hugh Wynne*, one wonders if he would continue in active practice. If he did so one questions still more doubtfully whether the reason of giving up practice would be due to his own desires and qualities, or because patients would not continue to come. In no country has there been any decided incongruity between the pursuit of pure science and the practice of pure medicine. More than once, also, have the water of politics and the oil of practical therapeutics been shaken into some sort of a not unpalatable emulsion. But only in America has success in literature been attained by the successful practitioner and both callings continued. What is it in our national character that for the first time in the world has made this highly desirable fact possible? Holmes kept his hold on medicine through his professorship of anatomy, and always considered himself a physician ready to act as a laureate of the profession whenever it called on him. Our distinguished colleague, Dr. Weir Mitchell, illustrates the truth in a still more literal and striking manner, as he continues in the active practice of medicine, although he has attained the most brilliant success in belles-lettres.

The Leprosy Conference of 1897.—The report of P. A. Surgeon Kinyoun, delegate to the International Leprosy Conference in Berlin, just published in the annual report of the United States Marine-Hospital Service, is of interest at the present moment in view of the recent statement of a New York dermatologist as regards the prevalence of that disease in this country. Kinyoun states that Besnier, of Paris, roughly estimated the number of lepers in the world at 180,000, of which the United States was credited with 250. This is a very moderate allowance. At the same time there is no foundation for the expressed suspicion that there may be a considerable number of concealed cases in Pennsylvania. The State Board of Health has information of every case that has occurred in the State for the past ten years. During the past few months it has investigated two suspected cases in the interior of the State, and found the suspicion in both cases to be unfounded.

The conclusions reached in the conference were, briefly: (1) that the Bacillus leprae is the sole cause of leprosy; (2) that every leper is a danger to those about him; (3) that the disease is by no means confined to the lower classes; (4) that the theory of heredity is virtually abandoned; (5) that notification of leprosy should be obligatory; and, finally, that isolation in some shape, modified in accordance with social conditions and local circumstances, is desirable.

To the Members of the Medical Profession of the United States.—Dr. W. W. Keen, President of the American Medical Association, has issued the following appeal to the medical profession:

The cause of humanity and of scientific progress is seriously menaced. Senator Gallinger has again introduced into Congress the Bill for the "Further Prevention of Cruelty to Animals in the District of Columbia," which he has so strenuously and misguidedly advocated in the last two Congresses. Its present number is "Senate Bill No. 34." Twice the Committee on the District of Columbia has also unfortunately and misguidedly reported the Bill with a favorable consideration. The Bill is speciously drawn to seem as if it were intended only in the interest of prevention of cruelty to animals. The real object of the Bill is twofold: first, to prohibit vivisection and, secondly, to aid the passage of similar bills in all the State Legislatures.

I need hardly point out to you that this would seriously interfere with, or even absolutely stop, the experimental work of the Bureau of Animal Industry and the three medical departments of the Government, the Army, the Navy, and the Marine-Hospital Service. The animals themselves might well cry out to be saved from their friends. No more humane work can be done than to discover the means of the prevention of diseases which have ravaged our flocks and herds. All those who raise or own animals, such as horses, cattle, sheep, pigs, chickens, etc., are vitally interested in the preservation of their health and the prevention of disease.

The inestimable value of these scientific researches as to the prevention and cure of disease among human beings it is superfluous for me to point out. Modern surgery and the antitoxin treatment of diphtheria alone would justify all the vivisection ever done.

As my attention has been called officially to the introduction of the Bill, I take the opportunity of appealing to the entire profession of the country to exert themselves to the utmost to defeat this most cruel and inhumane effort to promote human and animal misery and death and to restrict scientific research. It is of the utmost importance that *every physician* who shall read this appeal shall *immediately* communicate especially with the Senators from his State, shall also invoke the aid of the Representatives from his or other districts in his State, and by vigorous personal efforts shall aid in defeating the Bill.

It is especially requested also that all of the National, State, and county societies at their next meeting take action looking toward the same end. If regular meetings are not soon to

be held, special meetings should be called. Correspondence is invited from all those who can give any aid.

The Committee on the District of Columbia consists of Senator James McMillan (Michigan), Chairman, and Senators J. H. Gallinger (New Hampshire), H. C. Hansborough (North Dakota), Redfield Proctor (Vermont), J. C. Pritchard (North Carolina), Lucien Baker (Kansas), C. P. Wetmore (Rhode Island), C. J. Faulkner (West Virginia), Thomas S. Martin (Virginia), Wm. M. Stewart (Newark), and Richard Kenney (Delaware). Personal letters may be addressed to them or to other Senators. Petitions should be addressed to the Senate of the United States.

Are Bacteria Normally Present in the Deeper Tissues of the Healthy Body?—In an extremely interesting paper recently read before the Chicago Society of Internal Medicine, Dr. J. George Adami (*Journal of the American Medical Association*, December 16, 1899) presents some very striking facts as the result of careful study and investigation, which may considerably change the prevailing views on this important question. One of the foremost of the basal postulates on which bacteriology is founded is, that in a state of health the tissues are sterile and that infection is due to an abnormal entrance of pathogenic bacteria into the body. On this assumption antiseptic and aseptic surgery have their basis, and from it we start in order to explain infection. We assume that the skin and the mucous surfaces of the body form a natural barrier beyond which, under normal conditions, bacteria do not pass; that the presence of bacteria in the deeper tissues is the exception and not the rule. We are forced to acknowledge that, occasionally, bacteria gain an entrance without there being a recognizable external lesion, and we speak of disease developing under these conditions as *cryptogenic*—this very term indicating ignorance as to the exact mode of origin of such disease.

It is the general belief that the primary factor in infection is the virulence of bacteria. The protective powers of the tissues, while they may be important, are a secondary factor. But is this the whole truth? Does everything prove that normally the tissues are free from bacteria? Are there conditions only explicable by assuming that bacteria habitually or frequently enter the circulation? It is generally known from the researches of Ruffier, that under certain conditions bacteria pass into the lymphoid glandular tissue of the pharynx and small intestines, and a similar state of things has been recently shown to occur in connection with the lungs, in the peribronchial glands.

But Nicholls, working in conjunction with Adami, has recently found that we may find bacteria beyond the submucous glands which are supposed to defend the organism against bacterial invasion. Killing healthy rabbits, he has immediately stretched the mesentery of the small intestine, rubbed this on either side with a sterile swab, to remove the covering endothelium, and then stretching the mesentery over a glass slide, hardened it in formalin and removed it without cutting the intestine, so as to prevent any bacteria contaminating the surface from the intestinal contents. A full account of these experiments will be published later. An important fact thus determined, is that the mesentery so prepared shows relatively abundant bacteria in various stages of disintegration. Some are in the lymph-channels, and it may be in the bloodvessels; others are apparently free in the lymph-spaces, and others again are in the immediate neighborhood of nuclei, which would seem to be those of wandering cells.

Adami's own experiments carry this subject one very considerable step further. He found on intravenous inoculation of definitely long forms of the colon-bacillus, that even in a quarter of an hour many of these had been taken up by the endothelial cells of the liver and after three or four hours the broken rods were found in the liver-cells. Nicholls and Adami were able similarly to recognize an almost identical process occurring in the cells of the tubules of the kidney, more especially in the convoluted tubules.

These observations appear to demonstrate that it is a function of the liver to take up and destroy bacteria introduced by leukocytes into the venules of the portal system, while similarly a function of the kidney-parenchyma, more especially of the convoluted tubules, is to remove bacteria circulating in the systemic circulation.

In this function the relation of the liver and kidney to the blood is similar to that of the lymphatic glands to the lymph.

Is it likely that this remarkable power possessed by the liver and kidney-cells is normally in a state of rest and that it is the exception, not the rule, for bacteria to be taken up and destroyed by these cells?

Adami is aware of the numerous experiments by trustworthy observers, which apparently show that the tissues and the blood, even during the course of infectious diseases, are free from the bacteria; but other equally trustworthy observers have demonstrated their presence. He believes that these contradictory results may be explained by the fact, long ago clearly demonstrated by Lubarsch, that the bactericidal powers of the circulating blood are relatively slight, whereas those of the shed blood are remarkably powerful. It is in the act of coagulation that the bactericidal substances are in the main liberated, and in order to prevent this bactericidal action it is necessary to dilute the blood very freely. Thus it happens that those who have employed solid mediums have had a succession of negative results; those who have freely diluted the blood have more often gained positive results. It is not that the bacteria have been of necessity absent, it is that the proper means were not taken to favor their growth.

There is no probability that these facts will produce any revolutionary change in antiseptic methods or in medical treatment, but it is quite evident that if there is conclusive proof of the common presence of bacteria in the blood and in the cells of normal healthy tissues, some of the present requirements of aseptic technic,

the use of operating-gloves for instance, would be unnecessary, to say the least.

The difficulties of the English idiom have frequently contributed to the gayety of nations. The *Youth's Companion* is the authority for the notice it says is placed above the alms-box of the Milan Cathedral in order to attract the attention of English visitors:

"Appele to Charitables. The Brothers, so-called, of Merey ask slender arms for the Hospital. They harbor all kinds of diseases, and have no respect to religion."

We receive from Vienna a circular in reference to a purposed revival of the *Index Medicus* which we fear will scarcely secure the results so sincerely desired by the enterprising editor. We can only spare space for these specimen paragraphs:

The necessity to have an organ of information of the whole medieal literature of world is wellknowne percieved by all investigators and practitioners all days more and more.

Through the persuasion of prominent authorities and by cooperation of professioners, we resolved, to satisfy this pressing whishes, to produce such an underprize and so we founded the "Index Medieus Novus." The "Index Medicus Novus" will become a eollection for consultation quite unsurpassed and as theer has been nothing likewise before it in the medical knowledge seience.

Though all this performances we set the price for subscribition very low, to make it possible to each scientific searcher to buy the "Index Medicus Novus." So we hope confidently that the interested circles well assist (to this undertakement quite as important than scientific and exertions) by her participation and furtheranee. We will not omit to say that our bureau translates in all languishes each essay wished by anyone.

The Cerebrospinal Metameres.—Brissaud, in a recent series of clinical lectures, has devoted much space to a demonstration of the clinical significance of the cerebrospinal metameres. According to the modern conception, adopted by Brissaud, a metamere represents one of the primordial divisions of the embryonal cerebrospinal axis, even including the brain, before a process of differentiation occurs in the development of the central nervous system. Theoretically these metameres are at one time all similar, although practically it would be difficult to say at what period of the embryonal growth this is so. The idea is not entirely new, for Moguin-Tandon, in 1827, had this idea and called these primitive divisions *zoonites*. These primordial metameres are not truly represented on the skin by the distribution of the peripheral nerves, for these nerves are composed of neuraxons which have their central relations in more than one spinal segment. Hence in its sensory distribution a ganglion of a posterir roof is not representative of its corresponding metamere. A lesion of one or more ganglia causes trophic disorders which are limited exclusively to the peripheral territory of these ganglia, *i. e.*, upon the course of the peripheral nerves, while a true metameric or segmental lesion causes trophic disorders upon a different territory. Head has mapped out these cutaneous areas corresponding to the spinal metameres, and finds that they are arranged in transverse or horizontal sections on the trunk.

Clinically these facts have an important significance. It has been noted for a long while, for instance, that the sensory changes in some cord-lesions do not follow the distribution of any particular nerve or nerves, but are arranged in areas having transverse limits. The so-called gauntlet anesthesia sometimes seen in syringomyelia and in cord-injuries is an example. In this form the leg may be anesthetic in a territory represented by the shape of a stocking. Such a symptom could not be caused by a lesion of any one nerve or any group of nerves. It is therefore probably metameric, *i. e.*, it represents a lesion limited to a segmental distribution in the spinal cord.

Brissaud has seized upon these facts to illustrate some of the paradoxic phenomena of herpes zoster. He claims that it is an error to state that zona always follows the distribution of a peripheral nerve and is therefore always representative of a lesion of a spinal ganglion or its related neurons. In some cases it may be so, but in other cases the distribution of herpes zoster is truly metameric, and the skin-lesions ignore entirely the distribution of the nerves of the trunk. The inference therefore is that the lesion in some cases of zona is segmental, *i. e.*, central. Similar facts are observed in some cases of neuralgia, in which the pain is not limited to the distribution of any particular nerve, but is manifested in an independent territory. In fact, the doctrine of the metameres applies probably to many clinical phenomena which have not yet been recognized as conforming to it; and in the limbs as well as in the trunk. The field is an open one yet for much original clinical research.

The Care of Dependent Children is a subject of the highest importance from the view-point of both the State and the family. Too often careers in pauperism and even in crime are started by improper disposition, in public institutions, of those whom misfortune and sometimes vice have deprived of their natural caretakers, and in this way a treble wrong may be done to child, to parent, and to State. So great had this evil become in New York City that in June, 1898, the Charity Organization Society appointed a Committee on Dependent Children, for the purpose of reporting upon the advisability of action by the Society to prevent the commitment of children, in cases of destitution, by presenting to magistrates an offer to care for such children. The results of the year's work have amply justified the innovation and constitute a better tribute to the labors of those engaged in this most praiseworthy enterprise than the most finely turned phrases. So successful did the undertaking prove that in March, 1899, the committee was made a standing one, and its work was assured of sustained

support and encouragement. During the year the condition of 888 families, including 1,607 for commitment, was examined, with the result of preventing the commitment of 509 children, either because the committee offered to take the families in charge or because the Department of Charities referred the families to the care of the Society. Thirteen of these children were committed to institutions after the Society had assumed care of the families. The remaining children have been kept with their families and have been placed under the intelligent and careful supervision of the District Committees of the Society. We have here an admirable instance of preventive philanthropy which deserves general emulation.

Life Insurance and Bright's Disease.—Dr. Joseph T. Smith, in a recent number of the *Baltimore Underwriter*, discusses the diagnostic signs of diseases of the kidney from the standpoint presumably of the life-insurance companies. This subject, we should think, would be one of never-ending perplexity to these companies. Probably few active practitioners have not seen cases of so-called Bright's disease that have been rejected by the insurance companies and yet, as subsequent events proved, would have been reasonably good risks; while, on the other hand, not a few cases of mild but insidious kidney disease end rapidly or even suddenly in death. A general average, by which alone life insurance can be regulated, probably leads to even the mildest cases being properly regarded with grave suspicion.

Dr. Smith discusses the four chief signs of kidney disease, viz.: albumin, casts, dropsy, and uremia. He says that the presence of albumin in the urine is a constant symptom of every form of kidney disease, but that the converse is not true unless by "disease" is meant disorder of function as well as change of structure. This is a somewhat dogmatic statement, and a somewhat obscure sentence. Certainly most clinicians will demur to the statement that this sign is constant in every form of kidney disease, and to the claim that albuminous urine always or necessarily means a faulty kidney. Tube-casts are regarded very properly by Dr. Smith as having more value as diagnostic signs than albumin. All forms, except possibly the hyaline, show serious disturbance with the kidneys. This is doubtless a safe formula for underwriters, and yet here again the general clinician is often agreeably disappointed at the general good state of the patient's health and the prolonged duration of life. Dropsy, in Dr. Smith's opinion, indicates a serious interference with normal conditions of the blood; and uremia is somewhat vaguely called "complex" in its nature and merely indicative of "functional or organic disorder"—a rather lame conclusion. From the general trend of Dr. Smith's paper, and the fact that it is published in the *Underwriter*, we are led to conclude that the life-insurance companies regard albumin and tube-casts as of even more diagnostic and prognostic importance than dropsy and uremia, and that the former two symptoms are always to be regarded as grave signs of kidney disorder. But, as already intimated, the active practitioner is bound to take a rather more optimistic view of many of these cases than the life-insurance companies can afford to do.

Primary Orchitis in Mumps.—French observers, who seem to have seen a great deal of epidemic mumps among soldiers, have more than once called attention to the fact that orchitis in this disease is not a true metastasis, but a part of the natural history of the affection and in no sense an accident or complication. The best evidence of this fact is the occasional, but very rare, occurrence of orchitis before the appearance of the parotitis in some epidemics of mumps; in fact, according to Laveran and Teissier, rare cases of primary orchitis have been seen in which the salivary glands did not become involved at all; and as these cases occurred in the midst of epidemic parotitis the fact that they were true cases of mumps could not be doubted.

American and English observers have apparently seen, or reported, fewer of these rare cases than the French. The recent report, therefore, by Dr. L. B. Edwards (*Journal of the American Medical Association*, October 14, 1899), of the occurrence of four cases of primary orchitis during an epidemic of mumps, is noteworthy. Three cases were in medical students and one in a young man who boarded with them. In the same house ordinary mumps were prevailing. The symptoms were rigor, rachialgia and fever, with headache and nausea, followed by orchitis within twenty-four hours. On the third or fourth day parotitis began. The testicles swelled without involvement of the epididymis, and there was no history of venereal infection or trauma. The general symptoms abated between the sixth and eighth day, and the swelling in the testicles soon subsided thereafter. There can be no doubt, we think, about the accuracy of the diagnosis in Dr. Edwards' cases, and we call attention to them as interesting and rare clinical phenomena. Medical writers in France even use the term "epidemic orchitis" for the testicular affection due to mumps, and this fact seems to indicate that they see more of this manifestation of the mumps-poison than we do in this country. That this poison may attack the testicles primarily and solely is of sufficient importance to be emphasized. Such an inflammation of these glands should be distinguished from that caused by gonorrhea by its tendency to avoid the epididymis, by the uniform absence of suppuration, by its somewhat evanescent type, by the absence of urethral discharge, and by its association with epidemic mumps.

Clinical Pictures and Medical Perspective.—A Chinaman painting a picture on a fan is likely to depiet the house in the foreground no larger than the man on the hill in the baekground of his picture, while the man may be mueh larger than the bridge in front of him which he apparently intends to cross. In many other matters besides in painting pictures it is important to see things in their right proportions, to get the right perspective. The most important obstacles to progress and causes of failure in the world are not those that arise when people see the right and refuse to act in accordanee with their best knowledge and belief, but when they fail to see things in their right proportions. Before we rest satisfied that our clinical picture is complete we should look at it in all lights and from many standpoints. Many a patient has died because his attending physician has failed to make an early diagnosis on account of neglect to gain light for his clinical picture by the use of his own fingers, eyes, ears, and microscope. Too often the patient's statements are aceepted witnout examination; we get the proportions for our elinical pieture from the patient's standpoint rather than our own.

The question of perspeetive is equally as important in judging the work of others. Probably no one always succeeds in getting exactly the right perspective in everything; no two persons always see things in exactly the same way, a fact having its important bearing on all organized efforts. There are few men who would indorse everything in the policy of their political party, yet they believe that the general trend is toward the right, and religious and political organizations continue to exist, as much to the benefit of those who only stand back and criticise and hinder as of those who bear the burden of the work. The medical profession must strive for the advancement of the human raee against many obstacles; every effort in curing or preventing disease, or promoting better physieal development by rational hygienic measures, is combated by selfish quackery and popular ignorance. It is highly important in all things touehing our professional life, that we make certain we have looked upon all questions from high, unselfish standpoints and that we have the right perspective, whether in matters concerning our national or local organizations, our medical journals, or in our relations with fellow praetitioners or patients.

Suggestions to Writers, No. 51. Thyroid, Choroid, etc., or Thyreoid, Chorioid?—The dictionary-makers have hardly dared to advise *thyroid* instead of *thyreoid*, and so the world goes on doing one thing while the dictionaries advise another. Etymologieally, of course, *thyreoid* is demanded, but when languages were made the makers neither knew nor cared for etymology, and of all languages in the world English cared and still cares less for it than any other. The word *wig* contains neither a letter nor a hair of the original *pilus* whence it came. And yet it is certainly true that not always is custom or usage to govern us in these things. In the case of *choroid*, there seems no doubt that we may safely write the word thus, and not *chorioid*, or *choreoid*, when we mean the oeular structure. We need *choreoid* for the chorea signifieation, and as *chorioid* when spoken has the same sound, good sense and good usage have combined to extinguish *chorioid*, and *chorioiditis*, leaving us the simple *choroid* and *choroiditis*, which have beeome so universal that the more etymologically accurate forms would smack of affectation should a writer try to introduce them. The similar word *hyoid* has definitely settled to that form and not, *e. g.*, to *hyoeid*. We suspeet that thyreoid is destined to lose its *e*, and become simple *thyroid*, as nine-tenths of medieal men doubtless pronounee if not write it to-day. We should certainly not eonsider one a philologic sinner who did so, and would even exeuse the lexieographer who should so set it down in his word-book.

Unusual Diastolic Murmur, with Autopsy.—R. E. Edes and R. M. Pearce (*Boston Medical and Surgical Journal*, August 17, 1899). The patient, a man of 64 years, had a loud, scraping murmur and a thrill at the base of the heart, and a diastolic heave; the heart was enlarged. Two murmurs could be made out on careful study, a systolic and a diastolic murmur. They were audible all over the heart, loudest at the base, on the right side. The systolic murmur was accompanied by a thrill. The pulse was of the water-hammer type. Dulness could be detected at the upper sternum and a little to the right. Cheyne-Stokes' breathing occurred, but was not constant, and death took place from exhaustion. At the autopsy the aortic valves were found incompetent; at the junction of the anterior and left posterior cusps there was an aneurysmal pouch 1.2 by 2 cm. The aortic arch was dilated in ascending and transverse portions, and numerous calcareous plates dotted the intestine. One centimeter above the orifice of the innominate artery there was another aneurysm extending up to the bifurcation. In regard to the interpretation of the clinical signs by the pathologic findings, the systolic murmur and thrill were probably produced in the innominate aneurysm, or possibly in the opening between it and the aorta. The cause of the loud and rough diastolic murmur was not so readily determined. It was probably not due to mere aortic incompetence. More likely, the authors think, the regurgitant blood, instead of flowing smoothly through the valves, causing fine vibrations and a soft murmur, formed a whirlpool in the small aneurysm, becoming turbulent just at its passage through the valves, and thus giving rise to coarse vibrations and a loud, rough murmur. It is probable that the dilated and sclerotic condition of the aorta had some influence on the character of the murmur. [D.R.]

Stings of Insects and Diabetes.—According to the *British Medical Journal*, Dr. Navarre, of Lyons, has recently published a case of wasp-sting in a diabetic patient, a lady of 67, under treatment for over 5 years. Before receiving the sting the amount of sugar was never great, and a season at Vichy had just reduced it to 4 g. to the liter. One day in autumn, when gathering fruit in an orchard, she was stung by a large wasp. The injured part became swollen as usual, but prostration with occasional rigors ensued, and lasted for about 24 hours. The patient, on recovering from the attack, looked very haggard, her usual thirst was greatly increased, and her breath became distinctly fetid. Her urine was analyzed a few days later. Then it was found that the proportion of glucose had increased over tenfold—from 4 g. to 40.5 g. to the liter, with but a trifling increase in the polyuria. The odor of the urine was characteristic; on careful analysis acetone was detected. The general symptoms of diabetes were aggravated. Dr. Navarre thinks there can be little doubt that the virus from the wasp's sting caused an aggravation of the diabetes, so severe as to induce acetonemia.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies for the week ending December 30, 1899:

Wednesday, December 27—County Medical Society.
Thursday, December 28—Pathological Society.

St. Joseph's Hospital, Philadelphia.—Dr. E. E. Montgomery has been elected president of the staff to succeed Dr. Robert M. Cruice, deceased, and Dr. M. H. Bochroch has been appointed in charge of the neurologic dispensary.

Death of Dr. Albert Fricke.—At the meeting of the Philadelphia County Medical Society, December 13, appropriate resolutions upon the death of Dr. Fricke were introduced by Dr. Packard and adopted. Dr. Fricke was one of the oldest members of the Society and had for years been active in its affairs.

Vital Statistics of Philadelphia for the week ended December 16, 1899:—

Total mortality		445
Diseases.	Cases.	Deaths.
Pneumonia 64, congestion of the lungs 3		67
Pulmonary tuberculosis		46
Diphtheria 26, membranous croup 8	163	34
Heart-disease 32, neuralgia of the heart 1		33
Debility 13, inanition 11, marasmus 9		33
Nephritis 20, uremia 12		32
Apoplexy 16, paralysis 10, softening of the brain 1		27
Convulsions		22
Carcinoma 16, sarcoma 2, tumor 2		20
Senility		16
Inflammation of the brain 10, disease of the brain 2		12
Bronchitis		10
Casualties 5, burns and scalds 5		10
Typhoid fever	32	3
Scarlet fever	66	2
Septicemia 7, peritonitis 6, gastroenteritis 5, diabetes 4, dropsy 4, influenza 4, hemorrhage 4, cyanosis 3, suicide 3, cirrhosis of the liver 2, parturition 2, epilepsy 2, puerperal fever 2, jaundice 2, laryngitis 2, appendicitis 2, intestinal obstruction 2, shock 2, pertussis 2, abscess 1, asthma 1, aneurysm 1, disease of the liver 1, drowned 1, locomotor ataxia 1, pleuritis 1, metritis 1, rheumatism 1, sore mouth 1, suffocation 1, tetanus 1, ulceration of the stomach 1.		

Philadelphia Pediatric Society.—At a meeting held December 12, 1899, DR. C. F. JUDSON presented the following cases: 1. A colored infant, bottle-fed from birth, rachitic, having at times a rotatory movement of the head, and when this ceases nystagmus; the mother had chorea in her childhood. 2. A girl, 10 years old, with a paralysis of the right-shoulder region, of the Erb type, resulting from traumatism in forceps-delivery. 3. A girl, 2 years old, with left hemiplegia, who had had 2 convulsions during infancy; at present there is atrophy of the limbs with twitching, but no contractures; intellection is retarded somewhat, but is progressing. 4. A diplegic, birth-paralysis from extraction by the breech, the child being of poor nutrition, feeble intellect, with marked muscular weakness and inability to hold the head erect.

DR. F. T. STEWART and DR. ALFRED HAND, JR., reported a case of **dilation of the colon** in a boy 6 years old, the condition being first noticed 3 months after birth, constipation having been always present. The child was admitted to the Children's Hospital with a tensely distended abdomen, the greatest circumference being 71 cm.; strychnin, electricity and massage reduced this to 58.5 cm. in 2 weeks; shortly afterward he was taken home and in a few weeks admitted to the Pennsylvania Hospital in a precarious condition, dying from exhaustion 17 days later; at the autopsy the colon was found to be hypertrophied and dilated, the mucous membrane being the seat of many irregular ulcers; there were constrictions of the colon both above and below the dilation.

DR. J. M. TAYLOR reported a series of unusual cases: 1. **Hemorrhagic purpura** in a girl 13 years old, resulting fatally 6 months after the first manifestation. 2. **Scurvy** in a boy 20 months old, resembling syphilitic hemiplegia. 3. **Hodgkin's disease** in a boy 7 years old, seen only once with extensive glandular enlargement, anemia, and an enlarged spleen. 4. **Arthritis deformans** in a boy 9 years old, with improvement under treatment, the case disappearing from observation after a time.

DR. ALFRD HAND, JR., reported a case of **vaccination** in which there began to appear, a week after removal of the protective dressing, an eruption of many discrete vesicles, appearing singly and running the course of a vaccination, being apparently the result of scratching with the finger-nails which were supposed to be infected from the primary vaccination-lesion.

Pathological Society of Philadelphia.—At a meeting held December 14, DRS. G. E. DE SCHWEINITZ and J. D. STEELE reported a case of **sarcoma of the choroid and orbit.** The patient was a man of 36, whose eye together with a tumor-mass in the orbit had been removed for sarcoma. There was recurrence at the end of 6 months whereupon an extensive operation had been done with good results. The interesting features of the case were the long duration of the growth—2 to 3 years; the unusual form of the growth—flat, not spheroidal; the lesions inducing the glaucoma; tumor-cells in the optic nerve and the central artery; and the value of the operative measures employed.

DR. J. A. SCOTT reported a case of **syphilis of the liver,** from a man of 69, who had had a chancre at the age of 29 years. The principal symptoms were swelling of the abdomen and feet without gastrointestinal symptoms. The liver was not palpable; the urine contained albumin and hyalin casts. At various times 29 gallons of fluid were removed from the peritoneal cavity. The patient died of facial erysipelas. At necropsy the liver weighed 6½ pounds, and its surface presented numerous scars. Microscopically there were extensive bloodvessel alterations and connective-tissue hyperplasia in the liver, kidney, spleen and pancreas.

DR. L. N. BOSTON reported a case of **syphilis of the liver,** from a woman of 32. She had presented during life emaciation, pallor, hemoptysis, hematemesis, enterorrhagia. She was tapped repeatedly and at death her liver was markedly distorted and cicatricial.

DR. A. A. ESHNER reported a case of **carcinoma of the esophagus,** from a man of 60. He had complained of cough, expectoration, inability to retain food, and loss of flesh. Introduction of a stomach-tube was attended with difficulty and the tube was expelled by coughing. Later there was marked dysphagia. At necropsy there were found carcinoma of the esophagus, tuberculosis of both lungs, chronic pleuritis, chronic parenchymatous nephritis, and a fibroid fatty heart. Microscopic examination of the esophageal growth revealed it to be an epithelioma.

DRS. J. H. JOPSON and A. A. GHRISKEY reported a case of **anthrax in a morocco-worker,** infected while working with raw hides from Turkey. The pustule was located on the flexor surface of the right forearm at the site of a recent scratch. Cover-slip smears taken from the lesion showed involution forms of the anthrax-bacillus, many of which were intracellular, and intracellular diplococci. From the cultures were isolated the bacillus anthracis, the staphylococcus epidermis albus, and a streptococcus. A mouse inoculated with pure cultures of the bacillus died in 30 hours, and the bacillus was recovered from the blood. The patient was sent to the Philadelphia Hospital and died on the tenth day of the disease. No autopsy was obtained. Three other cases occurring in Philadelphia in the last 9 years were referred to.

Pittsburg (Pa.) Academy of Medicine.—At a meeting held November 20, DR. I. J. MOYER presented a large **sarcomatous ovary,** removed postmortem from a girl of 19, who died 4 weeks after admission to the hospital. She was apparently in perfect health 2 months before death. The left kidney and other ovary, both containing metastatic deposits, were also shown. There was marked edema of the lower extremities, the abdomen was full of fluid and both pleural cavities contained a blood-stained effusion. DR. F. F. SIMPSON cited instances showing that the prognosis after removal of sarcoma of the ovary is quite favorable. Of 25 malignant abdominal cases in DR. NERDER'S operations, 3 were sarcoma of the ovary, and of these but 1 recovered, and it was extensively adherent at time of operation. Both ovaries are usually involved. DR. E. H. SMALL reported a case of **typhoid fever** in a boy of 15, who recovered despite complication with hyperpyrexia, hemorrhage, pneumonia, furunculosis, acute hemorrhoids, deafness, periosteal abscess of right tibia, periostitis of left ulna and tibia (non-suppurative) and severe toothache. DR. W. B. EWING spoke of furunculosis in typhoid. DR. J. D. SINGLEY reported a case of **typhoid fever with pneumonia and metrorrhagia,** in which the hearing was greatly impaired. During a prolonged convalescence atrophy of optic nerve developed in right eye resulting in total loss of vision. Some weeks later the same process began in left eye and at present vision is very poor. DR. E. B. HECKEL reported a case of **hysteric mydriasis,** also 3 cases of **hysteric amblyopia** in women. The first was cured with jalap and calomel. In the second a plain glass gave vision of $\frac{20}{20}$ at once. In the third a weak plus lens brought vision up to $\frac{20}{20}$ immediately. DR. THEODORE DILLER reported 2 cases of **major hysteria with amblyopia.** There have been a number of cases of mydriasis reported as hysterical, but it is very doubtful as to their being of this nature, since hysteria is a disease of the will-power. DR. HECKEL replied that we know that the sympathetic nervous system is intimately associated with the higher centers, *e. g.*, when one becomes very angry the pupils dilate. DR. M. R. WARD reported a **puerperal case** which developed **profuse salivation** (from 1 to 2½ pints of saliva daily), spontaneously 6 or 8 days after confinement and continued for 8 or 10 weeks, uncontroled by any remedies. The patient was a neurotic and has had a similar attack previously following a pneumonia. DR. E. E. MAYER reported 2 cases of **major hysteria;** in one the patient could control the pulse almost at will. The other was cured in 3 days after remaining in bed for 3 years. DR. THEODORE DILLER reported a case of **Raynaud's disease** in a child of 3 years with recovery. Dr. Diller also reported at length 5 cases of **brain-tumor.** In one case, in which the classical symptoms of headache, vertigo, vomiting, stupor, stertorous breathing were present, autopsy showed no tumor, but softening. None was operated upon, though advised in one instance. DR. E. B. HECKEL,—to say a patient had diplopia or ptosis in speaking of the localization of brain-tumor really means very little. Diplopia may be due to paralysis of a number of muscles. He recalled a case diagnosed as brain-tumor with optic atrophy in which nothing was found at autopsy. DR. DILLER said even if localization appeared possible he would not advise operation until potassium iodid had been pushed. He knew of no case in Pittsburg in which any benefit was derived from operation, and indeed there are few anywhere. Trephining, however, does relieve headache and improves cases in some way we do not understand. DR. WARD recalled the case of Dr. Burns who presented all symptoms save those of localization. He sought operation the world over only to be refused. At autopsy an easily operable cortical tumor was found.

Philadelphia Obstetrical Society.—At a meeting held on December 7, DR. J. S. STONE, of Washington, read a paper by invitation upon **An improvised method of treating prolapse of the uterus and bladder.** He called attention to the attachment of the bladder to the surrounding parts, particularly its relation to the uterus in normal position. He advocates lifting the bladder into position by plastic operations on the anterior vaginal wall. That operation will give most relief which will best support the bladder in conjunction with other plastic operations on uterus and pelvic floor.

DR. X. O. WERDER, of Pittsburg, discussed the treatment of **Complete prolapse of uterus and vagina.** Mechanical devices, while of service under proper restrictions in cases that cannot be relieved by operation because of grave visceral lesions, are at best temporary, unsatisfactory, and often injurious. As reconstructive plastic operations about the cervix and vagina, and then almost complete closure of the vagina itself, not infrequently failed to give permanent relief, these procedures were supplemented by efforts to correct the retrodisplacement so generally accompanying this condition. The various methods of holding the uterus in anterior position have all had their advocates, but the one which best supplies the deficiency is ventrofixation, for by it the vagina is elongated, the floor is supported, the bladder is drawn up and the uterus is held in anterior position attached to fixed and firm tissues. The objection that dystocia may result from ventrofixation may be obviated by fastening a small area of the anterior surface of the uterus, half an inch below its tubal attachments, to muscle and fascia. Dystocia results not from the firmness, but from the extent and position of the fixation. After the menopause this precaution is unnecessary. The mere correction of backward displacement by vaginal fixation, suspensio uteri and shortening of the round ligaments in addition to plastic operation, has not given as much security against recurrence in this aggravated form of procidentia as ventrofixation. The supensory ligament and also the round ligaments are drawn out in time to such length that they no longer give any adequate support. Hysterectomy itself without plastic operation does not cure procidentia, as the uterus itself is very rarely the primaty cause of the malposition; it is more dangerous than other operations and is followed by large percentage of failures. It is, therefore, not justifiable, unless the uterus itself is the seat of disease, requiring its removal, or unless the ablation of adnexa becomes necessary, and even then ventrofixation is preferable. He has done this operation but once. In that case early carcinoma of the cervix was suspected. The operation of choice consists in the following procedures done in the order named: (1) curetment; (2) amputation of cervix when diseased, or when uterus is large and heavy; (3) anterior colporrhaphy, preferably by extensive oval denudation, carried deep down to the bladder musculature and several tiers of catgut sutures, the first one or two through bladder-wall pleating it, and the other through mucous and submucous tissue of vagina, drawing it over bladder, thus building up a firm anterior vaginal wall; (4) ventrofixation with removal of adnexa if seriously diseased; (5) colpoperineorrhaphy, preferably by Emmet's method. All these procedures are essential to permanent success. The complete operation is without mortality or failure. It is best to complete the operation at one sitting, for time is saved the patient, she is subjected to anesthesia but once, and a better result is obtained from a complete than from patchwork operation. It must be remembered, however, that prolonged anesthesia is a serious matter and the operation should not exceed an hour and a half in duration. Profound anesthesia is required only during the intraabdominal manipulations. To do all these operations within that period of time, training, experience as well as a well-equipped hospital-service are indispensable. DR. E. E. MONTGOMERY in discussion advocated amputation of the uterus in bad cases, and the suturing of the stump to the anterior abdominal wall after plastic operations have been done upon anterior and posterior vaginal walls. He called attention to the value of shortening the uterosacral ligaments in these cases so as to bring the intraabdominal pressure against the posterior uterine wall. He described a case recently operated upon in which a large pyosalpinx was associated with complete uterine prolapse. Vaginal hysterectomy was performed with the removal of the pus-sac, but the vaginal walls prolapsed subsequently, requiring an abdominal operation and the attachment of the upper end of the vagina to the abdominal wall. DR. J. M. FISHER discussed the anatomy of the pelvic floor and the necessity of a thorough knowledge of the muscular structures, in any operation for the restoration of these parts to their normal condition. DRS. GEORGE E. SHOEMAKER, R. C. NORRIS, and CHARLES P. NOBLE also discussed the paper, concurring mainly in the views expressed by Drs. Stone and Werder.

NEW YORK.

St. Luke's Hospital.—Mrs. Elizabeth C. Judd, widow of Col. Henry B. Judd, has just bequeathed $5,000 to this hospital.

New York Academy of Medicine—Orthopedic Section.—Immediately after the stated meeting, held on December 15, 1899, had been called to order, it was on motion adjourned out of respect to the memory of Dr. Samuel Ketch, and a committee appointed by the chair drew up appropriate resolutions, expressing the sentiment of the Section.

A Nurses' Club.—The Metropolitan Trained Nurses' Club gave a reception at its rooms, 104 and 106 West Forty-first Street, in commemoration of its sixth anniversary. The club-house is not only a rendezvous for the nurses who are members, but already 27 have made their homes at the club-house, and the demand is largely in excess of present accommodations.

The Craig Colony for Epileptics.—The annual report of the Board of Managers has been submitted to the State Board of Charities. It states that since the opening of the colony on February 1, 1896, 504 epileptics have been received, and that 378 remain. It is hoped soon to have accommodations for 720 persons. In the past year 95 new cases have been admitted and 35 discharged. The death-rate for this period, 2%, is the lowest since the opening of the colony.

Glanders in a Stable.—Horsemen in the upper section of the city have been worried a good deal in the last few days by a serious outbreak of glanders in a large boarding and livery stable. In this one stable 11 horses have died from it, and at least 7 others in the immediate vicinity have perished from this disease. As the disease may be communicated to man, and is then very fatal, so many deaths caused a small panic among the hostlers. The health-authorities have disinfected the premises, and are on the lookout for new cases.

Incorporation of a Hospital Successfully Opposed.—Mention has previously been made of the opposition engendered by the proposition to establish on the east side another hospital to be known as the Emanu-El Hospital. As a result of the information received at public hearings, the State Board of Charities have disapproved the application for the incorporation of this institution. The principal reasons were the absence of any real need for such an institution by the Jews in that section, and the lack of convincing proof that the scheme had a sound financial basis.

Filtration of the City Water.—For some time past the Croton water has been unusually dirty, and, at times, foul-smelling. The Health Department have examined the water at short intervals, and have reported again and again that the water was not dangerous in the sense that it would cause any specific disease. In a recent report to the board, Dr. Charles F. Roberts, sanitary superintendent, recommends the construction of a system of filtration for the city water-supply. He explains that while no pathogenic germs have been found in the water, and while the sanitary condition of the water-shed is good, the fact remains that the water is unpalatable and is unsuitable for washing persons or clothing. While disclaiming any belief in this water being specially injurious to health, he adds significantly: "The experience of other large cities certainly indicates that the introduction of filtering plants which deliver a pure, clear, good water to the inhabitants always results in lower rates of death and sickness."

New York Society of Medical Jurisprudence.—At the annual meeting of this society, held December 11, Dr. Frank Ferguson was elected president. ROGER M. SHERMAN, Esq., read a paper entitled, **The law and science of capital punishment by electricity,** in which he described the legal side of the electrocution law which went into effect in 1888. He made the point that, according to this law, the condemned person must be killed by a continuous current, yet the actual practice had been to produce death by administering a series of alternating shocks. He argued that this was not only illegal, but was inhuman, for those who had witnessed electrocutions asserted with one accord that the intervals betwen these shocks must be an eternity of anguish to the victim. In the discussion there were not wanting advocates of the garotte and the guillotine. ROBERT H. ELDER, Esq., of Brooklyn, maintained that electrocution was not cruel, and that it killed more quickly than hanging.

Health Officials Yield to Public Opinion.—Apparently the last chapter of the story of the plague-ships has been written. It briefly chronicles the decision of the Health Board, which will soon make the fleet of coffee-laden lighters a thing of the past. The resolution prohibiting the landing of the *Taylor's* cargo was adopted by a vote of 3 to 2, Dr. Doty and Dr. Jenkins voting against it, and the resolution admitting the cargoes of the other vessels was adopted by a vote of 4 to 1, the negative vote being cast by President Murphy. The steamer *Taylor* has sailed for Queenstown, after having been in quarantine nearly one month, and her cargo will now be landed after having been roasted and the bagging burned. All vessels hereafter arriving from infected ports may dock after passing through the measures prescribed by the United States Treasury Department and the Health Officer of the Port, the latter officer giving a certificate to that effect to the Health Department. When, however, there has been infection on board, the cargo must be treated as it was in the case of that from the *Taylor*.

Wretched Condition of Harlem Hospital.—It has long been an open secret that the Harlem Hospital does not begin to have the accommodations necessary to properly meet the demands made upon it by the rapidly increasing population of the upper east side of the city. Renewed attention has been directed to this subject by an address delivered by Dr. A. Palmer Dudley before the Harlem Board of Commerce, in which he made a strong appeal for a new hospital, and reminded his audience that although he had appeared before the board a year ago for the same purpose, nothing had been done, and the condition had steadily grown worse. He declared that, at times, the hospital was as crowded as the lowest tenements, patients being required to lie on canvas stretchers on the floor. When it is remembered that the hospital is nothing but an old frame dwelling-house, with accommodations for 40 beds, and that its facilities have not been increased since 1887, although since that time the population in the hospital district has been augmented by a quarter of a million, it is not difficult to understand why Dr. Dudley denounced this state of affairs as simply disgraceful. Nor is the out-patient department any better off. The portion of the hospital dignified by this title is really only a miserable outhouse on the pier, through which the wharf-rats play while the multitude wait for treatment. With these shameful accommodations the physicians are compelled to treat 50,000 people annually. There can be no doubt about the crying need of a new hospital, and it is certainly encouraging to learn that the Board of Commerce did not content itself with crying "politics," but unanimously passed

a resolution to ask the Legislature for an appropriation of at least $500,000 for the purpose of building a new hospital, and that quickly. The Board's committee on resolutions was instructed to prepare a bill and have it introduced at the coming session of the Legislature.

New York Academy of Medicine—Surgical Section.—At the stated meeting of this section, held December 11, the chief topic for discussion was **prostatectomy,** and it was illuminated by the reports of various cases, and the presentation of some of the patients. In this connection DR. WILLY MEYER exhibited the operating cystoscopes of Nitze and Caspar, and the Freudenberg modification of the Bottini prostatic cauterisator. DR. ALEXANDER B. JOHNSON presented a patient who had improved very greatly after a prostatectomy, and then proposed to shorten the period of convalescence by endeavoring to avoid tearing through the prostatic urethra by shaving off the firm attachment of the gland with a blunt-pointed knife. The process should be done first on one side, and then on the other, after having enucleated the lateral lobes of the prostate, and then a drainage tube should be inserted through a longitudinal slit on the floor of the membranous urethra. DR. EUGENE FULLER advocated making both the suprapubic and perineal incisions in cases in which there was much atony of the bladder, or where this organ was in a bad state, as this would allow of good drainage, and at the same time afford the surgeon an excellent opportunity to cope with hemorrhage, should it become troublesome. DR. S. ALEXANDER emphasized a cause of urinary retention in prostatics, often overlooked, *i. e.*, the displacement of the insertion into the prostate of the fibers of the vesical muscle. He recognized three varieties of so-called middle-lobe enlargement, viz.: (1) an enlargement limited to the anatomic isthmus of the prostate; (2) an additional enlargement of the glands at the internal urethral orifice, and (3) an increased development of the prostatic glands directly beneath the mucous membrane of the prostatic urethra above the vera montanum, giving rise to an upward projection of the floor of the urethra. He insisted that in doing his perineal prostatectomy the incision should be deep enough to go through the capsule and well into the enlarged lateral lobe. It was only when this precaution was omitted that any great difficulty was experienced in enucleating the enlarged lobes. He objected to the Bottini cautery operation because it only partially removed the mechanical obstruction, and did not restore the function of the vesical muscle, or provide drainage. DR. L. BOLTON BANGS thought the Nitze instrument should only be used for the removal of recurrent papillomas of the bladder; for the first operation on these growths it was not sufficiently thorough, at least not for those surgeons who, like himself, believed in their malignant nature. In his opinion, the Bottini cutting instrument would only prove useful and effective in the soft, glandular hypertrophies of the prostate.

Buffalo Academy of Medicine—Section on Medicine.—At the regular meeting held December 12, a paper was presented by DR. ALLEN A. JONES, entited **The relation of hydrochloric acid secretion to indicanuria.** He stated that so long as sufficient HCl is secreted by the stomach to satisfy the nitrogenous elements and to allow them to pass through the various steps of cleavage in pepsin-hydrochloric acid digestion, excessive intestinal putrefaction is not likely to arise despite the fact that sufficient HCl is not secreted in a free state; but, when the total acidity of the stomach is remarkably reduced and an approach is made to an alkalin condition, putrefaction of albuminoids more readily occurs and is especially favored in an alkalin intestinal medium. Excessive indicanuria had been found in ileus; obstruction of the large intestine and constipation depending upon atony of the colon or rectum is rarely the sole cause of indicanuria, while stricture of the small intestine, even so high as the duodenum, is usually signalized by the presence of large quantities of indican, which had been found also in gastric ulcers. He related a case in which a large amount of indican was found after all acute manifestations of the disease had subsided. Indican had been found often in cases of carcinoma with or without HCl, with or without marked stagnation; and in many cases of nervous depression of HCl secretion. He has found that indicanuria, if marked or present, has been associated more particularly with inflammatory states of the intestines, and in those cases of achylia gastrica accompanied by chronic looseness of the bowels alternating with constipation especially during the period of diarrhea. He analyzed 162 cases taken from their 1895–97 records, dividing them into 4 groups: (1) 85 cases showing free HCl with no indican in the urine, in which the HCl ranged from .03 to .25%; subsequent examinations of the urine in several cases demonstrated indican; (2) 36 cases showing free HCl with indican in the urine, 5 of which showed excessive amounts; the acid ranging from .01 to .21%; 15 showed only traces and indican was found inconstant; (3) 25 cases showing no free HCl, with no indican present in the urine; (4) 16 cases showing no free HCl with indican present in the urine, of which 7 had only a trace, 6 a moderate, and 3 an excessive amount; in some cases was inconstant, and subsequently HCl was occasionally found. His conclusion from their observations is that there is no warrant in concluding that there is an absence of free HCl in the stomach when indican is found in the urine, nor to argue that indican would be discovered in the urine of a case in whose gastric contents there is a diminution or absence of free HCl. DR. A. L. BENEDICT thinks that there is no direct relation between indicanuria and free HCl secretion, but that there is some association between these factors. Indican has but 2 sources, extraalimentary, *i. e.*, pus-formation, and intraalimentary, *i. e.*, intestinal putrefaction. There is a possible relation between indican and renal permeability. DR. DELANCEY ROCHESTER had assumed Simon's observations to be correct and had used the indican-reaction as an indication for the administration of HCl in a series of cases, and found that evidences of gastric irritation were very pronounced, leading to examination of the gastric contents in which was found free HCl, thus negativing Simon's conclusions. DR. C. G. STOCKTON said that the motor-activity of the stomach and intestines in cases of achylia gastrica induce the diarrhea, and that this activity and diarrhea disturb the digestion of proteids in the intestines, and hence the presence of indican in these cases. When the indican began to disappear the patient began to improve.

DR. A. L. BENEDICT presented a case of **Glenard's disease.** DR. J. H. DOWD reported a case of **gonorrheal thecitis** of the left thigh. DR. M. D. MANN reported a case in which a pregnant uterus was forced into a position of retroversion by a **ptosis of the stomach** and intestines, reaching the symphysis, the stomach being greatly dilated; he had previously performed a successful Alexander's operation upon this case. The upper border of the colon comes below the umbilicus in a large percentage of cases. DR. I. P. LYON reported the postmortem findings on a case of **chlorosis** (33% hemoglobin) in which the stomach was curved peculiarly upon itself and the upper border below the umbilicus. DR. A. A. JONES reported a case of **measles** in a young adult in which, upon the second day of the rash, vomiting and diarrhea set in, persistent and uncontrolable by ordinary means, lasting 48 hours, and that the conjunctival hemorrhage was excessive. DR. A. W. BAYLISS reported the apparent mixture of scarlatinal symptoms with those of measles in the present epidemic, especially the excessive gastric disturbances. DR. DELANCEY ROCHESTER reported a series of 4 cases in one family, in which the first case presented all the appearances of a simple bronchopneumonia, a slight red rash being present only on the day following hot mustard footbaths; the next 2 cases presented all of the signs and symptoms of measles and were so diagnosed; the fourth case was one of frank scarlet fever of a very mild type, at which time cases 2 and 3 presented areas of desquamation.

NEW ENGLAND.

By invitation of the **Yale Medical Alumni Association,** on December 13, 1899, Dr. W. P. Northrup, professor of pediatrics of the University and Bellevue Hospital Medical College of New York, delivered a lecture on "Some

Paths of Tuberculous Infection," at Osborn Hall. The lecture was illustrated by stereopticon views. A reception was given to the lecturer by Dr. Leonard Bacon. A university atmosphere was given to the occasion by the presence of the new president, President Hadley, who introduced the speaker.

CHICAGO AND WESTERN STATES.

Milwaukee (Wis.) Medical Society.—At the last meeting DR. RICHARD DEWEY read a paper on the **Drug habit among physicians.** Of the 28 habitues of morphin and cocain that came under his care in the past 4 years, 13 were physicians. DR. W. F. BECKER followed with an interesting paper on **Hematomyelia** and gave an account of 3 cases, of which two recovered and one proved fatal, the autopsy verifying the diagnosis in this case.

Chicago Ophthalmological and Otological Society.—At the December meeting, DR. F. C. HOTZ showed an interesting case of **primary tuberculosis of the conjunctiva** in a child, 5 years of age. The family history was excellent. Neither a tuberculous, nor specific history could be obtained. The diagnosis was verified by bacteriologic examination. DR. H. W. WOODRUFF showed a young lady, 29 years of age, who had **sclerokeratitis.** DR. ALBERT B. HALE exhibited a typical case of **retinitis pigmentosa** in a Russian, 23 years of age. DR. HOTZ also reported two cases of **peculiar visual perversion.** The first case, a girl of 10, was brought to him with the statement that the mother had given the daughter some medicine for nocturnal enuresis. After the girl had taken the medicine one week the pupils were enlarged and her sight was disturbed in a peculiar way. The medicine was discontinued, but the visual disturbance persisted. Two years ago, when taking some medicine for the same trouble, her sight was disturbed in the same way for some time. She could not read with the book in the usual position, but read quite fluently when she turned the book upside down. At 20 feet the test-types looked to her inverted, but when the card was turned upside down the letters appeared straight and she read them correctly to No. 30 inclusive. With a 2.50 D. before the eyes she read the same letters when the test-card was in the right position, but could not read them (because they appeared upside down) when the card was inverted. Large objects, however, like persons or houses, did not look to her turned upside down. After complete atropinization the visual disturbance disappeared entirely. Case 2 was similar in many respects.

The Cincinnati (Ohio) Society for Medical Research held its annual meeting, December 14. The following officers were chosen:—President, Henry W. Bettman; vice-president, F. W. Langdon; secretary and treasurer, Horace J. Whitacre; executive committee, A. Ravogli and A. Friedlander.

DR. FRIEDLANDER showed sections of all the organs from a case of **pernicious anemia.** Many nucleated red corpuscles were present in the bone-marrow, and numerous miliary tubercles in the spleen and liver. The lungs and other organs presented no abnormities. The case had been under observation 3 years, and presented the usual hemic features of pernicious anemia. He showed, also, several sections of a liver presenting certain resemblances to **hematosiderosis.** The lymph-glands contained a large amount of blood-pigment. A small encapsulated nodule was found in the liver containing a substance with a peculiar greenish pigmented appearance. In the discussion it was brought out that the pigment was deposited in the liver-cells, and that cirrhosis was present. The pigmentation, therefore, was probably the ordinary atrophic pigment-infiltration, and not a genuine hematosiderosis.

DR. HENRY W. BETTMANN presented two specimens of **congenital stenosis of the pylorus.** In the first, the stomach was removed from the body of an extremely emaciated colored child, aged 18 months. The cause of death was general miliary tuberculosis. The stomach was much smaller than normal; its walls were several times thicker than normal, the muscles being enormously hypertrophied. The pyloric valve was a thick, fleshy fold which entirely shut off the stomach from the duodenum, but for a minute orifice slightly larger than a pinhead in its center. The fundus was poorly developed. The second case was an adult stomach. No history of gastric disturbance was recorded. A thick membrane blocked up the large pyloric end of the stomach, but was perforated at one side by an opening less than one half the normal size of the pyloric orifice. The stomach had very thin walls, but was of usual size; the cardiac orifice was much dilated and the lower part of the esophagus was similarly distended. A large number of sections were shown, illustrating the various ways of development of sarcoma of the uterus.

The Research Club has adopted a method of demonstrating microscopic sections which is a great improvement on former methods. Instead of placing various specimens under the microscope, the demonstrator throws them on the screen with a projection-lantern, and thus they can be seen and discussed by all the members at one time. This method saves much time and annoyance and can be recommended to similar societies. It was first put into practice here by Dr. H. J. Whitacre.

Chicago Pathological Society.—At a meeting held December 11, DR. CHARLES A. PARKER reported 5 cases of **diaphragmatic hernia,** 3 of which were traumatic. The specimens and data of 3 of these cases were furnished by Dr. L. Hektoen; the other 2 were observed by Dr. Parker in the dissecting-room. All were found postmortem. There was no history of antemortem symptoms obtained in any of the cases and in none was there any evidence that the condition had shortened the patient's life. All were adults. In no case was there a complete sac, and in but one was there even an attempt at its formation. In the 3 traumatic cases scars were found in the integument of the lower left chest-wall and extending into the deeper tissues. The diaphragm was penetrated in its muscular position in all 3 of these cases, and in nearly the same place, anterior and to the left. The contents of 2 of the traumatic cases were simply omentum, but in the third and larger one were the transverse colon, 20 inches long, with its mesentery and vessels, and part of the great omentum, occupying a considerable portion of the left pleural cavity to the left of the pericardium. In this case an incomplete sac, formed mostly of great omentum, extended through the intercostal opening, and some distance down on the external surface of the chest-wall beneath the skin, forming an intercostal hernia. Its inner surfaces were not adherent at the opening, and it is possible and quite probable that at times of increased abdominal and thoracic pressure portions of the large intestine were forced into it, forming part of the contents of this most unusual (intercostal) variety of hernia. Of the two cases considered congenital from lack of evidence of traumatic origin, one was a female, and one a male. In the former there existed an opening in the left anterior region of the diaphragm, 2 inches in diameter, transmitting into the left pleural cavity a hernia that consisted of the stomach and first portion of the duodenum, the entire transverse colon and great omentum. As there were very few adhesions to the surrounding structures, they were quite freely movable, so the contents of the hernia probably varied from time to time. In the male subject an opening $3\frac{3}{4}$ by $4\frac{1}{2}$ inches occupied a considerable portion of the right half of the diaphragm, and through it extended the larger part of the liver, including most of the right and left lobes, with the gallbladder into the right pleural cavity, where it was firmly held by strong adhesions. The margin of the opening was free throughout the greater part of its extent, and the hand could be freely passed from the abdomen into the thorax in front of the line.

DR. LUDVIG HEKTOEN presented a report, illustrated by lantern slides, on a **pathogenic fungus,** obtained from a case of very refractory subcutaneous abscesses of the index-finger, hand, and forearm, under the care of Dr. Perkins, of Shenandoah, Iowa. The clinical course of the disease, and the morphologic, cultural, and biologic properties of the

fungus corresponded in every respect to the observations of Schenck, of the Johns Hopkins Hospital, or "a case of refractory subcutaneous abscesses caused by a fungus possibly related to the sporothricha."

Chicago Medical Society and the Chicago Medical Examiners' Association.—At a joint meeting held December 13, DR. HAROLD N. MOYER, in a paper on **Residence in hospitals or sanatoriums in relation to life-expectancy,** pointed out the purpose of life-insurance examinations, and dwelt upon the form of blanks employed in examinations. He then expatiated upon the conditions that determine the residence in an asylum or sanatorium, paying particular attention to the "sanatorium-habitue." He discussed the hypochondriac from an insurance standpoint; the relation of hysteria; the relation of neurasthenia and hysteria to the organic nervous affections; mental disease and the life-insurance examination; the element of chronicity; epilepsy and life insurance; and paretic dementia, the most important of all mental disorders from a life-insurance standpoint.

DR. WELLER VAN HOOK followed with a paper on the **Relation between rectal diseases and life-expectancy,** in which he discussed the commoner diseases of the rectum, hemorrhoids, stricture, abscess, and fistula, gonorrhea, ulcerations, prolapsus, and carcinoma, in causal relation to one another and in relation to life-expectancy.

DR. DENSLOW LEWIS discussed **the examination of women for life-insurance.** The basis of calculation in life-insurance is not perfection of health, but a standard. The average life-probability of standardized groups is the basis of insurance statistics. The perpetuity of life insurance and the reliability of actuarial computation depend on the determination of the standard. The prescribed examination of women fails to discover many important pathologic conditions which affect the risk and influence the standard. Dangers of child-bearing are now considered compensated by diminished exposure, more regular mode of life, etc. Increased moral risk is recognized in young divorced widows and the influence of economic and sociologic relationship is appreciated. Gynecologic examinations should be made in every applicant to determine pathologic conditions not discovered by the usual form of examination which was devised originally for investigation of men. Hardening of the breast is a cause for rejection unless the sequel of recent abscess. If the finger in the vagina cannot touch the promontory of the sacrum, the conjugate diameter may be assumed to be sufficient for parturition. Lacerations of perineum and cervix are especially important when infected. Leukorrhea usually indicates infection which should be investigated. Infection is always a potential danger, for the limits of possible extension cannot be determined. The differential diagnosis for insurance purposes is unnecessary. Tenderness in either fornix and any intrapelvic deviation from the normal condition, as determined by bimanual examination, is sufficient cause for postponement or rejection.

DR. J. HOMER COULTER dealt with **the relation of chronic ear-diseases to life insurance,** confining his remarks to the subject of chronic suppurative otitis media. An acute suppuration of the ear will, if left alone, tend to become chronic, and many cases improperly treated will tend either to seriousness or chronicity; hence a complete and fully detailed report of the case is necessary in examining an individual for life insurance. Medical directors generally do not accept an applicant for insurance, at ordinary rates, who gives a history of chronic or repeated attacks of acute inflammatory affection of the ear. It is not because of the proportion of fatalities that occur in suppuration of the middle-ear that the speaker would urge its particular importance in relation to life insurance, but rather because of the large number of suppurating ears met in practice, any one of which is liable to go on to mastoid involvement, with sinus or brain complication, and death. If the applicant be entirely free from attacks of tinnitus, vertigo, headache, disturbance of vision, or itching in the ears, for a period of several years, then he may be considered safely insurable so far as the ears are concerned.

DR. DENSLOW LEWIS offered a resolution, which was unanimously adopted, urging the appointment of Dr. George W. Webster as a member of the State Board of Health. It is believed that Dr. Webster's appointment will give entire satisfaction.

SOUTHERN STATES.

Board of Examiners for Osteopaths in Georgia.—The bill authorizing the establishment of a Board of Examiners for the so-called osteopaths has passed the Senate and now awaits the signature of the Governor. The quacks and charlatans can soon have full sway in Georgia.

In Honor of Dr. Wm. H. Welch.—It is customary in Germany for the pupils of a great teacher to express their appreciation and gratitude by dedicating to him a volume of their contributions to learning. The pupils of Dr. William H. Welch, of Baltimore, have decided to give expression to their regard for him in a similar way, and the publication of a volume to mark his twenty-fifth year as a teacher and investigator is now in progress. During the past 25 years some 75 persons have undertaken investigation under Dr. Welch's leadership and nearly half of these will contribute to the volume mentioned. The edition will necessarily be limited by the number of subscribers. An early announcement of the publication is made to give opportunity for subscription, so that the committee can decide upon the number of copies to be printed.

Memphis (Tenn.) Medical Society.—At a meeting held December 5, DR. F. S. RAYMOND read a paper on **The physician as a factor in the spread of contagious diseases,** in which he said that the average physician is not sufficiently careful when attending a case of a contagious disease to disinfect himself on leaving. Doubtless they spread disease oftener than they are aware. Rubber coats or dusters should be used and disinfection of the hair, beard and hands should be carefully practised after visiting such a case. DR. KRAUSS advises that we drop the classification of contagious and infectious and divide diseases into the transmissible and untransmissible, and then make rules for disinfection in individual transmissible diseases. DR. HEBER JONES mentioned a case in which the attendant conveyed scarlatina to a woman in childbed, who died. This is the only case in which he knows the doctor carried the infection. DR. E. C. ELLETT spoke of the necessity for disinfecting clinical thermometers, tongue-depressors and specula. DRS. SANFORD and TURNER recommend that physicians bathe and change their clothing after being exposed to a contagious disease.

DR. T. J. CROFFORD reported **Some anomalous cases of appendicitis.** Case I. Chronic appendicitis with sepsis. The appendix was a small stump weighing 7 grains—operation—recovery. Case II. Pain in *left* iliac fossa; tumor in the right. Operation—appendectomy—recovery. Case III. Recurrent appendicitis with neurasthenia. Operation after the ninth attack. Recovery. Case IV. Chronic appendicitis—operation. Appendix contained five fecal concretions. Recovery. Case V. A recent case, seen in second attack. Obstruction of bowels, probably from inflammatory paresis. Operation not advised. Bad prognosis.

DR. E. E. HAYNES read a paper on **When to operate in appendicitis.** He favors operation as soon as the diagnosis is made, except when resolution is established, when he thinks it correct to wait and operate in the interval. The operative death-rate is less than the medical death-rate. DRS. VENN, HENNING and SALE favored a less radical position, since most cases undoubtedly recover without operation. The fulminant are apt to die under any treatment. DR. ALFRED MOORE regards this as a surgical disease, if only for surgical supervision. DR. HAYNES said that if we could always tell the severity of a case, it would be easy to decide on the treatment, but this can not be done except by operation.

DR. L. L. MEYER reported a case of **Recurrence of typhoid fever.** The patient was seen in what was apparently the third attack, the history being very conclusive as to the character of the two first attacks. DR. KRAUSS said that such cases were sometimes seen, but that he did not believe that the administration of quinin without effect eliminated the question of malaria. DR. HENNING spoke of the frequency of which he sees double infection, as verified by the microscopic examinations, and said that the death-rate in these cases was low. DR. GOLTMAN said that the estevo-autumnal parasite was very resistant to quinin, and the failure to break the paroxysm may be due to the presence of this organism.

Johns Hopkins Hospital Medical Society.—At the meeting Monday, December 18, DR. HAMBURGER exhibited a man of 42 with **arsenical pigmentation and keratosis,** who had come to the hospital complaining of swelling of the abdomen and feet. Almost the entire body was covered with pigment spots of a mottled yellowish-brown color, which were most profuse over the abdomen and lower back, although most of the body was covered except the palms of the hands and soles of the feet. His hands were very rough and dry, the skin thickened, especially over the palms, and scattered over the dorsal aspect, and between the fingers were numerous warts of various sizes. Over the left elbow there was one very large warty growth. He had taken Fowler's solution in doses of 5 to 8 drops, 3 times daily, for 5 or 6 years, beginning as treatment for some skin-eruption, probably psoriasis.

DR. OSLER exhibited two patients. (1) **Multiple gangrene in malaria.** A young man admitted November 27 with areas of multiple gangrene of the skin, of the hands, of one buttock, one heel, the outer side of one ankle and the dorsum of the other. The spots had appeared as bullae November 2, most of them being superficial, but in those on the feet the necrosis involved the entire skin. The patient had had typhoid twice, and on October 10 had what was called grip; no chills, only fever, weakness and sweats. He had a very sallow appearance and the spleen was greatly enlarged. The blood contained malarial parasites in enormous numbers, chiefly crescents and ovoids. Cultures from the blood were negative. The case came into the category of multiple gangrene of the acute infections met occasionally in typhoid and typhus fever, but a very rare complication in malaria. The patient had never had local syncope or asphyxia of the extremities, and the condition was not to be confounded with Raynaud's disease. (2) **Splenomegaly, ascites, nodular liver.** The patient, aged 58 years, had had for 7 or 8 years a lump in the abdomen, which had increased of late, and he had been loosing in flesh and strength. He had not had syphilis and had not been a drinker. Lately the abdomen had begun to swell and he complained of pains in the side. There was no jaundice, but he was a little pale. Hemoglobin 63%, red blood-corpuscles 4,500,00 per cm. Spleen was enormously enlarged, very hard, flat, and cake-like. and extended across the middle line. The liver could be felt under the costal margin, with a very hard, irregular edge. One or two nodular bodies, like large lymph-glands, could be felt in the abdomen, and there was a moderate amount of fluid in the peritoneum. The condition was obscure: the patient was positive as to the existence of the mass in the abdomen for many years. The blood resembled that of ordinary splenic anemia. The liver was nodular, like a syphilitic organ, but the degree of enlargement of the spleen was greater than ever seen in the form secondary to contracted liver. The nodular bodies in the abdomen added to the obscurity of the case. The case suggested the terminal condition in splenic anemia described by Banti. The patient was anxious for an exploratory operation, which is to be performed shortly.

DR. KELLY presented 3 cases of **dermoid cysts with carcinoma,** representing 3 different sources of origin of malignant disease in association with dermoids. One was an epithelioma "cancroid," due to the degeneration of the dermoid tumor. The tumor was as large as a man's head and universally adherent, and after a difficult enucleation it ruptured in its lower part, revealing an extensive carcinomatous mass infiltrating the pelvic floor. This mass was scooped and scraped out and the abdominal cavity protected by suturing the large uterus on all sides to the brim of the pelvis and draining into the vagina. The patient was doing well 4 weeks after the operation. The second case was an adenocarcinoma of both ovaries with a small dermoid in the center of one of them, representing a mixed tumor, and the third case was a dermoid of the ovary associated with a cancer of the uterine cervix, representing a possible source of invasion of the dermoid. These were believed to be the first specimens of the kind brought before any English audience.

Dr. Kelly also described an **improved method of operating for carcinoma of the cervix** by removal through the vagina as follows: After catheterizing the ureters so that they may be constantly kept out of harm's way the vaginal vault is exposed and an incision made around the cervix well down the vagina at a long distance from the disease, so as to avoid local recurrence in the vagina. Then with blunt force, the fingers covered with gloves, the bladder is dissected from the uterus, and if it should be involved it is cut through so as to leave as large a piece as possible sticking to the uterus to sew up after the operation is completed. The cervix is then caught with forceps and pulled down as far as possible and the second pair of forceps applied, and so on, climbing up until the fundus of the uterus is reached. Drawing that out of the vagina to the vulva, without applying any ligatures or sutures, the uterus is bisected from fundus to cervix and the two halves left hinged at the broad ligaments. Then the upper part of one broad ligament is tied off at a distance from the uterus and cut off, thus removing a fourth part of the organ. The second quadrant is removed in the same way and then, clamping the cervix, there is ample room now to work around it with ease and remove all parts desired. There is but slight hemorrhage at any part of the operation.

DR. BLOODGOOD exhibited a patient upon whom he had operated for **tuberculous disease of both hipjoints** with perfect recovery.

DR. WILLIAM OSLER gave a reception on Saturday evening last in the assembly room of Johns Hopkins Hospital in honor of the Philippine commission sent out early in the year by the University. Drs. Simon Flexner and L. F. Barker, who were members of this commission, gave an interesting talk on their experiences, and Dr. Barker accompanied his remarks with a stereopticon exhibition describing places visited in Japan, the Philippines, and India, and also the hospitals and burial scenes of the plague district in the latter country.

MISCELLANY.

Obituary.—DR. SAMUEL KETCH, aged 44, the well-known New York orthopedic surgeon, was found dead in bed December 11. The evening before he had had an attack of angina pectoris, and had been temporarily relieved by his friend, Dr. L S. Rau. He was known to have heart-disease, but had not been thought at the time to be dangerously ill. He was a member of the surgical staff of the New York Orthopedic Hospital and the Montefiore Home, and was recently president of the American Orthopedic Association. --DR. FRANK C. ARMSTRONG, U.S.V., Philippine Islands, December 4.—DR. NAPOLEON B. KENYON, Riverport, R. I., December 7, aged 60 years.—DR. STUART B. CARLISLE, Mt. Vernon, N. Y., December 8, aged 51 years.—DR. WILLIAM P. BRECHIN, Boston, Mass., December 10, aged 48 years.—DR. EMIL FISHER, one of the founders of the German Hospital, Philadelphia, December 16, aged 62 years.—DR. CHARLES C. HOWLAND, Providence, R. I., December 14.—DR. NEWTON TITTER, of Philadelphia, in Allentown Pa., December 16.—DR. WALTER BOARDMAN, Lancaster, Pa., December 15, aged 38 years.—DR. CHARLES HERWIRSCH, of the staff of the Polyclinic Hospital and visiting physician to the Rush Hospital for Consumptives, was thrown from his carriage, December

12, sustaining a fracture of the skull, from which he succumbed at the German Hospital, December 15. He was 47 years of age.

Mr. D. L. Moody on Medicine.—There is not always that sympathy between healers of souls and healers of bodies that should exist between members of mutually complimentary professions. The mass of the educated clergy of all denominations, indeed, obey the Scriptural precept and honor the physician for the need they have of him. There is, however, what may be called a natural affinity between religious teachers of a certain type and quackery. We are all the more pleased, therefore, to cite a passage from a sermon recently preached in Chicago by D. L. Moody, in which that noted evangelist rebuked a brother preacher who had openly supported a notorious American quack and allowed one of his children to die of diphtheria without calling in a medical practitioner. Mr. Moody, after pointing out that the saving of souls and the healing of the body are two entirely different functions, went on to say: "I do not believe that doctors are devils. The noblest profession outside of the ministry is that of medicine. Never yet in all my years of work have I called upon an able doctor, telling him of the sickness and need of some poor friendless person, that he did not at once go to the rescue, without money and without price. Some of the noblest men I ever knew have gone out as medical missionaries, devoting their lives to doing good with the skill and healing medicines the Lord has conferred upon them. And those men are called devils! God have mercy upon the man who says so! God forgive the man who holds such beliefs! God heals, and God heals through doctors and through medicines. Do not be carried away through ravings of fanaticism. We have a new 'ism' in America about every year—beware of the 'isms!' What would I do if I fell sick? Get the best doctor in Chicago, trust to him, and trust to the Lord to work through him! The doctors have done wonders as their knowledge has grown; they have reduced the dangers of death from diseases that once slew all they touched; and the doctors, if God helps them, will yet find a way to stop the ravages of other terrors." We can only wish that all ministers of the Gospel had as clear a perception of the proper relations between religious teaching and the practice of medicine, and as enlightened a conception of the value of Medical science as Mr. Moody.—*British Medical Journal.*

Examination for Surgeoncies in the Marine-Hospital Service.—The following circular has been issued by the Supervising Surgeon-general of the Marine-Hospital Service:

A board of officers will be convened at the Service Building, 378 Washington Street, New York City, Wednesday, February 7, 1900, for the purpose of examining candidates for admission to the grade of Assistant Surgeon in the U. S. Marine-Hospital Service.

Candidates must be between twenty-one and thirty years of age, graduates of a respectable medical college, and must furnish testimonials from responsible persons as to character.

The following is the usual order of the examination: 1. Physical. 2. Written. 3. Oral. 4. Clinical.

In addition to the physical examination candidates are required to certify that they believe themselves free from any ailment which would disqualify for service in any climate.

The examinations are chiefly in writing, and begin with a short autobiography of the candidate. The remainder of the written exercise consists in examination on the various branches of medicine, surgery and hygiene.

The oral examination includes subjects of preliminary education, history, literature and natural sciences.

The clincial examination is conducted at a hospital, and when practicable candidates are required to perform surgical operations on a cadaver.

Successful candidates will be numbered according to their attainments on examination, and will be commissioned in the same order as vacancies occur.

Upon appointment the young officers are as a rule first assigned to duty at one of the large marine hospitals, as at Boston, New York, New Orleans, Chicago or San Francisco.

After five years' service, Assistant Surgeons are entitled to examinations for promotion to the grade of passed Assistant Surgeon.

Promotion to the grade of Surgeon is made according to seniority, and after due examination as vacancies occur in that grade. Assistant Surgeons receive sixteen hundred dollars, Passed Assistant Surgeons two thousand dollars, and Surgeons twenty-five hundred dollars a year. When quarters are not provided commutation at the rate of thirty, forty, or fifty dollars a month, according to grade, is allowed.

All grades above that of Assistant Surgeon receive longevity pay, ten per centum in addition to the regular salary for every five years' service up to forty per centum after twenty years' service.

The tenure of office is permanent. Officers travelling under orders are allowed actual expenses. For further information, or for invitation to appear before the board of examiners, address,

SUPERVISING SURGEON-GENERAL,
U. S. Marine Hospital Service,
Washington, D. C.

Health-Reports.—The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, U. S. Marine-Hospital Service, during the week ended December 15, 1899.

SMALLPOX.—UNITED STATES.

			Cases.	Deaths.
DISTRICT OF COLUMBIA:	Washington	Dec. 2-9	2	
KANSAS:	Arkansas City	Nov. 27-Dec. 2	14	1
"	Columbus	Nov. 27-Dec. 2	1	
"	Lawrence	Nov. 27-Dec. 2	6	
"	Peoria	Nov. 27-Dec. 2	1	
"	St. Mary's	Nov. 27-Dec. 2	2	1
"	Wellington	Nov. 27-Dec. 2	2	
LOUISIANA:	New Orleans	Dec. 2-9	7	
MASSACHUSETTS:	Chelsea	Dec. 2-9	3	
S. CAROLINA:	Greenville	Dec. 2-9	4	
VIRGINIA:	Portsmouth	Dec. 2-9	19	

SMALLPOX.—FOREIGN.

BELGIUM:	Antwerp	Nov. 11-18	3	
BOHEMIA:	Prague	Nov. 11-18	19	
BRAZIL:	Casra	Oct. 1-31	1	
CANADA:	Kamouraska	Nov. 27-Dec. 4	63	
CUBA:	Casilda	Nov. 27-Dec. 4	5	
EGYPT:	Cairo	Oct. 28-Nov. 4		1
ENGLAND:	London	Nov. 18-25	1	
GREECE:	Athens	Nov. 11-19	3	1
MEXICO:	Chihuahua	Nov. 25-Dec. 2		3
"	Vera Cruz	Nov. 23-Dec. 7		2
RUSSIA:	Moscow	Nov. 4-18		2
"	St. Petersburg	Nov. 11-18	17	3
SPAIN	Corunna	Nov. 18-25		1

YELLOW FEVER.—UNITED STATES.

FLORIDA:	Key West	Nov. 26-30	4	
LOUISIANA:	New Orleans	Dec. 2-9	1	

YELLOW FEVER.—FOREIGN.

COLUMBIA:	Barranquilla	Oct. 22-Nov. 18	2	2
"	Panama	Nov. 25-Dec. 5	10	5
CUBA:	Havana	Dec. 1-7	6	1
"	Matanzas	Nov. 26-Dec. 3	1	

CHOLERA.

TURKEY:			
(In Asia)	Amara	Nov. 13	Present.
"	Bassorah	Nov. 25	Spreading.
"	Fao	Nov. 17	Present.
"	Shabra	Nov. 18	Present.

PLAGUE—FOREIGN.

BRAZIL:	Santos	Oct. 18-Nov. 18	28	11
CHINA:	Hongkong	Oct. 14-28	2	2
JAPAN:	Osaka and Hiogo	Nov. 4-11	3	3
MADAGASCAR:	Tamatave	Oct. 14-29	11	8
PORTUGAL:	Oporto	Nov. 1-20	41	17

Changes in the Medical Corps of the U. S. Army for the week ending December 16, 1899:

MEACHAM, Major FRANKLIN A., surgeon, will report to the commanding general, Second Division, Eighth Army Corps, for assignment to duty as a brigade surgeon in that division.

MOSELY, Major EDWARD B., surgeon, is assigned to the command of Santa Mesa Hospital.

PAGE, First Lieutenant HENRY, assistant surgeon, is relieved from duty at Santa Mesa Hospital and will report for duty with the Twelfth U. S. Infantry.

FORD, First Lieutenant CLYDE S., assistant surgeon, is relieved from duty with the Twelfth U. S. Infantry and will report to the commanding general, Second Division, Eighth Army Corps, for assignment to duty at the field hospital of that division.

BALCH, Major LEWIS, brigade surgeon, will report to the commanding general, Second Brigade, Second Division, Eighth Army Corps, for duty as brigade surgeon.

POWELL, Major JUNIUS L., surgeon, will report to the commanding general, First Division, Eighth Army Corps, for duty as division surgeon.

PENROSE, Major GEORGE H., brigade surgeon, is relieved from duty with the First Division, Eighth Army Corps, and will report to the commanding general, Third Brigade, First Division, for duty as brigade surgeon.

MORRIS, Major E. R., brigade surgeon, will report to the commanding officer, U. S. troops on board the "Grant," for duty on that vessel on her voyage to San Francisco, Cal., and return to Manila.

HYSELL, Major J. H., surgeon, is granted leave for one month from about December 1, with permission to apply for an extension of one month, and authority to visit the United States.

RUSSELL, First Lieutenant F. F., assistant surgeon, will in addition to his duties as surgeon at Humacao, P. R., take charge of the sick at the subpost of Vieques, P. R.

HASTINGS, OLIVER H., hospital steward, is relieved from duty in the office of the chief surgeon of the division of Cuba, and will proceed to Quemadoes, Cuba, for assignment.

GORGAS, Major W. C., surgeon, is granted leave for one month.

GIBBONS, GEORGE, hospital steward, will report on transport "Sherman" for duty during the voyage of that vessel to the Philippine Islands, and upon arrival in Manila will report to the commanding general, department of the Pacific, for instructions.

COLLINS, First Lieutenant CHRISTOPHER C., assistant surgeon, is granted leave for one month, on surgeon's certificate.

MORRIS, Major EDWARD R., surgeon, now on leave, is relieved from further duty in the department of the Pacific and Eighth Army Corps, and upon the expiration of his present leave will report at Fort Wayne for duty.

LOMMEL, NICHOLAS, hospital steward, Fort Reno, is transferred to Santiago, Cuba.

BLAKE, JOHN C., hospital steward, is relieved from duty at Fort Reno, and will be sent to Fort Columbus for temporary duty.

FULLER, First Lieutenant LEIGH A., assistant surgeon, will proceed from New York City to Fort Monroe for duty to relieve First Lieutenant BENJAMIN J. EDGAR, JR., assistant surgeon.

EDGAR, First Lieutenant BENJAMIN J., JR., assistant surgeon, is relieved from duty at Fort Monroe, will proceed to San Francisco, Cal., and report to the commanding general, deparment of California, for assignment to duty.

FULLER, First Lieutenant LEIGH A., assistant surgeon, in addition to his present duties at Fort Monroe is detailed to perform the duties of quartermaster and commissary at the Josiah Simpson U. S. General Hospital, near Fort Monroe.

REYNOLDS, Captain FREDERICK P., assistant surgeon, will proceed from New York City on the U. S. transport "Sumner," about January 15, to Manila, P. I., and report to the commanding general, department of the Pacific and Eighth Army Corps, for assignment to duty.

Changes in the Medical Corps of the U. S. Navy for the week ended December 14, 1899 :

BELL, W. L., assistant surgeon, detached from the "Philadelphia" and ordered to the "Independence."

GARTON, W. M., assistant surgeon, order of December 6 modified, detached from the Washington Navy Yard and ordered to the "New York" immediately.

Changes in the U. S. Marine-Hospital Service for the 7 days ending December 14, 1899 :

OAKLEY, J. H., passed assistant surgeon, to proceed to New York, N. Y., and report to Surgeon L. L. Williams (Immigration Depot) for special temporary duty. December 13.
To proceed to Queenstown, Ireland, for duty.

WICKES, H. W., passed assistant surgeon, to proceed to New York, N. Y., and report to Surgeon L. L. Williams (Immigration Depot) for special temporary duty. December 8.
To proceed to Glasgow, Scotland, for duty. December 8.

GREENE, J. B., passed assistant surgeon, to proceed to Bremen, Germany, for duty. December 8.

MATHEWSON, H. S., assistant surgeon, to proceed to New York, N.Y., and report to Surgeon L. L. Williams (Immigration Depot) for special temporary duty. December 13.
To proceed to Liverpool, England, for duty. December 13.

CORPUT, G. M., assistant surgeon, to proceed to Marseilles, France, for duty. December 8.

KING, W. W., assistant surgeon, detailed as inspector of unserviceable property at New Orleans, La. December 8.

MCISAACS, FRED, acting assistant surgeon, granted leave of absence for two weeks from December 21. December 9.

Tertiary Syphilis.—Prof. Fournier, in a recent lecture at the Hôpital Saint-Louis, related his results of the analysis of 5,790 cases of tertiary syphilis, and demonstrated that of all the tissues of the body the most frequently invaded, the nervous system (including the brain) headed the list with 1,851. Next to this comes the skin with 1,418. The most startling particulars in the table were 758 cases of cerebral syphilis and 628 cases of tabes.

Foreign News and Notes.

GREAT BRITAIN.

Diphtheria has been rife in the southern counties of Wales during November, and in several places the public elementary schools and Sunday-schools have been closed.

The Anniversary of the Royal Society.—The annual meeting of the Royal Society was held on St. Andrew's. day (the last day of November), as usual, when Lord Lister devoted a great part of his presidential address to a consideration of the views and experience of Mr. Haffkine in regard to the application of the system of preventive inoculation to the treatment of cholera, plague, and typhoid fevers. In the evening Lord Lister presided over the Society's dinner, when the Chinese Minister, Sir Chilchen Löfenluh, K.C.V.O., returned thanks for the toast of "The Guests." Sir Chilchen spoke in Enghsh.

The Investigation of Cancer at the Middlesex Hospital.—A new wing of the Middlesex Hospital is to be devoted entirely to cancer cases, and the opportunity thus presented for the study of cancer will be unrivaled in Great Britain. A systematic bacteriologic and histologic examination will be made in every case of carcinoma and sarcoma admitted into the hospital, and the result will be applied to the attempt to formulate a satisfactory classification of these neoplasms, especially of the sarcomas where definite knowledge is very slight. A staff consisting of a director, an assistant director and a registrar have been appointed to carry out the work, and Mr. A. G. R. Foulerton, F.R.C.S., is the first director.

The Terrible Death-rate of Dublin continues. The mortality dropped a little toward the end of November, but the first week of December saw it mount again to 40.2 per 1,000, the average for the corresponding week, judged by previous years, being 27.4 in Dublin, and about 17 or 18 in the larger English cities. A conference of the medical officers of health of the city has been held, but any definite and universal scheme of sanitary reform will be very hard to carry out in Dublin, where religious and political differences are introduced at every turn. If only Unionists and Home-rulers, Roman Catholics and Protestants, landlords and tenants would all agree to work together, something more might be expected.

The Pathological Society of London.—The adjourned debate upon the pathology of tabes dorsalis and general paralysis of the insane, to the first stages of which reference has already been made in the PHILADELPHIA MEDICAL JOURNAL, was continued before the Pathological Society of London on December 5 by Sir William Gowers. Sir William Gowers said that he regarded the question of the identity of tabes dorsalis and general paralysis of the insane as rather one of words, for while all could see that some examples of each disease presented exactly the same signs and symptoms, no amount of common causation could create identity of disease which differed so widely in every manifestation as the cerebral form of general paralysis and the pure form of tabes. Dr. G. H. Savage, who has one of the largest English practices in lunacy, Dr. David Ferrier, the well-known worker upon cerebral localization, Dr. J. F. Payne, Dr. Hale White, and Dr. F. E. Batten, one of the secretaries of the English Neurological Society followed, and the debate was again adjourned.

Tercentenary of the Faculty of Physicians and Surgeons of Glasgow.—On November 29 the faculty of physicians and surgeons of Glasgow celebrated their 300th anniversary, the charter from King James the Sixth of Scotland bearing date the "penult day of November," 1599. At the annual dinner considerably over one hundred guests and Fellows assembled in the Faculty Hall, St. Vincent Street. The chair was occupied by Dr. Hector Clare Cameron, the president, while the place of vice-president was occupied by Dr. James Finlayson, the visitor. Principal Story proposed the toast, "The Faculty of Physicians and Surgeon," in an interesting speech full of references to the history of the Faculty, and the president made a suitable reply. The tercentenary will be further celebrated by the members of the profession in Glasgow and the west of Scotland being invited by the Faculty to a conversazione in the course of the winter.

The War in South Africa continues to drag a slow course. The Boers are more mobile than the English and escape severe punishment, while the formation of the country favors defending parties, and makes the work of relieving forces both arduous and dangerous. On December 6 the first batch of sick and wounded in the war arrived back in England, consisting of 131 men, 45 women, and 68 children, the women and children being wives and families of officers and men serving in South Africa, and not, strictly speaking, wounded. The story of the wounded is the same in almost every case, a clean wound and an extraordinary rapid recovery. A sixth division will be sent out to Africa, a much larger number of men than was originally contemplated being required. Lieutenant-Colonel W. L. Gubbins, R.A.M.C., will act as principal medical officer to the division. He is a well-known officer who has seen much service in Afghanistan, India and Burmah.

The Lancet on American Cigarets.—The *Lancet* has undertaken, in view of the sensational statement rife in the lay press, both in England and America, as to the disastrous consequences of cigaret-smoking, a systematic analysis of the most popular brands of American cigarets. The gist of the *Lancet's* conclusions is that these statements have no basis. The results of an elaborate series of investigations show nothing upon which can be fairly based any allegation that injury to health is produced. "As to the question of injury to health which may easily result from the excessive smoking of tobacco in any form, that," says the *Lancet*, "is quite beside the issue, the present inquiry only having reference to the statement that these cigarets were injurious because they contained foreign poisonous ingredients, and a very careful search failed to elicit the slightest evidence on this head. No one than ourselves deprecates more the appalling increase of the practice of smoking amongst juveniles, and if those who are so emphatically solicitous about the health of the young community would turn their attention to this aspect of the question with a view to diminishing the objectionable habit and its excesses, undoubted good would be done. But to make untrue and such manifestly exaggerated statements will not ultimately help the case one tittle—it is more likely to aggravate it."

The General Medical Council of Great Britain brought its winter session of 1899 to a close on Tuesday, December 15. The proceedings of the session were not particularly interesting, but, save for the denunciation of Mr. Horsley by Mr. Carter on the first day, a reasonableness characterized all the debates that went far to ensure good work being done. The new legislation sought by the Council in order to strengthen its position towards the offenders against whom it has to exercise its penal powers should soon now come into effect, as the objections to reform put forward by certain universities and corporations have been removed. The report of the Education Committee of the Council were received, but not adopted, for the educational experts who have been asked to give their opinion as to the direction in which the standard of preliminary education for the medical profession might be raised, said that no further raising of the standard was feasible, a view in entire contradiction of the belief of the Council, and of most medical teachers in the kingdom. An interesting debate took place upon the possibility of establishing complete reciprocity in matters of medical practice between England and Italy. It has been an open secret for some time that the Italian medical men look with dislike upon the success of English and American medical men practising among their compatriots sojourning in Italy, and recently it is said that a law would be introduced preventing alien medical men from practising in Italy, though probably recognizing the rights of such foreigners as were engaged in the practice before the alteration of the law. Such a law would be a serious inconvenience to English medical men, who send a large proportion of their wealthy invalids to the French and Italian Riviera, but who especially want their patients to fall into English-speaking hands. Consequently it was suggested that all Italian medical men should be recognized in England as an offset to the recognition in Italy of all English medical men; but the Council decided that such a step would be dangerous, as it would curtail the placing, on the English register, or at any rate the endorsement of the value of their diplomas, of men over whose curriculum of education the English authorities had no control. It was eventually decided to ask the English ambassador in Rome (Sir Philip Currie, G. C. B.) for an official statement as to the present position; and if Sir Philip Currie can also tell the Council how far any change adverse to English medical men is likely to take place in that position, he will earn its gratitude.

CONTINENTAL EUROPE.

An institute for the treatment of hydrophobia has just been opened at Bordeaux.

Monument to Lavoisier.—Just back of the church of the Madeleine, at the commencement of the rue Trauchet, ground has been broken and the foundation laid for a monument to Lavoisier, the great chemist. The monument will be unveiled some time during the Exposition of 1900.

Dr. Salimbeni, of the Institute Pasteur, has just returned from Oporto, where he has been studying the epidemic of the plague. In recognition of the valuable services rendered in the treatment of cases of the plague, the French Government has conferred upon Dr. Salimbeni the order of the Legion d'Honneur.

A sensational scandal has just transpired at the Hôpital Beaujon. The competitive examination for the position of interne at the Beaujon having been completed, all the papers were locked in a box, preparatory to being sent to the Director of Public Assistance for final approval, when some time during the night, the office door of the Director of the Beaujon was broken in, and by means of a thermocautery several holes were burned in the box of examination papers, and through these holes a quantity of strong nitric acid was poured into the box. The result was complete destruction of all the papers. The hospital officials and the municipal authorities are in active search for the miscreant.

The Latest Literature.

British Medical Journal.

December 2, 1899. [No. 2031.]

1. A Demonstration of a Case of Aneurysm of the Ascending Aorta, with Comments. SIR WILLIAM BROADBENT.
2. Our Position and Outlook. JAMES ALEXANDER LINDSAY.
3. Some Remarks on Ringworm. With Especial Reference to the Early Stage of Attack of the Hair and the Production of Pustular Inflammation. T. COLCOTT FOX and FRANK R. BLAXALL.
4. A Case of Adiposis Dolorosa. W. HALE WHITE.
5. Three Cases of Shark-Bite. WILLIAM BRYCE ORME.
6. Case of Sarcoma of the Stomach in a Child Aged 3½ Years. JAMES FINLAYSON.
7. The Geography and Climate of South Africa. ALFRED HILLIER.
8. The Restlessness of Old Age and Its Treatment. CLEMENT DUKES.
9. A Brass Screw Swallowed by an Infant Aged 15 Months. A. WARING.
10. Rupture of the Heart. E. S. BELL.
11. Vesical Calculus: Rupture of the Bladder: Suprapubic Lithotomy: Recovery. ERNEST F. NEAVE.
12. A Case of Poisoning by the Primula Obconica. BERTRAM COOPER.
13. Bilharzia in Mesopotamia. P. S. STURROCK.
14. Precocious Dentition. R. LYNN HEARD.
15. Ankylostoma in Sierra Leone. FRED SMITH.
16. Carcinoma of Gallbladder with Abscess. GLYNN and BRADSHAW.
17. A Case of Gonorrhea Ending Fatally. P. CLENNELL FENWICK.

1.—Broadbent reports a case of **aneurysm of the ascending aorta.** In commenting upon the case he makes the statement that those cases do best in which aortic regurgitation is present. He also predicts a favorable course when percussion shows that the neck of the sac is comparatively narrow. There is a better chance for the cure of a large aneurysm than of a small one, since in the latter the sac being small the communication with the artery is relatively large, and the blood-current will sweep through the aneurysm and effectually prevent the deposit of fibrin. In the larger sac the blood contained in the aneurysm is withdrawn from that which is rushing along the aorta and is comparatively stagnant, which affords the opportunity necessary for the formation of a laminated clot. [S.M.H.]

4.—White reports a **case of adiposis dolorosa** in a girl of 22 years. Her parents were syphilitic. She began to take on flesh between 11 and 12 years of age, and at 13 she weighed 20 stone. At this time a soft swelling appeared in the left side of the neck, anteriorly, and about half-way down. It burst, and for some weeks discharged a dark-brown fluid, after which the wound healed. At 15, the patient's mind began to be affected. She had repeated attacks in which her mental condition became childlike and she played with toys, etc, This condition would last for a week or so, to be followed by intervals of several weeks, sometimes several months, of fairly normal mentality. As her age advanced her attacks grew more freqnent. They often commenced with an epileptiform fit. She had no recollection of what occurred during the attacks. At 16, she developed sharp, shooting pains in her eyes and soon became almost blind. She could only distinguish light from darkness. Under treatment with thyroid extract she recovered the sight of one eye in about 4 months, but the condition persisted some time longer in the other. During this visual attack she had no mental attacks. Since the onset of her illness she has complained of pain in the abdomen, pelvic region, lumbar region, hand, eyes and limbs. The pain is described as aching in character and is often severe enough to prevent sleep. The mental attacks are usually preceded by pain in the head and eyes, and followed by pain in the abdomen. She began to menstruate at 12 years of age, and has since menstruated at intervals of 5 or 6 weeks. She perspires a good deal and is not susceptible to cold; she has marked thirst. She is excessively stout in all parts of the body, except the hands, feet, face, neck and head. There is no pitting anywhere on pressure. The growth of hair is full and the hair is not coarse. The skin is pale, but not pigmented. The eyes are large and have a dull expression; the optic discs are healthy. She shows evidence of congenital syphilis. Her teeth are somewhat decayed; 3 or 4 of them have dropped out. She has a poor appetite, but no alimentary disturbance. Her urine is normal. All over the body, face and limbs sensation to touch, pain and temperature is impaired. The masses of fat are very tender, so that the patient cannot bear them to be grasped. Her muscles are very weak; with the hands she can only move a dynamometer through 5°, and she walks with difficulty. The kneejerks and plantar reflexes are absent. [S.M.H.]

5.—Orme reports 3 cases of **shark-bite,** all occurring in Arab boys who had been bathing in the Mediterranean, at Port Said. One was bitten in the left leg, opening the knee-joint and inflicting an enormous wound some 10½ inches in length. The joint suppurated and some 6 inches of skin sloughed. Another boy was bitten in the wrist, while the third had been seized by the thorax. In this last case masses of the erector spinae had to be cut away and about 3½ inches of the skin-flap sloughed. The shark in each case was the variety called "smooth-hound." [G.B W.]

6.—Finlayson had under his care a child, 3½ years old, suffering from failing health with very marked increasing anemia. There was no evidence of leukemia as shown by the general examination and the blood examination. There were some gastric symptoms, the child having on one occasion vomited something resembling blood, and during the last few weeks of life having vomited with considerable frequency. The vomiting could never be traced to anything having special relationship to feeding or to any definite cause. There was never any distinct leukocytosis. In a count made shortly before death the red corpuscles numbered 1,593,000, and the white were estimated as 1 to 170 red corpuscles. There was no special alteration in the shape of the reds and no differential count was made. The presence of extreme pallor with a lemon coloration of the skin, and the presence of a slight but continuous pyrexia suggested the possibility of an irregular form of pernicious anemia. The child eventually died from some pulmonary lesion, and the postmortem showed in the stomach a firm, bulky tumor in the posterior wall close to the greater curvature, and a little nearer the cardiac than the pyloric orifice. It measured on the mucous side 2.5 x 2.5 cm., the submucous infiltration being about 3 cm. in length. On the serous side it measured 4 x 4 5 cm. The projection was 1.8 cm. On the mucous aspect of the stomach and immediately distal to the main rounded projecting mass of the tumor there was a small circular area with a depressed center and obviously infiltrated edges. The central portion of this area was the only part conveying the impression of ulceration. Many of the mesenteric glands were enlarged, but microscopically they gave no evidence of being involved by tumor-tissue. The tumor examined microscopically was found to be highly cellular throughout. This cellular appearance was increased in that portion immediately beneath the mucous portion of the stomach. The predominant cell-type of which the tumor was composed occurred in the form of prominent spindle-shaped elements. The nuclei of these cells were large with rather faintly staining and coarsely granular nucleoplasm. Their form seen in various planes of section was for the most part fusiform, but here and there larger and more irregular forms of nucleus were seen. In addition to these larger cells and occurring amongst them there were a considerable number of small spindle-shaped elements, the protoplasm of whose nuclei stained deeply, and in a homogeneous fashion. Internally the glandular elements of the mucous membrane were detected over the tumor, although considerably diminished in size by some loss of superficial substance. The tissue of the tumor seemed to separate these by occupying the spaces between them. The connective tissue separating this cellular tumor-tissue was very scanty in amount, the nuclei characteristic of fibrous connective tissue being met with practically only in the external limits of the tumor. There was a certain amount of intercellular ground-substance of very finely granular and almost homogeneous character throughout the tumor. The tumor was tolerably vascular, the thin-walled vessels being of small size. Finlayson calls

attention to the extreme rarity of this condition. He was unable to find a case reported under 15 years of age. [S M.H.]

8.—Dukes frequently observes **incessant restlessness in old people,** which he attributes to increased arterial tension, and treats successfully with nitroglycerin or erythol tetranitrate. [S.M H.]

9.—Waring makes a report of a case in which a child, aged 15 months, **swallowed a brass screw** 1¼ inches long. The screw was temporarily lodged in the pharynx and the mother, in endeavoring to remove it, dislodged it, and it passed on into the stomach. Five days later the screw was passed in the feces, no abnormal symptoms whatsoever having occurred during its passage through the gastrointestinal tract. [S.M H.]

10.—Bell made a postmortem-examination on a woman, aged 73 years, who seemingly **choked to death** while taking food. The autopsy showed impacted in the pharynx between the vocal chords, and completely blocking the orifice, a small piece of cooked meat. The lungs were deeply congested and there were some patches of hemorrhage between the air cells. The pericardium was fully distended with dark-colored clotted blood, completely enveloping the heart which was firmly contracted. On the **anterior surface of the left ventricle near the septum there was a slight rent** ¼ of an inch in length. The cardiac chambers were emptied and the valves competent, the coronary vessels and aorta in common with the entire arterial system showed marked atheromatous changes. [S M.H.]

11.—Neave reports a case of extraperitoneal **rupture of the bladder** from only a pressure which would be caused by the injection of 9 ounces of fluid. A suprapubic cystotomy was performed, the stone which had been previously crushed by a lithotrite was removed, a drainage-tube was inserted and the patient made a good recovery. [G.B W.]

12.—Cooper observed in a gardener, aged 20 years, intolerable itching, and redness of the arms and hands 24 hours after he had been engaged in cutting the **primula obconica.** The skin of the right eye became inflamed, irritable and swollen a few hours after it had been rubbed with the back of one of his hands. The eruption consisted of papules and vesicles on a raised base, the rash having an abrupt termination at the healthy skin. The eyelids were very edematous; the erythema was very livid, but unlike that of the forearms showed neither papules nor vesicles. A paste of calamine, chalk, lime-water, and olive oil was applied to the arms and boric-acid lotion used in the eyes. In the course of a few days the inflammation subsided. [S.M.H.]

13.—Sturrock notes that **billharzia hematobia** is widely spread throughout Mesopotamia, occurring in those living in towns and villages situated on the banks of the rivers Tigris and Euphrates. [S M.H.]

14.—Heard noticed in an infant delivered at 7½ months the two lower **central incisors** appearing under the gum. These cut through a few days after birth and a few days following this an abscess began to form and the teeth to loosen. They had to be extracted. [S.M H]

15.—Smith reports what he considers the first demonstration of the **ankylostoma duodenale** in a case of obstinate anemia in a negro soldier in Sierra Leone. [S M.H.]

16.—This case of **carcinoma of the gallbladder** occurred in a man of 54. At the operation an abscess was found evidently due to the breaking down of a malignant nodule. For 6 days the patient did well, but vomiting and diarrhea set in with death on the eighth day after operation. [G.B W.]

17.—Death in this case of **gonorrhea** was evidently caused by a general septic condition. The urethral discharge was not marked, but there was an inflammation of one ankle-joint and an acute pyelitis present. [G.B.W.]

Lancet.

December 2, 1899. [No. 3979]

1. A Contribution to the Study of Epidemic Diarrhea. ARTHUR NEWSHOLME.
2. Modern Military Bullets; a Study of their Destructive Effects. ARTHUR KEITH and HUGH M. RIGBY.
3. Gunshot Wound of the Brain through the Mouth. Bullet Removed on the Sixty-ninth Day through the Vertex; Recovery. ARTHUR E. BARKER.
4. A Case of Congenital Hypertrophy of the Pylorus in an Infant; Recovery; Subsequent Death from Bronchopneumonia. FREDERICK E. BATTEN.
5. A Case of Lateral Transposition of the Viscera. J. HARLEY BROOKS.
6. Note on a Fatal Case of Double Strangulated Femoral Hernia. WALTER FALLA.
7. A Symmetrical Palmar Erythema. ALBERT J. CHALMERS
8. Death from Dislocation between the Atlas and Axis. HARRY HOLLIS.
9. A Case of Extensive Congenital and Acquired Heart-Disease. F. DE HAVILAND HALL.
10. A Case of Esophagotomy; the After-Treatment. W. A. MACKAY.

1.—Newsholme concludes a study of **epidemic diarrhea** as follows: Towns with a high temperature and deficient rainfall, especially in the third quarter of the year, suffer severely from diarrhea. This relationship is so close that the towns may be classified meteorologically in the order in which they ought to stand in reference to diarrhea, and their true relative position as to domestic and municipal sanitation may be ascertained when we know whether they occupy a better or worse position in the list of towns than that which their meteorological place would indicate as rightly belonging to them. Among populations living on rocky and impervious soils diarrhea is not so prevalent. It is most prevalent where the systems of removal of sewage and house refuse are the least satisfactory. The fundamental condition favoring epidemic diarrhea is an unclean soil, the particulate poison from which infects the air and is swallowed more commonly with food, especially milk. In other words, epidemic diarrhea is a filth-disease. The diarrheas of infants artificially fed are not due to the fact that milk is an actual cause of diarrhea, but that it acts as an admirable vehicle of infection. [S.M H]

2.—A series of experiments are recorded which had for their chief object the determination of the comparative amount of damage produced by the modified service bullets and dumdum bullets of the British army and the Mauser bullet, which is the official bullet of the Boers. The use of the dumdum bullet has been universally condemned by Continental authorities and by the representatives of the Peace Conference, with the exception of those from England and the United States. The service rifles and ammunition of England and Germany were used in the tests. The destructive power of a bullet depends upon its momentum, its expansibility, on impact, and the corkscrew-like spin of the bullet round its axis of projection. An expert determined that the momentum of the Mauser and Lee-Metford bullets is so nearly the same that it may be left out of account. In order to standardize the destructive effects of bullets, as to their expansibility, spin, and the amount of substance displaced, they were fired into bars of ordinary yellow soap. The **destructive effect of the Mauser bullet** was found to be least, that of the **English service bullet** half as much again as the Mauser, and the **dumdum** three times as great. The authors of the paper object to the results which have been obtained by experiments on the cadaver. The results differ, of course, from those which occur when the bullet enters the living body, for the living body consists of apartments distended with fluid. To obviate the error, cadavers were selected in which the tissues seemed to contain about the normal amount of fluid as in the living, and if this was not present, a fluid containing formaldehyd, glycerin, carbolic acid, and water is injected. Three types of wounds are given in comparing the destructive effects of bullets on the human body: Flesh-wounds, wounds involving bone, and wounds of organs of a pulpy consistency, such as the liver, brain, etc. Attention is called to the fact that the amount of destruction produced cannot be judged by the wound of entrance or the wound of exit. The results of examination of flesh-wounds confirmed those obtained with the soap. Arteries, tendons, or nerves in the axis of projection are cut through, but if outside that axis, yet in the destructive tract of the bullet, they are left practically uninjured. As an example of this: In one case, a bullet passed between the vena cava and the aorta, carrying away the vertebra, yet leaving the vessels almost intact. It matters little which bullet is used if bone is struck, as all the small-bore bullets at high velocity produce

sufficient destruction to work absolutely fatal injury to the limb, though the destructive effect of the dumdum is infinitely greater. The hollow-nosed bullet "mushrooms" out and works about five times the amount of destruction. Any bullet entering the skull with a momentum of less than 60 kilometers will have momentum enough to rupture the skull, but as none of our modern bullets have that momentum beyond 800-yards range, wounds showing explosive effects all occur within that limit. To measure the explosive effects of bullets, plaster-of paris approaching its setting-point was found the most satisfactory material. A bag filled with the plaster, if struck in the center, was completely scattered and shattered, but if only the side, the larger part remained in position, but the smaller one was blown off. The same result followed in the experiments on the skull. The destructive effects of the regular service and dumdum bullets are, in ratio to those of the Mauser, 2 and 5.4 to 1. The destructive effects of the dumdum bullet, seem however, to have been overrated by von Bruns, and it was found impossible to produce as destructive results as he reports. [M.B T.]

3.—A man discharged **2 shots** from a small-bore revolver **into** his **mouth** in a direction upward and backward. When seen the next day, he was perfectly conscious, suffering slight pain over the right side of the head, and there were no paralytic symptoms except a slight drop of the right eyelid. There was a round hole in the hard palate just to the right of the middle line, 2 inches from the incisor teeth. Bleeding from the nostrils had been checked by plugging with cotton, and iodoform was dusted in the wound. The patient was kept quiet in bed with ice to his head without search being made for the bullet. After 8 days he went home apparently well. On the thirty-second day after the injury there was paresis of the left leg, so that the patient was not able to walk or stand, and the left arm was also powerless. Two skiagrams showed that one bullet lay near the body of the sphenoid extracranially and the other exactly in the middle of the brain, resting near the corpus callosum about two-fifths of the distance from its anterior end. A week or two later there was improvement in the hemiplegia and headache and vomiting had gradually ceased. But these symptoms returned, and on the sixty-sixth day a convulsion occurred. The patient's condition then seemed to be such as to justify operation. Accordingly incision was made and a quadrilateral flap of bone was cut by means of the Heys' saw and Gigli wire saw. The bone-flap was turned back, the dura incised and a probe was then passed down along the falx, and the bullet was felt, but it was found impossible to grasp it with forceps. By the help of the little finger passed along the falx the bullet was caught with slender forceps and removed. There was little bleeding, and no inflammatory effusion was let out. The dura mater was stitched for two-thirds of its border, and the bone-flap was folded back. A few points of silk suture united the external incision. The wound healed well and the patient continued well for 3 months. Epileptic attacks reappeared, however, and the patient was again operated upon by Chipault, of Paris, who separated the adhesions between the two hemispheres, and since that time the patient remains quite well. [M.B T.]

4.—Batten reports a case of **congenital hypertrophy of the pylorus** in an infant, aged 11 weeks. The child was well until 5 weeks old when he began to vomit about 5 or 10 minutes after each feeding. The bowels were obstinately constipated at the time the vomiting began. The child was breast-fed until he was 9 weeks old, after which he was put on cow's milk, and later on Nestle's food. Examination of the child showed the abdomen to be flaccid, easily palpated, without tenderness. The peristaltic movements of the stomach could be distinctly seen following one another in quick succession. Deep palpation in the right hypochondrium about a finger's breadth outside the midclavicular line showed a firm transverse mass, in shape like the pylorus. It was not always palpable when no peristalsis took place. The child was fed through the medium of a nasal tube and was given a mixture of milk and barley-water. The vomiting began to lessen immediately, the condition of the bowels improved, and after one month's nasal feeding the vomiting having almost entirely ceased the child was returned to the bottle. The vomiting stopped after 2 weeks of bottle-feeding. The temperature which had been subnormal came up to the normal and the pylorus could no longer be felt. During the next 6 months the child became fat and perfectly well, when in the middle of the summer it was suddenly seized with diarrhea and vomiting, and died after a few days from bronchopneumonia. The necropsy made 20 hours after death showed the stomach to be contracted, its walls unusually thick, the pylorus firm and hard. The abrupt margin between the pylorus and the duodenum was very distinct. The lumen of the pylorus admitted a probe which measured 4 mm. in diameter. The diameter of the pylorus was 1.5 cm. and the total thickness of the wall 5.5 mm. The muscular coat measured 4 mm.; the circular muscular measured 0.3 mm., and the longitudinal coat 0.1 mm. The mucous membrane of the stomach appeared healthy. Microscopic examination showed the mucous membrane and muscular coat perfectly normal so far as their structure was concerned, but the circular coat was found considerably thickened. The diagnosis in this case was based on the following points: (1) A baby healthy at birth; (2) vomiting; (3) constipation; (4) subnormal temperature in the rectum; (5) wasting; (6) marked dilation and peristalsis of the stomach; (7) a tumor in the position of the pylorus; (8) the absence of the usual signs of gastritis. It is of especial interest from the fact that recovery took place, and that the subsequent postmortem examination showed a condition which was considered to confirm the original diagnosis. [S M.H]

5.—Brooks made an autopsy on a man, aged 67 years, who had died as the result of a pleurisy and pneumonia following fractured ribs. The autopsy showed **complete transposition of the viscera.** The liver and the cecum and vermiform appendix were transposed to the left. The colon followed a reverse course to the normal, the sigmoid flexure being in the right iliac region. The stomach had its cardiac orifice to the right and the pylorus to the left. The duodenum was very much dilated and looked not unlike a second stomach. The pancreas was turned about. The left lung had 3 lobes and the right only 2. The bloodvessels springing from the arch of the aorta were not merely transposed, but they came off from the left to the right as innominate, right common carotid and right subclavian; the right vertebral artery sprang directly from the arch somewhat behind but a little to the right of the subclavian. The innominate was divided into the left subclavian and left carotid, the latter lying directly in front of the former. The left vertebral artery arose from the anterior aspect of the left subclavian instead of from the posterior, about a half-inch above the bifurcation of the innominate, hidden from view by the overlapping carotid artery. The aorta and the esophagus lay to the right of the vertebral column. The heart of course was to the right, occupying a position similar to that which it normally occupies in the left side. [S.M.H.]

6.—A woman of 65, who had been suffering with symptoms of **intestinal obstruction** for 4 days was found to have two **irreducible femoral hernias.** Immediate operation was performed, and from the left sac a piece of gangrenous omentum was excised; on the right side strangulation in a much congested portion of intestine was relieved. The patient died 36 hours after the operation. [M.B.T.]

7.—Chalmers describes a **symmetrical erythema** affecting the ulnar side of the palms of both hands, occurring among Europeans residing on the gold coast of West Africa. Its color varies from a slight blush to a vivid scarlet. There is no abnormal thickening of the skin, but small scales are sometimes observed. It causes no symptoms and requires no treatment. Its cause was not determined. It is commented upon owing to its symmetric distribution and to the fact that it affects only the European residents. [S.M.H.]

8.—A man and woman, both of whom were intoxicated, engaged in quarrel during which a **dislocation** between the **atlas and axis** of the woman was caused, probably by the joint being forced downward and backward in an attempt to throttle her. A necropsy showed separation posteriorly between the atlas and axis with rupture of the posterior atlanto-axial ligament. [M B.T.]

9.—Hall had under his care a young woman, aged 18 years, whose previous history included an attack of bronchopneumonia at the age of 6 years and scarlet fever between the ages of 15 and 16. She gave no history of rheumatism. She was very anemic; her pulse was 112, full, quick and soft. She had venous pulsations in the vessels of the neck, a thrill at the base as well as at the apex of the heart. She had a mitral systolic murmur, heard at the apex and over the body

of the heart even to the right of the sternum. The cardiac dulness extended to about 1 inch to the right of the sternum, its upper limit corresponding to the upper part of the second intercostal space. The apex-beat was in the fifth interspace internal to the mid-clavicular line. There was a systolic murmur at the base best heard over the pulmonary area. This murmur was conducted upwards to the clavicle. There was a very rough diastolic bruit heard all along the sternum; **a presystolic murmur** was sometimes heard at the apex. The patient had a temperature ranging between 97° and 103° F. When her temperature was high she usually suffered pain in the splenic region. The patient improved slightly for a time under treatment and was then sent to a convalescent home. Shortly afterwards she began to fail rapidly, and after two or three days died rather suddenly. On the morning of the day of death she menstruated for the first time. At the autopsy there were observed purpuric spots on the lower extremities. The heart weighed 17 ounces. It was globe-shaped and in diastole. The left ventricle was dilated, the walls being about a half-inch thick. There were only two pulmonary cusps, both were thickened; one was slightly recurved and had vegetations on the upper border. About the middle of the anterior wall of the right ventricle there was a small patch of **endocarditis** which was covered with recent vegetations. There were also recent vegetations on the flaps of the tricuspid valve, and there was a congenitally defective intraventricular septum. The aortic orifice had two cusps, both of which were thickened and recurved. On one there was a mass of vegetation of the size of an almond, the other was also covered with vegetations, and in this cusp there was a ragged hole of recent origin the size of a three-penny piece. There were numerous coarse vegetations on the ventricular aspect of the large flap of the mitral valve, the auricular surface being quite normal. The cause of death was rupture of the aortic valve, acute ulcerative endocarditis, previous endocarditis, and congenital morbus cordis. The absence of symptoms in this case was unusual. Instead of being cyanotic the patient was anemic. There was no clubbing of the fingers or toes. There were no rigors, nervous or pyemic symptoms, and no grave constitutional disturbance. The intermittent fever and splenic tenderness were really the only evidences of an infectious process. The fact of this patient having lived to the age of 18 years shows how extensive derangement of the heart is compatible with a fair length of life. [S.M.H.]

10.—A man, 42 years old, had had pain in his throat and was unable to swallow anything except liquids for 6 weeks, because of a piece of bone retained in the esophagus. **Esophagotomy** was performed and the bone, which measured an inch and a half in length, and smelt very foully, was removed. The wall of the esophagus was infiltrated with pus and was shedding small sloughs. The opening was not sutured, but by careful swallowing, little food came out of the wound. The man left the hospital at the end of a month with his wound healed. [M.B.T.]

New York Medical Journal.

December 16, 1899. [Vol. lxx, No. 25.]

1. Micrococcus Intertriginis Rossbach. MAX MEYER.
2. A Study of Shortening of the Tibia and Femur in 50 Cases of Tuberculous Disease of the Hip-joint. RUSSELL A. HIBBS.
3. Confined Suppuration of the Frontal Sinus, with Spontaneous Rupture, including the Report of a Case. D. BRADEN KYLE.
4. Fibrous Tumor of the Nasopharynx. Sequel. E. FLETCHER INGALS.
5. The Potentialities of the Physician. KENNETH W. MILLICAN.
6. Rhinedema. H. HOLBROOK CURTIS.
7. California Climate and Chronic Diseases of the Kidneys. WILLIAM H. DUKEMAN.
8. The Radical Cure of Hallux Valgus. RUSSELL S. FOWLER.
9. Malarial Infection as a Factor in Causing Eye-disease. PAUL TURNER VAUGHAN.

1.—Meyer describes a microorganism which he considers beyond doubt to be the **cause of erythema intertrigo.** From a pronounced case of this disease he introduced a small amount of caseous material into the following media: Petri-dish-nutrient gelatin, glucose gelatin, agar; culture tube-nutrient gelatin, agar, serum, potato, milk. On the petri-dish the colonies were spherical in shape with fine serrated margin and light yellow in color. The gelatin was liquefied. A very offensive odor, similar to rotten cheese, was perceptible, especially in the gelatin-cultures. On the culture tubes a growth similar to that above described appeared. The gelatin stab cultures grew slowly, sending out fine threads which anastomosed with each other, and after an incubation of 3 days a shallow depression appeared and liquefaction took place. No gas-formation appeared, and the medium was not colored. On agar the cultures grew on the surface only. They were $\frac{1}{10}$ of an inch in diameter and crept slowly forward, accumulating in heaps. The colonies were slightly yellow and without any gloss. The growth on serum was moderately quick. On potatoes a yellowish-brown spot appeared, from which the colonies spread, becoming lighter colored as they advanced. Milk was not coagulated or acidified, indol-reaction was not observed. The germ has no flagella nor spores. It is aerobic, and examination of the hanging-drop shows no independent motion. Specimens stain with watery anilin dyes, especially with methylene-blue, gentian-violet, and fuchsin. On staining with Gram's method, they decolorize partially. On animals inoculated with the pure culture by scarification the disease appeared within 48 hours, and cultures made from these inoculations produced the same germ which proved to be virulent to the tenth generation. The cocci grew best at the body-temperature; they were destroyed at 70° C., and below 10.6°. Formaldehyd in ½% solution seemed most effective in destroying the germ. The organism is named *Micrococcus intertriginis Rossbach.* [S M.H.]

2.—There is a general impression that the principal cause of shortening of the limb in connection with **tuberculous disease of the hip,** is due to destruction of the bone. Hibbs believes that it is due, not alone to this cause, but also to trophoneurotic affection which causes diminution in thickness as well as the length of bones and prevents the growth of the limb by impairment of function. Tabulated results are given from 50 cases studied at the New York Orthopedic Dispensary and Hospital. The treatment employed was traction with the long traction hip-splint. In 33 cases there was shortening of both the tibia and femur, in 2 cases shortening of neither bone, in 2 cases shortening of the tibia alone, and in 11 cases shortening of the tibia and lengthening of the femur. The lengthening was probably at the epiphysis of the femur due to inflammatory action of the disease. The trophoneurosis theory is believed best to account for the shortening of the tibia, as destruction of tissue can play no part in it. [M.B.T.]

3.—A woman, 60 years of age, had had a great deal of swelling over the face between the eyes for several days. There was a thin watery discharge from the nose but no pain and not much tenderness on pressure. No discharge from the opening of any of the accessory cavities could be discovered and transillumination showed perfectly clear antra. A slight crust was found on the skin, and on removing the crust it was seen that a part of the **frontal sinus** had already **opened externally.** A probe was passed through into the nasal cavity and treatment by flushing with an antiseptic solution was followed by recovery. [M.B T.]

6.—Curtis does not consider that **rhinedema** is a disease that may be isolated, but uses the term to differentiate a true edema from numerous varieties of rhinitis. He believes that many cases of the so-called winter hay-fever are cases of true rhinedema. To relieve the venous stasis, washing of the colon night and morning with 4 quarts of water to which a spoonful of sea-salt and sodium bicarbonate has been added is recommended. In addition to this, Sandow's physical exercises are prescribed and a little strychnin is given internally. Cauterization early in the affection would result in sloughing. [M.B.T.]

7.—Dukeman says that in some portions of Southern California there exists a sandy, porous soil where the sun shines 300 days of the year, and the patient can be out-of-doors nearly every day of the year; where the temperature rarely falls below 40° F., and where an almost perpetual summer exists. In this climate he believes that persons suffering from **disease of the kidneys** will have their lives prolonged and be able to live in perfect comfort. [S.M.H.]

8.—Fowler reports a case in which he has successfully performed the following operation for the radical cure of **hallux valgus.** The soft parts between the great toe and its neighbor are transfixed, the knife entering the sole of the foot a half inch in front of the metatarsal phalangeal joint. The external lateral ligament is put on the stretch by adducting the toe and is severed. The toe is then dislocated completely inward, exposing the enlarged head of the metatarsal bone, the fibrous tissue of the bunion on its internal aspect is loosened and pushed back with the handle of the scalpel, and a triangular-shaped piece of bone is removed by a chain saw. This piece includes the hypertrophied portion of the head and the portion of the articular surface. Should deformity recur because of contraction of the extensor tendon, the tendon is lengthened by cutting half way across at points separated half an inch from each other and stretching. [M.B T.]

9.—The **ocular manifestations of malaria** differ according to whether they accompany an acute attack of the fever or malarial cachexia. The most prominent symptoms in malarial cachexia is the variation of visual power at different times. A case is reported in which the variation from $\frac{6}{24}$ to $\frac{6}{12}$ occurred twice at examinations within 2 weeks. The ophthalmoscope showed no sufficient reason for such disturbance in vision. Improvement in vision immediately followed the treatment by administration of quinin. In a second case there was marked ptosis of the right eye with conjunctival congestion. Dilation of the pupil, cloudiness of the cornea, slight increase of intraocular tension and intense pain were symptoms, with aggravation at regular intervals with exacerbations of the fever. The ptosis disappeared entirely, and the vision rose to what it was before the attack soon after beginning the administration of quinin and iron. [M.B.T.]

Medical Record.

December 16, 1899. [Vol. 56, No. 25.]

1. Diabète Bronzé and the Pathogenesis of Diabetes Mellitus; Illustrated by a Case of Bronze Diabetes, preceded by Basedow's Disease. HENRY W. BERG.
2. The Early Diagnosis of Tuberculous Joint-Disease. LEONARD W. ELY.
3. The Effect of Certain Occupations on the Pharynx. SEYMOUR OPPENHEIMER.
4. Total Aniridia: Two Cases, One Traumatic, One (with Ectopia Lentis) Congenital. GEORGE H. COX.

1.—Berg attributes the **pigmentation** in **bronze diabetes** to destruction of hemoglobin. He notes that it has been shown that the introduction of sugar into the circulation causes a dilution of the blood. This, he thinks, sets free some of the hemoglobin, and after change it is deposited in the tissues and causes the pigmentation. The cirrhosis of the liver which occurs in bronze diabetes, he considers secondary to the pigmentation, the pigment causing chronic irritation. He believes that the occurrence of bronze diabetes in the case reported, subsequent to exophthalmic goiter, is an indication that the latter disease is due to disturbance of the cervical sympathetic or vagus, or both, and that this disturbance advanced to the abdominal sympathetic, and produced a diabetes in this way. [D.L.E.]

2.—Ely discusses the early **diagnosis of tuberculous joint-disease** in a very thorough manner without adding anything specially new to the subject. [M.B.T.]

3.—Oppenheimer first records the case of a laundress who acquired **chronic throat trouble** as the result of her occupation, probably from the exposure to heat and cold, and another instance of a tinsmith who was exposed to the fumes of acids and had chronic sore throat due to the acid fumes. Oppenheimer investigated 50 cases without choosing the cases. These were mill-hands, and he decides that mill-hands are more susceptible to **disease of the pharynx** when under 20 years of age than when older; that dust-fibers and chemic agents are the factors of chief importance in causing the disease of the pharynx; that most industrial workers have pharyngeal trouble as a result of their work, or that the work intensifies any preexisting trouble. The difficulty begins as an acute congestion and inflammation, and results in chronic changes, the pharyngitis being the same in character as the ordinary form. Pharyngeal troubles are more likely to occur when there is any disease of the nose. He believes that there should be hygienic measures adopted to restrict pharyngeal trouble in industrial workers. [D.L.E.]

Medical News.

December 16, 1899. [Vol. lxxv, No. 25.]

1. The Treatment of Pneumonia as Based upon Views as to Its Pathology. ANDREW H. SMITH.
2. The Exploration of the Abdomen as an Adjunct to Every Celiotomy. HOWARD A. KELLY.
3. Neurasthenia; Its Symptoms and Treatment. LANDON CARTER GRAY.
4. The Bacteriology of Typhoid Fever. WILLIAM H. PARK.
5. Ulcerative Stomatitis; Aneurysm of the Aorta; Chronic Nephritis; Erysipelas of the Face. H. A. HARE.
6. The Treatment of the Peritoneal Cavity in Certain Rare Forms of Infection from Appendicitis. JOHN A. WYETH.

1.—Smith contributes another article upon the **treatment of pneumonia.** He discusses the various drugs now employed which may have some germicidal action upon the microorganism. Among the remedies which possibly cut short the disease are calomel, quinin, inhalations of chloroform, creasote, and the salicylates. Smith is vigorously opposed to the administration of digitalis when the heart is weak, or when there are symptoms of the mechanical destruction of the capillaries. He believes that the serum-treatment has yet yielded no definite results. [J.S.]

2.—Kelly calls attention to the fact that a pretty complete postmortem examination may be made through an opening in the vaginal vault in women, and through the perineum or rectum in men. He relates how in one case by perforating the diaphragm he removed both heart and lungs by this method. In performing celiotomy he urges that a **routine plan** be followed in the **investigation of the abdominal and pelvic organs,** as a surgeon operating for one condition may overlook some other abnormity unless a systematic plan is pursued. The 4 steps he details for the exploration of the abdomen are: (1) The simple inspection of such structures as can be seen in the neighborhood of the incision by drawing the lips of the incision widely apart; (2) the examination of those structures which can be brought into view by inserting 2 fingers through a small incision and catching structures nearby, such as ovaries, tubes, cecum and appendix, as well as uterus; (3) by the insertion of the hand as far as the wrist, by which the colon and the stomach and the pylorus can be grasped or palpated and pulled down; (4) by the insertion of the forearm in order to reach the liver, the gallbladder, the kidneys and the spleen. There are in general 3 classes of cases to which this extended examination may be applied: (1) Those in which there has been no reason to anticipate any disease of any other organ and the examination is made simply as a routine procedure, whenever it adds nothing to the gravity of the situation. In such cases we are most liable to find unsuspected hydroureter, appendicitis, movable kidney, gallstones, and occasionally pyloric tumor; (2) those cases in which on opening the abdomen, contrary to expectation no disease is found near at hand. The operator may then find it of great advantage to enlarge the incision, introduce the hand and the forearm and explore the entire abdomen. He cites a case of this sort in which he made an incision over the appendix and finding no appendicitis, enlarged the opening and found a gallstone within a ruptured gallbladder; also, another case in which gallstones were believed to be present, but finding the diagnosis at fault, he introduced his arm through the enlarged incision and found a large hematoma of the ovary; (3) the group of cases in which there is a definite percentage of chances that the disease discovered at the time of operation is complicated by the affection of some other organ, neighboring or remote. In cancer of the ovary he examines all the organs and in no small percentage of cases has the disappointment of finding metastases in the omentum, pylorus, or liver. In pelvic inflammatory disease the appendix will be frequently found involved, and in the case of pelvic tumors as well as inflammation the ureters are prone to suffer from compression. [W.K.]

3.—Gray first discusses the **differential diagnosis of**

neurasthenia from melancholia, general paresis, bromism, locomotor ataxia, and hypochondriasis. In the treatment, the most important features are removal of the cause, if this can be determined. The general treatment includes, rest, tonics, and electricity. Among the latter, iron in some form is useful in all anemic cases. In the lithemic cases or those with gouty history, colchicum often does much good. The amusements should be such as will not fatigue the patient. Electricity must be applied with considerable care. Massage is usually beneficial, but may do harm. [J.S.]

4.—Park found the typhoid-bacillus in the stools of 42 of 104 cases, that is 40%. It also appears to be present very frequently in the gallbladder, and is eliminated by the urine, and may continue in the bladder when once apparent recovery has taken place. Infection is usually the result of the contamination of the water-supply by the evacuations of the patient. Park reports one epidemic due to contamination of the ice-supply, and one due to the eating of raw coccles that had grown in water infected by sewage. He believes that immunization is possible, either by injections of 5 cc. of the serum of a well immunized horse or by the injection of 2 mgrms. of an agar-culture of typhoid-bacillus, sterilized at 55° or by ½% carbolic acid. The latter method involves chills, slight fever, and malaise. He believes that the Widal reaction in dilutions of 1 to 10 should always be confirmed by trying it in higher dilutions. It occurs in about 90% of all cases, and may persist several months after recovery. [J.S.]

5.—Hare reports a case of **ulcerative stomatitis** for which he prescribed local treatment, particularly potassium chlorate and careful attention to the general condition. The second case was a saccular aneurysm of the aorta, eroding the ribs that at no time had caused pain. In these cases he is strongly in favor of the introduction of coils of gold wire and of electrolysis. The third case suffered from chronic parenchymatous nephritis. In these cases he uses aqua ammonia acetatis, sometimes adding as a stimulant a small quantity of cantharides. The fourth case was one of facial erysipelas in which he employed ichthyol. [J S.]

6.—Wyeth reports two cases of **appendicitis treated by abdominal flushing.** In the first case the appendix was gangrenous and there was a general peritonitis, though perforation had not yet taken place. In the second case perforation of the appendix had occurred, but a general peritonitis had not developed. His method of flushing the peritoneal cavity is briefly as follows: A pipet with a good-sized rubber tube attached, is carried into the different cavities of the abdomen, and several gallons of salt-solution poured through the tubing and pipet into the abdomen, flushing out the whole of the peritoneum. The different recesses are then carefully dried with strips of gauze, and gauze-drains are inserted into the deeper pockets of the peritoneum. The gauze-drains are removed on the third day and 2 rubber tubes inserted. Both of Wyeth's patients thus treated, though in collapse when operated on, made good recoveries. [G.B.W.]

Boston Medical and Surgical Journal.

December 14, 1899. [Vol. cxli, No. 24.]

1. Experiments upon the Disinfection of Rooms with Formaldehyd Gas in the City Hospital at Charlottenburg, Berlin. A. W. FAIRBANKS, with remarks by PROF. E. GRAWITZ.
2. Medical Testimony on Insanity as an Excuse for Crime: Report of a Case. JAY PERKINS.
3. Food Poisoning and Metallic Irritants. CHARLES HARRINGTON.
4. Simulated Appendicitis. J. G. MUMFORD.

1.—Fairbanks has carried out a series of experiments not differing essentially from others already reported, concerning the efficiency of **formaldehyd as a disinfectant for rooms.** Various microorganisms were employed, anthrax, diphtheria, typhoid and staphylococci. It was found that when these were exposed in a room in which one gram of formaldehyd was employed for every cubic meter of air-space, for 30 hours, they were all killed excepting some of the cultures of anthrax that had been placed between the mattresses and enclosed in many folds of linen. The curious feature was the fact that this proportion of formaldehyd, although when the room was first entered affecting the nose and eyes slightly, could readily be endured for several hours, and small animals exposed in the room during the period of disinfection were not injured. [J.S.]

2.—Perkins criticises the **trial** of Amos D. Palmer for **the murder** of his wife. The history of the case was, briefly, as follows: The man, who had always been of mediocre intelligence, was married to a woman of much stronger will, to whom he was much attached. From time to time, however, he would indulge in alcohol to excess, and there was some obscure accounts which might have led to a belief of epilepsy in early life. On the night of the murder, after drinking heavily, he quarrelled with his wife, secured a loaded revolver, and shot her. Immediately after the murder he was depressed and threatened suicide. At the trial, it was proved that there were no evidences of epilepsy in his later life, and his conduct was the reverse of a postepileptic at the time of the murder. Several experts seemed to believe that it was a case of **postepileptic homicidal mania.** They all agreed that the mind was impaired and a verdict of "not guilty" was therefore rendered. Perkins does not believe that the epileptic theory was in the least justified, but does think that if any mental condition existed it was probably a form of imbecility. The written opinions of various experts are appended. [J.S.]

3.—Harrington attempts to formulate the **differential diagnosis** between **arsenic-poisoning** and **ptomain-poisoning.** In both conditions the character of the onset is the same. They begin with burning pain in the stomach, vomiting and diarrhea. In some cases the symptoms of an irritant poison may be delayed for some hours. Symptoms of ptomain-poisoning may occur at any time from immediately after ingestion up to 4 or 5 days. A number of people are usually attacked on account of having shared the food. There is nothing characteristic in the vomitus or stools. In arsenic-poisoning there is a sense of constriction in the throat, cramps in the calves, coldness of the extremities, and a weak, feeble pulse. All these symptoms may be present in ptomain-poisoning. The chief points of difference are, that in arsenic-poisoning, swallowing may be difficult on account of pain in the throat; in ptomain-poisoning on account of paralysis of the constrictors of the pharynx; in ptomain-poisoning the pupils are usually dilated, and the muscular prostration is extreme, amounting in fact to paralysis. [J.S.]

4.—The case of **simulated appendicitis** reported by Mumford occurred in a young girl of 12, who was sent by her physician as having inflammation of the appendix requiring immediate operation. The symptoms were typical of this disease, with a temperature of 103° and pulse 112°, so that operation was undertaken. But on opening the abdomen the appendix, cecum, and all other organs were found to be in a healthy state. A lump, however, was found in the cecum, and as it seemed probable that this was the cause of the trouble, it was removed and proved to be a compact mass of orange-pulp. The blood-count made just after the operation showed 30,200 whites, which in two days fell to 10,500. The patient made a good recovery and remained free from pain or other appendical symptoms. [G B.W.]

Journal American Medical Association.

December 16, 1899. [Vol. xxxiii, No. 25.]

1. On Latent Infection and Subinfection, and on the Etiology of Hemochromatosis and Pernicious Anemia. J. GEORGE ADAMI.
2. Mensuration and Capacity of the Female Bladder. GUY L. HUNNER and IRVING P. LYON.
3. Diphtheria. EDWIN KLEBS.
4. Influence of Antitoxin Statistics. EDWIN ROSENTHAL.
5. The Decrease in Mortality of Diphtheria Since the Introduction of Treatment with Antitoxic Serum. WM. P. MUNN.
6. The Associate Infections of Typhoid Fever. W. J. JACQUES.
7. Would Surgery Suffer if Iodoform Was Abolished? EDMUND C. BRUSH.
8. Distilled Water and Boiling for the Sterilization of Surgical Instruments. W. K. ROGERS.
9. The Eyes and Ears of Employes of Transportation Companies. FRANK ALLPORT.

10. A Preliminary Note on Antipneumococcus Serum. JOS. MCFARLAND and CLARENCE WYMAN LINCOLN.

CORRECTION.—We regret that in the abstract of Dr. Knopf's article on "The Early Recognition of Pulmonary Tuberculosis" in last week's issue, his position with regard to the use of tuberculin for diagnostic purposes was misstated. Dr. Knopf doubts the utility and wisdom of the injection of tuberculin for the purpose of diagnosing tuberculous disease in the human race, and quotes numerous authorities who coincide with his views regarding its dangers and frequent unreliability.

1.—See editorial columns.

2.—A series of 25 investigations are reported, which were undertaken with the object of ascertaining the average atmospheric **distention-capacity of the female bladder** and its actual internal measurements from the internal urethral orifice to certain points on its walls. For the purpose of the first study, the woman was put in the knee-chest posture and the 3 pelvic cavities were each allowed to dilate by natural atmospheric pressure, according to Kelly's method. By this method no discomfort was felt by the woman, and consequently no resistance, voluntary or involuntary, was offered, thus adding to the uniformity of the conditions of observation. Repeated observations showed but little difference in capacity resulting from difference in intraabdominal pressure, and while the distended vagina and rectum have a certain influence on the shape and position of the dilated bladder, they seem to influence only slightly its air-capacity. The air was expressed from the bladder by bimanual manipulation after rotating the woman to the dorsal position, and was conducted through a catheter and rubber tube under an inverted, graduated glass cylinder. In the 25 women examined, the average bladder-capacity by atmospheric distention was 303 cc., individual cases ranging from 160 to 545 cc. The capacity in general follows the size of the bladder by internal mensuration, and also in a general way the size of the woman. Measurement was also made, in 22 cases, of the average fluid-capacity which was found to be 429 7 cc., varying in individual cases from a minimum of 210 to a maximum of 840 cc. The average capacity of the bladder for both air and fluid is somewhat greater with than without anesthesia, explained, doubtless, by the relaxation of the bladder-walls during anesthesia. The distance of the following points from the internal urethral orifice was measured. The *vertex*, the most prominent and distant point in the concavity of the upward and anterior bulging of the ventral wall. The most prominent and distant point in the upward and dorsal bulging of the *posterior wall*. The point of greatest outward bulging in the *left lateral wall*. The point of greatest outward bulging on the *right lateral wall*. The average measurements obtained for these 4 points were: to summit, 7.14 cm.; to posterior wall, 5.77 cm.; to left lateral wall, 6.70 cm.; to right lateral wall, 5 92 cm. A greater capacity was noted in nulliparas, which may be due to the greater elasticity influenced both by age, and because the bladder and the surrounding tissues have not suffered injury and undergone sclerotic changes as the result of the pressure of the gravid uterus. [M B.T.]

3.—In the **treatment of diphtheria,** Klebs recommends that serum-injections be made in every case in which a diagnosis can be made even with probability, but the case should not be registered as diphtheria until the diagnosis is made sure by microscopic or bacteriologic examinations. Only a small quantity of the serum should be injected at first, and the heart watched for a few minutes, when more can be injected. It is an error to recklessly inject 5 cc. at once, as fatal results have followed, not only in children but also in adults. Soft parts, remote from the heart, such as the hip or loins, are the best places for injections. The serum should always contain a small quantity of antiseptics—kresol 0.2%, or thymol in crystals. The needle should only be pushed into the tissue to make sure that no bloodvessel had been touched. Escape of blood warns us that such is the case and a new insertion must be made. Of greatest importance for a successful treatment is a correct clinical diagnosis. In most cases the appearance and spreading of membranous exudation is sufficient for a diagnosis, when associated with general symptoms, but microscopic and bacteriologic examinations afford certain means for a correct diagnosis. The portion for microscopic and bacteriologic examination should be taken from the edges of the membranes, and from the adjoining, seemingly healthy mucous membrane. In the center of membranes it very frequently happens that no bacilli can be found, these having been thrown off. For cultures, dog-serum seems to be much preferable to the Löffler serum. The use of local antiseptics, such as are apt to endanger the life of tissue-cells, should be avoided. Mild, non-irritating antiseptics, such as chinosol—1 to 1000—or antinosin in 2% solution, applied to the entire surface of the tonsils, palatum molle, pharynx, etc., with cotton balls, have given good results. The nasal passages should be washed with these same solutions by means of a suitable syringe. The local use of the antidiphtherin, a 10 times *in vacuo* concentrated filtrate of diphtheria cultures, has proved highly efficient against the local affection and the fever, and should not be neglected. This substance could easily be prepared in every laboratory for antitoxic serum. Its manufacture is not prohibited by patents. [M.B T.]

5.—Munn finds from a study of the vital statistics of Denver during 4 years since the introduction of **antitoxin** in the treatment of diphtheria that the **mortality-percent** has been decreased, by some influence, to less than one-third what it used to be; and this is for *all cases* without reference to treatment. When the cases are divided as to treatment with or without antitoxin, it is found that 607 cases treated *with antitoxic* serum had a mortality of 4.96%; 570 cases treated *without the antitoxic* serum had a mortality of 18.6%. That is, when the antitoxin was omitted from the treatment 4 times as many died as when it was used. This series of cases covers every instance of illness from diphtheria known to have occurred, attended by all kinds of doctors, all the neglected cases, and all the patients to whom the antitoxin was given as a last resort even when the administrator himself had no hope. Munn estimates that by the gradual introduction of preventive measures during the past 10 years and by the use of antitoxin during 4 years, 5,444 cases of illness have been avoided and 2,487 lives have been saved in Denver. He concludes that in every case of diphtheria the antitoxic serum should be administered. If every diphtheric infection could be treated on the first day that clinical symptoms are manifested the mortality of the disease would be but a fraction of 1%. [M.B.T.]

7.—See PHILADELPHIA MEDICAL JOURNAL, Vol. III, p. 1333.

9.—See PHILADELPHIA MEDICAL JOURNAL, Vol. IV, p. 19.

American Journal of Medical Sciences.

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1. The Surgical Treatment of Tumors within the Spinal Canal. JAMES J. PUTNAM and J. COLLINS WARREN.
2. A Fifth Case of "Fungous Foot" in America. J. T. ARWINE and D. S. LAMB.
3. Some Facts in Regard to Aneurysm of the Aorta. H. A. HARE and C. A. HOLDER.
4. Report of a Case of Hodgkin's Disease, Showing Long Periods of Fever. CUNNINGHAM WILSON.
5. A Case of Acute Gangrenous Pancreatitis, with Fat Necrosis. J. A. SCOTT.
6. The Diagnostic Value of the Wintrich Tracheal Sound. C. F. HOOVER.
7. Splenic Pseudoleukemia; (Anemia Splenica; Splenomegalie Primitive). BERTRAM W. SIPPY.
8. Perforation of the Stomach in an Infant 7 Weeks Old. T. M. ROTCH.
9. A Critical Summary of Recent Literature Concerning Some Recently Described Reflexes. JOSEPH SAILER.

1.—To a small number of **tumors within the spinal canal** which have come to operation, Putnam is able to add three. The first case concerns a woman, 52 years of age, whose first symptom was a severe intermittent pain through the lower ribs and down across the abdomen into the left groin. Jolting did not increaase the pain, and this fact was eventually used in arriving at the conclusion that the vertebral column was not primarily involved. The presence of pain on jolting does not, however, warrant the conclusion that the spinal column is involved. Six months after the onset of pain the woman noticed difficulty in using the left leg. The pain was increased by intestinal movements and by gaseous distention of the bowel. Walking became gradually more and more difficult. Sensation was slightly impaired over the anterior surface of the leg and the lower part of the abdomen. Eventually the patient was unable to

stand alone, and had difficulty in controling the bladder. The umbilical reflex was entirely absent on the left side. The sensibility of the left leg was better than that of the right, while the loss of motion was greater in the former, a certain sign that the left half of the cord was involved. Operation was performed by Dr. Warren, and a tumor about the size and shape of an olive (an intradural fibroma) was removed. It had no pedicle. The dura was stitched with 3 silk sutures, the muscles brought into apposition by buried sutures, a space being left for a temporary gauze-drain. The skin was closed with silkworm-gut. During the first days after the operation the paralysis of both sensation and motion was intensified, and a zone of hyperesthesia which had not been observed before covered the abdomen and lower chest. These results were attributed to edema and to disorders of nutrition following the great change in vascular tension. Slight sensation in the legs was felt on the second day, but the first sign of voluntary motion did not show itself until 3 days later, and improvement in this respect was extremely slow. The bladder and rectum were not fully under control for many weeks. The first return of perspiration in the legs, which had before been wholly dry, showed itself only after several weeks. Since the operation the patient has been gaining slowly, but uninterruptedly. The points of interest in the case are (1) the wide extent of the area over which pain was at times felt. This may be explained on the view of Sherrington that every given area on the trunk is supplied with at least three overlapping nerves. (2) The abdominal pain, which from the onset was increased by evacuation of the bowels and by distention with gas. At first Putnam was inclined to attribute this to increase in the abdominal pressure interfering with the spinal circulation, but afterwards he thought that it was an instance of Head's "referred sensation," an example of a practically normal visceral excitation translated into a painful cutaneous sensation in consequence of the abnormally sensitive condition of the cord at certain elevations. The second case was one of **endothelioma of the spinal cord** which had caused symptoms for 19 years. The patient, a man of 43, was, in 1880, seized with intense pain in the back. Jolting of the carriages greatly increased the pain, which is noteworthy in connection with the fact that the tumor probably started in the pia. At the end of a little more than a year signs of compression of the cord first showed themselves, and at the end of 9 years he was entirely paralyzed as regards sensation, motion and control of the bladder and rectum. The dissociation-symptom, such as is seen in intramedullary growths or syringomyelia, was present. The patient lost some weight and suffered from hectic fever, which was thought to be due either to urethral infection or to some influence starting from the spinal disease. An operation was performed in 1891. The cord was found enlarged, and dark-gray or bluish in color. As no sign of external disease was present, the wound was sewed up. After the operation the patient improved markedly in health and strength, although there was evidence that the cord was invaded as high as the lower cervical region. In 1897 the pain returned, and a second operation was undertaken. The spinal cord was found converted into a dark-colored mass at the point of operation, and a piece excised proved the tumor to be an endothelioma. The pain ceased after the operation and has not returned. The third case was a young man of 24, who 3 years before had fallen from a ladder, sustaining a severe wrench of the neck. In the two succeeding years his neck was twice injured. Difficulty in walking manifested itself, although sensation was not disturbed. The reflexes were exaggerated and both legs and arms became finally wholly paralyzed. At the operation the posterior surface of the axis was found eroded, and a sarcomatous mass was found beneath, which had apparently penetrated directly into the spinal cord. This mass was removed and its base curetted. Microscopic examination showed the growth to be a giant-cell sarcoma. The patient's breathing improved at once, and after a few days voluntary motion returned to the legs and arms. The improvement was soon followed by a relapse, but this again by a renewed improvement which has continued. The authors give a tabulation of cases of operation for spinal tumor recorded in the literature. The total number, including their own, is 33. As to the **advisability of operating** in these cases, the authors think that the second and third cases reported by them give some ground for greater hopefulness in prognosis. Sometimes the operation appears in some subtle way to give a "new set" to the tendency at work. Cases of intramedullary tumor have never been successfully operated upon. In cases of tumor careful observation should be made as to the exact areas in which the sensibility is altered. It will generally be found that it is not the lines of the ribs, but lines more or less at right angles to the long axis of the body, that are followed by the upper margin of the affected surface, and that the back and the sacral areas tend to escape unless the lumbar portion is involved. Pain may occur when no cause can be assigned, and may be absent when it might be preeminently expected. [D R]

2.—To the four cases of **fungous root,** recorded in America, Arwine and Lamb add a fifth. The patient was a Texan, of Mexican parentage, 45 years of age. The disease began in 1887 with severe pain in the left foot, lasting 36 hours. After this a red spot appeared. Pain, more or less severe, continued throughout the years, but eventually subsided. The leg became greatly enlarged and, at the patient's request, was amputated. The foot and ankle were much enlarged and showed the characteristic "buttons" of fungous disease. Microscopic examination of small, hempseed-like bodies found free in the connective tissue and sinuses, revealed them to be made up of aggregations of smaller masses, consisting of a radiating fungus believed by Carroll, who made the examination, to be actinomyces. [D.R.]

3.—Hare and Holder have collected from medical literature a large number of cases of **aneurysm** of the **aorta,** with the desire of showing the most common location of the disease, its usual cause, the direction of its development, its frequency in the two sexes, the most common symptoms, and the most common cause of death. Of 570 cases of aneurysm of the ascending portion of the arch, 504 were sacculated; 466 occurred in men, and 78 in women. Regarding the age, aneurysm occurs most frequently in the decade between the thirty-fifth and forty-fifth year. In 295 aneurysms in men no statement as to the probable cause of the disease was made; 30 persons were considered perfectly healthy, 28 had had a history of syphilis, 45 had been alcoholic, and in 3 of these there had also been an exposure to trauma; 17 cases were said to have been due to rheumatism, 4 to syphilis and alcohol combined, and 47 to trauma. In women 25 were ascribed to trauma, and in 35 the cause was not stated. Death occurred as the result of rupture of the aneurysmal sac, from the pressure of the sac upon important nerves and blood-vessels, or from secondary changes which took place in these tissues and in other vital organs as a direct or indirect result of such pressure. The majority of sacculated aneurysms of the ascending arch ruptured into the pericardium; a large number ruptured into the pulmonary artery; some into the right auricle; some externally; some into the superior vena cava, the esophagus, the left auricle, the right ventricle, the trachea, the left ventricle, the pleura, the heart, the lung, and the posterior mediastinum. One of the patient's in whom rupture into the pulmonary artery occurred lived 4 months after the rupture took place. Regarding the **secondary heart-changes,** the writers have found the heart described as normal in 58 instances, and as hypertrophied in 29, among the cases in men. Of cases of aneurysm of the second or transverse portion of the arch, they have collected 88 in men. The pressure-symptoms in aneurysm of this portion are not very characteristic. A total of 110 cases of aneurysm of the third or descending portion of the arch were collected, and 169 instances of aneurysm in which the location was not definitely stated. From their studies, the writers draw, among others, the following conclusions: (1) That aneurysm most frequently involves the ascending portion of the arch; (2) that aneurysm of the transverse and descending portions of the arch are about equally frequent; (3) that in the large proportion of cases death does not occur from rupture, but from pressure by the growth; (4) that syphilis does not play as large a part as an etiologic factor as is usually supposed. [D R]

4.—This case of **Hodgkin's disease** is interesting because the patient, a woman 38 years of age, presented **long periods of fever.** At times this fever was of the typhoidal type; at others, it was intermittent in character. Histologic study of the tumors was made by Flexner, who found them to be lymphosarcoma. Clinically, the name of Hodgkin's disease is applicable to such cases, but from a pathologic standpoint they are malignant growths. [D.R.]

5.—Scott's patient was a woman, 64 years of age, weighing about 160 pounds, who, for a number of years, had been subject to attacks of **gastrointestinal disturbance, characterized by pain and distention of the stomach.** Her last attack began suddenly between 4 and 5 hours after the evening meal. She was seized with violent pain in the pit of the stomach, the abdomen became tender and swollen, she belched large quantities of gas, and vomited profusely. The bowels, which had not been opened for 6 or 7 days, became loose, the stools being dark and rather liquid. Within 24 hours she became delirious. The temperature was 102.2°, pulse 88. Her mental condition resembled a mild mania. There was no tenderness in the epigastric region, and no tumor or mass was felt. The urine contained no albumin or sugar, but some casts. Later the abdomen became soft and relaxed, and tenderness in the epigastric and hepatic regions appeared. A positive reaction was obtained with the Widal test. The patient died of exhaustion on the fifteenth day of her illness. Numerous areas of **fat-necrosis** were found in the omentum. There was a localized peritonitis in the epigastric region and a small amount of serosanguineous fluid in the peritoneal cavity. The **pancreas** was enlarged to about twice its normal size, its head projecting into the duodenum. It was soft and formed the lower boundary of an abscess. On section of the head and body, some bright-red and some coal-black areas were found. In many places the pancreatic tissue was entirely gangrenous. There was no ulceration or inflammation of Peyer's patches. The spleen was small, soft, and intensely congested; the liver was large and fatty; the gallbladder contained three faceted gallstones; the kidneys were fatty and contracted. No diagnosis had been made in the case. The author has gone over the postmortem records of the Pennsylvania Hospital, which have been kept since 1876, and has found but one other case of acute pancreatic disease. This was in a man, 34 years of age, who had complained of abdominal pain and looseness of the bowels. The bowels subsequently became constipated, and there was vomiting and retching. The urine contained neither albumin nor sugar. The man died on the third day after admission, the temperature having arisen to 102°. At the autopsy widespread **fat-necrosis** was found, together with **hemorrhage in the pancreas.** The author reviews briefly the literature of the subject of acute pancreatitis. The diagnosis is not easy. It must be made from acute intestinal obstruction, perforation of gastric or duodenal ulcer, hepatic colic, irritant poisoning, and thrombosis of the mesenteric vessels. The prognosis is extremely grave. Four or five recoveries after operation are, however, recorded, and the author himself believes that the diagnosis having been made, the case should be given over to a surgeon for operation. [D.R.]

6.—Moderate percussion of any portion of the normal thorax gives a sound of a certain character, which is not modified by the individual's holding his mouth open. If at the time the examiner percusses the thorax, he places his ear near the nose of the person examined, he will perceive no difference in the character of the sound. Under normal conditions moderate percussion vibrations are not communicated to the large bronchi: consequently the column of air in the trachea is not implicated in the percussion, and no sound issues from the nose. Under certain pathologic conditions, however, the vibrations of a moderate percussion stroke are communicated to the large bronchi, thus involving the column of air in the trachea. In such conditions there will be two sounds conducted to the examiner's ear—one direct from the thorax through the atmosphere, the other through the trachea and nares or open mouth. Wintrich described the modification of the **percussion-note over cavities in the lung** that occurred when the patient held his mouth alternately open and closed. When the mouth is open the percussion-note becomes more tympanitic, because the open mouth permits the pharynx to act as a resonator over the column of air in the trachea which is set in vibration when the percussed cavity communicates with the bronchus. Williams noted the same modification of the percussion-note over consolidated areas of the lung at the apices, and also over the upper thorax when the lung was compressed from pleurisy with effusion. The modification of the sound is not demonstrable by light percussion over the bases of the lungs when consolidated, because of the remote position of the larger bronchi. In case of infiltration at the base of the lung when the thorax is percussed by striking a firm blow with the palmar surface of the ends of the metacarpal bones, a tracheal change of sound can be demonstrated, provided the bronchi are not stopped. This sound may in some instances be of service in differentiating between pulmonary consolidation and pleurisy with effusion. The author has observed the sound in miliary tuberculosis and lobar pneumonia, but never in pleurisy with effusion or hydrothorax. In the normal adult percussion over the upper portion of the sternum will not give a tracheal sound, because the inflexibility of the sternum and the softness of the tissues intervening between the sternum and the trachea are unfavorable for the transmission of vibrations to the trachea or bronchi. If the medium between the sternum and the trachea is increased in consistency, a light percussion stroke over the manubrium will give the tracheal tone. The truth of this the author illustrates by citing a case of lymphosarcoma of the mediastinum, in which the sound was obtained by percussion over the manubrium. He has also seen four additional cases of sarcoma of the mediastinum in which a distinct tone was heard on percussion over the manubrium. Aneurysm of the first portion of the arch of the aorta will give the tracheal sound as distinctly as do solid tumors. The sound was also obtained in a case of pericarditis with effusion. It could be produced only by percussion over a sharply defined area, extending three-quarters of an inch above and below Louis' angle. Over the left infrascapular area of dulness, which commonly occurs in pericarditis with effusion, percussion was accompanied by a distinct tracheal tone. This latter was brought about by percussion over a compressed lung, while the other was caused by the pericardial culdesac being distended with fluid. Several precautions should be observed when testing for the tracheal sound. Where mediastinal involvement is suspected, the chin should be elevated to produce as much longitudinal extension as possible in the trachea; the patient should be instructed to take a deep breath and to continue the inspiration after the thorax has reached the height of its excursion. By so doing the vocal cords are kept apart, and the passage of sound and air from the trachea is not obstructed. The patient should hold the mouth open with the tongue protruded. The examiner should percuss gently over the manubrium and continue this throughout the act of inspiration. He should place his ear directly over the patient's mouth. When the tracheal sound is present it can be easily recognized by its characteristic metallic resonance and issuance from the mouth. The sound is produced by percussion over the sternum in cases of mediastinal tumor, aneurysm of the ascending arch of the aorta, and pericarditis with effusion, provided there is a sufficient amount of fluid to distend the pericardial culdesac over the origin of the large vessels at the base of the heart. The tracheal sound from percussion of the manubrium is not present in consolidation or cavity of the upper lobes of the lung, nor is it present in pleurisy with effusion. [D.R.]

7.—The first symptom in the patient, a male Russian of 45 years, was the appearance of a swelling in the left hypochondriac region. There was slight nausea, occasional vomiting, and a tendency to be easily fatigued. There were also chilly sensations, followed by fever, increasing shortness of breath, with occasional attacks of dizziness and headache, repeated epistaxis, and swelling of the feet and ankles. There was a feeling of pressure in the epigastric and left hypochondriac regions. Pain was absent. The spleen was greatly enlarged, as was also the liver. The blood at first showed 1,740,000 red corpuscles and 5,214 white. Hemoglobin 30%. Later, the results were 568,000 red corpuscles, 8,000 white corpuscles, 10% hemoglobin. There was no abnormality in shape and size of the corpuscles; nucleated, red cells were not found. Death occurred from exhaustion. At the autopsy the spleen was found to weigh 2,350 grains, its surface was smooth and bluish-gray; on section it was red, firm, and uniform, and contained a number of infarcts. The liver weighed 2,800 grains. The bone-marrow in the femur was of an embryonal character. Histologically the spleen showed an increase in the reticulum of the pulp, and some augmentation in the fibrous tissue, especially about some of the veins. Signs of acute inflammation were entirely absent. In the liver leukocytic infiltration was found, together with an increase of the interlobular tissue and of

pigment. The lymph-glands presented a general hyperplasia, preponderating, however, in the connective tissue. An antemortem bacteriologic study of the case (on blood aspirated from the spleen) had been negative—the Staphylococcus pyogenes aureus had been found, but was thought to have come from the skin. The same organism was also found in cultures from the spleen made postmortem, probably in consequence of a suppurating wound in the parotid region that had developed shortly before death. No microorganisms were found in sections of the spleen or the other organs. As two rabbits died soon after the intravenous injection of an aqueous extract of the spleen, it is probable that an abnormal toxic substance was present in the organ. The author discusses the theories regarding the origin and nature of splenic pseudoleukemia. Most prominent among the **features of the disease are hypertrophy of the spleen and progressive anemia.** There are three possibilities with regard to the disease-manifestations: (1) The hypertrophy of the spleen may be the result of the progressive anemia; in that case it remains to determine upon what the anemia depends. (2) The progressive anemia and splenomegaly may arise from a common cause. (3) The changes in the spleen may be primary and may give rise to the other symptoms. If so, the cause of the splenic enlargement must be determined. The fact that complete recovery has taken place after the removal of the hypertrophied spleen in 5 cases points directly to the **spleen as the source of the anemia.** In the **treatment** medical measures are of only temporary value, and the only hopeful interference is surgical, namely, **splenectomy.** This has been done 7 times, with 5 recoveries, the cases quoted by the author. [D.R.]

8.—Rotch reports an instance of **perforation of the stomach** occurring in a male infant, aged 7 weeks. The child was operated on for peritonitis, the cause of which remained undiscovered. Death occurred 3 days later, and at the autopsy the stomach was found perforated on the anterior wall, and in the perforation lay a thread. How the thread came to be there was not determined. Rotch believes that a threaded needle had probably been swallowed, and had perforated, leaving a bit of silk behind, the needle being overlooked among the coils of intestine. It is also possible, though not probable, that there had been a follicular ulcer into which the thread had worked its way. [D.R.]

9.—Sailer describes the **hypothenar reflex** of Stembo, the **toe reflex** of Babinski, the **pupillary reflex** of Westphal and Piltz, and Piltz's **attention reflex of the pupil.** The first is elicited by pressure upon the pisiform bone, and consists in the appearance of a fold on the ulnar side of the hand. In the reflex of Babinski the toes, instead of being flexed as ordinarily when the sole is irritated, are extended (flexed dorsally). Babinski claimed that this reflex was indicative of disease of the pyramidal tracts, but subsequent investigators seem to have arrived at contradictory results. Westphal and Piltz's reflex consists in a contraction of the pupil associated with closure or attempted closure of the eye. It was found in cases in which the pupil did not react to light, and was absent in health. Its true meaning is, however, not known. The reflex of Piltz manifests itself as an alteration in the size of the pupil when the attention is suddenly fixed. It seems to prove the existence of a cortical reflex-arc for the pupil. [R.D.]

Bulletin of the Johns Hopkins Hospital.

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1. The Present Aspect of Some Vexed Questions Relating to Tuberculosis with Suggestions for Future Research Work. E. L. TRUDEAU.
2. Infusion of Salt Solution Combined with a Special Method for the Administration of Oxygen Inhalations as a Treatment in Pneumonia. CLEMENT. A. PENROSE.
3. A Note on the Pigment Production of Bacillus Pyocyaneus and Bacillus Fluorescens Liquefaciens. PAUL GERHARDT WOOLLEY.
4. Experiments Made to Determine the Effects of Sugar upon the Pigment Formation of Some of the Chromogenic Bacteria. PAUL GERHARDT WOOLLEY.
5. Chronic Malarial Nephritis with Report of a Case. CHARLES W. LARNED.
6. A Case in Which the Bacillus Aerogenes Capsulatus was Repeatedly Isolated from the Circulation during Life. N. B. GWYN.

1.—In an interesting and suggestive address on the present aspect of some **vexed questions relating to tuberculosis,** Trudeau states that tuberculin made from the culture-fluid in which bacilli attenuated by long cultivation have grown, is as sufficient to produce the usual tuberculin reaction in tuberculous men, and for killing tuberculous animals, as tuberculin derived from the most virulent cultures. He expresses the belief that **adenoid growths** in the nasal fossae, since patients having them often, react with tuberculin, are more frequent primary **channels of infection** than is imagined. The predisposition to tuberculosis may be either individual or racial. Racial susceptibility presents many curious problems for study. Thus, chickens are highly susceptible to infection with the avian variety of the tubercle-bacillus, while they resist inoculation with the bovine and especially the human bacillus. The guineapig, on the contrary, succumbs readily to inoculation with the human bacilli and is killed even more quickly with the bovine variety, but resists infection with avian cultures. The rabbit, on the other hand, is killed by all three varieties of the tubercle-bacillus. Among the problems in pathology which require to be studied are (*a*) the chemical changes in the quality of the digestive secretions and their immediate causes; (*b*) the cause of the anemia; (*c*) the factors concerned in the cure of peritoneal tuberculosis after laparotomy; (*d*) the factors determining local immunity in the tuberculous; (*e*) the meaning of the presence of tubercle-bacilli in milk, semen, urine, etc.; (*f*) the production of beading of the tubercle-bacillus. Further studies are also needed on the various sources of infection. Baldwin, at the Saranac Laboratory, has shown that the hands of patients using handkerchiefs may be the carriers of unsuspected bacilli. A promising prophylactic measure would be the establishment of **State and municipal sanatoriums** in favorable localities for the treatment of incipient cases, and of special hospitals on the outskirts of large cities for the care of advanced and hopeless ones. With regard to bacteriology, one of the important desiderata is the separation of the various substances elaborated by the bacilli or contained in their bodies. Further studies are also needed on the relative pathogenic properties for men of the varieties of the tubercle-bacillus—the human, the bovine, and the avian. In the **diagnosis** of the disease we should no longer be content to wait for the appearance of expectoration containing bacilli, for marked physical signs, or for an unmistakable clinical picture. The **tuberculin-test,** in Trudeau's opinion, is a most searching and delicate means of detecting tuberculous disease. The tuberculin-test is not dangerous for incipient cases. No proof has been brought that by its use bacilli are scattered through the system or that new foci are produced as the result of injection. No harm has accrued to the patients, in his experience, when small, graded doses were used at two or three varying intervals. The application of x-rays to the diagnosis of incipient pulmonary tuberculosis also promises to be of practical assistance, as the height of the excursion of the diaphragm and the appearance of a slight shadow over the suspected area in the lung, when considered together with the rational symptoms and any trifling deviation from the normal sounds in the lung, enables a positive conclusion to be made in many cases before the appearance of expectoration containing bacilli, or before the unmistakable symptoms of the disease are present. The climatic and open-air treatment of tuberculosis in especially constructed sanitaria at present offers the patient the best chance of recovery. The obtaining of a serum that would be antitoxic for the concurrent infections would lessen the hopelessness of many cases. Little of any practical value has been accomplished by the efforts to obtain an antitoxic serum or to produce immunity against tuberculosis. Many experiments have been made in Trudeau's laboratory. He has found that in an inoculation of attenuated living cultures of avian tubercle-bacilli increases the resistance of rabbits to virulent living mammalian culture. The tubercle-bacillus becomes attenuated when cultivated for many years, and Trudeau has used such attenuated cultures and has found that they materially increase the resistance of animals. The immunity produced, however, was only relative. Some of the guineapigs survived virulent inoculation so long as 18 months. [D.R.]

2.—Penrose recommends the use of infusion of salt-solution combined with the administration of oxygen in the **treatment of pneumonia.** The oxygen is administered by means of a funnel held in front of the patient's mouth and nose at a distance of two inches by a special device. In three apparently hopeless cases, one recovery under this method of treatment is reported. [D.R.]

3.—As the bacillus pyocyaneus and the Bacillus fluorescens liquefaciens have similar **chromogenic properties,** Woolley investigated the possibility of the Bacillus liquefaciens producing pyocyanin when grown under the conditions most favorable for the production of pyocyanin. The result was negative. [D.R]

4.—A study of the **pigment-production** of various chromogenic bacteria on sugar-containing and sugar-free mediums leads Woolley to the following conclusions: (1) Pigment is produced more readily in sugar-free mediums. (2) Growth is more luxuriant in sugar-containg mediums. (3) Pigment is produced earlier in 1% glucose mediums than in 2% mediums. [D.R.]

5.—Larned reports a case of **quartan malaria** in which a **nephritis** was discovered and was supposed to be dependent upon the malaria or upon previous attacks of that disease. The patient was a female colored child, 7 years and 5 months old. The child died in convulsions. The author states that a blood-examination should be made in all cases of nephritis occurring in those who have visited or lived in a malarial district, for it may happen that the severe grade of nephritis resulting may mask entirely the clinical picture of malarial fever. [D.R.]

6.—Gwyn was able to isolate from the blood of a young woman of 18, suffering from **chorea insaniens,** the **Bacillus aerogenes capsulatus.** This is the first instance in which this organism has been isolated from the blood during life. The patient died after a protracted fever and no autopsy was made. Shortly before death the streptococcus was also isolated from the blood, probably a terminal infection. Gwyn does not consider that the chorea was dependent upon the infection with the bacillus aerogenes. It seems that this organism may exist in the blood without producing gas, for there had been no signs of emphysema during life. [D.R.]

Berliner klinische Wochenschrift.

July 24, 1899. [36. Jahrg., No. 30.]

1. Plastic Operations on Tendons. ALBERT HOFFA.
2. Experimental Contribution Upon the Question of Kidney Insufficiency. (Conclusion follows.) P. F. RICHTER and W. ROTH.
3. Upon the Exclusive Employment of Rectal Alimentation. (Conclusion follows.) ROST.
4. Upon Pressure of the Cerebrospinal Fluid in Epileptic Convulsions. E. NAWRATZKY and M. ARNDT.
5. The Foundation of Anti-Fat Methods. G. ROSENFELD.

1.—Tendon grafting is usually carried out according to three methods. The tendon of a muscle which is functioning normally may be divided and the central end of its tendon sutured to the distal end of a paralyzed muscle; a second and more usual method is to divide the tendon of the paralyzed muscle leaving the central end entirely out of consideration and suturing the peripheral end to the muscle which provides the contractile power; a third modification is by taking a portion, about half, of the tendon of a muscle which is functioning normally and sewing this portion of the tendon to the tendon of a paralyzed muscle. If the two tendons are separated from each other by a considerable distance it may be necessary to provide a path for the tendon by undermining the tissues by means of forceps and a periosteal elevator. This path is best made beneath the fascia, the forceps are shoved under the bridge of soft parts, and by means of them the end of the tendon is drawn through. It is usually easy to find what muscles are paralyzed. This may be done by asking the patient, provided he is old enough to understand, to put the muscle in active contraction, or it may be done by testing the contractility of the muscle by electricity. If, in spite of the most accurate investigation, it is impossible to determine the condition of the muscle, it may be exposed by a long incision. Functioning muscle is dark red in color, paralyzed muscle is of a yellowish white color because of fatty degeneration, and paretic muscle is more or less of a rosy color. After the tendon has been divided and the suturing has been carried out the limb is placed in the overcorrected position and fixed in place with a paris-plaster bandage. This bandage is allowed to remain for from 4 to 8 weeks. Sometimes the result of the transplantation is evident within a few weeks after the bandage is removed; in other cases it becomes evident only after considerable time. The usual condition calling for this operation is anterior poliomyelitis, but Hoffa has also performed the operation for the cerebral paralyses of childhood. Brief notes are given of 22 cases in which operations of this kind have been performed. Rapid healing followed the operation in all cases and the functional results have been, on the whole, very satisfactory. [M.B T.]

July 31, 1899. [36. Jahrg., No. 31.]

1. Further Contributions Upon the Theory of So-called Congenital, and in Early Childhood Acquired, Facial Paralysis. M. BERNHARDT.
2. Contribution to the Differential Diagnosis of Appendicitis. R. MÜHSAM.
3. The Pulsatory Foot phenomenon. PLACZEK.
4. Experimental Contribution upon the Question of Kidney Insufficiency. P. F. RICHTER and W. ROTH.
5. Upon the Exclusive Employment of Rectal Alimentation. ROST.

1.—Although Bernhardt and others have reported cases of isolated, unilateral, **congenital facial paralysis,** or at least imperfect development of the nervature and musculature of the face on one side, the existence of such a condition is by no means unequivocally demonstrated. There are no postmortem examinations on such cases extant. In the present article the author reports two cases, the congenital nature of which can scarcely be questioned. One case was a child which was seen first at the age of 10 months. It had a right sided, peripheral, facial palsy and a complete right-sided abducens paralysis. The obliquity of the face had been noticed since birth. There had never been any spasms. The chin muscles and those of the lower lip, as well as the frontalis and corrugator of the right side, did not contract on faradic stimulation. The second case was a child one year and two months old at the time of the examination. Delivery had been easy; immediately after birth the mouth was found to be drawn to one side, and complete absence of the right thumb was noted. There was weakness of the orbicularis muscle, and absence of the depressorof the angle of the mouth and the lower lip on the right side. There was no paralysis of any ocular muscle. Both cases were evidently congenital. It was interesting to note that in both the muscles of the lower lip and of the chin were especially affected. It may then be asserted that a congenital paralysis, or better, a defect of the muscles of the face exists. The condition may be unilateral or bilateral. It may or may not be associated with involvement of the nerves of the eye muscles, or, more rarely, of other cranial nerves or the muscles innervated by such nerves. In some cases the lip and chin muscles escape, in others they are chiefly affected. In cases of acquired facial palsy it sometimes happens that certain muscles either escape entirely or are especially affected; the author, in this article, reports a case in which the depressor of the lower lip showed the greatest involvement. In this case, a peculiar quivering of those muscles on the affected side that were electrically stimulable, was noted after the current was stopped. Another point in this case was that the elevators of the upper lip on the diseased side always contracted when the electrode was placed on or beneath the lower jaw. This might have been due to radiations of the current from the electrode. Bernhardt in some other cases observed that if the electrode was placed on the right side, as on the triangularis and quadratus menti, the corresponding muscles on the left, the diseased side, contracted. A similar observation has been made by Oppenheim (see PHILADELPHIA MEDICAL JOURNAL, July 29, 1899, page 207), who attributes it to the existence of the collateral innervation. But this does not explain why a current insufficient to control the action of the healthy muscles will induce contraction in the diseased muscles. The author thinks that the quadratus menti is in reality a continuation of the platysmamyoides and that its fibers mingle with those of the

corresponding muscles on the other side. This is also true of the triangularis depressor anguli oris). [D R]

2.—The **diagnosis of appendicitis** is usually easy. Difficulties in the differential diagnosis are found in two kinds of cases. First, in chronic cases in which the clinical picture may be that of gastric or intestinal disturbances, or of hysteria. In the second group of cases the difficulty arises in such acute cases as are not seen until symptoms of general appendicitis are present. The diagnosis may be made much more difficult by the administration of large doses of opium. A number of cases illustrating the difficulties which sometimes arise are reported. In two cases perforation of ulcer of the stomach was mistaken for appendicitis, and in one case the perforation of a typhoid ulcer was the cause of the difficulty. [M.B.T.]

3.—Placzek has made a graphic study of the well-known **pulsatory foot-phenomenon**; that is, the pulsation of the leg when one limb is crossed over the other. The pulsation wave consists of a main and two accessory elevations. The tracing is much more striking than that of the pulse at the wrist. The tracing, compared with the sphygmogram, is reversed. As to the nature of the phenomenon, the author considers that the compression of the popliteal artery is the main, but not the only cause. Every change in the course of the artery by which the blood flowing through it is compelled to overcome resistance acts in a similar way. Rosenbach looked upon it as a patellar reflex excited reflexly. While not denying this mode of origin, Placzek thinks the fact that it is synchronous with the pulse and that it is present in tabetic patients with lost kneejerk, militates against this theory. The curves in various forms of heart-disease are described. No relationship was found between the foot-phenomenon and the patellar reflex. [D R]

4.—The authors sum up the results of their experiments as follows: (1) The normal depression of the **freezing point of rabbit's blood** is a physiologic constant ($\Delta = 0.56$), variations in which are only slight. (2) When the renal activity is entirely eliminated through double nephrectomy, so that the metabolic products are not removed from the body, the **molecular concentration of the blood rises.** (3) A unilateral nephrectomy does not produce molecular retention in the blood because the remaining healthy kidney compensates for the loss of the extirpated one. If the remaining kidney is damaged, molecular concentration occurs. (4) Bilateral hematogenous nephritis produced by poisoning leads in all cases to a more or less pathologic depression of the freezing point, in other words, to molecular retention. When the nephritis is diffuse or affects especially the vascular apparatus, the molecular retention is prompt and marked; when the lesion involves principally the tubular apparatus the molecular retention is not so marked. The mechanic obstruction of the uriniferous tubules by artificial infarction leads also to retention of molecules in the blood and to corresponding pathologic depression of the freezing point. (5) The pathologic depression of the freezing point is produced by the retention of true metabolic products, not by retention of sodium chlorid. Anemia and dropsy may prevent the depression of the freezing point in man. The greatest benefit from **a study of the molecular concentration of the blood** will redound to surgery. It is often necessary to know something of the function of the kidney, whether one can be removed without harm to the system. Whether both kidneys are functioning can be determined by examination of the urine obtained separately from the two ureters, but this does not necessarily answer the question whether the function of the kidneys is really adequate and sufficient. The examination of the blood to determine the molecular concentration will in these cases be of great value. [A method of determining the freezing point has been published by von Koranyi, *Zeitschrift für klin. Medicin*, Band 33. D.R.]

Münchener medicinische Wochenschrift.

July 25, 1899. [46. Jahrg., No. 30.]

1. Putrid Sore Mouth in Children and Its Relation to "Foot-and-Mouth Disease" in Animals. POTT.
2. The After-Treatment of Sprains of Hand, Knee, and Foot-Joints. HASEBROK.
3. Upon Habitual Shoulder-Luxation and its Radical Operation. KRUMM.
4. The Use of Glass Building-Stones in Constructing Operating and Work-Rooms. KUHN.
5. A Case of Traumatic Knee Joint Luxation in a Woman Aged 70 Years. KOLLMANN.
6. Comments upon Professor Harnack's Treatise "Concerning the Poisonous Qualities of Heroin." DRESER.

1.—Under the term "Mundfäule" the author comprises all forms of **stomatitis** except true cancrum oris or gangrene of the mouth. During the course of 20 years he has observed 553 cases among 30,706 children examined. He believes that injuries to the mucous membrane of the mouth play an important role in the production of the stomatitis, and he **inveighs against the use of rubber nipples** and rings which are so often given to children for the purpose of quieting them. The constant sucking on them is apt to produce lesions of the mucous membrane. Mundfäule is a primary local infection. The ulcerative forms begin usually at the edges of the gums and produce linear ulcers on the inside of the cheek where the cheek is in contact with the margins of the gums. The gums bleed at the slighest touch. The abscess-form develops especially on the tip of the tongue, on the upper and lower lip and both sides of the frenum and the anterior parts of the buccal mucous membrane. The angles of the mouth are apt to become fissured, and the drooling saliva macerates the skin of the chin and neck. General symptoms are usually present; fever, swelling of the glands at the angles of the jaw, and dyspeptic disorders. In 15 cases there were marked intestinal disturbances. The author finds that the unboiled milk of cattle suffering from foot-and mouth disease may induce a similar affection in man, especially in children; but not all cases of sore mouth are due to such an infection. [D R.]

2.—Hasebrock says that the **after-treatment of sprains** should consist not only in massage and gymnastic exercises, but also should involve the employment of some apparatus which would fix the joint and limit the motion. The apparatus should render the joint free from pain and thereby allow of the proper use of the muscles. It should also tend to make the joint lastingly capable so that it can stand rather severe handling without being resprained. To accomplish these purposes Hasebrock has devised various supports for the different joints. For the hand a simple, leather wrist-protector, firmly applied, but not of sufficient length to absolutely block the use of the joint. So as to fit properly the support should be molded over a carefully made plaster cast. For the knee and ankle properly fitting braces provided with hinges corresponding to the normal joint movements are made from steel and leather. [G.B W.]

3.—The case of **suture of the capsule for old luxation of the shoulder,** reported by Krumm, was a carpenter, 49 years of age. Seven years previous the patient dislocated his shoulder for the first time; since then, from slight causes, he had redislocated the shoulder some 37 times and each time narcosis was necessary for the reposition. Krumm, after dislocating the biceps tendons outward, opened the capsule anteriorly. Nothing abnormal was found except a relaxation of the capsular ligament, especially on the inner side. After more or less freeing of the capsule from the surrounding tissues, sutures were introduced so as to make a fold in its wall, thus greatly shortening it. The capsule was then sewed up and the tendons of the biceps restored to its groove, and its sheath sutured. The wound united per primam, and the patient rejoiced in a good functional arm. [G.B.W.]

4.—Kuhn recommends the use of **glass building-stones** of the type invented by Falconnier in the construction of operating rooms. These stones were invented in France, but are now made in Germany. They are hollow, like glass boxes, are filled with rarefied air, and may be used like bricks. They vary in shape. Some are dice-shaped, others resemble bricks, others are hexagonal. They are joined together by means of a special mortar, the corners being filled out by half or quarter stones furnished by the factory. Trimming of the stone is, of course, out of the question. At the author's suggestion, an operating room was constructed at the Elizabeth Hospital of the Sisters of Mercy in Cassel. The anterior third of the operating room, excepting a low, massive base, was constructed of these stones.

There are no windows excepting those above. The walls are air-tight, keep out the heat as well as the cold, vapor is not deposited upon them; they permit the entrance of the daylight and possess at the same time the property of diffusing the direct light of the sun. They also act somewhat like mirrors and reflect the light towards in inner part of the room. Despite the fact that they allow light to pass through, they are not transparent, and no one on the outside can see what is going on within. The walls may be readily washed and kept aseptic. There are two valves in the room for purposes of ventilation. [D.R.]

5.—Kollman reports a case of **complete luxation of the kneejoint** occurring in a woman, 70 years of age, and caused by falling to one side while the lower leg remained fixed. On examination the external condyle of the tibia was found just beneath the internal condyle of the femur. There was no fracture nor other complication and complete reposition was had by extension and direct pressure. [G.B.W.]

6.—A polemic against Harnack's condemnation of **heroin.** Dreser thinks that Harnack has exaggerated the toxicity of the drug. [D.R.]

August 1, 1899. [46. Jahrg., No. 31.]

1. Concerning Newer Remedies and Methods of Therapy and Prophylaxis for Gonorrhea in Man. KOPP.
2. The Gonorrhea-Treatment in the Munich Garrison Lazaretto from 1882 to 1898. WÜRDINGER.
3. The Spreading of Contagious Sexual Diseases in the Army and Among the Classes, with Comments upon the Therapy of Gonorrhea. VOGL.
4. Concerning Gonococcic Toxin and Its Effect upon the Nervous System. MOLTSCHANOFF.
5. Tumor Vesicæ Urinariæ et Strictura Callosa Congenita (?) Præputiobalanourethralis. GOLDBERG.
6. Urethral Capacity and Gonorrhea Syringes. H. LOEB.
7. Answer to the Comments of Prof. Dreser to my Treatise "Concerning the Qualities of Heroin." HARNACK.

1.—Will be abstracted when finished.

2.—The number of persons sick with venereal disease in the hospital of the Munich garrison during the years 1882–1898 varied from 416 to 635. Of these more than 54% suffered from **gonorrhea.** The patients were kept in the hospital until thoroughly cured. The treatment consisted in rest in bed during the acute period, a bland diet with milk, the use of ice in the earliest stage, and of injections after the subsidence of the acute phenomena. Attention was naturally also paid to the bowels. As an injection a great many varieties of agents were employed. Ichthyol seemed to enjoy the greatest favor in the earlier days. In later years the **synthetic compounds,** especially those of **silver,** were employed. The results with the newer products were no better than with the older methods, and the author thinks that the number of remedies is in inverse proportion to their efficacy. During the prespecific period the average duration of treatment was 45 days. With the specific compounds it was practically no less. [D.R.]

3.—Gonorrhea is a "Volkskrankheit" far more serious than is usually admitted. In Germany the military has been held responsible for the alarming spread of the disease. Würdinger, however, resents this imputation, and brings forth cogent arguments to prove his contention. **Gonorrhea** is much less frequent in the German army than in that of other Continental powers, as may be seen in a table given by the author: In the French army 4.7%, in the Austrian 6.4%, in the Italian 9.5%, in the Prussian 3.29%, in the Bavarian 3.56%. The statistics of 1896 give for the Prussian army 2.5%, for the Bavarian 2.3%. The spread of gonorrhea is not due to the army but to the loose morals among the general community. The remedy is to be found in the control of prostitution on a scientific and practical basis. [D.R.]

4.—Moltschanoff has studied the **effect** of the injection **of unfiltered gonococcus-cultures** killed by heating for 15 minutes at a temperature of 70° C. The studies were made on white mice, guineapigs and rabbits. The white mice served as an indicator of the strength of the toxin. Five to 8 hours after the injection the animals became apathetic, and later a paralysis of the hind legs, then of the fore legs developed. The respiration became disturbed before death. Sometimes there were also spasmodic movements. The symptoms, in short, were those of an ascending paralysis. Microscopic examination of the spinal cord and brain showed changes in the cells, especially in those of the anterior horns of the cord. There was partial or complete chromatolysis, changes in the nuclei, and at times vacuolation. Marked hyperemia and at times hemorrhage was present. Guineapigs were very sensitive to the toxin. Death occurred in 1 to 5 days with symptoms of progressive emaciation and debility. The temperature fell after the injection from 2° to 5°, and then, after 2 or 3 days, rose to 39° or 40° C. The rabbits developed fever from the beginning. The serum of the animals injected with the toxin **did not develop agglutinating properties.** In cases of chronic poisoning the symptoms were, in guineapigs, exaggeration of the reflexes of the hind legs, gradually giving place at the end of a month or the beginning of a second month to disappearance of the reflexes. At the end of the second month the reflexes returned. Paresis, sometimes light, sometimes marked, developed in the hind legs. It usually disappeared in the third month. In rabbits the exaggeration of the reflexes appeared somewhat later. It was followed generally by loss of reflex on one or both sides. Paresis was noticed only in a few animals. In one animal there was a persistent incontinence of the rectal sphincter; in another a loss of muscle-sense. The most marked changes in the central nervous system were found in the guineapigs. Twelve hours after the injection the following changes were noticed: Swelling and displacement of the nucleus of the ganglion-cells and partial or general solution of the chromatophilic substance. In 24 hours all of these changes were decidedly more marked. After the third day vacuolation was found in a larger number of cells of the anterior horns. The changes disappeared generally at the beginning of the second month, although the vacuolation sometimes persisted for a long time. There was in all the cases a pronounced hyperemia. Marchi preparations showed degenerative changes in the posterior roots and in the posterior columns. The **peripheral nerves** showed changes at the end of the third week. These took on the character of Gombault's "névrite segmentaire periaxile." In rabbits the lesions in acute intoxication were much less marked than in guineapigs. In chronic cases more or less degenerative neuritis was found. The neuritis was of a degenerative character as well as of the type of Gombault. Marked changes were found in the **central nervous system** of guineapigs injected with **gonococcus-toxin** and afterward with **streptococci.** The author promises further reports on the combined action upon the nervous system of the gonococcus and staphylococcus pyogenes aureus and bacillus coli. The researches, as far as they have gone, justify the conclusion that the gonococcus-poison is capable of producing definite changes in the nervous system. The changes consist in acute intoxication in animals, in alterations in the cells of the anterior horns, and to a slighter degree in the cells of the nuclei of the oblongata and brain-cortex. In chronic cases there is primarily a degenerative neuritis, at times degeneration of posterior roots and posterior columns of spinal cord. [D.R.]

5.—The patient, 46 years of age, in whom there was no history of injury or venereal disease, had several attacks of moderately severe hematuria during the past 15 years. Examination showed a **stricture** (probably **congenital**) beginning at the meatus and ending in a cicatricial band about 1½ cm. further in. The stricture was cut and dilated. Cystoscopic examination then showed a lobulated tumor situated near the middle of the fundus. The tumor was not pediculated. No operation was undertaken. [G.B.W.]

6.—Loeb has studied the **capacity of the urethra** in 50 patients and has found that the average is 10.3 cc. The capacity was from 6 to 8 cc. in 9 cases, from 8 to 10 cc. in 15, from 10 to 12 cc. in 11, from 12 to 14 cc. in 11, and 14 and over in 4. His studies lead him to the conclusion that the capacity of the diseased as well as of the healthy urethra varies from 6 to 20 cc., and that there is **no external criterion of the capacity.** As it is necessary that in the injection-treatment the amount injected shall correspond to the capacity of the urethra, it is necessary to determine in every single case the capacity by means of a syringe or an irrigator. [D.R.]

7.—Harnack replies to Dreser, that **heroin** should not have been placed upon the market so promptly, and that great caution is necessary in its use. [D.R.]

Centralblatt für Gynäkologie.

October 14, 1899. [23. Jahrg., No. 41.]

[Continuation of Report of the Meeting of Scientists and Physicians at Munich.]

1. Gonorrheal Lymphangitis. A Treatise upon Inoculation with Gonococcus. SIGM. MIRABEAU.
2. Remarks upon the Slit-Speculum of Dr. Zepler. R. BIERMER.

1.—Mirabeau says that it is well known today that **gonorrhea plays an important role in gynecology** since it may affect all the genitalia, and that the course of the disease is a problem difficult of solution. Undoubtedly in the first place the gonococcus is a parasite of the mucous membrane, then it extends to the cylindrical epithelium of the uterus and pavement-epithelium of the vagina, penetrates the deeper tissues and circulates through the blood and lymph-vessels. Mirabeau discusses especially gonorrheal lymphangitis which physicians are liable to incur through subcutaneous infection in their surgical work, and which usually, as in his own case, runs its course without the suppuration accompanying other kinds of infection. He refers to the experiments of many investigators in inoculating animals with gonococcus as without any positive results, and concludes that the gonorrheal lymphangitis of physicians appears essentially to correspond to the inoculation with the dead body of the gonococcus. [W.K.]

2.—Biermer claims priority to Zepler in the invention of the slit-speculum. [W.K.]

October 21, 1899. [23. Jahrg., No. 42.]

[Conclusion of Report of Meeting of German Scientists and Physicians at Munich from September 18 to 23, 1899.]

On the Question of Tubal Labor-Pains. M. v. STRAUCH.

Strauch, of Moscow, is positively of the opinion that labor-pains are sometimes produced by tubal contractions in cases of extrauterine pregnancy when the placenta remains in the tube after the escape of the fetus into the abdominal cavity. Though rare, this condition has been described by a number of observers, and Strauss has himself seen it in two cases out of 127 extrauterine pregnancies. [W.K.]

October 28, 1899. [23. Jahrg., No. 43.]

Upon Rupture of the Symphysis. JELLINGHAUS.

Rupture of the symphysis is comparatively rare. Ahlfeld, up to the year 1876, could collect from literature only 86 cases, and Schauta in his clinic observed only 3 cases out of 30,000 births. Jellinghaus reports a case occurring in a woman aged 31 years. After her sixth delivery she suffered much from pain and stiffness in the sacral and hip joints, and walked with difficulty. During the seventh pregnancy these symptoms increased to such an extent that she was obliged to keep her bed during the last 4 months. A transverse presentation with version and difficult extraction of the infant, which weighed 4,700 grams and was 54 cm. long, resulted in a rupture of the symphysis and bad lacerations. The latter were repaired with catgut-sutures accompanied with iodoform drainge and a temporary catheter. Immobility of the pelvis was secured by 3 broad plaster strips which were renewed as necessary. At the end of 2 weeks the catheter was removed, and in about 6 weeks there was a complete reunion of the symphysis. Jellinghaus thinks the man will go astray who considers forcible delivery as the cause of **rupture of the symphysis,** since investigators have found that the symphysis in a dead body has the strength of 200 kg. He considers such ruptures are rather due to the effects of scrofula, tuberculosis, or other diseases which have prevented that yielding of the pelvic joints usual in pregnancy. Or it may be due to a contracted or funnel-shaped pelvis, as in the case reported by him. If there is an early diagnosis and treatment of the rupture before suppuration of the symphysis the prognosis is favorable. The essential feature of the treatment is to secure the immobility of the pelvis by a pelvic girdle, adhesive strips, or plaster-of-paris bandages; the latter, if well cushioned, has the preference when other injuries are not present. [W.K.]

November 4, 1899. [23. Jahrg., No. 44.]

1. A Case of Umbilical Hemorrhage in a Syphilitic Newborn Infant Controled by Deep Suturing. FELIX HEYMANN.
2. Styptics in Uterine Hemorrhage. H. ABEGG.

1.—Heymann describes a case of **obstinate hemorrhage from the umbilicus** in a syphilitic infant beginning with the falling of the cord on the fifth day. The father of the child belonged to a family having a tendency to hemophilia. Efforts were made to control the bleeding by tight compression with pledgets of gauze fastened with strips of adhesive plaster, and applications of liquor ferri sesquichlorid; but relief proved only temporary, hemorrhage beginning again in a few hours. Three days after the first appearance of the flow, radical treatment was adopted. Paquelin's cautery was first used, after which deep sutures of aluminum wire were introduced. Enemas of normal salt-solution with sugar were given, and after 3 hours a subcutaneous injection of the salt-solution. The bleeding was completely controled and no further trouble was experienced. [W.K.]

2.—Abegg strongly recommends **styptics** for many forms of **uterine hemorrhage** in preference to surgical methods. In those forms of bleeding caused by myomata or polypi, styptics are ineffectual, but he believes them to be very useful in the following cases: (1) Beginning miscarriage when other means are ineffectual; (2) too severe regular menstruation; (3) irregular copious menstruation; (4) hemorrhage during the puerperium; (5) hemorrhage at the climacteric. The styptics recommended are cornutum secale and hydrastinin hydrochlorate. [W.K.]

Neurologisches Centralblatt.

November 15, 1899. [18. Jahrg., No. 22.]

1. The Treatment of Herpes Zoster. BLEULER.
2. Two Cases of Partial Absence of the Cucullaris Muscle. NEWMARK.
3. The Intramedullary Course of the Facial. BISCHOFF.
4. An Antagonistic Reflex. SCHAEFER.
5. Optic Neuritis as a Complication of Diseases of the Nervous System. SCHUSTER and MENDEL.

1.—Bleuler has found that a cocain-salve containing 1% of the drug not only relieves the **pain of herpes zoster,** but causes very rapid disappearance of the eruption. In certain cases, it may be replaced by orthoform, although this does not act as quickly. [J S.]

2.—The first patient, a boy of 16, had complete **absence** of the lower portion of the **lefe cucullaris muscle** and atrophy of the upper portion. The left shoulder-blade was 1 cm. higher than the right and somewhat further from the spinal column. The condition apparently commenced at the age of 5. The second patient, a boy of 13, had possibly injured his arm during the third year of his life. The symptoms were essentially the same as in the first case. There was no disturbance of function. [J S.]

3.—A sagittal incision was made through the pons and the adjacent half of the medulla in a cat. Fourteen days later the animal was killed. All the fibers passing from the nucleus of the facial nerve on the left side were destroyed; all of those on the right were intact. Therefore, in the cat, the **facial roots do not decussate.** The so-called crossed facial root apparently consists of fibers that arise in one half of the tegmentum and cross the raphe in the neighborhood of the knee of the facial fibers leaving the medulla with the vestibular nerve. [J.S.]

4.—Schaefer has observed that in some cases pressure upon the Achilles-tendon produced, instead of flexion of the foot and toes, a marked extension of both. He reports 5 cases in which this occurred, apparently as a result of interruption of the pyramidal tract of the opposite side, particularly in central disease. [J S.]

5.—Schuster and Mendel report a case of **locomotor ataxia** in the course of which bilateral optic neuritis occurred. Also 2 cases of multiple neuritis of rather abnormal course in which the same symptom was present. In the second, there were symptoms of involvement of the other cranial nerves, leading to the suspicion that perhaps a basilar meningitis coexisted. The patient, however, recovered. [J.S.]

Archiv für Verdauungs-Krankheiten.

October 28, 1899. [Band 5, Heft 3.]

1. On the Motor-Influence of the Splanchnic upon the Small Intestine. J. PÀL.
2. A Further Contribution Concerning Erosions of the Stomach. MAX EINHORN.
3. Some Remarks Concerning Regurgitation. E. BÄCKLIN.
4. Experimental Studies Concerning the Dietetic Treatment of Hyperacidity. W. BACHMANN.
5. On the Secretion of Hydrochloric Acid in Carcinoma of the Stomach. A. RICHTER.

1.—The literature considering the **action of the splanchnic** is reviewed showing the lack of unanimity of results from experimental work. Pàl then details his own work. He first divided the splanchnics and stimulated the cut ends with electricity. The result was in almost all cases a tonic contraction of the intestine, causing a cylindric narrowing of the bowel; with this the pendulum-like movements ceased; therefore peristalsis was decreased and contraction of the bowel was caused. He then put rubber balloons of sausage-shape in the bowel and distended them with water and then carried out the same experiments with the splanchnics, recording the movements by means of a water manometer. The irritation of the splanchnics caused marked contraction of the intestine, with cessation of the pendulum movements. He also curarized dogs and injected strychnia. Since this drug causes irritation of the nervous centers, including that of the splanchnic, the result should be similar to direct irritation of the splanchnics, and the result proved to be entirely analogous to those previously described. He likewise gave suprarenal extract because it causes contraction of the abdominal vessels, thus studying the effect of contraction of the peripheral vessels upon peristalsis, since this is said by some to be the cause of the results from irritation of the splanchnic. Suprarenal caused limination of the peristalsis. The results in general showed that Pflüger was right in stating that irritation of the splanchnic caused decreased peristalsis. Prof. Pàl lays especial weight upon the fact that this decrease in peristalsis is associated with a change in the lumen of the intestine. He thinks that his results explain the variations in the results of others, and decides that the splanchnic is a motor-nerve to the intestine which has fibers for the circulation as well as the longitudinal muscle; that it regulates the intestinal tone, and that the occurrence of decreased peristalsis is due to an innervation of one of the muscular layers over a large portion of the intestine. If one of the muscular layers prevails over another in its action limitation of the intestinal movements will result. [D L.E.]

2.—Einhorn reports 16 further cases of **erosin of the stomach.** As to the details, he found that in many there was normal acidity, with others excessive acidity, while in others there was very marked subacidity or even achylia. Two cases were of interest because complicated by tuberculosis of the lungs. In one of these cases the gastric symptoms preceded those in the lungs by several months; this patient had achylia gastrica. In one case there was a previous history of syphilis, and it was noteworthy that the gastric symptoms were coincident with a papular skin-eruption which suggested the possibility that erosions of the stomach were caused by an analogous eruption in the stomach. Antisyphilitic treatment was ineffectual. In 4 cases there were symptoms of chronic catarrh of the stomach, and this certainly plays a considerable part in erosions of the stomach. Anemia is often present in a marked degree and probably is a result of the erosions. The symptomatology is as Einhorn has previously described it. Besides finding portions of the mucous membrane of the stomach, one notes that the patients complain of discomfort or pain in the epigastrium shortly after taking food, and are likely to feel weak and languid; there are other dyspeptic symptoms but none that are characteristic. The treatment was chiefly spraying the stomach with a solution of silver nitrate, 1 or 2 parts to 1,000, and in the use of intragastric galvanization. In one case this treatment was ineffectual, and in this case milk-diet and large does of bismuth were tried, but they were also of little use, and the patient improved only after being sent to the country and advised to rest. [D.L.E.]

3.—The occurrence of several cases of severe regurgitation and of one case of rumination in his practice, and the observation in the literature of other severe cases and of one fatal case led Bäcklin to study the **relation of regurgitation to other conditions.** In investigating 338 cases of gastric disease he found that in 192 this symptom had been noted. It was present with the most varied kinds of disease; but often was absent in the same form of affection. It was, however, more frequently absent than present in gastritis, while it was more commonly seen in neuroses than absent; it was very frequently present in atony of the stomach. Martin has thought that regurgitation with gastric ectasis decreased as the dilation became more severe; Bäcklin does not consider that this is due to an increasing lack of power of the muscle of the stomach and its inability to regurgitate, but thinks that it is to be attributed to weakness of the pylorus. He mentions a case as an evidence that weakness of the pylorus does occur. This was a man who had a marked neurasthenic tendency, and had constant reflux of bile into the stomach, the reflux being considered to be due to the pyloric weakness. Other evidence that this weakness occurs is seen in the fact that many cases have for a time a considerable retention of food in the stomach which is ultimately replaced by a premature expulsion of the food from the stomach due, Bäcklin believes, to weakening of the pylorus. [D L E]

4.—Bachmann reviews the literature concerning diet with hyperacidity and the **effects of various foods upon the secretion of gastric juice,** and then details his own experiments which consisted in administering to 12 patients with hyperacidity, many of them showing also continuous hypersecretion, test-meals composed of beefsteak, eggs, milk, butter, and cream as examples of animal foods; of bread, oatmeal, and potatoes as vegetable foods, and of combinations of these. The caloric value of the test-meals was always kept at about the same point in order that the results might indicate the usefulness of these substances in actual practice. The stomach was washed out, the test-meal was administered and every 15 minutes or half-hour a portion of the stomach-contents was removed for testing. Each patient was put through the test 2 to 3 times, and if the individual results were about the same he was then dismissed. If, however, there were variations the tests were repeated still further. In all about 1,250 separate examinations were undertaken. The microscopic appearance of the stomach-contents was noted, the presence of HCl, the total acidity, the pepsin-digestion, the presence or absence of lactic acid, and the results of the iodin-test for the condition of starch-digestion. It was found that free HCl appeared more quickly after taking vegetable substances than after animal foods, the average being one-half hour later after animal foods than after vegetable. The animal foods caused a higher average value for free HCl than the vegetable. Butter and cream caused a reduction in the amount of free HCl; the total HCl was found less after the use of milk, bread, potatoes and oatmeal, somewhat higher with an egg meal, and decidely higher after taking beefsteak. The total acid was lowest after taking bread and highest after taking beafsteak. There were no definite variations seen in the pepsin-digestion after the various meals; the stomach was emptied most rapidly after using bread, oatmeal, milk and potatoes, the time for emptying with these being about the same; eggs took longer, and beefsteak decidedly longer. The addition of butter and cream caused a decided protraction of the time of retention of food in the stomach. After using potatoes there was a decided reaction for lactic acid; the same was true always after using meat, only once after using milk, and never after eggs. It seemed that lactic acid was rapidly formed from the starch of potatoes. The important decisions reached are that fats (butter and cream) when added to other foods cause a distinct reduction in the HCl secretion. Beefsteak caused the greatest irritation of the secretory glands and eggs the next; while oatmeal, bread, potatoes and milk caused comparatively little irritation. The meals composed chiefly of animal foods caused much greater secretion of HCl than those that were chiefly vegetable. As to the influence upon the digestion of starches the irritative state of the stomach seemed to cause some disturbance of this, but it was not marked, and it cannot be considered of much importance as a contraindication to the use of starches since the pancreatic secretion is perfectly able to carry on the starch digestion even though it has not reached a normal

stage before the foods are passed into the intestine. Bachmann believes that the vegetable foodstuffs together with milk are of much greater value in dietetic treatment of superacidity than the animal foods. Potatoes cause usually some disturbance, however, and increase the total acid through the production of lactic acid, and are therefore of less value than bread and cereals. Butter and cream should be considered as not only allowable, but decidedly to be recommended since they decrease the acid-secretion. [D.L.E.]

5.—Richter discusses two cases of **gastric carcinoma,** one of them in a man of 40, the other in a woman of 55, in both of which free HCl was present, in one in excess. In both of these cases there had been symptoms for a long time before of nervous hyperacidity of the stomach. From the observation of these cases and from the fact that hyperacidity frequently occurs in carcinoma developing on the basis of an ulcer, Richter is led to the belief that the cause of the continuation of HCl secretion in either normal or excessive amounts in the late stages of carcinoma is an excessive nervous excitability, the result of essential irritability of the nerves or of the irritation of an ulcer. He does not think that secondary gastritis is the cause of the reduction or absence of HCl secretion in carcinoma, as there are numerous cases of benign stenosis or of ulcer which are accompanied by severe grades of gastritis but continue to secrete large amounts of HCl and mucus for years. Undoubtedly if there is marked atrophy of the mucous membrane this may be considered the cause of the absence of secretion, but he considers that the secretion usually ceases as the result of the severe general weakness and the changes in the blood and in the nourishment of the nerves. Gastritis prevents the secretion of HCl only when of the atrophic form. [D.L.E.]

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51. The Recognition of the Macroscopic Structure of the Parotid. NICOLADONI.
52. Statistics Relating to the Hour-Glass Stomach. v. EISELSBERG.
53. Gastric and Duodenal Hemorrhage Following Operations. v. EISELSBERG.
54. Resorbable Intestinal Buttons. G. SULTAN.
55. The Gastric Mucous Membrane in Persistence of the Vitelline Duct. E. LEXER.
56. The Recognition of Latent Microorganisms. JULIUS SCHNITZLER.
57. Tuberculosis of the Symphysis Pubis. O. v. BÜNGNER.
58. Sarcoma of the Bones of the Foot. M. BORCHARDT.
59. Appendicitis Contemporaneous with Disease of the Female Pelvic Organs. DUEHRSSEN.
60. The Implantation of Rib Cartilage in the Larynx to Heal Stenosis and Defects of that Organ. F. von MANGOLDT.
61. An Operated and an Unoperated Case of Coxa Vara Traumatica. SPRENGEL.
62. A New Method of Opening the Chest for the Laying Bare of the Heart. VICTOR WEHR.
63. Cardiac Suture and Resection of the Cardiac Wall. VICTOR WEHR.

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51.—The form of the **parotid gland** of man differs widely from that of the lower animals in that in man the gland is formed of two lobes, the inferior and superior, and the inferior lobe is of large size. The separation between the two lobes is marked by the exit of Steno's duct, which, beginning in the gland, passes directly through it as a straight tube, gradually increasing in size. Sometimes branches are given off from the duct which run to small accessory glands. The various lobes and lobules are arranged in groups around their respective ducts, so that by careful dissection each lobule with its duct can be separated out. [G.B.W.]

52.—v. Eiselsberg reports 8 cases of **hourglass stomach** operated on by him, all of which were caused by gastric ulcers, the ulceration being fresh in 4 cases and in the other 4 cases the cicatrix causing the ulceration. On these 8 patients 11 operations were performed, 7 times longitudinal incision with transverse suturing was practised, 2 deaths, twice gastroanastomosis with one death, and twice gastroenterostomy with no deaths. From these cases he concludes that the longitudinal incision is not to be recommended. When two healthy portions of the gastric wall can be easily approximated, gastroanastomosis should be done. In all other cases gastroenterostomy is the operation of choice, except in a few rare cases when it may be advisable to resect the constricted portion of the stomach. [G.B.W.]

53.—v. Eiselsberg reports 8 cases of severe **hemorrhage from the stomach and duodenum** following operation in which there had previously been no bleeding. Five of these cases were fatal. [G.B.W.]

54.—Sultan suggests a **button for intestinal anastomosis** which he claims has all the advantages and few of the disadvantages of Murphy's button. The greater part of the button is made out of decalcified ivory. It posesseses a metal shell which forms the lock as in Murphy's button. In order to obtain a continuous and even pressure on the intestine a soft rubber covering is placed over the edges between which the intestinal wall is clamped. This button was placed in the stomach of a dog for 5 days before signs of resorption began to manifest themselves, and the author has never experienced any bad results by resorption taking place too soon. [G.B.W.]

56.—Schnitzler has written a most instructive treatise on the **latency of microorganisms.** A series of experiments on frogs showed that these animals, 44 days after an injection of virulent streptococci, though in seemingly perfect health, would sicken and die if some deteriorating influence, such as exposure in an incubating oven or chloroformization, was added. Also, by the making of cultures, streptococci could be found in the blood of these deteriorated animals, whereas if the animal was killed and its blood examined before the deteriorating influence had been added, the cultures remained sterile. In other words, the streptococci were in a latent condition. A quantity of a pure culture of Staphylococcus aureus was injected into the vein of an ear of a large, strong rabbit. The rabbit remained perfectly healthy. Twenty-nine days later the humerus was fractured, and on the next day an osteomyelitis had begun to develop at the seat of fracture, and in 3 days there was an abscess around the humerus and suppuration of the medulla. A number of staphylococci were injected into the veins of 3 rabbits without any ill-effects. Respectively, 3, 4 and 5 weeks later the rabbits were etherized and the right kidneys contused. The animals died in from 2 to 6 days later, and the postmortem showed extensive suppuration of the right kidneys, while the left were practically normal. These experiments show the possible existence of a latent condition of bacteria when existing in the living organism. [G.B.W.]

57.—The primary seat of **tuberculosis of the symphysis** pubis is either in the fibrous cartilage of the symphysis or in the neighboring osseous tissues. There then follows destruction of the cartilage and bone with the formation of a cold abscess above and behind the symphysis. These abscesses spread up over the lower portion of the abdomen and inguinal region, rarely going down the inner side of the thigh. This is due to the anatomic relation of the rectus abdominalis and the fascia transversalis to the pubic bone. The downward direction is taken by the pus only when the extreme lower portion of the symphysis is attacked and the fluid has a chance to escape around the fascia transversalis into the space of Ritziuss. Fistula are a very frequent result of tuberculosis of the symphysis, and are generally situated low down just outside the rectus, as here is generally the greatest prominence of the abscess. Direct pressure on the pubis always elicits pain, though indirect pressure exerted on the side of the pelvis does not always do so. The treatment is a radical removal of diseased bone, and tuberculous granulations and abscess walls, with packing of the wound. If the periosteum is left intact all the removed bone will be reformed and absolutely useful pelves will result. [G.B.W.]

58.—Borchardt reports the following case of **sarcoma of the bones of the foot:** A man of 47 sustained injury to the right foot, which, instead of getting well, gradually grew worse, and was treated variously for 9 years. During the last year the region of the calcaneum and astragalus began to swell which, because of the peculiar radiograph and the results of an exploratory puncture, was thought to be a tumor demanding amputation. Examination of the specimen after operation showed that the primary

growth was an enchondroma of the astragalus. This chondroma, became sarcomatous, broke through into the os calcis and assumed the type of a giant-cell sarcoma. [G.B.W.]

60.—The operation for **implanting a portion of rib cartilage in the larynx** was as follows: The patient was a child with severe stenosis of the larynx. A portion of the eighth costal cartilage, 3 cm. long and 1.5 cm. broad, was resected with careful preservation of its perichondrium. This was placed under the skin just below the chin in a sagittal direction. The wound healed perfectly with the piece of cartilage remaining in situ. Nine months later the larynx was opened and a flap of tissue containing the implanted cartilage pushed in between the two plates of the thyroid cartilage and fastened in this position with 4 sutures. In 14 days the external wound was healed, and 6 weeks later dilation of the larynx was begun. The dilation for 3 days was accomplished by leaving in the larynx rubber tubes of increasing sizes. Intubation was then practised, and in 3 weeks the tracheotomy-tube was gradually removed. The child finally dispensed with the tube and can now talk in a whisper. [G.B.W.]

61.—Sprengel reports an unoperated case of coxa vara traumatica. The patient, when 17 years of age, fell, and 4 days afterwards could not walk. Six weeks after the injury there was 2 cm. shortening of the leg and stiffness of the hip-joint. Two years later there was 6 cm. actual shortening and 5 cm. shortening due to tilting of the pelvis. The stiffness of the joint was almost absolute. The author believes this case to be one of **traumatic coxa vara** for the following reasons: (1) The sudden appearance of the disease; (2) the severe pain at the commencement with almost absolute cessation of the same afterwards; (3) only one side being involved; (4) the absence of any secondary deformities. [G.B.W.]

62.—Wehr gives the following method of **surgical approach to the heart:** Incision beginning at right side of sternum, at the upper edge of fourth costal cartilage, is carried towards the left, describing one end of an oval, the extremity of which is 2 finger-breadths to the left of the sternum, comes transversely back to the right edge of the sternum at the base of the xiphoid cartilage. The sternum is then sawed through at the line of incision, the intercostal muscles divided and the costal cartilages cut, also in the line of incision. The base of the xiphoid is then cut through with scissors and the skin, fascia, cartilage, bone and muscle turned back in one flap. This procedure opens up the anterior mediastinum and the heart is easily approached. [G.B.W.]

63.—Wehr, as the results of experiments carried out on 44 dogs and 7 rabbits, gives the following conclusions: (1) in order to quickly and surely **suture a wound of the heart,** plenty of room must be given in laying bare the heart; (2) we need a sure and well-planned method of reaching the heart, with plenty of room for manipulation, and which may readily be altered to suit the needs of the individual case; (3) compression of the heart in order to render the operating field bloodless is not applicable to dogs, because it is dangerous to life. Therefore, in men, in such procedures, the greatest of care must be practised. [G.B.W.]

Revue de Médecine.

September 10, 1899. [19me Année, No. 9.]

1. Morbidity in France. Influence of Race and Elevation. P. Raymond.
2. The Inverse Influence of Fatigue and Repose upon the Temperature of the Tuberculous. The Importance of Thermic Instability as an Element in Early Diagnosis and Prognosis of Pulmonary Phthisis. Daremberg and Chuquet.
3. Rhizomelic Spondylosis. A. Leri.
4. A Clinical and Pathogenic Study of the Variations of Form and Volume of the Abdomen. Sigaud.

2.—A number of charts are presented to illustrate the marked tendency in **tuberculous subjects to variations of the temperature** from very slight causes. It is especially insisted that after a somewhat extended walk or other moderate exercise those who have tuberculosis will show marked variations of temperature. This is well illustrated by two cases here detailed, in both of which there was marked anemia. In the first there was diminution of respiration on the right, and a little irregularity of breathing with slight increase of the vocal fremitus. In the second there was diminished respiration at the left apex. The temperature was considered to be of the most extreme importance in these cases. In the first the temperature remained practically unchanged after a considerable walk, while in the second there was an elevation of nearly 1° C. and this took place on three successive days. The first case was treated by iron and hydrochloric acid, and improved rapidly. The second case was put at rest, given forced feeding and counter-irritation over the area affected, with the result that the signs disappeared almost entirely. Another matter which is insisted upon as of great importance in the diagnosis of tuberculosis, and of still more consequence in its treatment, is the fact that women, particularly very young women, are likely to show pronounced variations in temperature at the time of the menstrual period. This is sufficient evidence that such patients should be put to bed during menstruation. [D.L.E.]

3.—Leri first discusses the other cases of **rhizomelic spondylosis** which have been reported, criticising the diagnosis in all instances in which this seems at fault. He then describes the changes found in the spinal column in the case which came to autopsy in Marie's service. The spinal column itself was found to present a most striking deformity in the dorsal and cervical region where it formed an almost complete arc of a circle, and the course of the upper cervical vertebrae was practically at right angles to that of the lumbar. In the lower lumbar region there was an abnormal anterior curvature of slight degree. In general the changes seen most strikingly in the vertebra were, first of all, ossification of the ligaments, and secondly hypertrophy and ankylosis of the articular extremities. The ossification of the ligaments was almost entirely on the convexity of the curvatures. The dorsal kyphosis showed ossification of the supraspinus ligaments, the change here being situated on the posterior portion of the vertebras alone, while the lumbar lordosis showed ossification of the anterior portion of the discs, and the posterior was practically unaffected. The explanation of the lesions found is thought to be that the trouble begins as a softening of the articular extremities with consecutive ankyloses. This does not definitely explain the location of the trouble, but it seems to be an explanation of the curious lesions that result. [D.L.E.]

4.—Sigaud discusses the changes in the form and volume of the abdomen in their relation to what he terms **fundamental asthenia and functional hyperasthenia.** He states that the ingestion of food causes changes in the tone of the stomach and intestines and in the volume of the solid organs of the abdomen through congestion and distention of these organs. He advises more careful inspection of the abdomen and more accurate observation of the changes in its form and volume. In health he states that the volume and form of the abdomen are invariable, but when illness ensues there are notable alterations from the normal which may be temporary or permanent. He considers the changes in form under the headings of those seen with feeble gastrointestinal tract and of those that occur with a "strong" gastrointestinal tract. In the first case the stomach and intestines become easily overdistended and do not contract well after the distention. The result is that they tend to sink downward toward the pelvis, the abdomen loses its rounded aspect and becomes flattened when the subject lies upon his back; when standing the suprapubic and iliac regions appear somewhat prominent and projecting, while the lateral walls and the upper portion have less than their normal prominence. Another change is the tendency to pronounced distention of the epigastric region immediately after a meal. This occurs to a certain extent in normal persons, but it amounts to fulness only; when it becomes an actual ballooning of the epigastrium it is pathologic. In the so-called "strong" form of gastrointestinal tract he describes those cases that are seen most pronouncedly in young children in which the abdomen is much distended and like a drum. This occurs in adults also, and the course which he considers the usual one is the prolongation of this abdominal distention over a period probably years in length until gradually the gastrointestinal tract becomes overtaxed by the protracted distention, and finally it shows irritability, the patient tends to have attacks of diarrhea or constipation or an alternation of these two, and the invariable distention of the abdomen is replaced by a tendency for the abdomen to vary markedly in volume at times, and finally to become flattened and to resemble the first class of cases described. [D.L.E.]

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.

Vanadium in Tuberculosis.—Anceau (*Thèse de Paris*, 1899; *British Medical Journal*, December 2, 1899) has just published the result of a series of observations on the use of vanadium in the treatment of tuberculosis. In this disease the drug seems to act as a powerful tonic to the appetite and digestive functions. It would seem, however, that the effects of vanadium are only very slight when the pulmonary lesion manifests itself by profound constitutional changes. On the other hand, should the case be one of slight tuberculous affection, especially in the early stages, vanadium seems to be of very great use. The appetite is stimulated in such a manner that the patient is able to take abundance of nourishment, and, what is more important, digestive power is considerably increased. Its method of administration is important. The best method seems to be to exhibit the drug from 3 to 5 days at a time, allowing a similar interval to elapse before repeating its administration. Vanadium seems to act like arsenic and iron, but appears to be more efficacious in its action than either of the substances, as it seems to have 20,000-times more oxidizing power than iron, and considerably more than arsenic. The best form is sodium vanadiate, and the writer recommends $\frac{1}{32}$ of a grain daily by the month.

Silver Nitrate in the Ophthalmia of the Newborn.—Friedenwald (*Maryland Medical Journal*, September 30, 1899) states that during the first stage of ophthalmia, when the lids are greatly swollen, the conjunctiva is congested and glistening and exuding a thin, straw-colored serum, with sometimes a fibrinous deposit covering the conjunctiva, silver nitrate, as von Graefe showed, acts harmfully. If applied at all freely the conjunctiva becomes covered with a dense membrane which cannot be removed, and which requires a number of days for its disappearance. But what is most serious is that this condition of the conjunctiva is frequently followed by corneal ulceration. It is necessary to shorten this stage as much as possible, and this can be done by means of cold applications; cloths which have been left lying on a block of ice are placed on the eye in rapid succession and continuously, day and night. When the exudate becomes purulent the silver-solution should be employed. The solution is usually 2%. In mild cases it may sometimes be reduced to 1%, and stronger solutions are rarely required. The same effect may be obtained with the 2% solution as with stronger solutions, if it is applied for a longer time. It is well to apply the solution very gently at first, brushing it over the conjunctiva but once or twice, for if applied vigorously, even now the false membrane may make its appearance. The solution is not to be dropped into the conjunctival sac as is frequently done. The lids must be thoroughly everted and solution penciled over the entire surface. Friedenwald is in the habit of taking up most of the excess of the solution with a bit of absorbent cotton, and he believes that the small quantity remaining is rather beneficial than injurious. During the first few days, while the swelling persists, it is necessary to continue the cold applications. It is most important to keep the eye free from pus by frequently separating the lids and washing out the eye with a mild solution of boric acid. The silver-solution is to be used once daily, and after the first application or two, it is to be penciled over the conjunctiva until a thin milky layer is everywhere apparent, and it is well to follow this application with the cold cloths for half an hour or an hour to prevent too great reaction. This treatment should be continued until a cure is effected.

A New Edition of the Philadelphia Hospital Formulary.—Through the courtesy of Joseph W. England, chief druggist, the JOURNAL has been favored with the advance proof of a new formulary compiled for the needs of the Philadelphia Hospital. Mr. England remarks that in accord with the general tendency of the medical profession towards exactness and scientific simplicity, he has expressed the text of the formulas in a new system of English abbreviations, and not in the older mixture of neither Latin nor English, abbreviated in accordance with no known rules. He thinks that if some new system of abbreviated English in prescription-writing could be devised that would be practically unintelligible to the general public, the older system could be displaced with advantage, especially in view of the possibility of diminishing false readings, by pharmacists, of the curiously abbreviated Anglo-Saxon Latinic prescription so frequently met at the present time. Instead of the terms "hydrarg. chlor. mit.," and "hydrarg. chlor. cor.," the meaning of which the public has long since learned, he suggests the terms mild mercurous chlorid for the first, and corrosive mercuric chlorid for the second. Excellent judgment has been shown in the selection of the formulas, and many of the combinations are so admirably constructed for use in special affections that their publication in these columns seems more than justifiable. The following mixture will be found useful in allaying **cough in chronic bronchitis and phthisic asthma.**

℞.—Codein sulfate ..... ¼ grain.
Dilute hydrocyanic acid ..... 1½ minims.
Spirits of chloroform ..... 15 minims.
Glycerin ..... 10 minims.
Fluid extract of wild cherry ..... 5 minims.
Elixir of orange to make 1 dram.
Dose: Teaspoonful in water.

In the **dropsy of chronic heart-disease** the following diuretic mixture may be employed:

℞.—Potassium citrate ..... 10 grains.
Potassium acetate ..... 10 grains.
Spirits of nitrous ether ..... 15 minims.
Solution of ammonium acetate ..... 1 dram.
Tincture of digitalis ..... 5 minims.
Sirup of citric acid to make 2 drams.
Dose.—Dessertspoonful.

The following mixture for use in **heart-failure** is attributed to Dr. J. M. DaCosta:

℞.—Solution of nitroglycerin (1%) ..... 1 minim.
Tincture of belladona ..... 1 minim.
Tincture of digitalis ..... 5 minims.
Tincture of strophanthus ..... 2 minims.
Chloroform water to make 1 dram.
Dose.—Teaspoonful.

The following saline mixture has been found very efficacious in **acute dysentery.**

℞.—Magnesium sulfate ..... 20 grains.
Dilute sulfuric acid, Deodorized tincture of opium, Tincture of ginger } of each 10 minims.
Chloroform water to make 2 drams.

The following mixture of iron with salicylic acid, attributed to Dr. S. Solis Cohen, will be found efficient in **rheumatism with anemia.**

℞.—Sodium salicylate ..... 7½ grains.
Glycerin ..... 15 minims.
Mucilage of acacia ..... 7½ minims.
Tincture of iron ..... 7½ minims.
Oil of gaultheria ..... ½ minim.
Solution of ammonium citrate (B. P.) to make 1 dram.
Dose.—One to two teaspoonfuls.

The following combination known as Zollikoffer's mixture, often so useful in **chronic rheumatism and gout,** has been well-nigh forgotten since the introduction of the salicylic compounds:

℞.—Potassium iodid ..... 10 grains.
Resin of guaiac ..... 5 grains.
Wine of colchicum root ..... 15 minims.
Powdered acacia, Cinnamon water, Sirup of ginger } of each to make 4 drams.
Dose.—Tablespoonful.

Chloreton.—Houghton and Aldrich (*Journal of the American Medical Association*, September 23, 1899) discuss the therapeutic properties of chloreton, which is trichlor-tertiary-butyl-alcohol. It has been especially used as a hypnotic and local anesthetic. The authors found the drug very efficacious

in lessening the pain of wounds, burns, ulcers, etc. The pain and vomiting attending organic disease of the stomach, such as cancer, are often controled by the drug. It may be possible that it will prove to be a useful therapeutic agent in preventing or controling seasickness, and the vomiting of pregnancy. As a hypnotic, chloreton was found useful in a variety of conditions, especially in the insomnia of the aged, and in cardiac disease accompanied by nephritis with high pulse tension. In many cases chloreton proved successful after failure with hypnotics in common use. Chloreton does not irritate the stomach, nor cause disagreeable after-effects. Occasionally, however, it causes drowsiness on the following day when the dose has been large. As a peripheral anesthetic chloreton acts like cocain. So much as 60 grains has been given at once without exciting untoward symptoms. From 6 to 20 grains in tablets at a single dose, followed by a drink of water or milk, is sufficient to produce the desired results.

Diuretic Mixture in Nephritis.—Huchard (*Progrès Médicale*) suggests the following:

℞.—Tincture of squills..... 1 part.
Tincture of convallaria majalis..... 2 parts.
Tincture grindelia robusta..... 6 parts.
Fifteen drops thrice daily.

Rashes After Enemas.—Monro (*Glasgow Medica Journal*, September, 1899) reports 6 cases in which rashes followed the administration of rectal injections, and reviews the literature relating to the subject. The rashes seem to occur only after the use of copious injections, and not after small glycerin or nutrient enemas. The average time of appearance of the eruption is about 12 hours after the injection. The duration of the rash is from one to several days. Three types of rash have been recognized—the scarlatiniform, measly and urticarial. The rash may be universal, but the buttocks, thighs and face are the favorite seat. Desquamation is rare, although Copeland observed it in one case. Burning or severe itching may accompany the eruption, and occasionally there is slight fever. The writer calls attention to the liability of mistaking the scarliatiniform enema-rash for that of scarlet fever, and is of the opinion that some cases of so-called surgical and puerperal scarlatina are instances of scarlet rash due to enemas. The theory generally advanced to explain the occurrence of the rash is that it is due to the rapid absorption and execretion by the skin of fecal matter, which has been rendered more or less soluble by the large quantity of water injected into the bowel. Morgan suggested that the eruption was caused by a special kind of soap, and this view was supported by Gardner who observed several cases after the use of hard yellow soap, but no instance in 400 cases in which he used soft soap. Monro, while objecting to Morgan's theory, believes that it is better to use soft instead of hard soap for enemas.

Acute Coryza.—

℞.—Pulverized opium..... 4 grains.
Pulverized camphor..... 6 grains.
Ammonium carbonate.. .....15 grains.
Make 6 capsules; one every 4 hours.

Medical Treatment of Chronic Prostatitis and Prostatic Enlargement.—Belfield (*Progressive Medicine*, December, 1899) says two therapeutic innovations have materially advanced the medical treatment of chronic prostatitis and prostatic enlargement: urotropin and massage of the prostate. Urotropin is directly valuable merely in arresting the growth of bacteria in the prostatic follicles and the bladder; but by so doing it indirectly arrests also the reactive inflammation, reduces edema, and to that extent restores the dilatability of the vesical sphincter. Certain of these cases are greatly improved by it; the cystitis subsides, difficulty in urination is lessened, residual urine decreased, and a decided reduction in the size of the prostate, due to subsidence of the inflammatory swelling, is noted. The effects of this drug are in such cases more prompt, pronounced, and lasting than have been obtained, in my observation, by any other medicinal measures, local or internal. Massage or milking of the prostate is another measure of great value in chronic prostatitis and in the early stage of prostatic enlargement, for it empties the distended follicles and utricle of their purulent contents, and thus diminishes the vesical irritation and the inflammatory swelling of the prostate. It is of little or no value in the sclerotic stage of connective-tissue excess.

Treatment of Freckles.—According to the *Gazette Hôpitaux* the following lotion is useful when applied to the face morning and evening:

℞.—Zinc sulfocarbolate ..... 1 dram.
Glycerin .....15 drams.

Subsequently, every other day a paste made of the following drugs should be applied to the large spots:

℞.—Ammoniated mercury ..... 4 drams.
Bismith subnitrate ..... 4 drams.
Starch .....15 drams.

Citric Acid in Ozena and in Pertussis.—Hamm (*Therapist*, June 15, 1899) states that first of all citric acid, like all fruit juices, acts as a powerful deodorizer, and completely removes the specific ozenic fetor; secondly, it possesses marked healing properties. The author obtained a cure in several cases. The mode of employment is as follows: Every morning the nose should be rinsed out and freed from pus and crusts. Then, by means of an insufflator, powdered citric acid is introduced three times a day, mixed with equal parts of sugar of milk. Deodorization can be noticed at once, and lasts for several days, even if the process is not repeated. The secretion is also speedily considerably reduced. Moncovo (*Journal des Praticiens*, July 8, 1899) speaks highly of applications of a 10% solution of citric acid to the pharynx and larynx in whooping-cough. These applications are made every 2 hours by means of a fine brush with a curved handle. He claims that under this treatment the attacks rapidly diminish in frequency and intensity, and that a cure is effected in from 15 to 20 days.

Treatment of Baldness.—Gessner (*France Médicale*, No. 22, 1899) suggests for the cure of the seborrhea, which is such a common cause of baldness, one of the following applications, to be applied to the scalp at night:

℞.—Precipitated sulphur..... .....15 to 30 grains.
Resorcin ..... 8 to 15 grains.
Salicylic acid..... 5 to 15 grains.
Tincture of benzoin ..... 8 minims.
Vaselin ..... 5 drams.

or,

℞.—Resorcin .....45 to 90 grains.
Chloral ..... 1 to 2 drams.
Tannic acid ..... 1 to 2 drams.
Tincture of benzoin..... ..... ½ to 1 dram.
Castor oil ..... 2 to 3 drams.
Alcohol ..... 7 ounces.

Pressure Paralysis Produced under Ether.—In an editorial of the *Pennsylvania Medical Journal*, November, 1899, it is stated that at a recent meeting of the New York Neurological Association, Leszynsky presented a young woman suffering from double brachial paralysis induced by pressure under ether. G. W. Jacoby had seen paralysis follow careless injection of ether and brandy right over the musculospiral nerve, and he had known pressure to be denied when he had personally seen the etherizer resting his elbows heavily over the patient's clavicles. Peterson had seen the peroneal nerve affected under ether-narcosis. Fisher believed that negligence in attending to the position of the arms during narcosis accounted for many palsies. Altogether the discussion brought out the strong opinion on the part of prominent New York neurologists that pressure-paralysis under narcosis was often due to pressure or a constrained position on the part of the subject, and that this was commonly due to carelessness on the part of the anesthetizer. The opinion was expressed by Dr. Peterson that it would be perfectly possible for such a paralyzed patient to collect damages from the surgeon on account of such negligence. It must be remembered, however, that the narcosis itself probably acts as a predisposing cause of paralysis, just as alcohol does, for in both cases the nervous system is, for a time, poisoned. But this knowledge, while it might prove a mitigating circumstance in a damage suit, would by no means be sufficient to excuse a negligent anesthetizer who permitted prolonged pressure under ether.

Original Articles.

THE TREATMENT O LEPROSY BY INJECTION OF CALMETTE'S SERUM ANTIVENENE.

By R. S. WOODSON, M.D.,

Surgeon, U. S. Army.

The treatment of leprosy with antivenomous serum was first introduced by Dr. Isadore Dyer, of New Orleans, La., in 1897, to whom the credit of originality is due. A report of Dr. Dyer's work is contained in the October number of the *New Orleans Medical and Surgical Journal*, 1897. He deduced his premises from the fact that Carrean, of Jamaica, in 1892, had reported a case of leprosy, having been bitten by a serpent, in which there occurred a marked amelioration of tuberculous lesions in the course of recovery from the effects of the bite.

It occurred to Dyer that if such effects could be produced from the accidental inoculation of a non-lethal amount of snake-venom, much more could be expected from the systematic and judicious use of the modified and attenuated venom of Calmette.

Having secured a supply of the serum, he began his experiments upon a series of five cases with the result that "in four out of five of these cases there was marked improvement; in one, a practical disappearance of the lesions present and of other evidences. In only one case was there negative evidence; in this one the age and frailty of the patient must be considered." A recent review of Dyer's work states that "two of these cases are apparently cured, as both individuals were now engaged in their usual occupation, with no relapse or evidence of the disease." It is for the purpose of contributing to the support of the efficacy of this treatment that I publish the following case under my observation.

Mrs. H——, a native of Germany, though raised in this country from early childhood, a resident of Eagle Pass, Texas, aged 36, of large build. weight 131, no family history or history of contagion, was afflicted seven years past with a disease characterized by the following symptoms (her description of its inception): irregular fevers, loss of appetite, swimming in the head, headache, rheumatism of extremities and joints (later), the appearance of lumps in her skin, cold in the head, and finally loss of sensation principally in her hands and arms. She was treated 6 years for constitutional syphilis, during which time she lived in intimate contact with her family and friends, and as man and wife with her husband. Her youngest child was born 2 years after the appearance of the disease. None of her family show any evidence of infection.

The disease was not recognized until a few months ago, when Professor Smith, of Galveston, and I independently made a careful microscopic diagnosis of the case, as well as clinical, as follows, which was approximately her condition upon commencement of treatment, August, 1899:

A large, raw-boned woman of "scrawny" type, aged 36, but apparently 48; weight 131; hunted, down-cast look; huskiness of face, with marked telangiectasis extending over nose, cheeks, chin, and ears; nasal septum destroyed; nose lobulated and sunken in; infiltration of sides of nose extending into cheeks; supraorbital infiltration a symptom-complex, giving the leonine expression of countenance; right ear leathery, pendulous and thickened; edema of the feet and legs, several small ulcers on each leg; numerous scars of past lesions; voice harsh and strident; stiffened fingers; anesthesia absolute along the ulnar tract, but sensation diminished over entire surface of arms, chest and back; very much mottled from former lesions; several small nodules along the dorsum of each hand and on each forearm; marked muscular atrophy of both arms; abundant nasal secretion; frequent bleeding from venules on surface of nose; mental condition good except for moments of violent rage on slight provocation.

The patient stated that she was afflicted with the habit of frequently dropping objects held in her grasp; that her sense of touch was so deficient that she would need ocular demonstration of the fact that she held the object in her grasp; also that of late she could not feel the bite of insects (mosquitos) on any portion of her body. I enucleated a tubercle from the back of her hand about the size of a pea; she gave no evidence of pain during the operation.

I made smear-preparations from secretions of her nose and from bleeding capillaries of nose. The



August 1, 1899. October 16, 1899.

Pictures showing patient before and after treatment.

sections made from the tubercle gave the characteristic leprosy-structure. The leprosy-cells were numerous, a few bacilli were observed in the matrix of the nodule, but none were demonstrable in the cells themselves. The stained preparations of blood and nasal secretion both exhibited a small rod-bacillus, which resembled the organism observed in the stained section. In order that the question of diagnosis should be cleared of all doubt, the husband requested me to take her to Dr. Dyer, of New Orleans, for its confirmation. Dyer, after a careful examination, confirmed the diagnosis and recommended serum-therapy, which had already been determined upon. A supply of 56 bottles (10 cc. each) of serum was obtained from the Pasteur Institute, and the treatment was commenced August 19, 1899.

The serum was administered subcutaneously by means of a Pravaz syringe, as a rule, in the interscapular region, the loose tissue below the margin of the ribs, and in selected regions. The dose varied from 33 cc. at first to 20 cc. towards the close of treatment.

In addition to the serum the patient was kept on large doses of hoang nan during the entire treatment. Great care was observed in the sterilization of needles and syringes. The patient was placed in as perfect hygienic condition as possible. Fig. 1 shows the range of temperature, pulse, respiration, and daily dose.

Very little reaction was noticed during first week. Each injection of from 3 to 6 cc. was followed by a slight elevation of temperature, which gradually ascended with dosage increasing 0.3 cc. until on the ninth day it had reached 101° F. During this period patient suffered from headache and malaise. On August 26 patient stated that she thought her anesthesia of extremities was disappearing. From August 27 until September 1, successive crops of numerous tubercles appeared upon arms, forearms, hands, neck, and back. They seemed to appear just under the surface, then to effloresce upon the surface, and in a few days to disappear. At this time numerous local injections were made in selected tubercles with the effect that in nearly every case the tubercles would rapidly disappear. On August 28 the dose was diminished to 5 cc., and on the 30th the injection was omitted, with the effect that the temperature dropped steadily back to normal on the 31st. Again, ascending doses were followed by gradual elevation of temperature, pulse, and respiration from September 1 to September 4, so that owing to ontoward symptoms the treatment was discontinued from September 5 to 11, when again temperature, pulse, and respiration regained the normal. During this period patient was confined to her bed, with what appeared to be a diffuse cellulitis, with an erysipelatous eruption over entire back, shoulders, and chest, edema of the hands and feet, peripheral neuritis marked in all extremities; temperature reaching 102° F. Pulse 132, respiration 26. Abundant nasal secretion.

On September 11 patient had improved very much, when the treatment was resumed, 10 cc. daily. All ontoward symptoms had disappeared, all tubercles had disappeared except two large ones, size of a filbert, situated one over the right scapula, one on left side, level of fifth rib. Frequent injections from this time on were made in individual lesions. On September 20, injection (2 cc.) was made with small syringe into the infiltration of face. The result was alarming. The entire face became edematous beyond recognition in a few hours, lasting several days, but finally subsiding, leaving face much improved. On September 25 and after, daily doses of 20 cc. were used until October 16, when supply of serum was exhausted. During the last 3 weeks of treatment the patient continued steadily to improve without exhibiting any marked reaction to the large daily doses (20 cc.).

The patient was under my observation from July 17, 1899, to October 17, 1899. She was treated by serumtherapy from August 19 to October 17, in which time 500 cc. of serum were used in 47 injections, maximum injection 20 cc., minimum 2 cc.

The present condition of the patient is one of great improvement. She has lost the leprous expression. The supraorbital infiltration has disappeared. The infiltration on each side of nose, and that over each cheek has diminished perceptibly; in fact all over her face and ears there is a marked loss of infiltration.

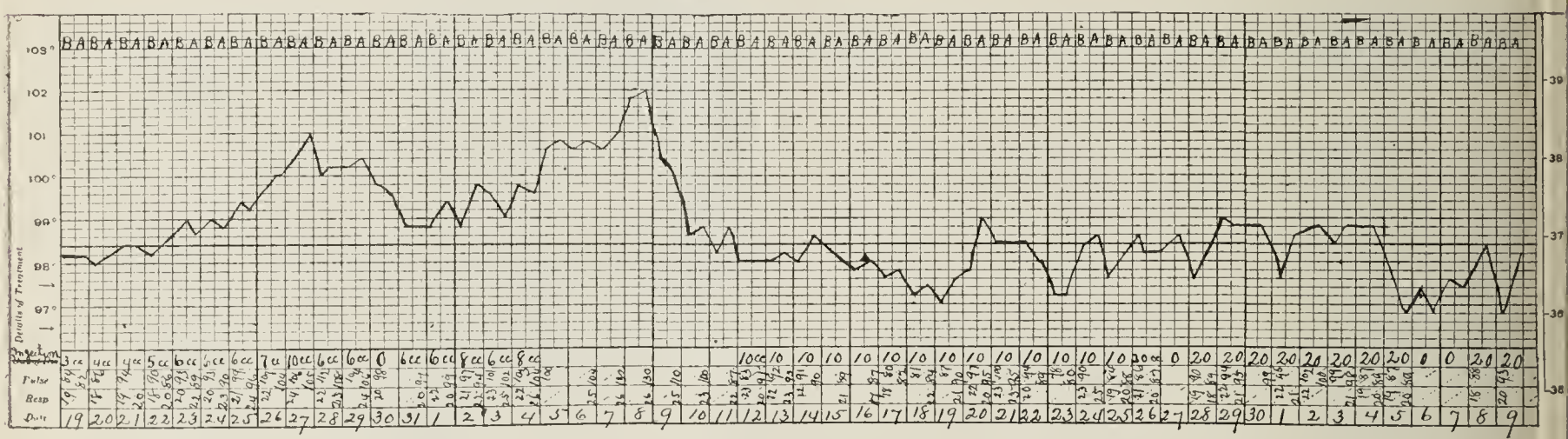


FIG. 1.—Temperature-chart, case of mixed leprosy, duration seven years, period of treatment by Calmette's antivenene. B = before injection; A = after.

The bluish color of her face has changed to a healthy red. The telangiectasis has diminished. Her eyes are clear and bright. There are no sores on any portion of her body. There is only one tubercle remaining (the one mentioned above on left side, level of fifth rib); this has proved somewhat obstinate despite frequent local injections. Her anesthesia has disappeared so that the injections have become extremely painful even along the ulnar tract. Her skin has become softer and fairer. Her chest and back have particularly improved, having filled out with healthy tissue, and all lesions have disappeared. Her nasal discharge has ceased. Her voice is natural and her fingers have lost their stiffness. She has gained 14 pounds in weight in 145 pounds. Her general health is excellent. The change in her personal appearance is best seen from the photographs before and after treatment.

In conclusion I will say that I do not as yet claim a cure for the treatment, which was suddenly interrupted

by receipt of orders for the Philippines, which has also been the cause of the abridgment of this report.

Although time alone can demonstrate the permanence of her really wonderful improvement, I report the case as one of most probably permanent improvement, with a prospect of future recovery.

ON THE RELATION BETWEEN DISEASE OF THE KIDNEY AND EXCRETION OF THE ALLOXURIC BODIES.

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(From the Medical Clinic of Professor Kraus in Graz.)

WITHIN recent years not a little interest has been created by the study of the xanthin bases, more especially with reference to their excretion in disease. The observations on their relation to the other nitrogenous elements of the urine, especially uric acid, have resulted in some noteworthy discoveries, and have led to the formulating of many new hypotheses.

Gout and the uric-acid diathesis have particularly attracted attention, and Kolisch, of Vienna, has propounded a theory in which the xanthin bases are made to explain much as to the causation and symptoms of these maladies. His theory is of not a little interest though, as will be subsequently demonstrated, under the light of newer chemical methods it becomes wholly untenable. The basis of this theory implies the *formation* of uric acid normally in the kidneys, while any defect in these organs will result, not only in a defective elaboration and elimination of this substance, but in chemical processes by means of which certain poisons, namely, the xanthin bases, are manufactured in abnormal quantities instead.

The alloxuric bodies (*i. e.* uric acid + xanthin bases) form, as is generally now recognized, a very important derivative of the nuclein of certain cells through the intermediate formation of nucleic acid, and probably some other mother-substance. Under normal conditions the proportion of uric acid and xanthin bases, though varying to a considerable extent, may be said to have a fairly constant ratio—the uric acid being always in vastly greater quantity, its amount in healthy persons being 10 to 27 times that of the xanthin bases. Such being the case under normal conditions, Kolisch finds that a very different result is obtained in gout and in uric-acid diathesis according to the condition existing in the kidneys.

With normal kidneys the greater part of the alloxuric bodies is eliminated as uric acid, but where renal disease occurs the relative proportions of these two constituent elements of the alloxuric bodies are altered, the uric acid being diminished in amount and the xanthin bases relatively increased. In other words, the renal cells are unable to transform the nuclein derivatives into the right proportions of uric acid and xanthin bases, although the total alloxuric bodies remain normal in amount. Where the amount of uric acid is diminished, and the xanthin bases increased, toxic symptoms develop, for these latter substances are regarded as poisons, and their excessive formation and retention is of grave pathologic significance.

In the series of changes which occurs in uric-acid diathesis and gout, much of the symptomatology then depends on the condition of the kidneys, for their morbid state implies the formation of the poisonous xanthin bases to which Kolisch ascribes the varying series of symptoms. In the uric-acid diathesis per se, the kidneys are usually normal, and have therefore no difficulty in converting the nuclein derivatives into due proportions of uric acid and xanthin bases. The total alloxuric bodies may be increased, but there is not a very excessive alteration of their proportions. In gout, on the other hand, the kidneys are gradually diseased, the xanthin bases are formed in excess because the renal cells cannot convert the nucleic acid derivative into sufficient uric acid; hence are developed the toxic symptoms described in conditions of more or less advanced gout. In other words, three phases exist in uric-acid diathesis :

1. Simple lithæmia, the kidneys being normal and yielding merely excessive quantities of uric acid.

2. Mild gout, *i. e.*, prolonged lithæmia, in which the kidneys become gradually weakened so that, although there is no excess of uric acid formed, yet abnormal quantities of xanthin bases are being elaborated, producing in this way the milder symptoms of gout.

3. Marked gout with advanced renal disease, resulting in diminution of the uric acid, and very great increase of xanthin bases.

According then to this theory, uric acid in itself plays a comparatively unimportant part in the manifestations of pure gout, while the formation of xanthin bases is of paramount significance. Instead then of the oft-quoted axiom, "No uric acid, no gout," Kolisch would have us believe in a modification reading thus: "No xanthin bases, no gout."

To establish so all-important a theory as this of Kolisch, it would be necessary to prove similar changes in the alloxuric bodies in all cases when the kidneys are the seat of disease. Kolisch himself has already endeavored to do so, and cites a number of cases of nephritis in which, although the total alloxuric bodies are eliminated in normal quantities, the uric acid is relatively diminished in amount. Like other observers, however, he has employed in his estimation of the xanthin bases the method of Krüger and Wulff, a method which has been shown by such authorities as Huppert, Arnstein, and others, to give unsatisfactory and incorrect results, the estimates in nearly all the

cases being far too great for the xanthin bases. Xanthin bases, according to this method, are first precipitated from the urine by copper, then subsequently the estimation is made in terms of nitrogen by the method of Kjeldahl. Now, such a method as this, which precipitates the nitrogen-containing xanthin bases, lets fall also the nitrogen from other elements in the urine, and when later the total nitrogen is estimated, it becomes an index, not of the xanthin bases alone, but of any other nitrogenous elements that may be present. The final estimates, then, would yield results far in excess of what actually exists.

It has been shown, for example, that certain albuminous bodies may be present in the urine, and yet not be recognized by the ordinary tests, and these with their nitrogen would be readily precipitated by the copper. Again, albumin, when recognized, is extremely difficult to eliminate totally from the urine before commencing such a test, and if any remain in the material to be tested, it would, of course, add to the total nitrogen estimated. The same applies, too, to the presence of potassium sulpho-cyanide, which exists in the urine in quantities equaling .5 to 1.6 mg. of nitrogen; and this, too, being precipitated by the copper-method, still further increases the amount of nitrogen estimated, which is supposed to indicate merely xanthin bases.

In order the more readily to avoid such sources of error (errors, too, which, though seemingly small, actually lead to astounding results when dealing with such minute portions), Salkowski has devised a method which has been proven by careful analysis to leave a minimal source of error in estimating quantities of the xanthin bases. This method, which consists in the preliminary precipitation by silver, avoids any danger of including in the final estimates either the albumin or the potassium sulphocyanide, for the estimation of the bases is made directly, and not in terms of nitrogen. It has, moreover, been tested in comparison with that of Krüger and Wulff in Salkowski's own laboratory where the investigators (Flatow and Reitzenstein) have shown in tabulated form the results of numerous observations, and in practically every case the older method showed quantities of xanthin bases far in excess of those which the newer test manifested, in experiments where the identical specimens of urine were employed for the parallel test. This discovery of theirs has practically rendered unreliable all previous quantitative work on the alloxuric bodies, and among these must be included the work of Kolisch on gout and uric-acid diathesis.

Realizing the importance of estimating accurately the excretion of alloxuric bodies in nephritis, on account of the supposed relation between renal disease and the various symptoms of gout, I have examined a number of cases of nephritis of different varieties (acute and chronic parenchymatous, contracted kidney, etc.), with this object in view. In the carrying out of these experiments the patients received each a diet which, while suitable to their condition, was given daily in the same variety and in exact quantity, until they had attained, before the experiments were started, a nitrogenous equilibrium (*i. e.*, in so far as this is at all possible in nephritis; vide v. Noorden-Ritter). In most instances 4 to 5 days were found necessary to obtain this result, and, as will be seen from the tables, excellent equilibrium was reached in several instances (Cases II, III, and IV). Medicinal or other therapeutic agents were, for the time, rejected, and everything scrupulously avoided which could in any way have an appreciable influence in altering the excretion of alloxuric bodies from day to day during the observations.

Following, then, the newer method of Salkowski, the xanthin bases were estimated by precipitating with silver, as recommended in modifications by Huppert; and from specimens of the same urine separate tests were made for uric acid by the Ludwig method, and the total nitrogen was estimated daily according to Kjeldahl. In every instance parallel estimates were made and averages taken; where the urine was insufficient, 48-hour specimens were employed and estimates made accordingly. For the quantitative analysis of the albumin from day to day, Esbach's instrument was employed.

An examination of the appended chart will explain the results of the investigations and it need be merely observed in passing that in gauging the physiological output of uric acid and xanthin bases, one is compelled mainly to rely upon the experiments made in Salkowski's laboratory, these being the only ones of importance yet made to determine the normal excretion of alloxuric bodies. Estimations there made show the daily excretion of xanthin bases to be from 27.2 to 56.1 mg. Similar experiments made under the direction of Professor Kraus in Graz have shown even somewhat higher values, though it has been further noted that even in health the variations are so considerable as to make one more than cautious before determining definitely as to what should be considered as pathological.

Again, normally, the relation between xanthin bases and uric acid, according to Salkowski, would be 1 to 10.2 up to 1 to 27.1. Hence the relation between their constituent nitrogens would be 1 to 8.8 up to 1 to 25; according to Flatow and Reitzenstein the ratios lie usually between 1 to 14 and 1 to 22.

Observing then the cases of nephritis I have examined (excepting No. IV), one finds the daily excretion of xanthin bases to vary between 13.6 and 47 mg. Average for each case taken from the total examinations made would be as follows:

I. 35.2 mg.	V. 17.2 mg.
II. 36.7 mg.	VI. 33.7 mg.
III. 22.7 mg.	VII. 33.7 mg.

These values then differ in the individual cases and even from day to day in the same case quite irrespective of the amount of urine secreted. Compared with

physiological values given above, however, there is in no instance any abnormal quantity of xanthin bases excreted and the average would represent about 23.9 mg.

It is evident then that one cannot speak here of an absolute increase of xanthin bases in the daily quantity passed.

The uric acid varies in daily quantities among the different cases between .2 g. (Case I) and .567 g. (Case II) (omitting Case No. IV, as above). Averages for bodies excreted is, as a matter of fact, lower than the normal.

It should, however, be noted, that on certain days the ratio between the uric acid and xanthin bases did indeed appear altered, *e. g.*, 1 to 4.2 (Case I, first day), and again 1 to 7.3 (Case VII, second day). This was most marked in Case No. IV, omitted in the remarks above, for the xanthin bases here reached, 81.1 mg., *i. e.*, nearly double of the normal average of Salkowski and

Case No.	Name of Patient.	Diagnosis.	Day.	Daily Quantity of Urine in Ccm.	Reaction.	Specific Gravity.	Amount of Albumin.	Total Nitrogen in Gms.	Uric Acid.			Xanthin Bases.		Relative Proportions.		Total Amount of N. of the Alloxuric Bodies in Gms.	Percentage of Uric-acid N. in this.	Remarks.
									Gms. in 24 Hours.	Gms. in Terms of N.	Gms. in 100 Cc.	Gms. in 24 Hours.	Gms. in Terms of N.	Bases to Uric Acid.	N. of Bases to N. of Uric Acid.			
I	B. Ivamisa.	Chronic parenchymatous nephritis with secondary shrinkage.	1	1970	Acid.	1016	0.2	11.17	.200	.066	.010	.0470	.017	1: 4.2	1: 3.8	.083	79.5%	
			2	2220	"	1016	0.2	13.94	. .	. .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	
			3	1770	"	1016	0.2	11.14	.391	.130	.022	.0300	.011	1:13	1:11.8	.141	92.2%	
			4	1950	"	1018	0.25	11.43	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	
			5	2235	"	1016	0.18	16.03	.278	.092	.012	.0286	.011	1: 9.7	1: 8.4	.103	89.3%	
II	Amalia Posch.	Acute nephritis.	1	600	Acid.	1026	.075	11.25	.328	.109	.055	. . .	. . .	. . .	. . .	. . .	. . .	
			2	555	"	1024	.05	9.84	.527	.176	.095	. . .	. . .	. . .	. . .	. . .	. . .	
			3	465	"	1026	A traec.	7.94	.393	.131	.084	. . .	. . .	. . .	. . .	. . .	. . .	
			4	675	"	1026	"	8.50	.567	.189	.084	. . .	. . .	. . .	. . .	. . .	. . .	
			5	650	Faintly acid.	1024	"	7.66	.412	.137	063	. .	. . .	. .	. . .	. . .	. . .	
			6	700	Acid.	1024	"	9.95	.369	.123	.052	. .	. . .	. . .	. . .	. . .	. . .	
			7	850	"	1022	"	9 93	.402	.134	.047	.0296	.0113	1:13.5	1:11.8	.144	93%	
			8	850	"	. .	"	9.93	.402	.134	.047	.0296	.0113	. . .	. . .	.144	. . .	Totals here are averages of two days' urine.
			9	1100	"	1022	"	9.46	.488	.163	.044	.0438	.016	1:11.1	1:10	.179	91%	
			10	1100	"	. .	"	9.46	.488	.163	.044	.0438	.016	. . .	. . .	.179	. . .	Totals are averages of 2 days' urine.
III	J. Felseker.	Acute hemorrhagic nephritis.	1	550	Acid.	1012	.1	4.59	.238	.079	.043	.0232	.009	1:10.3	1: 9.3	088	89.8%	
			2	810	"	1020	.1	6.74	.257	.086	.031	.0232	.009	1:11.0	1:10	095	90.5%	Values of bases are averages of two days' urine.
			3	825	"	1016	.09	6.12	.278	.093	.033	.0192	.007	1:14 4	1:13	.100	93%	
			4	825	"	1016	. .	6.12	.278	093	.033	.0192	.007	. .	. .	.100	. . .	All values are averages of 2 days' urine.
			5	1525	"	1014	.05	6.54	.373	.124	.024	.0252	.009	1:14.8	1:14	.133	93.2%	
IV	J. Kollaritsch.	Contracted kidney.	1	2450	Acid.	1010	.35	10.8	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	. . .	
			2	1870	"	1010	.4	13.7	.102	.034	.005	.0811	.0313	1: 1.3	1: 1.1	.065	52%	
V	P. Sanseng.	Chronic parenchymatous nephritis.	1	1480	Acid.	1014	.7	5 59	.270	.090	.018	.0235	.008	1:11.1	1:10	.098	91.8%	
			2	1270	"	1014	.65	5.51	.300	.100	.047	. . .	. . .	. . .	. . .	. . .	. . .	
			3	1550	"	1016	.65	6.40	.356	.119	.023	.0136	.005	1:26	1:24	.114	95.6%	
			4	1430	"	1015	.65	6.60	.302	.100	.042	.0164	.006	1:18.4	1:16.6	.106	94.3%	
			5	1750	"	016	.75	7.47	.283	.094	.016	.0153	.0059	1:18.5	1:15.9	.0999	94%	
VI	F. Pfundtner.	Chronic nephritis, acute exacerbation.	1	3250	Faintly acid.	1014	.2	14.10	.424	.141	.013	.0460	.017	1: 9.2	1: 8.3	.158	92%	
			2	1770	"	1018	.5	12.60	.539	.179	.030	.0214	.008	1:25	1:22	.187	95.7%	
			3	670	"	1020	1.05	5.65	.224	.074	.067	. . .	. . .	. . .	. . .	. . .	. . .	
V	Anna Führer.	Chronic nephritis.	1	1500	Neutral.	1014	.45	6 51	.525	.178	.035	.0314	.0119	1:16.7	1:15	.189	94%	Moribund.
			2	1320	Alkaline.	1014	.45	5.54	.266	.089	.020	.0361	.0137	1: 7.3	1: 6.5	.102	87%	

VIII	Miss B.	Intermittent albuminuria.	Morning urine.	No albumin.	.0060
			Evening urine.	Containing albumin.	.0803
IX	Mr. B.	Intermittent albuminuria.	Morning urine.	No albumin.	.0558
			Evening urine.	Containing albumin.	.0698

each case from total observations made would be as follows:

I. .289 g.	V. .303 g.
II. .445 g.	VI. .395 g.
III. .286 g.	VII. .395 g.

Average of total is .358 g.

In short, the quantity of uric acid is either normal or slightly below it. Even, however, though in some cases it is present in abnormally small amount, its proportion to the xanthin bases remain unaltered, showing that just as in normal cases so in nephritis the proportions of the uric acid in the alloxuric bodies remain the same, viz.: about 91%; and the total of alloxuric far greater than any other physiological values obtained in all the observations made in the laboratory on healthy individuals. The proportions reached, too, nearly those of the uric acid—but inasmuch as for unavoidable reasons only one examination could be made, and as other cases show the variations from day to day occurring in these excretions, it can scarcely be justifiable to lay stress on the one observation made in that instance.

As illustrative of the variations that may occur one need but look at the chart opposite Case I, where on the first day this ratio was 1 to 4.2, while in the same case on the third day the ratio was 1 to 13; and again

in Case V where, once it reached 1 to 11.4 and another time 1 to 26.

The important point remains, however, in all the cases, viz.: *that never was there an actual predominance of the nitrogen of the xanthin bases over that of the uric acid*, as Kolisch had found when making his own observations. Such a discrepancy as this can have but one cause, viz., the error of the methods he employed, obtaining by the Krüger-Wulff method far too high values in favor of the xanthin bases.

Moreover, inasmuch as the causes of physiological variations in the excretion of the xanthin bases are by no means well understood, similar variations in cases of nephritis are equally difficult to explain. To draw any conclusions therefore on the power of the kidney to elaborate uric acid simply because there is an occasional increase in the execretion of xanthin bases and a narrowing in the quantitative ratio between these bases and the uric acid is certainly unjustifiable.

Another point, and one that is well worthy of notice, has been observed in several cases of nephritis that we have examined, viz : that often the *percentage* of uric acid in cases of nephritis is very high. Were it a fact, as Kolisch insists, that the elaboration of uric acid in the kidneys is diminished on account of their diseased condition, and that the amount excreted is a direct measure of the disease present, one would expect that not only would the 24-hour urine show lessened uric aicd, but so also each individual specimen. Such a condition is, however, by no means always found, for very often the percentage of uric acid in albuminous urine is on the contrary very high. The cases of *intermittent albuminuria* are particularly instructive in this connection and an examination of two such cases has been appended on the accompanying chart. The urine of these patients, while after resting, was almost entirely if not quite free from albumin ; after moderate exercise on the other hand, albumin was constantly present. The portions of the urine containing the albumin had nearly always a marked sediment of urates. In the one instance quantitative examination for uric acid showed in the morning urine (*i. e.*, after a night's rest) .0060 grs. in 100 cc., while in the same amount of urine passed later in the day, after a short walk, there was .0803 g. of uric acid. In the other case the difference in the urine before and after exercise showed the uric acid to be respectively, .0558 g. and .0698 g.

This fact then is sufficient to show that under conditions which distinctly injure the kidneys (judging at least from the amount of albumin present) the elaboration or rather the execretion of uric acid is in no way influenced—presumably the kidneys alone are not responsible for this function, and one must look elsewhere in the body for the source of uric-acid formation.

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THE CLINICAL SIGNIFICANCE OF FEVER.[1]

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By fever we understand an abnormal elevation of the temperature of the body continued for a number of hours, or, if not continuous, at least intermittently repeated, due to some infection, or to some local inflammatory process, or to some unexplained disturbed state of the nervous system.

No symptom of disease was more carefully studied by the ancients than the temperature as estimated by the rate of the pulse, and Hippocrates based his prognosis upon the height of the temperature. From the time of Galen and Aristotle down to long after the discovery of the circulation of the blood by Harvey, the heart was believed to be the source of this heat, variously thought to be due to an over-production, to obstruction to the flow of the vital spirit, to evil spirits, and to various circulating humors. The chemical era, however, finally recognized that the heat was due to oxidation, and hence the production of heat was not limited to any one organ, but was generated in all parts of the body.

Sanctorius of Padua, and Galileo, toward the close of the sixteenth century, invented thermometers. These were first made of alcohol, but Halley, in 1680, recommended the use of mercury in thermometers, and Fahrenheit first presented his in 1720, and Celsius his Centrigrade in 1742. Boerhaave, in the early part of the eighteenth century, was probably the first to use the thermometer in fever, and his practice was ably elaborated by his pupil De Haen, but the thermometer did not come into general clinical use until Gavarret, in 1839, and 20 years later, Zimmerman, Traube, and Wunderlich urged its advantages.

Since this time we have swung from an over-estimate of the prognostic value of the height of the temperature to the recent belief that its greatest importance lies in its diagnostic advantages, and as a day-to-day indicator of the progress of the disease.

Before we can well understand the pathology of fever, we must understand the normal mechanism of animal heat. The sole cause of this heat is a chemical process, a combustion of food-substances by the oxygen taken in by the animal. About four-fifths of the total body-heat is produced in the skeletal muscles, through an

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oxidation whereby oxygen is absorbed and carbonic acid given off, though the processes passed through are probably much more complex than mere oxidations. The other one-fifth of the animal heat is furnished by the secreting glands and the alimentary canal during digestion, hence the physiology of a hearty meal before exposure to cold. The liver, by its manifold glandular processes, contains the warmest blood of the body. The thermometer in the mouth will show a higher reading just after a meal than before. During acute fevers glandular activity and digestion is at a low ebb, and almost the entire heat-production in these conditions is probably due to oxidation or changes in the muscular system, hence the wasting.

Any muscular or mental activity, or the taking of food, will slightly raise the temperature, but external surroundings do not much affect the temperature of adults. But the babe and adult during convalescence from some acute process are easily made colder or warmer by sudden changes in the external air, or by internal disturbances, as their equilibrium-regulating apparatus is in the first instance undeveloped, and in the second impaired.

Strychnin, caffein, cocain, and atropin all raise the temperature by increasing muscular and cerebral activity, and the latter by reducing heat-loss by preventing perspiration. Alcohol, nicotin and morphin diminish temperature, the first two by relaxing the blood-vessels and increasing perspiration, and the latter by preventing all glandular and molecular activity. Clinically, then, with high fever we should stimulate with alcohol, but with depression we should stimulate with strychnin.

A word as to the physiology of heat-regulation. The equilibrium of the body-temperature must be governed by the relation of the heat-loss to the heat-production, and as the one increases so must the other, and all of this mechanism must be under the control of some finely adjusted nerve-governor.

Various theories have been offered, ranging from Macalister's three centers, viz., a thermogenic, or heat-producing center, a thermolytic, or heat-dispersing center, and a thermotaxic, or controling center, to Schaefer's and Moore's belief that the vasomotor mechanism in the medulla oblongata is sufficient to arrange all regulation of heat-loss to heat-production. The least that can be said against Ott's cortical heat-center and Reichert's corpus-striatum center is, with Pambrey, that the centers are not proved.

There is no known structural difference before and after the heat-regulating power has developed, but this power appears to be associated with the control over the skeletal muscles and bloodvessels.

Now, as to the pathology of fever. Its cause must be an over-production of heat or a diminished loss of heat, or both. This may be due to anything that interferes with the vasomotor regulating apparatus, or to anything that increases chemical activity, be it glandular, muscular or metabolic.

Probably most fevers are due to poisoning from some source, the character of the fever of course depending upon the kind of poison. Anything that irritates or excites the brain may interfere with heat-regulation, and fever occurs. This is especially noticeable in convalescents and in infants in whom too much excitement, over-eating, etc., causes a return of fever in the convalescent, or a febricula with the cause unfound in the infant, and all meaning a vasomotor ataxia, or a thermotaxic power impaired or undeveloped.

The purest kind of nervous pyrexia is seen in hysteric fever. This may be caused by hyperfunctional activity of some of the centers, or a lowered functional activity of the control centers, or we may have such a nervous shutting up of the peripheral bloodvessels as to greatly diminish heat-loss. Also the unceasing muscular activity present in some hysteric explosions, either as muscular or only fibrillar contractions, increase the heat-production without adequate increase of heat-loss.

A malarial paroxysm is perhaps the best type of immediate stoppage of heat-loss, with a consequent sudden enormous rise of the temperature. As the infected red blood-corpuscles burst from the pressure of the matured plasmodia, the first impression on the nervous system is to cause a sudden irritation of the vasomotor centers and a resultant contraction of the peripheral vessels, and the symptom is a chill more or less pronounced. The internal temperature, perhaps partly from the poison, certainly largely from the obstructed heat-loss, rises rapidly and often to a great height, which is sustained until the now superheated skin and overstimulated sweat-glands begin to pour out a profuse perspiration, and heat-loss first exceeds and then equals heat-production, and the normal equilibrium is once more established.

A period without fever, the intermittent stage, then follows, its length depending upon the type of plasmodium with which we are dealing. Mixed varieties of malarial parasites may be found in the same individual, maturing at different and at irregular times, and one set so overlapping the other that we have our so-called remittent fever, a malarial fever with remissions but no marked intermissions. A frequent use of the thermometer, however, will generally show some short period of intermittency.

Our best type of a continued fever, of course, is typhoid, a self-limited disease, but liable, as we so well know, to short-lived relapses. This fever is undoubtedly a mixed affair. At first the rise in temperature is probably due to some chemical poison, specifically elaborated by the typhoid germ, carried by the blood to the nervous centers, first causing the headache and vasomotor disturbances, giving more or less temperature probably depending upon the amount and rapidity of

the absorption of the poison. That this is a decided nerve-poison is shown by the characteristic cerebral symptoms, often occurring without intense fever, such as the low muttering delirium, coma vigil, carphologia, subsultus, etc., and the German name of "Nerven" fever is well deserved. Very soon in the course of the fever, fermentation and ulceration occur in the intestines, and an increased temperature due to absorption from these processes follows, and the infection is then double. We see this same thing with diphtheria when added to the mild fever caused by the diphtheria-bacillus, we have the fever from the absorption of the putrefaction products from the membrane. The same is true of scarlet fever, in which, if the tonsils are covered with membranous exudation, the temperature is proportionately higher.

In acute colds, follicular tonsillitis, measles, and chickenpox, the fever is shortlived unless some complication occurs. The specific germs may so shock the nervous system as to give the premonitory chill, to be followed by a fever which soon terminates, unless some shut-up pus-forming affair, or stopped-up bowels, or putrefying secretion, occurs.

The hectic fever of chronic tuberculosis is a pus-fever; in other words, a streptococcus-fever, and is not caused by the tubercle-bacillus.

Of all the irregular and intangible fevers, la grippe heads the list. The newly born fresh germ gave a typical onslaught of chilliness, high fever, etc. (how well we remember it), and was gone in two or three days, leaving some nervous depression, perhaps, or a catarrhal symptom. Now the degenerate germs seem to be primarily a nervous poison, and always, even in the first year of this persistent epidemic, the vasomotor system is profoundly affected. Proper control of the peripheral opening and shutting of the bloodvessels is lost, and irregular chills, rigors, hot flushings and even hemorrhages take place. In no fever is the insomnia so noticeable as in la grippe, because of the inability of the bloodvessels of the abdomen to properly dilate, and thus relieve the cerebral tension; in other words, a general vasomotor ataxia occurs.

Before we consider the necessity of treating the fever, *i. e.*, of lowering the temperature, we shou'd analyze its causes, carefully note the immediate effect on the individual, whether or not dangerous to the organism, consider the probable future of the fever, and also question if this is not Nature's method of combating the toxicity of the germ or product. In the first place a high temperature, *i. e.*, 104°, or more, whether in the test-tube or artificially produced in infected animals, is not conducive to the activity of many germs, notably the pneumococcus and the bacillus of typhoid fever. Whether in the human animal a temperature of 104° to 105° kills off the above germs rapidly, or, better, forms antitoxin to combat them, would be hard to decide, and certainly it would be hard to convince us that a temperature of 104° or above was desirable in pneumonia or typhoid fever.

The first question to ask in considering treatment of a case is, Is this temperature high enough to fight, or not? If high, is it dangerous to life either immediately or remotely?

We all know that the system can sustain for a short time a temperature of 105°, or even 106°, without danger or damage, while a long-continued temperature of 101°, or over, is serious to the heart, muscles, and nervous system.

With a shortlived fever, as that of a malarial paroxysm, or a la grippe, or a cold, if the fever is high it may cause some symptoms that are very uncomfortable, and which may call for treatment, but the fever, as such, requires no treatment.

The symptoms of high temperature are myalgia, especially backache, generally lumbar, undoubtedly due to kidney congestion, as shown by the highly concentrated urine, often with a trace of albumin, passed during this high temperature; headache caused by cerebral congestion; rapid heart, because of the stimulation of the superheated blood, and with the rapid heart quickened respiration, not only in consequence of the rapid heart-action, but also to increase the loss of heat by giving off more water-vapor, the skin being dry and the loss in this way being stopped; in other words, much as the dog pants when he is hot.

Delirium may or may not occur, this depending upon the susceptibility of the patient to irritation from cerebral congestion. Of course, the tongue is dry and the mouth and lips parched, not only from the fever, but from the mouth-breathing that is present if the lungs are much congested by the disordered circulation. As all other internal organs are congested by the peripheral stasis and contracted peripheral vessels (hence the rigors, though the skin may feel hot), so are the liver and spleen. The liver becomes impaired in its toxin-protective processes, and not only cannot render innocuous the poisons of the specific germ, perhaps, but cannot do the normal work of rendering inert the leukomains and ptomains absorbed from the intestines. Also by its congestion and clogged avenues a poor quality of bile diminished in amount is secreted, and this tends to produce constipation. The constipation allows of more fermentation, and more toxins to be formed and absorbed, and, consequently, more liver-inactivity, thus more impure blood reaches the nervous system. If the fermentation is considerable an intermittent diarrhea occurs, and, if food is in the stomach, hindered digestion and fermentation causes vomiting.

Now, about the spleen. It not only easily becomes congested, as above stated, but by congesting dilates readily and becomes enlarged and easily palpable and perhaps soft. Just what the impaired activity of the spleen leaves undone or poorly done in the metabolism

we cannot well say, but if it stimulates the formation of red blood-corpuscles, all we can say is, that just this condition is when they are needed.

We easily see that no harm can come to the organism from all of the above if this fever is shortlived; everything quickly swings back to normal, and all that we need do is to hasten the loss of heat by anything that relaxes the peripheral vessels and causes perspiration, aided, perhaps, by a cathartic and by cool applications to the head if needed.

Suppose, on the other hand, that the fever is a continued one, or even continuous for a few days, then we must analyze the conditions. Is this amount of fever due to the germ, to the local inflammatory conditions, or the disease per se? If to any one of these, our first duty is to keep the patient cool and quiet; and how important quiet is when we consider that every excitement causes restlessness, and this means muscle-movement through which heat-production is increased. It will frequently be necessary to give hypnotics, not only for the brain-rest, but for the good to be obtained from an absolute muscle-rest. The bowels should be carefully kept cleaned out, not alone for the relief of the liver and therefore blood, but to prevent fermentation, decomposition and resorption of all of the products of bowel-infection. A carefully regulated ingestion of ice or cold water also tends to diminish the temperature. If the temperature still keeps too high we can, in short fevers, use the coal-tar products in proper dose, a few times, perhaps, noting the effects on the heart, viz., the diminution of its strength and the effect on its rapidity. The result on the temperature is always satisfactory, as you know, viz., an increased heat-loss through the dilating of the bloodvessels and the promoting of perspiration.

Antipyrin is the most efficient in depressing the temperature, but the profuse perspiration that it causes is often very prostrating. Acetanilid does not cause as profuse sweating, but is more directly depressant to the heart, hence it is well to combine it with a little caffein or other cardiac tonic. Phenacetin is the safest of these three so far as depression is concerned. Several newer antipyretics have been presented, but I will not analyze their merits.

If a temperature is so high as to be dangerous to life, even though brief in duration, as occurs in insolation, in which such a chemical or nervous change has taken place from the external heat, that heat-loss seems to be impossible, nothing is so effectual or is so likely to save life as immersion in a tub of cold water gradually made colder by ice. If the heart can withstand the previous intense temperature we can often hold the patient until his vasomotor system and heat-control are reestablished in normal condition.

If we now decide that this fever is in excess of that due to the disease per se, we must seek the additional cause, and with each disease we know where to seek its local manifestations. In the varied local inflammations it would seem to indicate pus, as in appendicitis, pleuritis, synovitis, otitis media. In typhoid fever and dysentery it means ulceration with decomposing membrane and slough and absorption of toxins and pus-products; in tuberculosis it means some closed-up, or incompletely evacuated pus-cavity or collection and streptococcus fever. In diphtheria, follicular tonsillitis, and scarlet fever it means a putrid, ill-cleaned membranc and exudation.

I cannot too strongly urge the same necessity for cleanliness and antisepsis for diseases with local suppurative processes as is so well understood in surgery.

I have endeavored to show why in all fevers not ephemeral it is theoretically good treatment to keep the bowels free from fermentation and putrefaction. Still more necessary is it to keep the small intestines as clean as possible in typhoid fever, and any treatment that gives free daily movements of the bowels in this disease will favorably modify the course of the disease. In typhoid fever, constipation keeps the partially digested milk or other nutriment long in the intestines, the mucus and ulcerative sloughs remain in situ, and thus beautiful culture-grounds for all sorts of bacilli and cocci are formed, while in addition the colon-bacillus adds its toxins to the rest. Next, fermentation increases and gas is formed, and tympanites occurs with its discomfort and danger of perforation and of hemorrhage from distention; meanwhile the action of the heart will be impaired as a consequence of abdominal distention. All of this increases the fever and the cerebral toxemia.

If one has a doubt of what such bowel-stoppage causes he has but to recall the cases in which a case of irregular chills, heavily coated tongue, profound headache, high and continued fever, concentrated urine, constipation, and tympanites, has been proved by absence of the malarial plasmodium from the blood and the negative Widal serum-reaction to be a case of "bowel-infection," a recognized entity. The treatment of this bowel-infection is the use of free purges and bowel-antiseptics, by the means of which the system will gradually throw off the toxemia

So in typhoid fever, cleanliness of the bowels will reduce and keep down the temperature and hasten the healing of ulceration. Calomel is the best purgative at first, but in a few days castor oil every second day (rendered palatable with oil of wintergreen and saccharin) is the safest and best laxative. Too much catharsis can easily be stopped by small doses of morphin. Salol is my preference as an antiseptic for the bowels, if the kidneys are healthy. This treatment will generally alone keep the temperature below 101°, especially if combined with good rest and sleep. If it does not we should use cold applications, as experience teaches that a continuous fever over 101° is dangerous to the organism. How we shall apply the cold, whether

by cold sponging, cold compresses, cold coils, cold sprinklings, wet sheets or cold baths, must depend upon the degree of temperature to be combated.

Repeated flushings of the large intestines with normal saline solutions, or, if deemed best, with medicated solutions, will not only locally treat a dysentery properly, but will keep the temperature down. If the temperature is high, use cold water.

In diphtheria, whether or not antitoxin has been used, I believe it inexcusable to leave a membrane to take care of itself. The danger of infection from a suppurating membrane is worse than the disease itself, and the fever from such absorption of putrefaction-products is greater than that from the diphtheria-bacilli, which seem to be somewhat depressant in effect. The membrane should be kept as clean as possible with boric-acid gargles and insufflations, followed by hydrogen dioxid by spray or gargling, and these repeated every 1½ to 2 hours.

The streptococcus of follicular tonsillitis is a great fever-producer, but the more careful we are to clean the tonsils the quicker the fever subsides. The immediate lowering of the temperature by the evacuation of pus wherever found is too well known to discuss.

Now that in the last few years we have learned not to fight every rise of temperature simply because it is above 98.4°, let us still be careful not to interfere with the temperature too soon, unless positive discomfort is present, lest we hinder our diagnosis.

EXPERIENCE WITH THE BOTTINI OPERATION IN HYPERTROPHY OF THE PROSTATE.[1]

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HYPERTROPHY of the prostate is one of the most annoying and fatal complications of advancing years. It fixes its relentless grasp upon all sorts and conditions of men at an age when they are entitled to rest and comfort. Until recently we have been comparatively helpless in the presence of this affliction, although life could sometimes be made tolerable by irrigation of the bladder and a constant use of a catheter. Within the last few years numerous methods of treatment have been suggested, among which are castration, resection of the vasa deferentia, ligation of the internal iliacs, prostatectomy, establishment of a suprapubic fistula, cauterization through the rectum, the administration of animal extracts, etc. None of these expedients are reliable, while some are mutilating and others dangerous. When the question is fairly presented, there are few men who will submit cheerfully to castration, or even to vasectomy; and although there have been improvements in prostatectomy, the operation is still difficult and attended with considerable danger in the debilitated. Enrico Bottini, of Pavia, has come nearer to solving the problem than anyone else. For 22 years he has been operating successfully with an ingenious instrument of his own invention. For various reasons his work attracted but little attention until within the last two years, although it is now beginning to receive the recognition to which it is entitled.

The symptoms accompanying hypertrophy of the prostate arise from difficulty in emptying the bladder, due to pouching behind the gland, and to direct obstruction of the urinary passage. In order to render a cure possible, the level of the urethra must be lowered and a free outlet for the urine provided. These requirements can be fulfilled in most cases with Bottini's galvanic prostatic incisor. It contains a concealed platinum blade, heated by electricity, with which grooves are burned through the glandular substance. The procedure has a number of advantages: (1) There is no mutilation and no external wound, the manipulations being carried out through the urethra. (2) A general anesthetic, often so dangerous in the old and debilitated, is not often necessary, local anesthesia being usually sufficient (Guitéras employs nitrous-oxid gas). (3) There is very little hemorrhage, the vessels being sealed by cauterization. (4) There is comparatively small danger of serious infection, and usually but moderate rise in temperature, the wounds being necessarily aseptic; the charred surfaces tend to prevent absorption until granulations appear. (5) In most instances patients may sit up, and even walk about in two or three days, which is of advantage to those who are old and feeble. (6) The effects may be almost immediate, more or less urine being voided within a few hours when it was previously impossible to pass a drop. (7) But few relapses have been observed; in fact improvement has a tendency to be progressive. (8) The operation may be repeated, if for any reason the first attempt has been unsatisfactory. (9) The mortality is probably lower than with other effective measures. (10) Patients will avail themselves of this method of treatment when they will refuse to submit to castration, prostatectomy, etc.

It is not claimed that Bottini's method is free from danger or inconvenience. Old and feeble men with inflamed bladders and diseased kidneys are poor subjects for any operative procedure, and a death will sometimes occur no matter how trivial the nature of the intervention. Even the mere passage of a sound will at times result fatally. The assertion is not too strong, however, that up to the present time the use of the galvanic prostatic incisor offers a better chance of relief with less danger than any other surgical measure.

Bottini's apparatus resembles a lithotrite, the male blade of which is replaced by a platinum knife which can be heated by a current of electricity passing through

[1] Read before the Rocky Mountain Interstate Medical Society, July, 1899.

the handle. Running through the entire length of the instrument, to the end of the female blade and back again, is a channel for the passage of ice water, which prevents unnecessary burning of the tissues. The electricity may be obtained from a suitable battery or from the city current, the strength being regulated by a rheostat. (Freudenberg's modification is now generally employed. Freudenberg has also recently reintroduced Bottini's "*cauterisator prosta ae*" in a modified form, for use in selected cases.)

Leaving out many necessary details, the operation is performed essentially as follows:

The instrument is first tested, in order to determine the strength of current necessary to bring the blade to at least a good red heat, and the cooling apparatus is adjusted so as to insure a continuous flow of ice-water from a fountain syringe. The patient's bladder is washed out and emptied by most operators, although Freudenberg prefers to have the viscus well filled, for which purpose either air or water may be employed. Cocain or eucain is then injected into the posterior urethra, when, after an interval of a few minutes, the operation may be begun.

The instrument is inserted into the bladder, and its beak hooked over the inferior rim of the prostate, where it is firmly held, and, as soon as the ice-water flows freely, the previously determined amount of electricity is turned on. To make sure that the platinum knife is sufficiently heated, one should wait 10 or 15 seconds; then the screw at the end of the handle is slowly turned, dragging the heated blade through the floor of the prostate. The length of the incision, previously determined by rectal and urethral examination, is regulated by a scale inscribed upon the shaft of the screw. A cystoscopic examination is at times of advantage.

It is surprising how easily the procedure may be accomplished. Too little resistance would mean too great heat, while too great resistance would suggest either an increase of the current or a pause until the knife became reheated. Pain is often slight. It is generally advisable to make at one sitting two or three incisions, one through the floor of the prostate (the most important), and one through each lateral lobe. There is usually but little after-pain, although burning is experienced in voiding urine. Bleeding, if it occur at all, is nearly always trivial. The bladder may be irrigated daily to assist in the removal of bits of sloughing tissue, although this is not always necessary or even desirable. Many cases recover rapidly, and can be discharged within 3 weeks, but my own experience has been that a considerably longer period may be required for complete recovery.

I have 8 operations to report, and my success has been such that I shall employ the method further as suitable cases present themselves. Seven of the cases were operated upon by myself, and one by Dr. H. E. Warren, of Denver, who employed my instrument. There were no deaths. The work was done at St. Anthony's Hospital, Denver.

CASE 1.—Aged 69. General condition good. Frequent nocturnal urination and gradually decreasing stream for many years. Had used catheter for a long time, although could pass a little urine spontaneously. Moderate cystitis. Lateral lobes of prostate much enlarged and firm. Operation May 18, 1898, under general anesthesia, making 2 incisions—middle lobe 3 cm., left lobe 2 cm. The patient passed urine spontaneously within a few hours; at first strongly tinged with blood, which soon disappeared, and was out of bed on second day. Temperature went scarcely above 100°. Irrigation of bladder for several weeks. Before operation a No. 7 soft catheter could be passed with difficulty; when discharged, a No. 15 entered the bladder easily, and the stream was correspondingly large. The residual urine was much decreased, although it had not disappeared when the patient left the hospital, and he urinated at night once or twice only. A moderately severe unilateral epididymitis developed several weeks after the operation, following an installation of silver nitrate. At the end of a year the condition of the patient was still good.

CASE 2.—Aged 73. General condition fair. Frequent nocturnal urination and decreasing stream for several years. During the last 6 weeks could pass no urine without the aid of a small metallic catheter—a rubber instrument would not enter the bladder. Considerable cystitis. The lateral lobes of the prostate were much enlarged and firm. I operated August 20, 1898, under cocain-anesthesia, the patient feeling very little pain. Two incisions—median lobe 3 cm., left lobe 2 cm., were made and no hemorrhage. Out of bed on second day. Catheterization was necessary for 3 weeks, the bladder being frequently irrigated. On the tenth day the temperature went to 104°, without other alarming symptoms (abscess of prostate?). The first spontaneous urination (2 ounces) took place on the nineteenth day, and rapidly increased to a full and forcible stream. The residual urine disappeared, and a No. 15 soft catheter was easily passed. At the end of about nine months he was still in good condition.

CASE 3.—Aged 67. General condition poor, emaciated and feeble. Frequent nocturnal and diurnal urination for 4 years. Stream very small for a long time. Much straining. Considerable cystitis. Lateral lobes much enlarged and firm. At the operation, January 9, 1899, two incisions were made—middle lobe 3 cm., right lobe 3 cm. Cocain-anesthesia was used and little pain experienced. Hemorrhage was trifling. He passed urine spontaneously until the second day, when he had to employ a catheter. The urine contained a slight amount of blood at first. The patient was out of bed on the second day, and had no fever, except with an attack of double epididymitis, which came on after the first week and ended in suppuration within the tunica vaginalis.

The result was at first excellent and in every way satisfactory to the patient. Gradually, however, the frequent desire to urinate returned, and at the end of 5 months it was as bad as ever, although there was no residual urine. Local treatment did not relieve the condition. The operation will probably have to be repeated in this case, provided that a carcinoma is not present. It would have been better, I think, to have made three incisions instead of two.

CASE 4.—Aged 63. General condition fair. Frequent nocturnal and diurnal urination for 6 months, with diminishing stream. Compelled to use catheter for 3 days before entering hospital. Slight cystitis. Lateral lobes of prostate much enlarged and firm. Operation was made February 22, 1899, under cocain-anesthesia with slight pain. He did not pass urine spontaneously for several days, but then freely. The hemorrhage was slight at time of operation and after. Two incisions—middle lobe 3 cm., left lobe 3 cm.,—were made. Double epididymitis supervened at the end of first week, with suppuration within tunica vaginalis on one side.

Residual urine entirely disappeared. Irritation and dribbling persisted for some weeks and finally subsided. In May, he got up once or twice only during the night. Passed a full, unobstructed stream. Return of irritation in June, which disappeared under use of protargol.

CASE 5.—Aged 55. General condition very poor, frequency of urination, cystitis, etc., for more than a year, used a catheter for six months, although he could pass a little urine spontaneously. The bladder had been opened and drained through perineum with but little benefit. The lateral lobes of the prostate were much enlarged and firm. Residual urine was 10½ ounces. Operation was done April 7, 1899, under cocain anesthesia and severe pain was experienced. The bladder was inflated with air and 3 incisions made—middle lobe 3 cm., lateral lobes 2½ cm. There was little hemorrhage during operation or immediately afterwards. The patient passed no urine spontaneously for some days. He had a severe chill a few hours after operation, followed at irregular intervals by several others of less severity, and the temperature went as high as 103°. During the course of 2 or 3 weeks an abscess of the prostate developed and discharged itself into the urethra and slightly through the perineum. There was considerable pain. Following this there were several severe secondary hemorrhages which reduced the patient's strength to a marked degree. A slight epididymitis developed on one side.

The patient finally recovered with the ability to pass a full stream, and much improved as regarded his general and local conditions. When last seen, June 25, 1899, there still remained some irritation about the vesical neck with inability to completely empty the bladder, the latter condition being due, to atony rather than to obstruction.

CASE 6.—Aged 50. General condition good. Frequent diurnal and nocturnal urination for 7 years. During the last three years he had to get up as often as 4 to 10 times at night. He had employed the catheter for about two weeks, but no enlargement of the prostate could be felt in the rectum. Urethra was at least one inch longer than normal. Although a fair-sized catheter easily entered the bladder, no urine could be passed spontaneously. Diagnosis: enlarged and valvular middle lobe. I operated May 3, 1899, under cocain-anesthesia, the man suffering considerable pain. The bladder was inflated with air, and an incision was made in the median lobe, 2¼ cm. in length. Hemorrhage was slight at time of operating and afterwards. But little inconvenience of any kind supervened. There was a slight chill at the end of 48 hours, but the temperature did not go above 100°. In two weeks the patient went home, passing his urine freely. June 8, 1899, he wrote me that he had been at work for some time, and that his bladder seemed to be in as good condition as it had ever been.

CASE 7.—(Operation by Dr. H. E. Warren, of Denver). Aged 55. General condition good. Increasing frequency of micturition for four years. Urine passed hourly during day, and 5 or 6 times at night. Lateral lobes of prostate enlarged to size of a lime. Six ounces residual urine. No cystitis. Operation, April 11, 1889, under cocain-anesthesia, pain being slight. The bladder was distended with air, and 2 incisions—middle lobe 2½ cm., right lateral lobe 2 cm.—were made. Hemorrhage was trivial during and after operation. Urine was passed voluntarily with slight smarting. Recovery was uninterrupted, without fever or other noteworthy disturbance. At various times, deep injections of 1% protargol were successfully employed to allay irritation of the vesical neck On May 17, 1899, the urine was clear, there was no pain or irritation, no residual urine. He retires at 9 or 10 P.M. and does not urinate until 5 A.M. During the day urinates every 2½ to 3½ hours.

CASE 8.—Aged 64. General condition good. Nocturnal and diurnal frequency of urination for 10 years; has used a catheter continually for 3 years; moderate cystitis; lateral lobes of prostate much enlarged, especially on right side. Operation, July 17, 1899, under cocain-anesthesia, with little pain. Moderate hemorrhage followed operation. Epididymitis developed on left side in a few days and went on to suppuration in the tunica vaginalis. Considerable vesical irritation. Passed a little urine spontaneously about tenth day and this gradually increased in quantity. When heard from at end of 4 months, was in excellent condition.

In considering the above cases it is of interest to note that: (1) General anesthesia was employed but once, local anesthesia being satisfactory in all but two of the other cases. (2) In three instances the bladder was inflated with air (Lewis), which seemed to answer the purpose well. (3) The cautery was brought to a good red heat only, and not to a white heat, as is recommended by some. (4) There was no hemorrhage worth speaking of, either during the operations or immediately following them, although brisk, secondary hemorrhage occurred once after the lapse of 2 or 3 weeks. (5) In order to guard against sepsis, urotropin was given every 4 hours during the day in 8 gr. doses. (6) Most of the patients could pass more or less urine within a few hours after the prostatic incisions, but the use of the catheter was considered desirable in all. (7) Postoperative pain was seldom severe, and manifested itself principally as a burning sensation during urination. (8) In 7 cases there was practically no fever during the first few days, although more or less rise of temperature appeared later, connected with the occurrence of epididymitis or prostatic inflammation. (9) In 6 cases the incisions were made from 2½ to 3 cm. in length (the longer ones being in the urethral floor), and in the remaining instances but 2½ cm. The length of the incision will always remain largely a matter of judgment with each patient, but the configuration of most enlarged prostates would, I think, indicate that the shorter cuts might answer the purpose as well as the longer ones. In the majority of instances two incisions were made, one in the central lobe and one in the lateral lobe. Once, when the middle lobe alone was enlarged, but one short cut sufficed to procure a brilliant recovery. Three incisions were used on several occasions, one in each lobe, and it would seem reasonable to suppose that in general this number would offer the best chance of success.

It was a source of constant surprise how easily the properly heated cautery-blade slipped through the tough prostatic tissues. The first cut, however, is more readily made than the succeeding ones, because the blade becomes coated with incinerated tissues. The rule is to wait about 15 seconds for the cautery-blade to become heated before making the first incision. I think it would be well to delay somewhat longer than this for the subsequent ones.

Epididymitis I found to be the most frequent and annoying complication. It occurred in 5 cases, and did not develop for a week or more. There was usually much effusion into the tunica vaginalis, with considerable pain, and in three cases suppuration took place. As is well known, epididymitis is a common feature of enlarged prostate, whether an operation is done or not, and in some instances it appears again and again. The

sloughs usually come away in small particles, somewhere between one and three weeks. Larges pieces were occasionally observed. Coincident with the passage of the sloughs there was generally more or less urethral discharge, at times quite profuse, which slowly disappeared.

Moderate incontinence of urine was observed several times. This always lessened rapidly and ultimately disappeared. Abscess of the prostate made its appearance twice, the coincident symptoms being quite severe in each instance. Irritation of the vesical neck invariably followed the operation, and was annoying and persistent. It can probably be best overcome by means of injections of protargol. In my experience silver nitrate is severe and likely to be followed by epididymitis if not used with care.

In nearly all the cases, residual urine, which was frequently large in amount and always present, was completely done away with, so that none was obtained upon the insertion of a catheter. In one instance the bladder remained atonic and would not empty itself. In another, although the residual urine was much diminished, it had not disappeared when the patient left my observation. Most of the cases had considerable cystitis at the time of operation. This did not appear to materially influence the progress of the case. The inflammation had a tendency to disappear as bladder-drainage improved.

Results: Five cases were practically cured, except occasional irritation at the neck of the bladder. One case much improved, but with residual urine from vesical atony. One case has as much pain and frequent urination as before the operation, although not a drop of urine remains in the bladder (carcinoma?).

In estimating the value of the Bottini instrument, we must not lose sight of the serious nature of the affection with which we have to deal; the age and debility of many of the patients, the inaccessibility of the prostate, and the inadequacy of other procedures.

It cannot be asserted that those operated upon with the galvanocaustic incisor are sure to recover immediately and without annoying symptoms, but it is claimed that the method offers a better chance of relief in a less objectionable and less dangerous manner than other operative procedures. The marvelous claims of Bottini and his Italian followers have not been fully substantiated by observers in other countries, and yet we have no right to consider them impossible. But even when these are left out of consideration, the results are still good.

Between 150 and 200 operations have been reported; 80 by Bottini, 55 by Freudenberg of Berlin (personal communication), 20 by Guitéras of New York, 12 by Willy Meyer of New York, 12 by Lohnstein, and lesser numbers by Morton, Bruce-Clarke, Hane, Lewis, Lennander, Czerny and others. The opinions of nearly all observers have been favorable. There have been a few unfortunate results, some arising from peculiarities of the patient, some from the operation as such, and some from accidental sources. The direct mortality has been in the neighborhood of 5% (Willy Meyer), the number of cures and marked improvements being greater than with other procedures.

It cannot be doubted that certain cases are better adapted for the Bottini operation than others, and as experience is gained, we will be able to select our patients more intelligently, sometimes employing one method and sometimes another.

FOUR CASES OF PULMONARY TUBERCULOSIS.[1]

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THE following cases from the Clinic of Internal Medicine of the University of Michigan present so strikingly the varied symptomatology of pulmonary tuberculosis, and the possibilities in connection with an early diagnosis, that they have been deemed worthy of record.

CASE 1.—J. S., a male, aged 21, came to the hospital in February, 1899, complaining of dyspepsia. Family history negative. Personal history, up to the age of 19, negative, save measles and whooping-cough in childhood. At 19 he had "German measles," and a year later began to complain of dyspepsia. Appetite poor, bowels constipated. Had lost 25 pounds in the 3 months preceding admission; his weight at that time was 90 pounds.

Status praesens, February 23, 1899. The patient looks sick, is cachectic and emaciated. No enlarged glands and no edema. Frame of medium size; muscles small; panniculus thin; skin pale and somewhat sallow; cheeks flushed; lips and visible mucous membranes pale; tongue shows thin, white coat. Thorax long and flat, width fair, and epigastric angle wide. Expansion fair, breathing symmetrical. Percussion: front, resonance slightly diminished over right apex and clavicle; percussion over rest of anterior, negative. Auscultation: over right apex and right infraclavicular space, vesicular murmur diminished, expiration prolonged, occasional crackling rales; over left apex and infraclavicular space, respiratory murmur increased. Percussion: back, negative. Auscultation: over right apex diminished respiratory murmur; breathing over rest of back fair, but occasionally interrupted on either side. Heart: size and position normal; pulmonary second accentuated; otherwise sounds negative. Urine: marked diazo-reaction; indican increased; otherwise negative.

Blood:—	Reds	4,500,000
	Whites	7,500
	Hemoglobin	75%

Stomach-contents one hour after granose test-meal: hydrochloric acid absent; lactic present; total acidity 30. Sputum: does not raise any.

The patient was put to bed on milk diet. The temperature-record showed an intermittent fever; from 97.6° to 98.4° in the morning, there was a rise toward night to between 99.6° and 101°. Ammonium chlorid and potassium iodid were given to assist in expectoration, and on the eleventh day numerous tubercle-bacilli were found in the scant mucopurulent sputa thus obtained. No elastic tissue was present.

Within a month the fever became remittent in type. Diarrhea began with watery stools containing large numbers of tubercle bacilli. The patient weakened rapidly and died 7 weeks after his admission to the hospital.

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[1] From the Clinic of Internal Medicine of the University of Michigan.

Tuberculosis was suspected in this patient from the moment of his arrival, though he was sent by his physician for treatment of a stomach disorder. The patient stated that his doctor told him that his heart and lungs were all right, but that his stomach was out of order. A careful physical examination and the application of modern means of diagnosis to this case would have yielded his doctor results as certain as those obtained at the hospital. The diazo-reaction, temperature, history and slight lung-signs made a diagnosis easy 10 days before it was possible to demonstrate tubercle-bacilli or elastic tissue.

This case affords an impressive example of the necessity of careful consideration and interpretation of stomach symptoms in connection with a phthisical habit and loss of weight.

As to the lung-signs, the question is more one of detection than of interpretation. The similarity of the cases here presented, in this respect, renders discussion more profitable at the close of the paper.

CASE 2.—Miss L., aged 21, entered the outpatient department in July, 1898. She complained of a cough with some expectoration and of having twice raised small quantities of blood, once a year before, and again, two months before admission. On each occasion the hemorrhage followed a coughing spell. Her parents were alive and well, but an uncle and aunt had died of tuberculosis and two cousins were said to be suffering from that disease. The patient had occasionally visited these relations during their sicknesses. The patient's cough began only a month before admission. She had had severe colds at various times, but none within a year. The hemoptysis preceded the cough by a few weeks. Though at the time of examination her temperature was 99.6°, she had never had subjective feelings of fever, nor had she ever had any chills. Aside from a poor appetite she had no stomach symptoms nor was she aware of having lost weight. At the time of admission her weight was 107 pounds. Status praesens, July 23, 1898. The patient is cachectic and presents the phthisical habit; frame small; panniculus thin; muscles flabby; skin pale; lips red; other visible mucous membranes pale but otherwise normal. Thorax long, narrow, shallow, unsymmetric; the right side is a little less full than the left and lags slightly; expansion, by measurement, is equal to that of the left side; percussion and auscultation front and back negative. Ammonium chlorid was given to assist in raising sputum and the patient was advised to bring the latter to the hospital for examination. This she failed to do, but her family physician obtained and examined several samples with negative results. The diagnosis made at the hospital, however, from appearance, history, temperature, and examination, was "bronchitis, probably tuberculous."

Nothing was seen of the patient for 7 months, when see was readmitted with a further history of several slight hemorrhages, continual cough and occasional fever, chills and sweats. Her physician had examined her sputa in October, but had found no tubercle-bacilli or elastic tissue. She had lost but little weight, as she had been on tonic treatment and had maintained a good appetite.

Status præsens, February 23, 1899. The patient's appearance is unchanged. Thorax: inspection and measurements same as on first examination made July 23, 1898. Percussion: front, the note over the right clavicle is shorter and higher than that over the left; the lower left lung border descends more freely than the right. Auscultation: over right apex and clavicle and as far as the second intercostal space, breath-sounds are very feeble with moderately small crackling rales; on the left over the corresponding area breathing is somewhat exaggerated. Percussion: back, resonance more marked over left suprascapular space than right. Auscultation: breathing exaggerated over left side; on the right, to the lower angle of the scapula, respiratory murmur is diminished with fine crackling rales. Heart: pulmonary second accentuated; otherwise sounds, size, and position normal. Urine: no diazo-reaction; indican increased; otherwise negative. Blood: leukocytes 10,440. Stomach-contents one hour after granose test-meal: hydrochloric acid absent; organic acids present; total acidity 12; digestive power nil. Sputum: thick, mucopurulent; contains many tubercle-bacilli and much elastic tissue.

The history of this case was suspicious and demanded careful scrutiny of the thorax. The first examination disclosed nothing beyond a greater fulness left than right, and slight lagging, though equal expansion of the right side. The habit, history, general condition and temperature made probable tuberculosis the only safe diagnosis and the confirmation was fully expected. The history had also a certain positive value in emphasizing the results of examination. This is always true of a tuberculous history. A nontuberculous history is, however, utterly valueless as negative evidence.

CASE 3.—Miss R., aged 25, entered the outdepartment in October, 1898, complaining of pain in the chest and back. The family history was negative. Measles, whooping-cough, and pneumonia were the only features of the personal history up to the age of 23, when the patient became dyspeptic. Treatment relieved this condition and the patient was apparently well until January, 1898, at which time she "caught cold" and developed a persistent cough.

In May, 1898, sudden sharp pains in her back and chest necessitated her remaining in bed a week. The pain became less severe, but continued as a dull ache. In June a similar attack was experienced, after which the ache located itself definitely on the right side of the chest. The patient felt as if "something were in her chest," but could raise nothing. Her weight, which, on her statement, had fallen during the previous winter to 80 pounds, was on admission 130.

Status praesens, October 12, 1898. The patient is cachectic, but not emaciated; is of phthisical habit and above average height. Frame rather slender; muscles small and moderately firm; panniculus in fair amount; skin rather pale and sallow; glands of right posterior cervical chain as large as hazelnuts; from one of them a small discharging sinus opens. Thorax long, narrow, of fair depth and symmetrical; epigastric angle fair-sized; breathing symmetrical. Percussion: front, note slightly higher over left front than right, especially in second intercostal space; the lower lung borders, right and left, descend freely from the sixth rib. Auscultation: breath-sounds good on right; expiration not distinctly prolonged; over left apex and infraclavicular space, breathing slightly blowing in both phases; over second left intercostal space inspiration is interrupted and expiration prolonged with crackling rales on deep inspiration. Percussion: back, resonance fair; slightly higher pitched left than right. Auscultation: respiratory murmur weak all over; in the left suprascapular space, respiration is occasionally interrupted and accompanied by whistling rales in both phases. Heart: pulmonary second accentuated; otherwise sounds, position, and size are normal. Urine: diazo-reaction absent; indican slightly increased; otherwise negative. Stomach-contents one hour after granose test-meal: hydrochloric acid present; organic acids absent; total acidity 42; digestion very slow. Sputum very scant; mucopurulent; contains no tubercle-bacilli nor elastic tissue. Several sputum-examinations made during the patient's short stay in Ann Arbor were likewise negative.

On leaving Ann Arbor the patient was advised to send sputum for further search, and on November 6 a small sample was received which contained numerous tubercle-bacilli. Owing to an accident to the container the examination for elastic tissue could not be made.

In this case, as in 1 and 2, a diagnosis of probable tuberculosis was made before finding bacilli. The contributing factors, aside from those intrathoracic, vary somewhat in detail from those mentioned in connection with the previous cases, and may be worthy of discussion.

The condition of the right cervical glands was enough to throw suspicion on the patient, and, assuming them to be actually tuberculous, to permit anticipation of pulmonary involvement. The interesting though not infrequent condition found, was involvement of the lung on the opposite side and apparent freedom from disease of the right lung.

The history for the 10 months preceding admission was very suspicious. Persistent cough, attacks of what was apparently pleurisy, and continual pain constitute a very significant symptom-group without other common features of phthisis. Two other points deserve mention, namely, the regaining of the weight lost during the illness of the preceding winter, and the temperature-chart exhibited by the patient during a subsequent residence in the hospital, but as Case 4 exhibits similar peculiarities, their discussion is left until after the mention of that case.

Case 4.—Mrs. M., aged 38, was admitted in March on account of a "hacking cough, pain in the chest, and expectoration." Family history negative. Personal history negative up to September, 1898, when an abortion was performed on account of uncontrollable vomiting. Soon after, a cough developed with profuse and watery expectoration, the latter becoming yellowish and offensive in a few weeks. The cough was frequent, paroxysmal, preceded by tickling in the throat and accompanied by pain in the chest. Beginning almost simultaneously with the cough were profuse night-sweats. The patient also began to lose weight rapidly and soon reached an extreme degree of emaciation. As in Case 3, most of the lost weight had been regained and the patient was not conscious of having grown weaker during the two or three months immediately preceding admission.

Status praesens, March 12, 1899. The patient looks sick and is nervous and excitable; coughs frequently. Frame slender; muscles flabby and small; panniculus scant; skin and visible mucous membranes pale; the posterior pharyngeal wall shows a small area of adenoid hyperplasia with marked congestion; weight 90 pounds. Thorax long, moderately deep, wide and symmetrical; on deep breathing the upper part of the left side lags slightly. Percussion: front, note slightly higher over left apex and clavicle than right; right lower lung border descends freely from the sixth rib; on the left dulness is encountered on the fourth rib and extends through Traube's space; the dulness is replaced by resonance on deep breathing. Auscultation: the respiratory murmur is diminished over left apex and infraclavicular space; over corresponding situations on the right, expiration is somewhat prolonged and blowing. Percussion: back, note over left apex higher than right. Auscultation: respiratory murmur diminished over left apex; in the interscapular space on the left, crepitant rales are heard; over the right apex, expiration is prolonged.

The patient was found to have marked enteroptosis. The stomach was dislocated downwards and both kidneys were freely movable.

Urine entirely negative. Stomach-contents one hour after granose test-meal: hydrochloric acid present; lactic absent; total acidity 50; digestive power normal. Sputum: abundant, thin, mucopurulent; contains neither tubercle-bacilli nor elastic tissue. The patient's appetite was poor and she had occasional attacks of nausea and vomiting. Her temperature ranged, with great irregularity, between 98.4° and 99.8°, reaching the latter point only a few times in a month's residence.

Frequent examinations were made of the sputa both before and after the administration of ammonium chlorid, but a positive result was never obtained. On one occasion the patient expectorated a dram or two of blood, but it was easily traceable to the rupture of a small vein in the congested pharyngeal mucous membrane.

After a month's residence the patient was discharged with practically no change in her condition so far as the intrathoracic signs were concerned.

In this case tubercle-bacilli were not demonstrated, yet the probability of their presence could not be denied. The preceding cases illustrate well the unimportance of negative sputum-examinations in suspicious cases. A dozen or a hundred vain searches may precede the one yielding results.

This fact rendered a diagnosis of probable tuberculosis the only safe one. As contraindications to such a diagnosis may be urged; the possible causal relationship of the pharyngeal irritation to the cough and temperature, of the neurasthenia indicated in the examination to the profuse sweating, of the enteroptosis to the anorexia, nausea and vomiting; and also the fact that the patient had regained nearly all of the weight lost during her illness of the previous fall. The presence of well localized and persistent lung-signs, however, prohibits any such definite conclusions.

The pharyngeal condition deserves attention as an excitant of the cough, the nature of which and its association with the chest-pains plainly indicated its deep origin. The enteroptosis no doubt exaggerated the neurotic element found in many phthisical patients, and which probably influences sweating in these as well as in non-phthisical neurasthenics, and is supposed to have a share in causing vomiting.

One of the first conclusions to be drawn from the foregoing statements concerns the use of the history in diagnosis. As a source of suggestion, and indeed of positive help, the history is often of great importance, and with these possible functions in mind, it should always be taken with careful attention to details. In addition to the usual points of a history, information should be gained concerning association with tuberculous people or the occupation of dwellings previously tenanted by such. However, notwithstanding that much stress is laid on the history, it would be better to take none at all than to use it as negative evidence.

The appearance or "habit" of the patient is worthy of more consideration than appears to be accorded to it. The term includes all the points to be gathered from a general inspection, with emphasis upon the

frame, dimensions of the chest, development, facial expression, circulation, and the degree and quality of nutrition. A point to be emphasized under the latter head is the gain in weight exhibited by some patients after the onset of their tuberculosis. Cases 3 and 4 illustrate this admirably. Case 3, if we may rely on the patient's statement, lost between 50 and 60 pounds during the winter and spring preceding her admission to the hospital as the result of a severe cold, persistent cough, and two attacks of what was apparently pleurisy. However, notwithstanding the persistence of the cough and some of the chest-pain, she regained nearly normal weight by the following December.

In Case 4 there was a history of extreme emaciation subsequent to the performance of an abortion to relieve vomiting, and the development of a hacking cough. This patient, too, made up the loss in a still shorter time, in spite of aggravation of the pulmonary symptoms.

A priori, such recuperative energy would seem incompatible with the development of a chronic wasting disease, and therefore might tend to allay suspicions aroused by other data, and to militate against proper interpretation of slight physical signs. It is a fact, however, that consumptives frequently gain in weight soon after beginning treatment, no matter what form of treatment is used, even though there has been no acute cause for weight-loss at the outstart. If an acute sickness has ushered in the tuberculosis, a marked gain in weight is quite in the natural course of events. It must be remembered also that a nearly normal weight is maintained by some phthisics until the very last. At the same time the term cachectic may be applied to such paticnts in the sense of a poor quality of nutrition, and an unhealthy appearance.

Of the results of more localizcd inspection, lagging of onc side or a portion of one side of the chest, no matter how slight, should be considered of great importance. It may be accompanicd by undiminishcd expansion as in Case 2, or the latter may be lessened as compared to the other sidc by measurement, in which case the significance of the sign is enhanced. Asymmetry of the chest is a suggestive sign, but it has relatively small value because it is a not infrequent anatomic peculiarity due often to the unequal development of the two sides. It is also due to trauma and to congenital malformation.

The ability to discern slight departures from the normal auscultation and percussion of a part or all of the chest, depcnds more on thc experience of the examiner and his auditory and tactilc acuity, than upon his conscientiousness.

Misinterpretation of these early intrathoracic signs is not infrequent and deserves mention. The danger exists of overlooking a diminished respiratory murmur, one of the earliest signs of pulmonary disease, and of considering the frequently increased, and perhaps slightly blowing respiration of the sound side as a sign of beginning infiltration, instead of as an evidence of compensation. Pcrcussion at the same time may show a slightly higher note over the area of lcsscned breathing, which is really the diseased portion, thus apparently contradicting the result of auscultation and leading to confusion and serious misconception of the true state of affairs. The nearest approach to a correct estimate can be made only by considering and rcconciling, as far as may be, all the possible factors. A slight lagging or an occasional rale may determine the actual location of the lesion, in the face of what seems to be contradictory evidcnce.

A point, howevcr, which I consider worthy of unlimited emphasis is that a failure to detect small abnormitics in percussion and auscultation should not blind one to the probable existence of pulmonary tuberculosis in the presence of other suspicious data. The disease often does irreparable damage before local signs arc discernible, but in these cases many signs and symptoms not intrathoracic are usually available and should invariably be looked for and considered. Good practice dcmands the inauguration of persistent and repeated searches, if necessary, for bacilli and elastic tissue on many indications not demonstrably associated with the lungs.

The importance of gastric symptoms in early phthisis is illustrated especially by Case 1 and less forcibly by the other cases. In Cases 1 and 2 there was complete absence of hydrochloric acid, and in Case 3, though hydrochloric acid was present in a nearly normal amount, digestion was very slow, indicating a lack of pepsin. Case 4 presented no abnormity of the gastric juice, but frcquent nausea and vomiting.

It has become an old story at this clinic that a majority of the cases of incipient pulmonary tuberculosis comes to us complaining of some gastric disorder. In the young especially, dyspepsia should excite suspicion and lead to a careful application of all possible diagnostic means to detcrmine its causc and any concomitant disease.

To increase the fund of objective evidence in each cas the test-mcal and stomach-tube should be uscd when ever possible.

I have spoken of the practical value of the diazo reaction in both diagnosis and prognosis. Its presence should lead to a careful scarch for its cause. Some source of the pcculiar substances reacting in the urine is bound to be prcsent. Although not pathognomonic of any one condition, its presence limits the diagnostic possibilities to a few diseases, including tuberculosis most of which are easily distinguishable from that disease. On account of its frequency in tuberculosis, it presence should always arouse suspicion. If it is true that the rcaction is duc to a certain intoxication, it i proper to regard it in consumptives as an index of th rate of extension of the pulmonary lesions. That th magnitude of the processes in the body have no bear

ing on the reaction is indicated by a comparison of Case 1 with Cases 2, 3, and 4. In the former, on admission, the lesions were not demonstrably more extensive than in the latter, yet the reaction was marked on the first day and remained almost constant till death, while it was never found in Cases 2, 3, and 4. Furthermore, while elastic tissue was never found in Case 1, Case 2 showed it in large amounts. These facts indicate that a rapid spread and a tendency toward an early fatal termination, and not necessarily an ulcerative process, are responsible for the reaction.

An important point which I have not found mentioned in discussions of the diazo-reaction is its possible intermittance from time to time in a given case of tuberculosis. In Case 1 and in another very similar case not here described, the reaction was occasionally absent for a day or two, then would reappear as strong as before. Repeated examinations are therefore necessary.

Cases 3 and 4 are good examples of the slight peculiarities of temperature encountered in the early stages of phthisis. It was not possible to make use of the temperature-chart in Case 3, as the patient did not become a hospital-resident until a month after the diagnosis was made. No discernible change for the worse had occurred in her condition, however, and the temperature observations are given on the assumption that the same peculiarities existed a month before and could have been utilized had opportunity existed. In Case 4 the temperature was an important factor in diagnosis. During the month's residence of Case 3, her temperature never exceeded 99.2° and only reached this point once. As a rule it lay between 98.4° and 99°, the daily variation seldom being more than half a degree, and usually less. Frequently the morning temperature exceeded that of the evening, though this was as often reversed. The maximum was usually reached between 3 and 4 P.M., though occasionally for several days in succession it occurred in the morning, and then moved to the evening, the minimum at the same time occurring between 1 and 4 P.M.

The temperature of Case 4 ranged with great irregularity between 98.4° and 99.8°, but the latter figure was reached only a few times during the month. The usual maximum was 99° or 99.2°, and as in Case 3, the hour at which this was reached, was variable. The interest of these charts lies in the absence of any subnormal minimums and the lack of definite rhythm. The former presents a febrile condition, as the maintenance of a temperature constantly 98.4°, or above, is abnormal and referable to an intoxication naturally associable in these cases with the slight lung-signs. The absence of rhythm increases the significance of the slight elevation, pointing as it does to marked instability of the heat-regulating mechanism. The cervical glands of case 3 might have been held accountable for the temperature-curve, but the presence of the intrathoracic lesions made it very suspicious evidence.

Cases 1, 2, and 3 bring out impressively the well-known fact that even a considerable number of negative sputum-examinations do not necessarily indicate the absence of tubercule-bacilli, and illustrate the importance of accepting even slight local and general signs and symptoms as indications for repeated and persistent searches. Mention has been made of a material aid in this connection, namely, the use of an expectorant, as for instance ammonium chlorid. In two of the cases it was of considerable value in increasing the quantity of sputum and in facilitating the clearing of the smaller bronchi, thus furnishing material more likely to contain bacilli and elastic tissue.

The search for elastic tissue is scarcely less important than that for bacilli. If found and its pulmonary origin proved, one is sure that a destructive process is going on in the lung, and for practical purposes such a process may be considered tuberculous. Its occurrence in the sputum may precede that of the bacilli which enhances its diagnostic value, or the latter may be present for an indefinite period without the former. Indeed a case may run its course without elastic tissues ever being found, as in the first case under notice.

THE PROGRESS OF A CASE OF PHTHISIS AT A VERY HIGH ALTITUDE.[1]

By MAURICE KAHN, M.D.,
of Leadville, Colo.

The case presented has no particular distinguishing features, nor unusual progress. The only tenable reason that I can advance for its recital is that in my opinion it is at variance in its development with the usual theories promulgated regarding the climatic treatment of tuberculosis. I am indebted for much of the history of this case to Dr. E. K. Cutler, of Waltham, and to Dr. Herbert Howard, the superintendent of the Massachusetts General Hospital, each of whom kindly furnished me with a copy of his notes.

K———, male, aged 31, married, blacksmith; father died of tuberculosis. In 1889 he had a hemorrhage, supposed to have emanated from the stomach, and probably did, as it is said to have been dark in color, clotted, and was vomited. He applied at the out-patient department of the Massachusetts General Hospital for treatment in June, 1893, at which time he gave a history of cough, expectoration, and hemorrhages. According to both the hospital and Dr. Cutler's records there was at the time slight dulness in left subclavicular fossa, where, near the sternum, subcrepitant rales were heard. From June to October, 1893, he had, for a week at a time, daily hemorrhages of bright red, frothy blood, and would then be comfortable for a week; when the cycle would be rehearsed. During this time he had distressing cough, profuse expectoration, and considerable pain in the left chest. There were no night-sweats, no loss of weight, but considerable weakness. He says he would occasionally cease work to recuperate. In October he left Massachusetts for Denver, where he remained one month. During the following year he went from place to place in Colorado seeking employment, finally locating in Leadville, where he still resides.

Present condition: He claims he never felt better, his

[1] Read before the Lake County Medical Association, July 20, 1899.

only complaint being that he has a short hacking cough, beginning every fall, lasting through the winter and disappearing with the advent of spring. There is an absence of expectoration at all times. Upon examination there were no rales to be heard anywhere; increased voice-sounds and respiration on left side above second rib; heart-sounds also more distinct over this area; pulse, 64; temperature, 97.2°; respiration 20 at 8 P.M. Apex-beat in fifth space in nipple line.

Most authorities state that the very high altitudes are available, so far as concerns the consumptive, only in the prophylaxis; that is, children who are supposed to have a predisposition for this disease should be raised there. But they condemn, in unmistakable terms and with unmitigated vigor, ultra-altitudes as being potent for harm only, after one has the disease, even though it is still in the incipient stage.

The usual teaching is, that the mildly stimulating climates are those best suited for the incipient phthisic; and that the very high altitudes are baneful on account of the great strain devolving upon the already crippled lung, by reason of its enhanced labor, of necessity making it less resistant to the tubercle-bacilli, which then advance unrestrained with their ravages. There may exist some slight difference of opinion as to what constitutes a mildly stimulating climate, but the general conception I take to be from 3,000 to 7,000 feet above sea level, with the atmosphere devoid of much moisture. Denver, certain portions of New Mexico, the Alleghanies, all about 5,000 feet above sea level, thus become the Mecca of many early consumptives, by the advice of their physicians.

I am not considering climatology in reference to the treatment of consumption in all its stages, nor in fact in any of its stages, but simply plead for a trial of the very high altitudes in the treatment of tuberculosis in its incipiency. It is my opinion that selected cases of early phthisis will do not merely as well at very high altitudes, but even better than at the intermediate heights. When I say a selected case, I mean a case in which only one lung is involved, and that but slightly; with slight dulness and a few rales; or in which softening may even have begun but no cavities yet formed; and in which the heart's function is not impaired by either functional or organic lesion.

It doubtless would not be beneficial for all cases of incipient phthisis to go directly to a place so high as Leadville. Particularly would this be dangerous to those having frequent hemorrhages; but they might advantageously ascend by gradations, becoming in the course of 6 or 8 months acclimated to so salubrious a district. The favorable issue of the case cited should not, however, blind us to the fatal possibilities of the hemorrhagic type.

Now here is a man who came to Colorado with incipient tuberculosis. After traveling about the State at altitudes ranging from 5 to 8,000 feet, he finally located at Leadville, 10,200 feet above the sea. It is true he began to improve soon after reaching Colorado. But after leaving Denver he went direct to Florrissant at 8,100 feet, and nothing but improvement was noticed. It will at once suggest itself that had he remained in Denver, he might have improved equally as rapidly. That may be; certain it is, however, that no one could say what would or would not have occurred had he remained in Denver. But does not such a history warrant us to hope that the gradual development of the lungs, by acclimating them to the extremely high altitudes, will be more beneficial and tend toward a permanent cure; and this perhaps make possible, in time, his relocation in the land of his choice?

Professor White once said that a single clinical case argued more eloquently for an hypothesis than 10,000 laboratory experiments. If this is true, one clinical case is certainly ample to counterpoise more than that number of unproved theories; hence this case, while not sufficient in itself to establish a general method of treatment, nevertheless merits consideration, and may well be borne in mind when similar cases present themselves. The fact that internal tuberculosis has for centuries baffled the efforts of the therapeutist, while the climatic treatment has so far not always proved efficient, further argues for the consideration of very high altitudes. If others, who may have similar cases come under their charge, would take the trouble to report them, it would soon dispel (if it should be dispelled) the fear of great heights in the treatment of incipient phthisis.

Congenital Absence of the Uterus.—H. G. H. Naylor (*Australasian Medical Gazette*, October 20, 1899) reports the case of a woman of 26, who came under observation because she had never menstruated. She was in excellent health, well-developed and womanly in appearance. On examination there was no sign of hermaphroditism; the external genitalia were normal, but the pubic region was bare of hair. The vagina was quite large, but ended in a smooth culdesac in which no evidence of the cervix could be found, neither was there any evidence of the uterus either by vaginal or rectal examination. [M.B.T.]

Relation of Glycosuria and Tabes.—Strauss (*Neurologisches Centralblatt*, October 15, 1899) tested the alimentary glycosuria of 30 cases of the latter determination and found that in one only was there any reaction in the urine. This patient was the son of a diabetic father and of an epileptic mother. These results accord with those of other authors. He, therefore, is inclined to regard glycosuria as merely a complication. He mentions a curious substance that he found in the urine of patients suffering with nervous disease, such as myelitis, brain-tumor etc., which reduced copper, caused deviation to the left, but did not ferment. It seemed to be equivalent in some respect to an excess of indican. [J.S.]

Intestinal Obstruction from Biliary Calculus.—J. W. Bovée (*Virginia Medical Semi-Monthly*, November 10, 1899) reports the case of a woman, aged 44, who had suffered for some time with chronic constipation. She was suddenly taken, after a hearty meal and dancing, with colicky pains, almost incessant vomiting, and collapse. When seen, about 3 days later, the bowels had not moved, notwithstanding the use of cathartics and enemas. Large enemas of a gallon of water at a time were ordered and plans were made for abdominal section in case improvement did not follow. A few minutes after receiving a large enema, she passed, by the rectum, an oval cholesterin gallstone measuring $1\frac{3}{4}$ by $1\frac{1}{4}$ inches in diameter and weighing 200 grains. The symptoms immediately disappeared and complete recovery followed. [M.B.T.]

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Soldiers' Wills.—We learn from *Harper's Weekly* that the British War Office is supplying every soldier that goes to the front with three blank forms of wills: The first for the man who wishes to leave all his property to one person; the second for those who wish to bequeath legacies to several persons, and the third for use of married soldiers desiring to leave property to their wives and children. The British soldier, like most other people, usually neglects to make his will until the very last moment, and frequently waits until wounded or dying upon the field. It is said that formerly the men would scribble their will in a few words on some stray bit of paper or on the inside of a helmet, the lid of a cartridge-box, or perhaps on a stone lying near by. The records of the British War Office contain many queer examples of unusual ways of bequeathing the property a dying soldier may have to give, and the frequency with which such wills were made led to the adoption of these blanks, which may be very conveniently filled out with little writing. The plan seems good, and we would suggest that if hospitals and emergency physicians, as well as soldiers, were provided with such blanks that they might prove of great convenience in many cases of emergency and severe illness, and legal complications might many times be avoided by their use.

Data for studies in morbid psychology, and possessing also the added charm of unconscious humor, are offered by a periodical of which we urge our readers to secure copies. It is entitled *Medical Liberty News.* "Devoted to Medical Science and Reform; opposes Vaccination, Vivisection and the Liquor Traffic." The editors and contributors are all M.D.'s and Ph.D.'s, but their detestation of the medical profession is, if possible, stronger than their pride in the title, Doctor of Medicine. "The Surgeon's Knife an Assassin's Dirk!! Another Innocent Victim Immolated upon the Blood-stained Altar of Surgical Science," is the title of one paper (December, 1899), in which it seems that a patient died of cancer of the stomach. In "The German Theory" the germ-theory is demolished: "These young doctors (?) can reil off germ tocology, but they could not tell (under the lens) a phagocyt from a leakocytte. They can tell all about the germ which causes puerperal septimara, but turn him loose in an accochment chamber, etc." The conclusion reached is that, "Man is the *micro cosm* of which the universe is the MACCROSM." We have never seen a more mirth-provoking combination of astonishing ignorance, preposterous assumption, and inordinate greed, all supplemented by a printer entirely equal to the occasion. From another standpoint it has also a horribly serious side. It is one error to find only amusement in it, but a greater to be wholly indifferent to it.

An injustice to naval medical officers of a peculiarly irritating character, consists in the fact that their rank and pay are not equal to that of the medical corps of the Army. The navy surgeons enter with the rank of ensign, equivalent to that of second-lieutenant in the Army, their total pay being $1,540; but 15% of this is deducted if they serve on shore; and when they go to sea they are quartered in the steerage—a barbarous custom originating in barbarous times. The army physician enters as first-lieutenant, equivalent to lieutenant-junior grade in the Navy; this naval rank is attained only after three years' service. The army surgeon is not only not mulcted for any class of duty, but receives an allowance of $200 a year as a mounted officer, even though he has no "mount." The remedy for these and other wrongs consists in making the rank and pay of the two services precisely the same. At a meeting of the majority of the medical officers of the North Atlantic Squadron proposals for remedial legislation were prepared for submission to Congress. It was agreed that the chief objects were, increase in numbers, rank for grade, the rank of junior-lieutenant for assistant surgeons, proper promotions, and, lastly—a clause which is eminently praiseworthy—the appointment of a certain number of men to attend postgraduate courses of study at colleges or hospitals. Had we been consulted we should have added to the list of desiderata the supplying of the best modern medical and surgical textbooks and journals—some of them, at least—and works of reference, the present plan apparently being to keep officers as ignorant of modern medical progress as possible. We extend to our colleagues of the navy our heartiest sympathy in their endeavors to do away with absurd and degrading injustices and to elevate the character and standing of the corps.

The absurdities of the Gallinger Antivivisection Bill will be evident to all who read it as printed

in full elsewhere in our columns. We wish to call special attention to a few features which, if the bill is passed, will very effectually block any attempt at medical progress.

The experiment, it is said, must be performed with a view to advancement by new discovery. This of course rules out any confirmatory experiments which are often more important than discoveries;—of what value would have been the discovery of diphtheria-antitoxin if the whole question of its use had not been thoroughly studied in many experiments?

We also find that the animal must be under anesthesia to prevent it from feeling pain. This rules out a number of important experiments on the nervous system.

The paragraph, "A license shall not be granted to any person under the age of 25 unless a graduate from a medical college," excludes all students of the higher medical classes, and all of the younger biologists who are perfectly competent to carry out investigations and by whom in the past numerous important advances have been made. The license must be registered; must be signed by three physicians and a professor in the medical department of a school or college, and the certificate is not available until one week after a copy has been forwarded. All this means delay, and would prevent experimental inoculation in case of hydrophobia, and in many other conditions in which delay might mean sacrifice of life. Human life has no value to antivisectionists as compared with possible sufferings of a cat. "The commissioners may at any time disallow or suspend any certificate," thus preventing the completion of an important investigation, of the value of which the commissioners might be totally incompetent to judge.

Governmental services do not have to take out general licenses, but in case they wish to experiment upon the most commonly used animals, they are required to take out a special license, to make a report whenever desired, it may be in the middle of their unfinished experiments, and these reports shall be made public. Moreover, the investigators must be subject at any moment to the visitations of hostile nonprofessional inspectors.

Finally, we notice that although a great deal is said about the qualifications of the applicants to do experimental work, there is nothing specified about the fitness of the inspectors who are to control such work. They are fairly certain to be utterly ignorant of all that would fit them to judge of the probable value of the experiments or qualifications of the investigator.

Some of the Queer Things about Christian Science.—It is not generally known that a majority of "Christian" scientists who have children do not permit them to be taught even the rudimentary principles of physiology. It is regrettable that the school-boards in some localities cater to the opinion of these sectarians and permit the children to be excused from the study of physiology upon the parents' written request. Recently, the 16-years-old male child of one of these poor heathen was sadly embarrassed by a conversation with some schoolmates in regard to recent geologic "finds" near the city in which he lives. The particular specimen under discussion was the femur of some prehistoric mammal. This boy, bright, sane, and reasonably well educated in other lines, did not know what a femur was, because, as he naively said, "You see, our folks are Christian scientists, and won't allow me to study anatomy or physiology; now don't you tell the other fellows, or they'll laugh at me." It is fortunate that the ignorance of the parents themselves is so dense that they will never think of putting the "taboo" upon the study of botany. It behooves physicians to insist upon instruction in botany and zoology in the higher grades of the public schools; through these studies a broader conception of the interrelationship of the animal and vegetable world will be inculcated, and children who are barred by bigotry from the direct road of knowledge as to their own bodies and lives will be enabled through indirection to gain a sufficient knowledge of the basic principles of life to keep them from an unreasoning acceptance of the dogmas of Mrs. Eddy.

Recently, in a Western city, an intelligent mining expert, whose wife had been cured of hysteria through an acceptance of "Christian" science, had a child who became sick with a sore throat. These were good people. They conducted family worship night and morning. They were conscientiously exact in holding themselves to the performance of their duties toward their neighbors and endeavoring to fulfil the requirements of the law. But they would have no doctor for the child. It was not sick; simply a belief in illness had taken possession of its mind. So for some days it went along from bad to worse, and then seemed to begin to improve. One night it complained greatly of weakness; it was given cold water, and then ran to get into bed; it fell dead. The undertaker was also the coroner of the county, and he gave them a certificate which certified that the child had died of typhoid fever; but the health-officers took cultures from the dead child's throat, and found that it had been really suffering from diphtheria, and that another child had the disease at the same time. But in view of all these facts the heart-broken mother and father cling to their belief in the delusions of the Boston prophetess. There is no death, therefore the child is not dead; there is no such thing as disease, therefore the other child was not sick.

And the slaughter of the innocents goes on.

A "Christian" scientist had an aged father-in-law. The aged man had a prostate. The prostate became enlarged. The aged man used a rubber catheter from time to time when attacks of retention occurred. He used the same catheter for years, keeping it during the

intervals rolled up in a flat, circular box. One night when he used it the catheter broke in two pieces, for it had become old and stiff, as rubber catheters and old men are apt to become. And the long end of the rubber catheter passed into the bladder of the old man. So the "scientist" sent for a surgeon; and the surgeon, after some days, found it necessary to perform an operation and extract the catheter. To the query, "Why did you send for me?" the scientist replied, "Surgery is different, you know; we believe in surgery." When you get down to the real facts of the belief of every professed believer in "Christian science" you will find that they will all send for a doctor when they are seriously ill or suffering pain. After the incident has passed, the delusion reasserts itself, and the excuse is made, "This case was different," or, "We had to satisfy our friends," "The doctor did nothing, anyway; it was faith that healed us." And the strange thing is, that the adult who will do this for the benefit of his own selfish, hypocritical body is mean enough and bigoted enough to kill his suffering child by neglect in order that the credit of his "cult" may not be lessened.

Is it not strange that a fire-insurance agent should be a believer in "Christian science"? What would he say to the business-man who argued that fire was merely more rapid vibration of molecules, or a figment of the imagination? What is burned up is not destroyed; it still exists; we simply are not able to appreciate it in its former shape. We have a belief that it is gone that is all.

The Dreadful Cigaret Again.—The Analytical, Sanitary Commission of the *Lancet* have had their attention drawn to the American cigaret by the extravagant and sensational reports of some of our trashy yellow journals, and in consequence have undertaken a careful analysis of numerous samples of cigarets. Their very careful analysis confirms the belief which has been held generally by most reasonable persons, that cigarets are not more harmful than tobacco in any other form, in fact, the small amount of tobacco contained in them makes them less harmful, unless large numbers of them are smoked. The allegation in regard to the presence of foreign poisonous materials in cigarets is shown to be entirely unfounded. The one poisonous material found was copper in the paper, and it was present in such minute amounts as to be harmless. The percentage of nicotin seldom exceeds 1%, while in other kinds of tobacco it may reach four times that amount. Another very interesting fact brought out is, that the popular idea that nicotin is the chief toxic body in tobacco is erroneous; the chief poisonous bodies in tobacco-smoke are related to the group of organic bases known to chemists as pyridins. However, as long as the poison is present it matters little what its name is. The *Lancet* Commission suggests that, if those who are so emphatically solicitous about the health of the young community, would turn their attention to the prevention of smoking among juveniles, much good would be done. It is doubtful, however, if the use of tobacco, by the young, will ever be stopped entirely by legal measures. No doubt the desire to smoke arises from the natural craving of the half-starved physical system for stimulation, for the use of tobacco, as well as other stimulants, is far more prevalent among those classes who are illy nourished because of insufficient and improper food, and who are living under unhygienic conditions. To get at the root of the evil it will be necessary to elevate the condition of the lower classes by teaching them good cookery, by the provision of proper hygienic conditions on the part of municipalities, and by forcing landlords to provide suitable tenements and see that they are kept in a decent and healthful condition. In addition to this, parents should know the injurious effect of narcotics of all kinds on the growing child, and use their influence to prevent their use, before much will be accomplished.

College Education and Medical Registration.—The Medical Council of Pennsylvania, following the example of New York and several other State examining boards, has recently passed the following resolution:

> *Resolved*, That in the certificates presented by candidates to the Medical Council, when applying for the rights of examination, which set forth the actual work done, it must be demonstrated that each of the several four full and complete years of legally required medical study has been devoted to the exclusive study of medicine, and does not embody or permit as an equivalent for the work of any one year of actual medical study such studies as are merely preparatory to the course of medicine, or phases of science which are not properly included in the regular medical curriculum.

It is evident that the result of this resolution will be to exclude from examination and registration all graduates from academic courses of colleges and universities who have sought to shorten the tedious course of study now demanded of those who take both academic and medical degrees, by taking such biologic and other studies during their academic course as have, in the past, been accepted by many medical schools as equivalent to a year of medical study.

The tendency of such an act is truly deplorable, for the added year of time and expense will surely influence many men to forego the advantages of a broader training and will turn from medicine many graduates of academic courses who are best fitted by education and intelligence to become the leaders in a learned profession. Few reasonable persons familiar with the students of our medical colleges will deny that the average graduate in arts or science is far better prepared to gain a thorough fundamental knowledge of medicine in three years than the student with High School training is in four years; and no one can fairly deny that the preparatory courses in chemistry, physiology, etc., in our colleges and universities are often more

thorough than similar courses in the average medical school. It by no means follows that the man who concentrates his entire energies in a narrow field is more likely to succeed than one who has gleaned knowledge from many sources.

The man who knows modern languages, higher organic chemistry, and vegetable physiology well, although he may not use them directly in medical practice, will make a better doctor because of his more highly trained powers of observation and reasoning. Neither the Marion Simses, Jenners, Virchows, nor the best of our village practitioners have been the product of a superficial training.

Centralization in Medical Educational Methods.—His opens a recent number of the *Deutsches Archiv f. klinische Medicin*, that was issued as a Festschrift in celebration of the one hundredth anniversary of the existence of the medical clinic in Leipsic, with an interesting history of the clinic. Curiously enough, the experiences in Leipsic were not unlike those of the present day in the various American medical colleges that are striving to give a higher type of medical education. Leipsic was not the most progressive of the German medical schools by any means. In fact, it was more than 200 years behind the times in giving clinical demonstrations at the bedside, and 150 years behind the first German university to copy this important procedure. Even Edinburgh preceded it by a good half a century. A group of men, however, led by Ernst Platner, and ably supported by the officials of the city, finally succeeded in persuading the city government to permit the use of the City Hospital for teaching purposes, but it required 14 years of adjustment to accomplish this result, and even then, from time to time, the jealousy of the city authorities interfered very seriously with medical teaching. The chief difficulty appears to have been the clash between the natural desire of the hospital authorities and of the university to appoint the Chief Attending Physician. It was of course necessary that the professor of medicine should be at the head of the medical department of the hospital, and it did not always happen that the two appointing bodies were of one mind. Some of the rules regarding instruction were far in advance of those in vogue in America today. The chief of the medical clinic was obliged to devote one hour daily to the instruction of the scholars at the bedside, and to demonstrate the symptoms of the invalid before their eyes, asking from time to time questions in order to determine how well the students understood what was being done. These students were required to take notes in Latin, which from time to time might be printed in that language. Whether they took notes in Latin or not is doubtful. It is certain, at any rate, according to His, that none of these notes were ever published. Another duty of the clinical teacher, which is nowadays transferred to another department, was to preside at any autopsies that should be made, and to demonstrate what had been found. The clinical instruction in surgery was, corresponding to the surgery at that time, carried out on a less thorough scale. Everything appeared to progress favorably until 1810, when August Clarus was elected professor of medicine. Clarus was an extraordinary man, of singular ability as a teacher, impetuous, dogmatic, and obstinate. For many years he appears to have been regarded as one of the foremost teachers in Germany, but he never could convince himself that there was anything valuable in the then rising French school of physical diagnosis, and refused to have anything to do with it, until Hasse reproached him with the assertion that "the sound of the percussing finger was not yet heard in the hospital wards, and no ear listened to the tictac of the heart-sounds that with their soft rhythm had made the old-time medicine totter." Finally, the criticism became so severe that Clarus, at the age of 74, was obliged to resign his chair, and the new school obtained the ascendancy. Apparently, the success of the medical school was intimately associated with the development of the City Hospital. As this increased in size, the Medical Faculty, thereby increasing, was able to attract more and more students. Wunderlich, who, in 1850, was appointed to the chair of medicine, started with a few dozen hearers. These increased rapidly until 1877, when there were 3,000 students in the Medical Department, and the number has since steadily increased. One great advantage possessed by the Leipsic University over our American medical schools is unquestionably the unity of Faculties and their undivided effort to improve themselves. Unfortunately, according to our methods of fostering independence of spirit in all things, every town, no matter what its size or the clinical facilities it may offer, possesses its medical faculty, and not rarely there are two, more frequently three, or even four and sometimes a dozen. As a result of this, the energies of different schools are sometimes devoted, not so much to their own development, as to preventing rivals from obtaining opportunities not possessed by themselves. Theoretically, the presence of several schools in one city should lead to a beneficial competition. Practically, the chief result may be a spirit of baneful criticism and political intrigue. A single medical faculty in such a city as New York or Philadelphia, for example, would in all probability easily control an amount of clinical material scarcely to be matched in Europe, and would of necessity make either of these cities among the leading medical centers of the world. It is unfortunate that such are the conditions, and it is regrettable that no efforts toward consolidation are likely to be of advantage under our present system of government, which grants charters to medical schools for the asking. It is only by centralization that educational institutions seem able to attain their highest perfection.

Suggestions to Writers, No. 52.—In Figures, or Spelled Out?—Writers of equally good judgment differ in their custom and advice in reference to spelling out numbers, or putting them in figures. All agree, however, in advising that numbers above 100 should be given in figures. In medical writings we are inclined to place the dividing line (under which to be spelled out) at 10, instead of 100. When giving statistical data so that other figures are collated in the same paragraph we would advise figures in all cases whatsoever. When but one or two items referred to, and requiring the numerical terminology, occur in a paragraph it is as well to spell out even in condensed scientific reports, especially numbers smaller than ten. But good taste and judgment must decide in all these matters, concerning which we do not believe in rigid rules. We would in certain cases think it perfectly right to break the old rule that figures should never begin a sentence. It would in the great majority of cases be in bad taste, but sometimes it would be just as ridiculous not to break the rule. A large majority of people desire to be bound by, or to bind themselves with, exceptionless rules. They have missed the best part of education, which is to have learned that the best rule in all cases is to make or to break rules according to reason, taste, and good common sense.

Editor and Reader, No. 28. A Word to Friends and Not-Friends, is not inappropriate at this season of retrospect and prospect. Two years ago the founders of the PHILADELPHIA MEDICAL JOURNAL acted upon the conviction that American medical journalism should be lodged in professional hands and conducted in accordance with professional aims. They promised to supply a weekly journal free from lay control or influence, the organ of no society, school, or sect, and containing a greater amount of scientific material than had previously been given for the subscription price. It is a simple statement of fact to say that the promises have been fulfilled. Despite all the prophets of evil, we have enlarged the JOURNAL as our income increased, until we are now giving two, three, or four times the amount of material offered by our lay competitors. The profession, recognizing the value of the offering, has responded in a most commendable manner, and the growth of our subscription list will speedily make even the present large editions too small to supply the demand.

As with all movements that succeed we realize that with the thousands of friends gained we have a baker's dozen or more who are not friends. The stories that come to us in letters from correspondents and from canvassers make one smile at the methods adopted of meeting a fair and open competition. One of the most zealously scattered of these may be stamped:—no medical book publisher or publishing house owns a dollar's worth of stock of our company, or in any business way controls or influences a stockholder. We find, moreover, that we have unintentionally been instrumental in reducing the price of some journals, and in increasing the amount of reading-matter, or bettering the quality of others—thus contributing toward progress indirectly as well as directly. Of some enemies we are proud, by others grieved. The anonymous letter-writer, of course, cannot be reached; his keen self-enjoyed malice cannot be thwarted, nor his evident errors corrected. His English and his morals are alike incorrigible. And with the rabids, argument would be wasted; in their own esteem they are superior in virtue and in intellect to those they criticise. There is, indeed, a remarkable lack of information as to methods and possibilities in journal-publishing. As to advertisements, despite most tempting bribes (often accepted later by others), despite intimidation and loss of conditioned offerings, we have not admitted a line of reading-notices to the scientific pages. Many thousands of dollars worth of objectionable advertisements have been refused, although they are not held to be objectionable by our best competitors.

And yet the good-will of advertisers has not failed, and the number of these pages is steadily increasing. Original articles from the best physicians of our own and other countries have been poured in upon us sufficient to fill continuously several such journals as our own; those for which our space was insufficient or which could not be held the requisite time to fulfil promises for space previously made to others have been returned with great reluctance. The good will and loyal helpfulness shown by thousands of friends and correspondents has given us unbounded confidence in the function and usefulness, and future of the JOURNAL.

As to the future,—the best guarantee is past accomplishment. Our plans for 1900 are so far assured of success that we are confident that in a year from now every subscriber to the PHILADELPHIA MEDICAL JOURNAL will be more than satisfied. We trust he may be grateful—in advance!

"Other Countries, Other Customs," is illustrated by an announcement that reaches us from Brussels, of the death of a physician. It is a striking document, about 12 x 16 inches in size, and with a border of deep jet black 1 inch wide. The letters used in printing the announcement are from the "job-office." The bereaved are the wife, the father, the father-in-law, the grandfather, the brother, the brother-in-law, and the uncle, as also several children; a paragraph is devoted to each, and one to the fact that "ils ont l'honneur de vous faire part de la perte douloureuse de leur Epoux, Père, Beau-Père, Grand-Père, Frère, Beau-Frère, et Oncle." The exact conditions of the relationships are not clear, but it is plain that there remains a reality and a truth in the expression, "the enjoyment and the luxury of grief."

The issue of January 6 will be a profusely illustrated special and enlarged number of 76 pages of reading-matter, devoted to the Röntgen-ray. So unexpected has been the response to our requests for articles from the leading investigators, surgeons, and clinicians of the United States, that almost the whole number of pages will be given to these noteworthy papers. The usual material of the regular departments thus, possibly, crowded out of the number, will be found in the issue of January 13. The monthly special number for February 3 will be composed of original contributions on the Surgical and Medical Diseases of the Stomach. The number of articles already received or promised justifies the assurance of a valuable gathering of recent advances made in this interesting specialty.

Instruction in Massage.—A correspondent asks us if there are any American medical colleges giving a course of instruction in the art and science of massage.

Correspondence.

DISSIMILAR EYES, AMBLYOPIA, CHOREA.

BY NORBURNE B. JENKINS, M.D.,
of Chicago.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

ON February 7, 1898, Miss ——, age 17, consulted Dr. D. H. Williams, Knoxville, Tenn., for chorea. The patient was well nourished and had a good family history. There was no material improvement with treatment by special and general tonics. School and studies were left off at the first manifestation of the trouble. After excluding other possible causes her physician advised an examination of the eyes.

August 6, 1898. R. V., $\frac{20}{160}$, L. V., $\frac{20}{160}$. The patient was surprised to learn that her distant vision was subnormal. Near vision of the right eye slightly blurred and less distinct than that of the left. The eyes had given no trouble with the exception of an occasional slight headache from overstudy. R.V., $\frac{20}{20}$* with —1.62 S., L. V., $\frac{20}{15}$ with —1.50 S. combined with —1.C. axis 107°. With these lenses the near vision of the right eye is slightly blurred and less distinct than that of the left.

August 8, 1898. Mydriatic used. With above lenses, R.V., $\frac{20}{20}$, L.V., $\frac{20}{15}$. Treatment of the amblyopia begun.

August 20, 1898. With above lenses, R.V., $\frac{20}{20}$+, L.V., $\frac{20}{15}$ and the near vision of the right eye is a trifle less distinct than that of the left. Without the lenses the near vision of either eye is the same.

August 31, 1898. With above lenses, R.V., $\frac{20}{15}$, L.V., $\frac{20}{15}$ and the near vision of either eye is the same. Without lenses, the near vision of the right eye, the amblyopic one, is a trifle better than that of the left. Patient dismissed with these instructions: Not to use the eyes for reading without the glasses; to wear the glasses outdoors or in public at her pleasure; to leave off school and studies for at least one year.

July 9, 1899. Contrary to instructions the patient entered a university, October 1, 1898, and took the regular course of study. The vision is unchanged since August 31, 1898. There has been no chorea and no change in patient's strength or appearance since treatment of the amblyopia was begun.

The type of amblyopia here mentioned was described in the New York *Medical Record*, Vol. liv. Many are affected with this amblyopia at some time of life and see better with one of the eyes than with the other, even with perfectly fitting glasses. In youth this trouble usually develops but slightly. In the aged, it is far more prevalent and in them the loss of vision is sometimes almost total. In this amblyopia but one eye suffers, as a rule, the better one, the less ametropic one. This type of amblyopia is usually caused by improper glasses, or by reading without glasses if the eyes are dissimilar, and heretofore has been masked by inaccurate methods of testing the eyes for glasses. Judicious treatment usually brings a cure.

HYDROSTATIC METHOD OF LOCATING AND MEASURING THE STOMACH.

BY A. L. BENEDICT, A.M., M.D.,
of Buffalo, N. Y.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

IN your issue of December 16 there is a letter by Dr. E. T. Rulison, advocating the hydrostatic method of locating and measuring the stomach. This method is frequently brought to the front and I have, once or twice before, reiterated the warning against it. Although there is nothing new, it is only right that this dangerous method should not be again presented to the profession without a protest. Given a perfectly normal stomach, with a tonic closure of the pylorus, the hydrostatic method will make it possible to outline the entire gastric area easily and quite accurately, though there will probably be some sagging of the stomach on account of the abnormal condition of weight and fulness, and to measure its capacity. Several years ago, I reported some experiments, made with safe quantities of water and during lavage as a means of treatment, showing that a loss of from 1000 to 1500 cc. of water usually took place. Although these experiments were made before the nonabsorption of water by the stomach was established by the Germans, I attribute the loss to escape through the pylorus, not to absorption, on account of the presence of rushing sounds at the pylorus, apparently indicating the passage of liquid into the intestine. It is quite impossible, practically, to determine when the stomach is filled, unless one uses a large excess of water and this, I have never dared do. The sensations of the patient—either of different patients or of the same at different times—afford inconsistent results and cannot be construed to indicate the actual fulness of the stomach. The stomach is so yielding that hydrostatic tests do not produce correspondingly accurate changes of level. The introduction of, say, 500 cc. of water into a stomach of normal tone, produces almost no sagging of the greater curvature, whereas a dilated or weak stomach or one in a condition of gastroptosis will sink appreciably. Otherwise, with larger quantities of water, the rise of level in the funnel is very variable, depending on obliquity or relative erectness of the stomach, the escape of water through the pylorus, the tension of gas in the fundus, respiratory movements, abdominal contractions, etc. In cases of ulcer, cancer, peritoneal adhesions, etc., it is distinctly dangerous to introduce more than about 1000 cc. of liquid. Whenever there is ptosis, atony, dilation, and similar conditions, though not positively dangerous, the introduction of large amounts of water defeats the object of local treatment, so that my rule is to use not more than 500 cc. at once. Percussion, especially auscultatory, or the use of the diaphane affords a much better idea of the gastric area.

* Some refactionists consider $\frac{20}{18}$ normal vision.

THE POINT OF VIEW OF AN ADVERTISING DOCTOR.

BY DOUGLAS W. MONTGOMERY, M.D.,
of San Francisco, Cal.
Professor of Diseases of the Skin, University of California.

To the Editor of THE PHILADELPHIA MEDICAL JOURNAL:—

"Le bon Dieu a des drôles de pensionnaires."

IT is certainly true that the Lord has some queer boarders, and while on a railway journey some time ago, I ran across one of them. He was a traveling oculist.

An elderly man with white hair thrown back from his forehead, and a long white beard, sat a few seats behind me in the car. He was loquacious, and as I passed him on my way through he remarked that a bridge which we had just crossed very slowly was dangerous. We afterward met in the smoking-room, where we became better acquainted. His white hair and beard, and good-humored face, gave him a very respectable appearance; his clothes rather detracted from this, however. He was dressed in a tall silk hat and broadcloth suit, but as the dyer's hand is subdued to what it works in so was his station in life betrayed by doubtful linen and flashy jewelry. A long, heavy gold chain, worn around his neck and falling over his vest, held his glasses; a similar one, somewhat lighter in weight, served as a watchguard and as a guard for a heavy piece of glass intended to represent a diamond. He also wore in his shirt-front an old-fashioned long pin studded with diamonds. He was very popular with himself, and appeared not at all evilly disposed to the rest of the world, provided he got what he called "jobs" enough to keep him in money. He frequently spoke of a patient as a "job," and "jobs" were evidently his joy and ambition

In speaking of a well known oculist of Montreal, he said he had lots to do, as "all the fellows of McGill sent him 'jobs.'" Afterward, in speaking of this same oculist, who happened to have made an unfortunate mistake in an operation, he praised him highly, and showed he had very little rancor or ill-feeling against his fellow man, at any rate when his fellow man did not directly interfere with him—he was just after what he considered his fair share of "jobs." While usually pleasant and genial, at times in speaking of "jobs" his face would darken in a way that reminded one that the vultures around Santiago went for the eyes.

Early in our acquaintance he told me his occupation, and pulling a torn, dirty, country newspaper from his hip pocket, proudly pointed to his "picture" and testimonials.

By gentle urging, he told me in a very short time more than I had ever before heard concerning advertisements. He said he was the oldest extensive medical advertiser in America, and was very vain of what he called his method. According to him all the others had copied his style, and what he seemed to regret was his inability to get an exclusive copyright. Everything was grist to his mill; bits of Scripture, scraps of poetry, anything to catch the eye. In fact he prided himself on his shrewdness in spotting things that would attract. He referred to women as the great readers of advertisements, and admitted that he could make himself very attractive to them in this way. He made it a rule, he said, to get church people, good people who had something, and not those light, frivolous fellows, those sons of Belial, who acquired bad diseases.

In looking over his testimonials I ran across two from ministers of the Gospel. He said that those from ministers were easy to get, and that one had recently recommended him from the pulpit. He doubted, however, the entire excellence of this kind of advertisement, because if the minister of one denomination praised him, the ministers and people of other persuasions began to look upon him with an evil eye. He himself was a Methodist, but was too broad-minded to allow his religious belief to interfere with his advertising business, and so always groomed his chances with all denominations. He said he had many enemies, principally the doctors, who, as soon as they saw he was curing his patients, "laid pipe" to run him out of town. In the last place he had been the doctors worked against him so that finally he had no patients at all; although he advertised reduced rates for treatment, no one would come to the office.

"But I never do anthing to my enemies," he said, "I always leave that to the Lord." "Vengeance is mine, saith the Lord."

Seeing that the old man was getting too high a style, and that nothing real would be got out of him if he kept aloft like that, I remarked that both England and America, although presumably taking the Bible as a guide, frequently took the Lord's work into their own hands, to their manifest advantage.

"Oh, well," he said, "if I undertook to down my enemies, I would have no time for anything else," and he punched me amicably in the ribs and chuckled, and, by the way, this punch and this chuckle were part of him, and frequent. There was one man, however, he had no patience with, and that was the man who had the same mode of advertising as himself, and got into a town before him and worked it out. One such fellow who had thus stepped down before him into the pool of Bethesda and had drawn out all the virtue, was of particularly bitter memory. Our willing worker said he staid in that town and showed everyone how this man had stolen his method of advertising, even to copying whole paragraphs. They both left town—one because he had already secured everything there was to be had, the other because there was nothing more to get.

He was particularly strong in curing blindness, and gave me a long and interesting account of that infirmity. He said that people spoke of it as being caused by atrophy of the optic nerve, but they did not consider what was the cause of this atrophy, which was in fact due to scum in the ventricles. I said I knew what the ventricles were, as I had seen them once; they looked like holes in Swiss cheese. Any case of blindness, and any other disease of the eyes, he would cure in three days.

As he was on his way to Detroit, the conversation naturally drifted to life in large cities. His difficulty here lay in so advertising as to attract the hurrying crowd, but a still greater difficulty was the opposition of the doctors when they found he was curing his cases and breaking up their business. A particularly hard place for one of his kind to squeeze into was the large retail district, the so-called "Magic Circle," in Chicago.

The large buildings in the business center of Chicago are crowded with doctors, who dispose of themselves in offices in a peculiar way. A number of rooms are arranged around a central waiting-room; these rooms are furnished, and even supplied with medical instruments, servants, and sometimes a nurse, by the company running the building. A typewriter sits at a desk in the central waiting-room, and receives messages, directs patients and answers questions. Many of these suites are beautifully furnished. A doctor may rent a room for an hour a day and then vacate for another, and so on; so that a great number are accommodated in a suite, say twenty or more. Such a group might, I suppose, be called a constellation, every star of which may be brilliant, but some naturally outshining their fellows in glory. An opportunity like this of getting "jobs" did not escape our elderly friend's thrifty eye, but the companies do not see it in this way; they wish men with steady practices, and those who can get along with one another without too much jarring. One or two such chaps as our friend would cause wonderful discord in the most orderly constellation.

Another thing which bothered him was the dishonesty of his patients. He would cure a man of blindness, for example, and then ten to one the man would protest that he could not see, and would not pay him. Another cause of worry was the way the newspapers got the money out of him. He said he could never get them to reduce their advertising rates, not one jot, by writing to them, but in a personal interview they would come down at least one third, and frequently one half.

We parted company as the train ran on the ferry at Windsor, where we had one of the most beautiful views in America—the river view of Detroit.

Idiocy in the Balearic Islands.—E. Fajarnes y Tur, in a recent number of the *Revista Balear de Scienc. Med.*, according to the *British Medical Journal*, compares the number of idiots in the Balearic Islands with that in Spain. He finds that both in the islands and in the town of Palma de Mallorca, just as in Spain and France, idiocy more commonly affected the male than the female sex, and that the number of cases of acquired idiocy was greater than that of congenital idiocy. The proportion of idiots in Spain was 0.54 per 1,000, in the Balearic islands it was 0.43 per 1,000, and in the town of Palma it was 0.63 per 1,000. The high percentage in Palma is ascribed specially to sociologic conditions.

Special Articles.

SOME RULES WHICH SHOULD BE OBSERVED BY EDITORS AND PUBLISHERS OF MEDICAL JOURNALS.

BY H. O. HALL,

Library, Surgeon-General's Office, U. S. A.

IT is well known to all writers for periodicals that certain rules are laid down by editors and publishers which must be observed by authors if they expect to have their contributions accepted and published. These rules are very just and proper, and no one questions the right of the editor to reject manuscripts which do not conform to the rules laid down. I am not aware, however, that any one has ever had the temerity to suggest the importance of laying down certain rules for the government of the editors and publishers themselves. They have a happy-go-lucky way of editing and publishing their journals according to the dictates of their own consciences, and no one dares to say them nay. That there is very great need for the establishment of some good, wholesome and uniform rules for the government of this independent and aristocratic class of public benefactors, I think I can clearly demonstrate. The sins which they commit are numerous, and yet I am sure they are more the result of thoughtlessness and carelessness than from pure viciousness. They have a great deal to answer for, however, and if they do not repent and turn from their evil ways, I am afraid that in the world to come they will have ample cause to regret their misdeeds in the society of librarians whose hopes of future happiness they were the means of wrecking, unconsciously no doubt, but none the less surely.

To the librarian, and the indexer of periodic medical literature, the necessity for a reformation among publishers and editors is more apparent than to the regular or casual reader. To the ordinary reader or subscriber of a monthly medical journal, for example, it is more agreeable than otherwise to receive a nice fat anniversary number of his favorite journal, twice the size of the regular issue, but to the librarian and the bookbinder such a monstrosity is a nightmare. The regular size of the journal, we will say, is octavo; for years it has been of that size, and the library shelf on which the entire series is filed is adjusted to accommodate volumes of octavo size. But, in celebrating some anniversary occasion, the publisher, to please his patrons, issues an "anniversary number" with great flourish of trumpets. This number he enlarges to a royal octavo, quarto or even a folio in size. When it reaches the library it becomes a "white elephant." It will not fit in on the shelf with its fellow numbers among the unbound periodicals, and when it is sent to the bindery with the rest of the volume, the bookbinder is at his wit's ends to know what to do with it. He may cut down the margin till there is nothing left, and still it is too large to bind in with the other numbers. It is too thick, even if he eliminates the advertisements, to fold down into an octavo. What shall he do with it? He will either have to make the entire volume of uniform size with the anniversary number, or else bind it separately. In neither case will it fit in its place with the other volumes of the set. He may possibly lay it on its side, or squeeze it in on top of the other volumes, if there is room, or stand it on its edge, letting it stick out beyond all the other volumes, or file it in another part of the library among the quartos, to be searched for whenever wanted. Any way you fix it it is a nuisance, and will be a nuisance to the end of time, or till the library is destroyed. How much better would it have been if the publisher had adhered to the regular size of his journal, and found vent for his exuberance in the addition of any number of "anniversary" pages of uniform size with the journal.

This same difficulty arises when either by reason of prosperity or adversity a journal changes its size—to a larger or a smaller—in the middle of a volume, or in fact at any time. It destroys the uniformity of the set and makes trouble all along the line in every library where it is kept on file. If it becomes imperative to change the size of a journal it should always be done at the beginning of a volume or a series, and at no other time.

CHANGE OF TITLE.

What has been said above in regard to changing the size of a journal, may be said with greater emphasis in regard to changes of title. This is another source of endless annoyance and trouble to the librarian. With very few exceptions there is not a medical journal in the entire list on file in the great Library of the Surgeon-General's Office, which has reached the age of puberty, that has not changed its title more or less frequently since the day of its birth. No one outside of a library has any conception of the annoyance and perplexity caused by these changes. One single instance out of hundreds of the same character will illustrate what I mean. Without desiring to make any invidious distinction, I will give as an example the very latest change of title which has come under my notice, that of the *North American Medical Review*, which changed title in October last to the *Medicus*. The *North American Medical Review* was the successor to the *Missouri Valley Medical Journal*. Now to give a complete history of the *Medicus*, showing all the changes of title, requires no less than 8 different entries in the catalog. Were it not for the amount of space it would take, it would be quite interesting, if not instructive, to give here a list of all these changes of titles.

But the matter of so many different entries to describe one journal is only a small part of the trouble caused by these frequent changes. It extends to the binder and the indexer of the journal under its various titles. The *North American Medical Review* ended with No. 9 of Volume VII, and the *Medicus* begins at No. 10 of Volume VII. How shall these journals be bound? is the question that puzzles the librarian. There are 9 numbers of Volume VII of the journal under the old title, and 3 numbers of Volume VII under the new title. It would not do to bind Nos. 10, 11, and 12 of Volume VII (*The Medicus*) with Nos. 1—9 of Volume VII (*North American Medical Review*). If you bind Nos. 10, 11 and 12 in one thin volume, it would not be correct to call it Volume VII of the *Medicus*, and if these 3 numbers are bound in with the 12 numbers of Volume VIII (supposing it completes Volume VIII without another change of title and volume), it could not be called Volumes VII and VIII. So the librarian is perplexed to know what to do.

But the trouble does not end here. The indexer has also a problem to solve. An article which began in No. 9 of Volume VII of the *North American Medical Review* is continued in No. 10 of Volume VII of the *Medicus*. How is he going to index an article which began in one journal and continues with consecutive pagination, number and volume of another journal? This same difficulty is liable to occur, and does often occur, when the title of any journal is changed. But, to still further complicate the matter, as if there was a studied effort to try to dethrone the reason of

the poor librarian, No. 11 of the *Medicus*, the second under the new title, comes out as Volume VIII, No. 11. The preceding number was No. 10, Volume VII, and all reference to its being a successor to the *North American Medical Review* is religiously omitted. So no one not acquainted with its previous erratic history will be able to tell whence it came or whither it goeth, or why it should be called Volume VII or VIII.

I have gone rather fully into the details of this one case, and it is by no means an extreme one, to show the great annoyance and trouble caused by the careless and flippant manner in which publishers change the titles of their journals without a moment's thought of the consequences to others.

Another constant source of trouble is the mistakes made in numbering the volumes and pages of journals. These are generally the blunders of the printer in making up the forms. But there is no excuse for them and they ought never to occur. Sometimes the volume is not changed at all at the beginning of a new year, and the old volume is allowed to run on perhaps through the year, thus making two volumes with the same serial number. Or a volume is skipped—Volume XI, for example, to give an instance now in mind, is by mistake changed to Volume XIII, instead of XII, and the following volumes are numbered XIV, XV, etc. So that Volume XII seems to be omitted from the set as it appears on the library shelf, when in reality there is no gap. In one journal which has been running many years, the volume has been changed every month for the past year and a half. The printer has merely mistaken the volume for the running number, notwithstanding the fact that the running number is given also in its proper sequence.

January, 1898, is called	Volume	LVI,	No.	1
February, 1898, "	"	LVII,	"	2
March, 1898, "	"	LVIII,	"	3

and so on for 20 consecutive months. Sometimes the mistake is discovered after several numbers have been printed bearing the wrong volume, but the indexer of the single numbers has no means of telling till the volume is completed, whether the volume will be changed or not, so he either has to leave the volume blank, or put on his index-card the volume given on each number, right or wrong. Mistakes in pagination give similar trouble to the indexer. As the Apostle says: "These things out not so to be." A little care and a little forethought would save a deal of trouble and perplexity.

So I think there should be laid down a series of rules for the guidance of editors and publishers, and I give herewith a few that suggest themselves to me without attempting to cover the entire ground, for "there are others" which might be added.

RULES FOR PUBLISHERS.

1. Never change the title of a journal if it can be avoided.
2. If a change of title is necessary, let it be made at the beginning of a volume.
3. Whenever possible let the change of title be made as a *sub-title.*
4. Never change the size of a journal in the midst of a volume—always at the beginning, and avoid such changes as much as possible.
5. Never publish a special number or a supplement of a size differing from the regular issue.
6. Before going to press be sure that the *volume*, the *number*, and the *pagination* is correct, and in proper sequence.
7. Whenever possible, begin and end a volume with the calendar year.
8. All journals which do not begin with the calendar year should state the period to be covered by the volume, *i. e.*, when the volume will end, so that the indexer will know whether to use the compound year or not. A journal begun in March, for example, may end its first volume in December, or it may run on until February, but this fact is never known until the volume is completed. Every number should state the volume and year covered, viz: 1899–1900, Volume I; or 1899, Volume I.
9. The volume, whole number, monthly number, place of publication, name and address of publisher and editor, should appear conspicuously upon every number of a journal. This would save a great deal of time in a library.
10. Advertisements should not be permitted among the reading matter in a medical journal. Many of the journals devote so much space to advertisements that it becomes necessary to omit them when the volume is bound, to avoid unwieldiness and expense in binding.
11. Begin each volume with a new set of paginations. Continuous pagination from one volume to another, or separate pagination for each single number is objectionable. Where each number is paged separately there is difficulty in finding a given page, for each number of the twelve has the same set of pagination. In such cases the journal has to be indexed by number as well as by page.
12. Every medical journal should issue an index with the last number of each volume. If no index is to be published, or if it is to be issued later, it should be so stated in the last number of the volume. Journals sometimes have to be kept on the unbound shelves one or more years, waiting for an index which may never come; and not infrequently an index comes after the volume is bound.

Of course, if medical journals are published merely to be read and then thrown in the waste basket, all these suggestions go for nothing. But such is not the case. They are bound and preserved, and by many libraries and physicians are indexed; hence the need of some uniform system governing their publication.

In conclusion, I take pleasure in saying that none of the remarks or suggestions heretofore made apply in the case of the PHILADELPHIA MEDICAL JOURNAL. It is a model medical journal, and a delight to the librarian.

STATISTICS OF THE LOOMIS SANATORIUM AT LIBERTY, N. Y.

FOLLOWING is the report of the different methods of treatment employed at the Loomis Sanatorium, at Liberty, New York, during the year ending November 1, 1899, and the results obtained thereby.

MEDICAL STATISTICS.

Patients in Sanatorium November 1, 1898	47
" admitted since " " "	98
	145
Patients in Sanatorium November 1, 1899	46
" discharged apparently cured	20
" " with disease arrested	10
" " improved	46
" " unimproved	17
" who died	6
	145

SUMMARY.

Apparently cured	20%
Disease arrested	10%
Improved	47%
Unimproved	17%
Deaths	6%

CONDITION OF PATIENTS WHEN ADMITTED.[1]

Incipient stage, without bacilli	15
" " with "	38
Moderately advanced stage	77
Far advanced stage	15
	145

CLASS NO 1. (Patients who remained three months or less in the Sanatorium.)

Condition When Admitted.		Condition When Discharged.	
Incipient stage, without bacilli	1	Apparently cured	3
" " with bacilli	12	Disease arrested	3
Moderately advanced stage	13	Improved	17
Far advanced stage	8	Unimproved	8
	34	Deaths	3
			34

CLASS NO. 2. (Patients who remained longer than three months in the Sanatorium.)

Condition When Admitted.		Condition When Discharged.	
Incipient stage, without bacilli	11	Apparently cured	17
" " with bacilli	11	Disease arrested	7
Moderately advanced stage	37	Improved	29
Far advanced stage	6	Unimproved	9
	65	Deaths	3
			65

GENERAL CONSIDERATION OF PATIENTS.

Number of patients whose sputum contained bacilli on admission	130
Number of patients whose sputum was free from bacilli on discharge	30
Number of patients who had hemorrhages before admission	43
Number of patients who had hemorrhages while at the Sanatorium	11
Number of patients who gained in weight	112
" " " " remained stationary in weight	16
" " " " lost weight	17
Average gain per week per patient	2 pounds.
" loss " " " "	1 pound.
Greatest monthly gain	17 pounds.
" " loss	8 "
" individual gain	35 "

During the year there were 82 infirmary patients. Of these, 18 were in the infirmary more than once.

SUMMARY OF CASES STILL IN THE SANATORIUM.

Bacilli disappeared in	2	cases.
" decreased in	16	"
Cough disappeared in	3	"
" decreased in	33	"
Physical signs improved in	36	"
Weight gained in	37	"
" stationary in	7	"
" lost in	2	"

TREATMENT.

The basis of treatment, as heretofore, has been climatic and hygienic in all cases. The climate of Liberty is well adapted to all forms of tuberculosis, as well as to many other troubles. The elevation, 2,300 feet, is within those limits generally conceded to be most advantageous for lung-troubles. Good results are attained both in winter and summer; the summers are cool and refreshing; the winters, being cold, dry and exhilarating, are thoroughly enjoyed by the patients, who make even greater progress during the cold season than in summer.

As stated in my last report, a few patients had, at that time, been treated with a new drug, called kalagua. This drug was first brought to the attention of the profession by a Belgian botanist, who reported some apparently very authentic cases which had shown great improvement from the use of this drug, in Colombia, South America. His statements were further substantiated by the President of the National Medical Society of that country. The drug was first placed in the hands of specialists in Belgium and one or two in this country. Its analysis, as made by a laboratory in Belgium, is as follows:

Water	8.51
Extract of ether	3.01
Albuminoids	22.19
Ashes	16.79
Cellular and extract matter not azote	49.43

Its antitubercle qualities are said to have been first discovered through cattle suffering from tuberculosis who, eating the leaves of the plant, were cured. Culture-products were also used experimentally in inoculation of horses and rabbits. From limited experiments it has been assumed: first, that kalagua is not toxic for dogs, rabbits, or horses. Second, that in tuberculosis it has an antiseptic power worthy of our attention. Other merits claimed by the advocates of this drug are, that it has no deleterious effects upon the alimentary canal, and small daily doses of the drug soon produce saturation of the patient, evidenced by the odor of the breath, urine, and perspiration. Kalagua has been used during the past year, in this Sanatorium, in 21 cases, and the table appended gives the results attained. While these results do not lead to the conclusion that kalagua is a specific for tuberculosis, it has proved itself to be a valuable antiseptic, and its use would seem to be indicated in certain cases. It has no deleterious effect, in the majority of cases, upon the functions of the stomach. Only small daily doses are required; nine grains seems to be the maximum.

NUMBER OF CASES TREATED, 21.

Condition on Admission.		Physical Signs.	
Incipient stage	2	Improved	14
Moderatety advanced	14	Stationary	
Far advanced	5	Unimproved	4
	21		21
Tubercle-Bacilli.		**General Condition.**	
Not present	1	Improved	14
Disappeared	1	Stationary	3
Decreased	10	Unimproved	4
Unchanged	9		
	21		21
Cough.		**Expectoration.**	
Decreased	16	Decreased	16
Stationary	5	Stationary	5
	21		21
Weight.		**Summary.**	
Gained in	14	Apparently cured	5%
Stationary in	3	Improved	62%
Lost in	4	Stationary	14%
	21	Worse	19%

We have continued throughout the year to use ichthyol in a number of cases showing sepsis and more or less profuse expectoration. The greatest objection to the use of this drug is that the immense daily doses, averaging from 20 to 30 grains three times a day, precludes its employment among patients whose financial means are at all limited. Its effect in the way of changing purulent sputum is so certain as to be almost specific, and for that reason, together with the percentages of good results attained, it has been used, as far as possible, in cases advanced beyond the incipient stage. The appended table shows the results attained from its use:

NUMBER OF CASES TREATED, 64.

Condition before Treated.		Physical Signs.	
Incipient stage	17	Improved	49
Moderately advanced	39	Stationary	7
Far advanced	8	Increased	8
	64		64

[1] *Incipient stage*:—Slight localized involvement of lung, with little or no constitutional disturbances.
Moderately adanced stage:—More general consolidation of lung, with constitutional disturbances and beginning of softening or single cavity.
Far advanced stage:—Softening and excavation, with marked constitutional disturbances.

Tubercle Bacilli.	
Not present	6
Disappeared	7
Decreased	34
Unchanged	17
	64

Cough.	
Decreased	53
Stationary	11
	64

Weight.	
Gained in	51
Stationary in	6
Lost in	7
	64

General Condition.	
Improved	51
Stationary	5
Unimproved	8
	54

Expectoration.	
Decreased	53
Stationary	11
	64

Summary.	
Apparently cured	17%
Improved in	63%
Stationary	8%
Worse	12%

The majority of incipient cases, however, have been treated with antitubercle-serum with very satisfactory results. The question naturally arises whether these incipient cases would have done as well under climatic, hygienic, and dietetic treatment without the serum as with it. However, from a close observation of cases so treated, in comparison with those dependent upon climatic influences alone, it would seem that there is a decided benefit derived from the use of serum. As I have stated in my two former reports, in cases cured under the administration of serum, the tubercle-bacilli disappear while sputum is still present; and the history of these cases, subsequent to leaving the Sanatorium, would seem to indicate that there has been for them a certain amount of immunity established.

NUMBER OF CASES TREATED, 35.

Condition Before Taking.	
Incipient stage	21
Moderately advanced	14
	35

Expectoration.	
Decreased	28
Unchanged	7
	35

Cough.	
Decreased	28
Unchanged	7
	35

Tubercle-Bacilli.	
Disappeared	5
None present	7
Decreased	13
Stationary	10
	35

Physical Signs.	
Improved	26
Stationary	6
Increased	3
	35

Temperature.	
Decreased	15
Unchanged	20
	35

Appetite.	
Improved	30
Unchanged	5
	35

Weight.	
Increased	30
Stationary	5
	35

Summary.	
Apparently cured	31%
Improved	44%
Stationary	17%
Worse	8%

Hot-air inhalations, as well as cold sprays from the multiple comminuter, have been of value in cases showing fetid expectoration or excessive cough; they also serve in a minor degree as lung gymnastics.

NUMBER OF CASES TREATED, 23.

Cough decreased in	13
Cough stationary in	6
Cough increased in	2
Treatment discontinued on account of blood-spitting	2
	23

Expectoration decreased in	15
Expectoration stationary in	8
	23

Static electricity has been used in a large number of cases with good results. It seems to act as a general tonic, and also assists in the assimilation of iron in anemic cases. As yet no efforts have been made at the Sanatorium to utilize cataphoresis in the treatment of pulmonary tuberculosis. It has, however, been used with some success in laryngeal ulcerations.

During the past year a very fair trial has been given to the nitrogen gas, or compression treatment, so highly recommended by Dr. Murphy, of Chicago. The results attained, however, at this Sanatorium, have not been such as to lead us to continue the use of this method of treatment excepting as a means of compression in prolonged cases of hemoptysis; in such cases it has proved itself of value, provided the pleural adhesions are not too extensive. From the moment of the injection of the gas into the pleura, and the consequent compression of the lung, the hemoptysis ceased in every instance.

Creasote has not been used during the past year, excepting in the form of a special pill which I had made, composed of:

Valerianate of creasote	½ m.
Ichthyol	2 gr.

The use of this combination has been begun too recently for me to make any report upon it.

The work in the throat department of this Sanatorium has continued to be interesting as well as satisfactory. Twenty-five cases have been treated, with the results indicated in the following table:

Number of cases treated	25
Number of cases discharged	16
Number of cases still in Sanatorium	9
	25

Infiltration and ulceration	7
Infiltration without ulceration	18
	25

CASES DISCHARGED.

Infiltration and Ulceration.		Infiltration without Ulceration.	
Healed	3	Cured	3
Improved	1	Improved	5
Unimproved	1	Stationary	3
	5		11

WEIGHT.

Gained	12
Stationary	2
Lost	2
	16

CASES STILL IN THE SANATORIUM.

Infiltratian and Ulceration.		Infiltration without Ulceration.	
Healed	1	Cured	2
Improved	1	Improved	3
		Stationary	2
	2		7

SUMMARY.

Apparently cured	36%
Improved	40%
Stationary	20%
Worse	4%

In comparing these figures with those of my last annual report, it is gratifying to note the following increase in good results attained: During the year ending November 1, 1898, 23% of the patients discharged had lost their tubercle-bacilli, while during the past year 30% of those discharged had no bacilli in their sputum. During 1898, 17% were discharged apparently cured of their disease, as against 20% apparently cured during the past year. During 1898, 7% were discharged with their disease arrested, while during the past year 10% of those dis harged had their disease arrested. It is interesting to note that of those patients discharged after a residence of three months or less in the Sanatorium 3% were apparently cured, while among those who remained longer than three months 17% were apparently cured, and 76% were sufficiently improved to return to their homes and resume their work.

American News and Notes.

PHILADELPHIA, PENNSYLVANIA, ETC.

Calendar of Meetings of Philadelphia Medical Societies, for the week ending January 6, 1900:

Monday, January 1—Academy of Surgery.
Wednesday, January 3—College of Physicians.
Thursday, January 4—Obstetrical Society.

Vital Statistics of Philadelphia for the week ended December 23, 1899:—

Total mortality		419
Diseases.	Cases.	Deaths.
Pneumonia 75, congestion of the lungs 5 . .		80
Pulmonary tuberculosis		54
Nephritis 23, uremia 9		32
Inanition 12, marasmus 8, debility 10 . . .		30
Heart-disease 23, fatty degeneration of the heart 3, neuralgia of the heart 3		29
Apoplexy 23, paralysis 6		29
Diphtheria 22, membranous croup 6	130	28
Carcinoma 17, tumor 1		18
Bronchitis		14
Casualties 8, burns and scalds 3		11
Convulsions 10, epilepsy 1		11
Gastroenteritis 8, cholera infantum 2		10
Inflammation of the brain 9, congestion of the brain 1		10
Scarlet fever	24	5
Typhoid fever	46	2
Cerebrospinal meningitis	2	0
Smallpox	1	0
Peritonitis 6, senility 5, diabetes 4, asthma 3, hemorrhage 3, poisoning 3, abscess 2, cyanosis 2, liver disease 2, influenza 2, pericarditis, 2, shock 2, suicide 2, ulceration of the stomach 2, dropsy 1, dysentery 1, intermitlent fever 1, cystitis 1, inflammation of the liver 1, intussusception 1, jaundice 1. measles 1, sclerosis 1, septicemia 1, suffocation 1, tetanus 1, gunshot wounds 1.		

College of Physicians of Philadelphia—Section on Ophthalmology.—At a meeting held December 19, DR. C. A. OLIVER described a case of **traumatic varix of the orbit** in which ligation of the left common carotid was successfully performed. The varix probably had its inception when the patient was 4 years of age, by an injury to his head received by being caught between two railroad cars, and was aggravated by a blow on his left eye 5 days before being seen. There was swelling of the lids, conjunctival edema, proptosis, almost complete immobility of the globe, and engorgement of the retinal veins. A temporal bruit could be heard. Transient pressure on the left common carotid caused the eye slowly to sink into place and the venous stasis in the iris and orbit to subside. Ligation of the vessel was made by Dr. T. S. K. Morton, resulting in immediate cessation of most of the symptoms. Five months later the eye was blind from secondary glaucoma, while all the early symptoms had disappeared. DR. DE SCHWEINITZ mentioned an analogous case of pulsating exophthalmos from varix in the cavernous sinus in which the exophthalmos and pulsation were controled by pressure. DR. RISLEY described a case with similar symptoms excepting neuritis. In his case an exploratory puncture of the orbit revealed a small orbital aneurysm.

DR. OLIVER, by the aid of 3 water-color sketches, showed three stages in the progression of **choroidal atrophy after traumatic rupture.** DR. SWEET showed that degeneration of the choroid follows within a month after rupture. DR. RANDALL demonstrated that the choriocapillary coat was the first of the choroidal layers to show changes.

DR G. C. HARLAND read a paper on **Prolapse of the iris after extraction of simple cataract,** and he believed that this accident is not as serious as many authorities consider it; that small hernias should be left alone unless they interfere with the closure of the wound; that treatment for large prolapses is prompt abscission, and in a certain number of cases replacement may be successful. DR DE SCHWEINITZ had had 3 prolapses in patients who remained in the bed in which they rested during operation, and many other cases of extraction when the patient had been moved from the operating room to a different part of the house and had suffered no prolapse. It would seem, therefore, that some other cause beside movement or restlessness on the part of the patient, such as inaccuracy in making the section, was more to be reckoned with. Delayed union of the edges of the wound did not favor prolapse and that adhesion of the iris to the lips of the wound might be the means of restoring the anterior chamber. DR. OLIVER offered the following conclusions: Hernia of the iris during operation favors prolapse; massage of the iris through the cornea and closed lids during the operation may prevent prolapse; the prolapsed iris should be replaced when the prolapse is fresh and no danger of infection, and excised when large or there is reason to suspect conjunctival sepsis.

NEW YORK.

State Sanatoria for Consumptives.—At the last stated meeting of the New York Academy of Medicine, a resolution was adopted recommending the establishment of both State and municipal sanatoria for consumptives.

Hours for Drug-Clerks.—An agreement has at last been reached between druggists and their clerks, as represented by well-known associations on either side. They have adopted the suggestion made in the Assembly last winter by Dr. Nelson H. Henry, to the effect that the exigencies of their occupation could be best met by requiring that drug-clerks work only 140 hours in any 2 consecutive weeks. According to the agreement, the clerks have the option of working 76 hours one week, and 64 the next week.

Health-Officer Receives a Warning.—Health-Officer Doty, of New York Harbor, has received an anonymous letter from Naples, declaring that among the steerage passengers of a certain steamer, scheduled to arrive in a few days, are a number of persons from districts in which the bubonic plague is prevailing, and who were smuggled aboard after rejection by the inspector of the United States Marine-Hospital Service. Dr. Doty is not inclined to lay much stress on the communication, but says great care will be taken when inspecting this particular vessel.

Ambulance Surgeons Hurt.—The ambulance of the Harlem Hospital and an electric car came into collision. Drs. Joseph Babcock and Emil Muller, who were on the ambulance at the time, were both injured, the former apparently receiving a fracture of the skull, and the latter having three ribs broken, besides receiving other minor injuries. This hospital seems to be particularly unfortunate in the matter of accidents to its ambulances. There have been similar collisions before, in which both ambulance and surgeon have suffered more or less severely.

St. Vincent's Hospital.—The suit of Miss Helen D. Ward against St. Vincent's Hospital to recover $30,000 damages for having been permanently crippled through the negligence of a nurse, has ended in a disagreement of the jury. The suit has been pending for a considerable time. Miss Ward became a private patient in the hospital in February, 1894, in order that her physician, Dr. William F. Lusk, might more conveniently perform some operation on her. Before she had recovered from the ether she was placed in the care of a pupil nurse, who had only received 9 months out of the 2 years' course of training. The nurse placed a hot-water bottle against the patient's limb without protecting the skin in any way, and, as a result, Miss Ward was severely burned, and has since been crippled. This was the second trial of the action, and the case was different from that of the purely charity patient in that she was a private

patient, and had paid the full price asked. The court held that it was for the jury to decide whether the act of supplying this patient with an inexperienced, and presumably incompetent nurse, constituted a sufficient ground for a charge of negligence and for the award of damages.

A Healer Declines a Test of His Powers.—The Rev. De Witt Talmage Van Doren, a Baptist minister in Norwalk, Conn., having gained for himself much notoriety by his assertions that he could cure by mental treatment "any disease, no matter what its character or cause," Dr. Joseph Collins, of New York, proposed that he be allowed to select a case of known and real disease, on which the reverend gentleman might then exert his healing powers. Dr. Collins included in his proposition an offer of $1,000 to Mr. Van Doren's church if the latter should succeed in curing the person by his method of treatment. Although assured that the offer was a bona fide one, Mr. Van Doren declined to be subjected to this seemingly fair test.

Selling Spectacles at Dispensaries.—It is alleged that many persons frequenting eye-clinics feel called upon to purchase gold-frame spectacles, and that the average charge for all kinds of frames is $2.50. Opticians on the "outside" charge that a "deal is made between the dispensary optician, and the dispensary-officers, and that, although ostensibly the work of supplying spectacles is let out to the lowest bidder, in reality it is nothing of the kind, the dispensary-optician charging from 50% to 60% higher than other opticians have bid. The dispensary authorities reply by saying that many of the opticians who made such low bids did not appear to them to be sufficiently reliable, and hence, the apparent discrimination in favor of the higher-priced man.

The Case of Duryea Less Encouraging.—Those who have taken an interest in the now well-known case of Walter B. Duryea, whose neck was broken while diving in shallow water last August, will be sorry to learn that his physicians no longer entertain any hope that he will recover the use of his limbs, and are disposed to think that he will slowly but steadily fail. He was operated upon September 19, and shortly afterward there seemed to be some ground for believing that he might at least improve. Since then, however, he has had pneumonia, and this was followed by a second operation on the spine. His neck is supported by plaster and a stout leather jacket, and he occupies a wheelchair, and is in good spirits and fair strength, but he occasionally exhibits slight mental aberration.

Premature Burials and a Novel Device.—At a meeting of the Section on Medicine of the New York Academy of Medicine, held December 19, Dr. Henry J. Garrigues presented a communication on premature burials, which was preliminary to the exhibition, for the first time in this country, of a remarkable device for communicating to the outside world the fact that a person has been buried alive. Dr. Garrigues made no secret of his belief that persons were not infrequently buried alive, and gave as his reasons, the many reported cases of narrow escapes from such a fate, the absence of any reliable sign of death except decomposition, the laxity of our laws regarding burial, and the carelessness of physicians concerning the certification of deaths. The apparatus exhibited is the invention of Count Michael de Karnice Karnicki, Chamberlain of the Emperor of Russia. It consists of a four-inch metallic tube communicating with the coffin, and a securely fastened metallic box at the upper or distal end of this tube, containing the signaling mechanism. Within the tube already mentioned is a lever connected with a trigger. Either a push or a pull on the lower end of this lever by the occupant of the coffin suffices to release the trigger, whereupon a large gilt ball is raised in the air, air and light are admitted to the coffin, and an alarm bell is made to ring continuously for half an hour. For those who do not think these means of communication sufficient, an arrangement is provided for discharging a sky-rocket and exploding a bomb. It is certainly reasonable to assume that by all these means combined it would be possible to attract the attention of even the phlegmatic caretakers of a cemetery, in the event of other and more impressionable human beings not being within earshot. At all events the apparatus does what is claimed for it, or at least it did it at the Academy, where the exhibitor had the trifling advantage of the assistance of a lively corpse in the coffin. When after a sufficient lapse of time the apparatus is no longer needed, the tube is pulled up out of the ground, and the apparatus is ready for application to another grave. The apparatus, it is said, cannot be tampered with from the outside, and the coffin remains sealed until the projecting rod is disturbed from inside the coffin. As soon as the apparatus is taken away, a ball-valve closes the opening in the coffin.

CHICAGO AND WESTERN STATES.

Dr. F. E. Auten, superintendent of the Asylum for the Criminal Insane at Chester, Ill., has tendered his resignation to Governor Tanner.

American Laryngological, Rhinological, and Otological Society.—The Western Section of the Society met in Denver, Colo., December 29 and 30.

Western Reserve University.—Mr. H. M. Hanna, of Cleveland, Ohio, has given to the University the sum of $12,000 to found a chair in medical jurisprudence in the medical department. Mr. and Mrs. Samuel Mather have also given $12,000 for the immediate use of the University in purchasing books for the library.

Chicago Medical Society.—At the meeting held December 20, DR. DANIEL H. WILLIAMS reported an unusual case of **Molluscum fibrosum** (this will be published in the JOURNAL), and exhibited the specimen. Dr. Williams also showed a case of **hernia of the bladder.** About 10 years ago the patient, after jumping over a high board fence, discovered a hernia on the right side, which gave him trouble at intervals for a few years afterwards. Two years after the appearance of the hernia in the right inguinal region, patient noticed the development of one on the opposite side. He had never had an affection of the bladder or of the urethra. The bladder and entire pelvic field were examined through the inguinal incision with a negative result. The bladder was rather thinner than usual and could easily be drawn three inches through the inguinal incision. Hernia of the bladder through the inguinal canal is rather rare, the literature on the subject being rather scanty. A third case reported by Dr. Williams was one of **Pregnancy complicated with large multiple fibroid tumors,** from a patient of 27 years. Supravaginal amputation was performed after the method of Kelly—the tumors, uterus, and ovary were removed in one mass, and the pelvic and uterine incisions covered with peritoneum.

Interesting cases of **brain-tumor** were reported by DR. HUGH T. PATRICK, and DR. O. MARTIN STEFFENSEN. DR. FENTON B. TURCK exhibited 4 patients, one with **periodic rumination** and **pyloric spasm.** The second case was one of **continual rumination with gastric myasthenia;** the third, **periodic vomiting of Leyden,** and the fourth, **habitual vomiting,** with interstitial gastritis, interstitial hepatitis, and chronic nephritis. DR. F. KREISSL gave (1) a **cystoscopic demonstration of chronic**

gonorrheal cystitis, and three gonorrheal ulcers, in a patient, 56 years old. The location of the ulcers was in the vertex of the bladder. (2) He also exhibited drawings of various types of **hypertrophied prostates** taken through the cystoscope.

DR. CARL WAGNER showed an extensive brain-tumor, **neuroglioma of the brain,** from a patient who had died with all the symptoms of an apopletic insult. Notwithstanding the great territory involved by the tumor mass, and the long existence of the tumor, the patient enjoyed fairly good health and complete cerebration almost to the end of her life. She manifested no symptoms of importance except toward the last few days before defunctionation.

SOUTHERN STATES.

Memphis (Tenn.) Medical Society.—At the last meeting, the following officers were elected for the ensuing year: President, Dr. E. C. Ellett; vice-president, Dr. E. A. Neely; secretary and treasurer, Dr. Edwin Williams; reporter, Dr. R. B. McKinney. The first annual banquet of the Society was held December 19.

College of Physicians and Surgeons, Baltimore, Md.—The new building, which has just been completed, was formally opened last week. Dr. Thomas Opie, dean of the faculty, presided, and made an address upon the history and progress of the college. Addresses were also made by Mayor Hayes, Dr. Charles F. Bevan, chairman of the building committee, Dr. Wm. H. Welch, of Johns Hopkins University. The new building is a 3-story edifice.

Dishonest Practices of County Undertakers.—E. D. and Frank Thompson, a Shelby County (Tenn.) undertaker and his brother, have been for some time selling the bodies of the pauper-dead turned over to them for burial. Most of the bodies were disposed of to a medical college in Keokuk, Ia., and to some colleges in Missouri. The undertakers, however, were apprehended in St. Louis, where, after trial, they were sentenced to pay a fine of $750, and to undergo imprisonment for 11 months and 29 days.

Dr. Wm. B. Canfield, of *The Maryland Medical Journal* of Baltimore, died December 26, at the Roosevelt Hospital, New York, where he had been a patient since his accident of November 28. Dr. Canfield was seen to fall to the pavement as he approached a house on West 72d street, and when taken to the hospital it was found that he had sustained a fracture at the base of the skull. For a time he seemed to improve, but several days ago his friends were informed that cerebral meningitis had developed and his life was despaired of.

MISCELLANY.

Mrs. Malaprop's report of the diagnosis as given last week to her (Philadelphia) physician, was that "the dear old man died from inflammation of the 'Pothecary's Gland."

Obituary.—DR. WILLIAM A. RUSSELL, Baltimore, Md., December 20, aged 65 years.—DR. JOHN H. PHARES, East Feliciana, La., December 10, aged 60 years.—DR. ROBERT NAYLOR, of Salisbury, Md., at Canon City, Colo., December 15.—DR. C. M. STOCKWELL, Port Huron, Mich., December 9, aged 76 years.—DR. JACOB K. KISTLER, Lehighton, Pa., December 9, aged 51 years.—DR. URIAH M. SHORT, Grand Rapids, Mich., December 13, aged 54 years.—DR. H. A. VOLKED, Buffalo, N. Y., December 11, aged 28 years.

Health-Reports.—The following cases of smallpox, yellow fever, cholera, and plague, have been reported to the Surgeon-General, U. S. Marine-Hospital Service, during the week ended December 23, 1899.

SMALLPOX.—UNITED STATES.

			Cases.	Deaths.
ILLINOIS:	Cairo	Dec. 8-16	2	
"	Chicago	Dec. 8-16	1	
INDIANA:	Allen County	Dec. 13	27	
"	Evansville	Dec. 8-16	1	
LOUISIANA:	New Orleans	Dec. 2-16	8	
"	Shreveport	Dec. 8-16	2	
MARYLAND:	Baltimore	Dec. 8-16	1	
MICHIGAN:	Benton Harbor	Dec. 7	Present.	
"	Benton Twp.	Dec. 7	"	
"	Carrolton Twp.	Dec. 7	"	
"	Detroit	Dec. 7	"	
"	Masonville	Dec. 7	"	
"	Watervliet Twp.	Dec. 7	"	
NEW YORK:	New York	Dec. 8-16	2	
PENNSYLVANIA:	Pittsburg	Dec. 8-16	1	
TENNESSEE:	Nashville	Dec. 8-16	2	
UTAH:	Salt Lake City	Dec. 8-16	1	
VIRGINIA:	Portsmouth	Dec. 8-16	10	2

SMALLPOX.—FOREIGN.

BELGIUM:	Antwerp	Nov. 16-Dec. 2	8	7
BOHEMIA:	Praguc	Nov. 18-25	20	
CANADA:	Ontario	Oct. 30-Nov. 28	120	
COLUMBIA:	Barranquilla	Nov. 25-Dec. 2	5	
ENGLAND:	London	Nov. 25-Dec. 2	1	
FRANCE:	Marseilles	Nov. 27-Dec. 4		9
GREECE:	Athens	Nov. 18-Dec. 2	8	2
INDIA:	Bombay	Nov. 15-21		7
"	Madras	Nov. 4-10		1
JAPAN	Osaka and Hiogo	Nov. 11-16	1	
MEXICO:	Chihuahua	Dec. 2-9		8
"	C. P. Diaz	Nov. 20-Dec. 10	1	1
"	Monclova	Nov. 20-Dec. 10	6	1
"	Progresso	Nov. 20-Dec. 10	20	
"	Sabinas	Nov. 20-Dec. 10	17	3
"	San Felipe	Nov. 20-Dec. 10	22	16
"	San Juan de Sabinas	Nov. 20-Dec. 10	7	
"	Vera Cruz	Dec. 7-14		2
RUSSIA:	Odessa	Nov. 18	3	
"	St. Petersburg	Nov. 18-Dec. 2	18	
"	Warsaw	Nov. 18-25		4
SPAIN:	Coranna	Nov. 18-Dec. 2	4	3
STRAITS SETTLEMENTS:	Singapore	Oct. 7-28		51

YELLOW FEVER.—FOREIGN.

COLUMBIA:	Panama	Dec. 4-12	6	1
CUBA:	Havana	Dec. 2-9	10	2
MEXICO:	Vera Cruz	Dec. 7-14		3

CHOLERA.

INDIA:	Bombay	Nov. 14-21		2
"	Calcutta	Oct. 14-28		8

PLAGUE—FOREIGN.

CHINA:	Hongkong	Nov. 4-11	19	19
INDIA:	Bombay	Nov. 14-21		110
"	Calcutta	Oct. 12-28		60
"	Kurrachu	Nov. 11-18	6	6
JAPAN:	Osaka and Hiogo	Nov. 11-18	1	

Antivivisection. Senate Bill 34.—We have had so many inquiries concerning this Bill that we reproduce it in full. Mr. Gallinger introduced it December 6, 1899; it was read twice and referred to the Committee on the District of Columbia. It is entitled:

A BILL

For the further prevention of cruelty to animals in the District of Columbia.

Be it enacted by the Senate and House of Representatives of the United States of America in Congress assembled, That hereafter no person shall perform on a living vertebrate animal any experiment calculated to give pain to such animal, except subject to the restrictions hereinafter prescribed. Any person performing or taking part in performing any experiment calculated to give pain in contravention of this Act shall be guilty of an offense against this Act, and shall, if it be the first offense, be liable to a penalty not exceeding one hundred and fifty dollars, and if it be the second or any subsequent offense, shall be liable, at the discretion of the court by which he is tried, to a penalty not exceeding three hundred dollars, or to imprisonment for a period not exceeding six months.

SEC. 2. That the following restrictions are imposed by this Act with respect to the performance on any living vertebrate animal of an experiment calculated to give pain to such animal; that is to say:

(*a*) The experiment must be performed with a view to the advancement by new discovery of physiological knowledge or of knowledge which will be useful for saving or prolonging life or alleviating suffering; and

(*b*) The experiment must be performed by a person holding such license from the Commissioners of the District of Columbia as in this Act mentioned, or by a duly authorized officer of the Government of the United States, or of the District of Columbia; and

(*c*) The animal must, during the whole of the experiment, be completely under the influence of ether or chloroform sufficiently to prevent the animal from feeling pain, excepting only that in so-called inoculation experiments or tests of drugs or medicines, the animal need not be anesthetized nor killed afterwards, nor in tests of surgical procedure need animals be kept completely anesthetized during the process of recovery from the surgical operation. Otherwise than this the animal must be kept from pain during all experiments; and

(*d*) The animal must, if the pain is likely to continue after the effect of the anesthetic has ceased, or if any serious injury has been inflicted on the animal, be killed before it recovers from the influence of the anesthetic which has been administered; and

(*e*) No experiment shall be made upon any living creature, calculated to give pain to such creature, in any of the public schools of the District of Columbia; provided as follows, that is to say:

First. Experiments may be performed under the foregoing provisions as to the use of anesthetics by a person giving illustrations of lectures in medical schools, hospitals, or colleges, on such certificate being given, as in this Act hereafter mentioned, that the proposed experiments are absolutely necessary for the due instruction of the persons to whom such lectures are given, with a view to their acquiring physiological knowledge or knowledge which will be useful to them for saving or prolonging life or alleviating suffering; and

Second. The substance known as urari or curare shall not, for the purposes of this Act, be deemed to be an anesthetic; and

Third. Notwithstanding anything in this Act contained, no experiment calculated to give pain shall be performed on a dog or cat, except upon such certificate being given, as in this Act mentioned, stating, in addition to the statements hereinbefore required to be made in such certificate, that for reasons specified in the certificate the object of the experiment will be necessarily frustrated unless it is performed on an animal similar in constitution and habits to a cat or dog, and no other animal is available for such experiment; and an experiment calculated to give pain shall not be performed on any horse, ass, or mule, except on such certificate being given, as in this Act mentioned, that the object of the experiment will be necessarily frustrated unless it is performed on a horse, ass, or mule, and that no other animal is available for such purpose; and

Fourth. Any exhibition to the general public, whether admission be on payment of money or gratuitous, of experiments on living animals calculated to give pain shall be illegal.

Any person performing or aiding in performing such experiment shall be deemed to be guilty of an offense against this Act, and shall, if it be the first offense, be liable to a penalty not exceeding one hundred and fifty dollars, and if it be the second or any subsequent offense, shall be liable, at the discretion of the court by which he is tried, to a penalty not exceeding three hundred dollars, or to imprisonment not exceeding six months; and any person publishing any notice of any such intended exhibition by advertisement in a newspaper, placard, or otherwise, shall be liable to a penalty not exceeding ten dollars.

A person punished for an offense under this section shall not for the same offense be punishable under any other section of this Act.

SEC. 3. That the Commissioners of the District may insert, as a condition of granting any license, a provision in such license that the place in which any such experiment is to be performed by the licensee is to be registered in such manner as the said Commissioners may from time to time by any general or special order direct: *Provided*, That every place for the performance of experiments for the purpose of instruction shall be approved by the said Commissioners, and shall be registered in such manner as the said Commissioners may from time to time by any general or special order direct.

SEC. 4. That the Commissioners of the District, upon application as hereinafter prescribed, may license any person whom they may think qualified to hold a license to perform experiments under this Act: *Provided only*, That a license shall not be granted to any person under the age of twenty-five years, unless he be a graduate from a medical college, duly authorized to practise medicine in the District of Columbia.

SEC. 5. That the Commissioners of the District may direct any person performing experiments under this Act from time to time to make reports to them of the methods employed and the results of such experiments, in such form and with such details as the said Commissioners may require.

SEC. 6. That the President of the United States shall cause all places where experiments on living vertebrate animals are carried on, in the District of Columbia, to be, from time to time, visited and inspected without previous notice for the purpose of securing compliance with the provisions of this Act: and to that end shall appoint four inspectors, who shall serve without compensation, and who shall have authority to visit and inspect the places aforesaid, and who shall report to the President of the United States from time to time the results of their observations therein, which shall be made public by him.

SEC. 7. That any application for a license under this Act, and for a certificate to be given as in this Act mentioned must be signed by three physicians duly licensed to practise and actually engaged in practising medicine in the District of Columbia, and also by a professor of physiology, medicine, anatomy, medical jurisprudence, materia medica, or surgery in the medical department of any duly established reliable school or college in the District of Columbia: *Provided*, That when any person applying for a certificate under this Act is himself one of the persons authorized to sign such certificate, the signature of some other of such persons shall be substituted for the signature of the applicant.

A certificate under this section may be given for such time or for such series of experiments as the persons signing the certificate may think expedient.

A copy of any certificate under this section shall be forwarded by the applicant to the Commissioners of the District, but shall not be available until one week after a copy has been so forwarded.

The Commissioners of the District may at any time disallow or suspend any certificate given under this section.

SEC. 8. That the powers conferred by this Act of granting a license or giving a certificate for the performance of an experiment on living animals may be exercised by an order in writing, under the hand of any judge of a court of record having criminal jurisdiction in the District, in a case where such judge is satisfied that it is essential for the purpose of justice in a criminal case to make such experiment.

Changes in the Medical Corps of the U. S. Army

for the week ending December 23, 1899:

GARRETT, NEVIL M., acting assistant surgeon, now at the U. S. general hospital, Presidio, is granted leave for 11 days.

HENDRICKSON, W. M., acting assistant surgeon, is granted leave for 1 month.

REAGLES, JAMES, acting assistant surgeon, will proceed to Fort Wrangle for temporary duty during the absence on leave of Acting Assistant Surgeon W. M. Hendrickson. Upon completion of this duty Acting Assistant Surgeon Reagles will return to his proper station, Vancouver Barracks.

GREGORY, VERDO D., acting assistant surgeon, is assigned to duty on the transport "Victoria" during the voyage of that vessel to the Philippine Islands. Upon arrival in Manila he will report to the commanding general, department of the Pacific, for instructions.

MCARTHUR, ARTHUR W., acting assistant surgeon, is assigned to duty with troops on the transport "Sherman." Upon arrival in Manila he will report to the commanding general, department of the Pacific, for instructions.

CROSS, WILLIAM A., hospital steward, is assigned to duty with troops on the transport "Sherman." Upon arrival in Manila he will report to the commanding general, department of the Pacific, for instructions.

OATES, WILLIAM HENRY, acting assistant surgeon, is assigned to duty with troops on the transport "Sherman." Upon arrival in Manila he will report to the commanding general, department of the Pacific, for instructions.

EDWARDS, WILLIAM, hospital steward, will be relieved from further duty in the division of Cuba, and will proceed to Jackson Barracks for assignment to duty.

BISPHAM, W. N., acting assistant surgeon, is granted leave for 30 days, with permission to leave the island of Cuba.

MACREADY, JOHN H., is granted leave for 30 days, with permission to go beyond the limits of Cuba.

A board of medical officers is appointed to meet, January 3, at the office of the chief surgeon, headquarters department of California, San Francisco, Cal., for the examination of officers of the medical department, for promotion. Detail: Colonel WM. H. FORWOOD, acting surgeon-general; Major ALFRED C. GIRARD, surgeon; Major ROBERT J. GIBSON, surgeon.

EVERTS, Captain EDWARD, assistant surgeon, will report to Colonel Wm. H. Forwood, acting surgeon-general, president of the examining board at San Francisco, Cal., for examination for promotion.

A board of medical officers is appointed to meet, January 3, at the Army Medical Museum Building, Washington, D. C., for the examination of officers of the medical department, for promotion. Detail: Colonel DALLAS BACHE, acting surgeon-general; Major EDWARD C. CARTER, surgeon.

WAKEMAN, Captain WM. J., assistant surgeon, will report, January 3, to Colonel Dallas Bache, assistant surgeon, president of the examining board at the Army Medical Museum Building, Washington, D. C., for examination for promotion.

STEPHENSON, Captain WM., assistant surgeon, will report, January 3, to Colonel Dallas Bache, assistant surgeon, president of the examining board at the Army Medical Museum Building, Washington, D. C., for examination for promotion.

POLHEMUS, Captain ADRIAN S., assistant surgeon, will report, January 3, to Colonel Dallas Bache, assistant surgeon, president of the examining board, at the Army Medical Museum Building, Washington, D. C., for examination for promotion.

GEDDDINGS, E. F., acting assistant surgeon, having surrendered the unexpired portion of his present leave, is relieved from further duty in the division of Cuba, and will proceed from Charleston, S. C., to Fort Wood.

CHMELICEK, JOSEPH B., acting assistant surgeon, is relieved from further duty in the department of California, and will proceed from Fort Winfield Scott to New York City for annulment of his contract.

LYON, EDWARD JR., acting assistant surgeon, leave is extended 1 month.

CALHOUN, WM. W., acting assistant surgeon, will proceed from Washington, D. C., to San Francisco, Cal., and report to the commanding general, for assignment to duty.

MUNSON, Captain EDWARD L., assistant surgeon, in addition to his present duties at Washington Barracks, D. C., is assigned to duty as commanding officer of the hospital corps company of instruction at that post.

THOMAS, JOHN W., acting assistant surgeon, is relieved from further duty at Key West Barracks, Fla., and will proceed to Fort McPherson, for temporary duty.

GONZALES, STEPHEN M., acting assistant surgeon, will proceed from New York City to Pensacola, Fla., for annulment of his contract.

Changes in the Medical Corps of the U. S. Navy for the week ended December 23, 1899 :

WHEELER, W. M., passed assistant surgeon, detached from duty at the naval hospital, New York, and ordered to the "Vermont."

DUNN, H. A., assistant surgeon, detached from Port Royal Naval Station on reporting of relief, and ordered home and to wait orders.

ELLIOTT, M. S., assistant surgeon, detached from the "Vermont," on reporting of relief, and ordered to duty at the Port Royal Naval Station.

DAVIS, E., assistant surgeon, ordered to duty at the naval hospital, New York.

BELL, W. L., assistant surgeon, detached from the "Independence," December 31, and ordered to the island of Guam on the "Scindia."

PERCY, H. T., surgeon, ordered to the Norfolk Navy Yard. January 4.

AMES, H. E., surgeon, detached from the Norfolk Navy Yard, on reporting of relief, and directed to proceed home and to be ready for orders to sea service.

(Changes by cable from the Asiatic Station.)

PERSONS, R. C., medical inspector, detached from the "Baltimore" and ordered to the "Brooklyn."

HARMON, G. E. H., medical inspector, detached from the "Brooklyn" and ordered to the "Baltimore."

NORTON, O. D., surgeon, detached from the "Solace" and ordered to the "Monadnock."

LOWNDES, C. H. T., passed assistant surgeon, detatched from the "Princeton" and ordered home.

STOUGHTON, J., passed assistant surgeon, detached from the "Monadnock," and ordered to the "Bennington" via the "Solace."

LANGHORNE, C. D., assistant surgeon, detached from the "Monterey" and ordered to the "Princeton."

Foreign News and Notes.

GREAT BRITAIN.

The new building of the Royal London Ophthalmic Hospital in the City Road is now open for patients.

Dr. Nestor Tirard has been appointed to the chair of medicine at King's College, London, in the place of Dr. Burney Yeo, who has resigned. Dr. Tirard is best known as a pharmacologist, and is largely responsible for the editing of the *British Pharmacopeia*.

The Bradshaw Lecture of the Royal College of Surgeons of England was delivered on Wednesday, December 13, by Mr. H. G. Howse, vice-president of the college, who took as his subject a centennial review of surgery. Mr. Howse's was a good address, but these resumes of the progress of medical science in the nineteenth century have been too common. Moreover, the century in which we are does not end till the last day of 1900, a detail which seems to have escaped most English medical men in their presidential addresses of 1899.

Professor W. R. Smith, who is medical officer to the London School Board, has delivered certain addresses, known as the Harben Lectures, upon diphtheria, in which he attempted to controvert the view, usually held by persons who have studied the subject, that the most potent factor in the spread of diphtheria in London is school-attendance. Professor Smith put forward as the real factor age-incidence, but as a matter of fact this theory and others have been blown sky high by the absolutely convincing figures and reports of Mr. Shirley, the medical officer to the London County Council. No one can read Mr. Murphy's report to the Council without seeing that the spread of diphtheria is largely due to school-attendance.

Free medical attendance for the families of those who are fighting in South Africa will be organized in Great Britain on a large scale. A circular has been issued to the secretaries of all branches of the British Medical Association in the United Kingdom, inviting them to organize within the area of their branches such a scheme of gratuitous medical attendance. Replies were immediately received from 27 out of the 37 branches, in favor of the movement. Of the others, 3, probably Irish, as a large portion of Ireland is sympathetic to the Boer cause, refuse to cooperate, while one or two are thinking the matter over, and the rest reply that such free medical service is always being given by the local medical profession on their own initiative.

The St. John Ambulance Brigade and the Transvaal War.—The St. John Ambulance Brigade has done and is doing excellent service to the War Office in the severe conflict now being waged in South Africa. The first call on the Brigade for volunteers was received from the War Office on November 3, when 23 picked men were sent to headquarters ; on November 20, 55 more were requisitioned ; and on November 29, a further number of 28 were asked for. In every case the Brigade sent the volunteers within a few hours of the country's demand for their services. Now the Brigade **consists of volunteers,** trained and selected out of the St. John Ambulance Association, after an examination in voluntary ambulance work, conducted by medical men, whose services are also given. The Brigade are almost without exception men who are earning good wages in respectable positions, and the pay that they will receive as a portion of the British Field Force will not amount in most cases to half their usual remuneration. It will be seen therefore that the Brigade has good cause to be proud of the patriotic spirit of its members, who at considerable pecuniary loss respond at once to the War Office's call of need.

Leicester and Vaccination.—"The quarrel between Leicester and the Local Government Board has reached a funny stage now," says a frequent correspondent writing upon December 16. "It will be remembered that the guardians, who are elected almost to a man upon an antivaccination ticket, decided that they would nullify, so far as Leicester was concerned, the Vaccination Acts by simply not appointing a vaccination-officer. The Local Government Board went to law on the point, and the guardians were told by the judges that they could do their legal duty or go to prison until they did. The guardians at first declared that they would willingly be imprisoned for conscience' sake, but as the fatal day drew near they repented and appointed a vaccination-officer. There was some legal formality to be gone through to make their submission formal, when it leaked out that the vaccination-officer appointed was himself an antivaccinationist who had gone to prison rather than have his own children vaccinated. The judge said that such an appointment on the part of the guardians was paltering with the court, and gave five more days in which to find a suitable person, at the end of which time failing obedience they will go to prison." The guardians of Leicester seem to have come off second best in every respect in their little attempts to defy the law.

The Decrease in Lead-Poisoning in England.—The working of recent legislation in England, which has been largely the outcome of medical energy, has resulted in a noteworthy decrease of cases of lead-poisoning in the china and earthenware manufactories of the country, and it is

highly satisfactory that this alleviation of misery is most conspicuous among women and children. The fact is strong evidence that the medical examination of operatives now employed in the potteries has had excellent results, for such medical examination is only as yet compulsory with respect to women and children. It is now announced by the British Home Office **that all workers in lead, irrespective of their age or sex,** are to be made subject to medical examination, if the innovation have found favor—as on all common grounds of humanity it should do—with the manufacturers generally. Also the Home Office, with a view of discouraging the use of lead glazes, which are now believed to be of no marked superiority to other glazes, have offered to relax some of the special rules of the Factory Acts in favor of manufactories where leadless glazes are in use. Moreover, the use of lead which is not "fritted" will shortly become illegal, while "fritted" lead will have to conform to a certain standard of safety. In short, owing to medical evidence, the enormous china and earthenware trade of Great Britain, hitherto among the deadliest of occupations to the hands employed, is likely to become a comparatively safe livelihood by the abandonment of the time-honored and pernicious use of lead.

The results of operation in perforating gastric ulcers were well shown in a paper read by Mr. A. E. Barker, one of the surgeons to University College Hospital, at a recent meeting of the Clinical Society of London. Mr. Barker has been called upon to operate for the relief of 12 cases of perforating gastric ulcer in the course of the last year or two, and as all the cases were treated as nearly as possible under the same conditions an opportunity of learning some general lessons from their results was afforded. Five out of the 12 were saved by the operation and 7 died. Of the fatal cases, 2 lived for a fortnight, 1 of whom died from pneumonia following a subphrenic abscess, and the other succumbed to a return of hemorrhage. Ten of the 12 patients were females, and 2 males, both of whom died, 1 of these being the case of recurrent hemorrhage alluded to above, who lived 14 days, and the other being a case in which operation was not performed until 72 hours after symptoms of perforation were recognized. Mr. Barker said that study of these 12 cases, and of others, showed that gastric ulcer could exist for a long time without causing any evident symptoms, which was particularly unfortunate, as early recognition of the occurrence of perforation, rendered so much more likely by the existence of a correct diagnosis, counted enormously in the success of the operation. The average length of time between perforation and operation in his 5 successful cases was 11¾ hours—the shortest time being 6½ hours, and the longest 18 hours; whereas in the 7 fatal cases the average length of time between perforation and operation was 30½ hours—the shortest time being 28 hours, and the longest 77 hours.

CONTINENTAL EUROPE.

Medical Students at the University of Budapest.—The fact that a medical career does not appear very tempting in Hungary is best shown by the steady decrease in the number of medical students. The number of young men entering on the study of medicine in Budapest was 219 in 1890, 165 in 1891, 177 in 1892, 187 in 1893, 170 in 1894, 150 in 1895, 111 in 1896, 131 in 1897, 126 in 1898, and 117 in 1899.

University of Giessen.—Geheimer Medicinalrath Prof. Dr. Bose, for many years director of the medical clinic of the University of Giessen, is compelled by Bright's disease to resign his position. Awaiting the formal resignation, and the appointment of a successor, Prof. Poppert takes charge. Prof. Poppert has for some time taken charge of a great part of the work, and it is expected that he will be appointed Prof. Bose's successor.

Prize for Research in Tropical Medicine.—The Faculty of Medicine of the University of Edinburgh, having been presented with a prize of the value of $125 for research in tropical medicine, has determined that the prize shall be open for the competition to students of medicine or graduates in medicine of not more than two years' standing; that competing essays shall be given in on or before April 30, 1900; and that any essay containing original scientific or literary research on tropical disease shall be eligible for competition. The following are suggested as appropriate subjects of research, in order to aid candidates in their selection of a subject: (*a*) Investigation on the conditions producing attenuation and exaltation in the activity of plague-virus and the relation of such changes to the symptoms of plague in man; and (*b*) the bearing of meteorological conditions on the incidence of tropical disease.

University Appointments.—The Faculty of Medicine of Cadiz: Dr. Pedro Ramon Cajal, professor of clinical obstetrics and gynecology in the Faculty of Medicine of Saragossa, has been appointed professor of histology and pathologic anatomy.—BRUSSELS: Dr. Spehl has been appointed professor of general pathology, and Dr. Demorr, professor of general physiology.

Experiments with the Diazo Test.—According to the *Lancet* this test, which was first introduced as a clinical method by Dr. Ehrlich in 1882, has since that time been the subject of much controversy among writers on medical subjects. Dr. Hoenig, of Budapest, who had tried this urine-test in a series of patients suffering from typhoid fever, has come, after careful study, to the following conclusions: (1) The diazo test might be found positive occasionally in different diseases, but in typhoid fever it is always positive; (2) the degree of the reaction is independent of the patient's temperature and seems to be in close connection with the state of the bowels; (3) an increased degree of the reaction may be taken as the sign of increased danger for the patient; (4) if the test turns out negative in patients where it had been positive one may foretell an improvement in the symptoms at a time when there are as yet no other signs of it; and (5) this test is more easily carried out and more pathognomonic of typhoid fever than the test of Gruber-Widal.

Italian Studies in Malaria.—The Marchese Giustino Fortunato, a member of Parliament who has distinguished himself in more one than one branch of physical research, well known, moreover, for his active interest in public hygiene, presides over a Society for the Study of Malaria. Its headquarters are in Naples and among its members are Signor Leopoldo Franchetti, also a member of the Italian Chamber of Deputies and an energetic promoter of the reclamation of marshlands and of agricultural extension, not only in Italy but in her Red Sea settlement, the Erythrea; and Dr. Angelo Celli, who likewise has a seat in the Chamber and holds the chair of Experimental Hygiene in the University of Rome. Under their auspices there will appear within a few days the first of a series of volumes intended to encourage and diffuse the study of malaria in all its phases, medical, sanitary, and economic. This first volume will contain monographs by Dr. G. B. Grassi, professor of comparative anatomy in the University of Rome; Professor Angelo Celli, above referred to; Dr. Amico Bignami, professor of pathologic anatomy also in the Roman School; Dr. Dionisi of the same city, and many others. Besides its scientific attractions as embodying much independent and painstaking research, the volume will have a polemic interest, mainly from Professor Grassi's claim to priority in establishing the connection between malaria and the mosquito.—[*Lancet.*]

The Latest Literature.

British Medical Journal.

December 9, 1899. [No. 2031.]

1. Clinical Remarks on Hypertrophic Cirrhosis of the Liver with Bronzing of the Skin; Hemochromatosis. WILLIAM OSLER.
2. Remarks on the Pathology of Tabes in Relation to General Paralysis of the Insane. WILLIAM GOWERS.
3. On "Albuminuria in the Apparently Healthy." HERBERT P. HAWKINS.
4. Loss of the Stereognostic Sense. R. T. WILLIAMSON.
5. The Development of Disturbances of Sensation in Diseases of the Spinal Cord. L. J. J. MUSKENS.
6. Three Varieties of Skin Tumor Existing Simultaneously in One Individual. GEORGE THOS. BEATSON.
7. Fracture of Both Clavicles, HENRY W. LAING.
8. Vesical Calculus Resembling Cancer. A. A. G. DICKEY.
9. Influenza with Urticarial Rash and Desquamation Simulating Scarlet Fever. NELSON HARDY.
10. Case of Hydatid Cyst in the Omentum Obstructing Labor; Subsequent Abdominal Section and Removal. JOHN E. GEMMELL.

1.—Osler reports two cases of hypertrophic cirrhosis of the liver with bronzing of the skin; **hemochromatosis.** The first case, a man aged 48 years, had always had good general health. He used alcohol in moderation. There was progressive bronzing of the skin. The general surface of the skin was slightly pigmented; that about the areola of the nipples and about the genitalia very much pigmented. The skin of the hands and wrists, and of the legs as high as the knees was very deeply bronzed. There was no pigmentation of the mucous membrane of the lips and mouth. The patient had suffered for 3 years from numerous attacks of purpura and urticaria of the skin of the legs. The liver was enlarged, extending in a median line 8 cm. below the ensiform cartilage, and between 6 and 7 cm. below the costal margin in the nipple line. The edge could be distinctly felt. It was hard, firm and rounded. The spleen was greatly enlarged, the border being felt nearly 6 cm. from the costal margin. There was no sugar nor bile present in the urine. There was indican and a distinct reaction for iron. A portion of the skin of the leg was excised and the presence of the characteristic ocher-colored pigment granules in the cells of the sweat-glands was determined. The second case occurred in a man, aged 34 years. He gave a history of malaria and attacks of continued fever in the tropics. There was no alcoholic history. He showed enlargement of the upper part of the abdomen, which was found to be due to an enlarged liver. He had had progressive pigmentation of the face and hands. His spleen was enlarged. A tumor of the liver was suspected, for which an exploratory laparotomy was performed. The liver was found enlarged, especially in the left lobe, which was very prominent. The surface was a little irregular, the color of a deep brownish-red. The gallbladder was enlarged and contained a light-colored bile. The patient recovered rapidly from the effects of the operation, but his general condition did not improve. He had erythema nodosum, hemorrhage from the stomach, but no diabetes. Death occurred several months after the operation. The entire duration of the illness was about 5 years. Only a few instances of this condition have been reported in which diabetes did not exist. The pathology of the process, according to a recent paper by Opie, is as follows: (1) There exists a distinct morbid entity hemochromatosis characterized by a widespread deposition of an iron containing pigment in certain cells, and an associated formation of iron-free pigment in a variety of localities in which pigment is found in moderate amount under physiologic conditions. (2) With the pigment accumulation there is degeneration and death of the containing cells, and consequent interstitial inflammation of the liver and pancreas which become the seat of inflammatory changes accompanied by hypertrophy of the organ. (3) When chronic interstitial pancreatitis has reached a certain grade of intensity, diabetes ensues and is the terminal event of the disease. In the first of the cases he reported the hemorrhages into the skin of the legs, which occurred so frequently it is thought might be regarded as the cause of the general hemochromatosis. [S.M.H.]

2.—Gowers, in **100 consecutive cases of tabes,** found unquestionable evidence of past syphilis in 68. In 12% the disease was probable; in the remaining 20% the disease was possible; that is, there had been exposure to the ordinary reasons of infection. All these cases occurred in males. In the case of women the facts are more difficult to obtain, but evidence of syphilis is clear in at least half of the cases, and the remainder are for the most part in married women in whom the disease is hard to prove. In juvenile tabes the evidence of inherited tabes is usually clear. Optic-nerve atrophy is sometimes seen in these, so also is reflex iridoplegia. This is not rare in cases of constitutional syphilis apart from any other characteristic nervous symptoms; it is a diagnostic symptom of great weight. When the symptoms of general paralysis and tabes are associated those of tabes precede those of general paralysis. In the tabetic cases a history of syphilis is common, and its presumption is constant as in the pure cases of tabes. This statement is not true of the paralytic cases. The question of the identity of tabes in general paralysis as one disease due to some cause acting on cerebral and spinal neurons does not deserve consideration. The present nomenclature, tabetic and paralytic general paralysis, is imperfect, but at present there seems no word which will supply the deficiency. Gowers has long held that it is an essential secret of the mysterious incidents of these degenerative diseases that the toxic agent lowers the durability of the nerve elements so that some other factor induces a premature decay. [S.M.H.]

3.—Hawkins communicates an article on **albuminuria in the apparently healthy.** This condition is met with in the following forms: Exertion albuminuria, the chief factor in the production of which is prolonged muscular contraction and consequent rise of blood-pressure. Neurotic albuminuria, dietetic albuminuria, induced either by the ingestion of large quantities of proteid material or with the taking of food of any kind. Postural albuminuria, to which most instances of albuminuria in the apparently healthy belong, is dependent on the rising up, the standing and moving about during the earlier part of the day. All the evidence which can be gathered tends to indicate that in these forms of albuminuria the actual seat of the trouble appears to be in the vasomotor mechanism which regulates the blood-flow into and out of the glomeruli, and not in the kidney structure itself. As to the prognosis in these cases, while we can reassure the patient, it is best at the same time to warn him that he must lead in all respects the healthiest life possible. The urine of such patients should be examined three or four times a year. Beyond the carrying-out of such a life as this there is not much that can be done in the matter of treatment. The exertion albuminuria, the neurotic and dietetic forms, and that dependent upon cold bathing, can be relieved by the removal of the cause. [S.M.H.]

4.—Williamson reports a case of left-sided facial paresis, in which there existed loss of the **stereognostic sense,** and of the sense of pressure and position of the left hand. Other forms of sensation were normal. The patient was a man, aged 44 years. The power of recognizing objects placed in the hands when the eyes were closed is probably an associative process dependent on tactile sense, on the power of recognizing tactile impressions, and on muscular sense, and sometimes in addition on the sense of pressure. But the stereognostic sense may be lost, and yet the separate forms of sensation just mentioned, as well as the sensation of pain and temperature, may all be normal. In reference to general sensibility the loss of the stereognostic sense appears to be analogous to the condition of word-deafness in reference to auditory impressions. In 5 cases which have come under the author's notice, 2 had recovered from hemiplegia due to cerebral embolism, and in a third case the lesion was, in all probability, syphilitic. In the remaining case the cause was indefinite, but probably thrombosis or embolism. The exact seat of the lesion causing loss of this sense has not been demonstrated pathologically. It is extremely probable that it is situated in the cortex of the parietal lobe. [S.M.H.]

5.—Muskens concludes an article on the **development of disturbance of sensation in diseases of the spinal cord** as follows: (1) Cases of recognizable tabes dorsalis without any change in the perception of the skin do not occur; (2) the first and most constant objective symp-

toms of the disease are disturbance in the sensation of the above description, and absent or slowly produced diminished Achilles jerk. [S.M H.]

6.—In the case reported by Beatson there were present simultaneously a warty papilloma on the left hand, a rodent ulcer on the inner canthus of the right eye, and lastly an epithelioma on the index finger of the right hand. [G.B W]

8.—This case, a woman 50 years of age, was diagnosed as cancer of the bladder. But she improved immediately after the passage of a **calculus** about the size of a hen's egg. [G.B.W.]

10.—Gemmell reports a case of **hydatid cyst in the omentum, obstructing labor,** in which, after pushing the cyst up into the abdomen the child was easily delivered with forceps; and after recovery from the puerperium the cyst was successfully removed. This case is interesting mainly from the rarity of the condition; for although there are many cases of hydatid disease in the abdominal cavity, the writer finds in literature no record of such a cyst being a cause of obstructed labor. But Galabin, in his textbook of midwifery, states that such cysts may be found in the pelvis and obstruct labor, but are rare, and cannot be diagnosed from other ovarian tumors unless there is also a tumor of the liver. It is further to be noted that this cyst was solitary, whereas, in most instances recorded, cysts have been found to be multiple. The treatment of the case during labor is not different from the treatment of any case of tumor obstructing labor, namely, whenever possible push the tumor beyond the presenting part, and therefore there is no necessity to discuss the reasons for and against immediate operation by vaginal or abdominal section. Such operations are easy enough to do at the time, but must be even easier, and certainly safer, when undertaken after the puerperium. The pathologic condition is that of the echinococcal mother-cyst, containing numerous daughter-cysts, and these cysts under the microscope show the typical characters of the laminated outer layer of the cyst-wall proper, hooklets, and granular matter. It is impossible to say how the patient came to be infected. She stated that she had never resided in the country, had never lived anywhere where dogs were kept, and had never cared for dogs. [W.K.]

Lancet.

December 9, 1899. [No. 3980.]

1. Wounds of the Ciliary Region and their Treatment. PERCY DUNN.
2. The Influence on Health of Chemical Preservatives in Food. ALEXANDER G R. FOULERTON.
3. Three Cases of Pelvic Trouble Caused by Bicycling. SKENE KEITH.
4. Case of Traumatic Aneurysm of the Carotid Artery Caused by a Sewing Needle. EDWARD H. DOUTY.
5. The Surgical Treatment of Gonorrheal Arthritis. JOHN O'CONOR.
6. Subcutaneous Emphysema in a Case of Bronchitis. JOHN GORDON.
7. A Note on the Excision of Joints in Rheumatoid Arthritis. F. A. SOUTHAM.
8. A Case of Edgewise Dislocation of the Patella. J. G. MACASKIE.
9. Extraordinary Development of the Genital Organs in a Male Fetus. RICHARD G. WORGER.
10. A Note on Mondorf Les Bains. H. T. GRIFFITHS.
11. Case of Tuberculous Bladder Greatly Improved by Hydraulic Distention. W. H. BATTLE.
12. A Case of Icterus Gravis. W. BENTHALL.
13. A Case of Bubonic Plague Treated with Large Doses of Carbolic Acid; Recovery. J. MITFORD ATKINSON.

2.—Foulerton, after studying the **influence on health of preservatives** in food, considers it extremely improbable that neither boric acid nor formic aldehyd, used as milk preservatives, the former in the proportion of 35 grains per gallon and the latter one part in 50,000, would cause any injurious effect whatever to the average adult taking the ordinary amount of milk with his daily food; but because of certain possible injurious effects which might be produced, the use of such preserved milk for invalids and young children taken in large quantities is to be condemned. So far as these injurious effects are concerned, it appears unlikely that the digestive processes would not be materially affected by the boric acid, but that toxic effects in a more general way might be produced by this preservative. Formic aldehyd, on the other hand, would probably have no injurious general effect in the proportions used, but would tend to lessen somewhat the digestibility of the milk. The necessity for legislation lies in the fact that these preservatives are, in the quantities used, tasteless, and so cannot be detected by the consumer. Legislation, to satisfy the requirements of public health, should provide that no preservative whatever be used for milk which is not sanctioned by the local government board or the Board of Agriculture; that the proportion of such preservatives should not exceed a maximum amount, to be fixed officially; that the nature of the milk should be declared by the vendor, and that it should be sold only as preserved milk. The penalties for infringement of the law should be sufficiently heavy to render the sale of preserved milk as fresh milk unprofitable. There is no other article of food in which the use of a preservative is so important as it is in the case of milk. The use of boric acid for salting bacon or ham may or may not cause injury to the consumer. It would be advisable, therefore, that the regulations suggested above for milk should be applied to all other articles of food of a perishable nature. [S.M.H.]

3.—Keith reports three cases of **pelvic trouble due to bicycling.** Two of these cases present special points of interest. The predominant symptom in both was melancholia apparently due to some derangement of the pelvic circulation. In one there was a retroversion of the uterus, in the other the most prominent symptom was anteversion. In the third case there was a retroversion with a prolapsed ovary and the symptoms began very definitely at the time when the patient was learning to bicycle. [W.K.]

4.—A man, 62 years old, was taken with sore throat, pain and difficulty in swallowing. A few days after he noticed a lump on the right side of his neck and he began to spit blood. The blood was bright-red and frothy, generally expectorated in small quantities, but twice he had been nearly choked by a sudden rush of a pint or more On examination a pulsating swelling was found reaching from the angle of the right jaw to the clavicle, and thrill and loud bruit were synchronous with systole of the heart. The right temporal pulse was small and delayed in time and the pupil contracted. At the operation, finding that the proximal part of the carotid artery was healthy, it was tied an inch from the bifurcation. The pulsation of the tumor ceased entirely, but there was much restlessness after the operation, and the patient died suddenly during the next day. At the necropsy it was found that the carotid artery was lost in tissue copiously suffused with blood so that it was impossible to dissect out the various structures. On opening the carotid no aneurysmal dilation was found, but, on a level with the cricoid carotid there was an eroded opening through which blood passed into the parts, producing a hemorrhagic tumor-like mass just outside to the right of the **carotid artery.** Near the **eroded opening a sewing needle** was found. It is probable that the man swallowed the needle while intoxicated, and it had become impacted in the pharynx and subsequently worked its way into the carotid artery. [M.B.T.]

5.—O'Conor states that he has practised **arthrotomy** with irrigation and drainage in all cases of **gonorrheal arthritis,** since March 1897. Ten cases are briefly reported which were treated in this way and in no instance did sepsis or relapse occur. In 7 of the cases the patients recovered with joints normal in contour and function. [M.B.T.]

6.—Gordon reports a case of **bronchitis** in a boy aged 4½ years. The child had a hard, sharp, frequent cough, but not considered of a specially violent character. During one of the paroxysms of coughing a swelling was observed on the right side of the neck, which speedily extended along the right cheek, the left side of the neck, downwards on the right side of the thoracic wall as far as the lowest rib along the axillary region and to the lowest rib on the posterior aspect of the wall of the thorax. The front of the left thoracic wall was involved as far as the nipple, but neither the axillary nor the posterior regions were implicated to any extent. On palpation crepitation was secured when the tissues were pressed against the ribs. The tension was not great at any

point. The patient was in great distress, his face flushed, his nostrils dilated. His temperature was 103° F. Examination of the mouth and throat was negative. Stethoscopic examination showed fine crepitation in the involved tissues and some rales in both lungs. The condition gradually improved under treatment with 2-grain doses of antifebrin every 4 hours to reduce temperature and the application of linseed-meal poultices. The chest was also rubbed morning and evening with neatsfoot oil and enveloped in cotton-wool. The whole process ended on the tenth day from its onset. The author thought it probable that a ruptured air-vesicle allowed the escape of air into the cellular tissue between the lobules of the lung, giving rise to interlobular emphysema. Thence the air found its way to the root of the right lung and into the anterior mediastinum, and thence, guided by the cervical fascia, into the neck and face regions. [S.M.H.]

7.—Southam reports the **excisions** of 6 joints in 3 patients **for rheumatoid arthritis.** A woman, 29 years of age, had ankylosis in almost every joint. The condition had begun in the temperomaxillary articulation 8 years previously; the knee-joints could not be extended beyond a right angle, and she had been confined to bed for 7 years because of inability to walk. Both knee joints were excised with satisfactory results. At present, 6 years after the operation, there is good movement in the elbow-joint and bony union in both lower extremities. In the second case, a woman of 30, was affected in the same way as the previous patient. She had been unable to walk for 4 years; both knee-joints were excised with similar result. The third patient was 39 years old, all the joints were affected to a slight extent, with the exception of the left elbow which was completely ankylosed at an obtuse angle. The elbow was excised and a movable joint obtained. [M.B.T.]

11.—A man, 22 years old, was admitted to the hospital with painful incontinence of urine. He had a family history of tuberculosis and had previously been in the hospital for caries of the spine with psoas abscess, which had been successfully treated. He suffered with bladder-symptoms 3½ years; he was compelled to pass urine every hour in the day and about 6 times during the night. Occasionally blood had been voided, but on microscopic examination no blood was found. There were numerous pus-corpuscles and tubercle-bacilli and there was also tuberculous epididymitis of both testicles. It was thought from the duration and severity of the symptoms that the **bladder** had become much **contracted from tuberculous disease** and it was unlikely that ordinary methods of treatment would be of much value. Treatment was begun by the injection of boric-acid solution by means of a funnel and tube. The patient's condition gradually improved, and one month after admission he left the hospital much improved in health and able to retain 7 ounces of fluid. He passed urine only twice during the night and about 4 times during the day. [M.B.T.]

12.—Benthall reports a case of **icterus gravis.** The patient was a man, aged 29 years, working in a skin-curing yard. When first taken ill he complained of weakness of his legs; 3 days later he vomited after taking same medicine, the vomiting recurring during the next 24 hours. His bowels were relaxed. On the fourth day he had a fit; after the fit he complained of pains in his legs. His previous health had been good, but he had been drinking heavily for several weeks. Jaundice was first noticed on the sixth day of his illness. On the eighth day he had another fit, similar to the first. This was followed by active delirium, which continued for several hours. At this time he became intensely jaundiced from head to foot, the color being a deep orange with a tinge of green. There was no enlargement of the liver; the spleen was not palpable. He had numerous small petechial hemorrhages on the trunk and limbs. During the ninth day he was very restless, muttering frequently and picking at the bedclothes. His temperature ranged from 100° to 104° F. There was great muscular exhaustion. On the twelfth day he passed into a state of coma, and died on the following morning. The urine-examination showed a specific gravity of 1010 to 1016. On boiling there was a small quantity of albumin; bile-pigments were present. There were large numbers of tube-casts; hyalin, fine and coarse granular, epithelial and waxy casts. There was much blood and leukocytosis. Leucin and tyrosin were absent. Examination of the blood showed 75% of hemoglobin, 5,080,000 red blood-corpuscles, and 21,200 white corpuscles. Differential count showed polymorphonuclears normal; marked diminution in large and small lymphocytes; no eosinophiles, and 18% myelocytes. The autopsy showed a liver of normal size, firm, smooth and deeply bile-stained. There was no obstruction found in the ducts. Microscopically there was no change sufficient to account for the symptoms. The spleen was larger and softer than normal. The right pleura was slightly adherent at the apex, and the upper lobe of the lung showed evidence of an early stage of pneumonia. Bacteriologic examination showed from a swab taken from the interior of the spleen many microorganisms. The only ones followed out proved to be the Bacillus pyocyaneus and Staphylococcus pyogenes aureus. There were very few streptococci present. A swab from the liver showed the organism present in greatest number to be the Bacillus pyocyaneus. There were a few micrococci and a large bacillus, probably putrefactive. No organisms were found in sections from the liver. The whole process was thought to be one of pyemia caused by the bacillus pyocyaneus. It was most probable that the patient in his occupation was brought into contact with the poison by which he was infected. [S.M.H.]

13.—Atkinson reports a case of bubonic plague in a Scotchman, aged 30 years. The case seemed a fairly severe one. Early in its history large doses of carbolic acid, 2 grains every 2 hours, were given. During three days over 200 grains of the drug were given internally with the result of lowering the temperature, allaying the vomiting, and relieving the severe mental depression. No poisoning symptoms were manifested. [S.M.H.]

New York Medical Journal.

December 23, 1899. [Vol. lxx, No. 26.]

1. On the Physiologic Character of the Pain of Parturition. SAMUEL M. BRICKNER.
2. Observations upon Flagellated Malarial Plasmodia. Description of Two Varieties. CHARLES F. CRAIG.
3. A Report of the Operative Treatment of Several Cases of Frontal and Maxillary Sinusitis. FRANK WHITEHILL HINKEL.
4. A Woman's View of Chickamauga. HELEN W. BISSELL.
5. Report of Operations for the Radical Cure of Three Unusual Cases of Inguinal Hernia. J. SHELTON HORSLEY.
6. Report of a Case of Acute Lymphemia or Acute Lymphatic Leukemia. WILLIAM N. BRADLEY.
7. Aseptic Surgery in the Country. R. L. WOODWARD.
8. Hernia in the Female. THOMAS H. MANLEY.
9. Some Considerations Regarding the Climatic Treatment of Tuberculosis. F. E. WAXHAM.

1.—Brickner agrees that the **pain which is incident to labor** stands in dual relation to the manner of birth, the method of birth, again, being a **useful modification or change,** useful to the species, since its continuance is subserved; useful to the new being, since its safety has been conserved. He summarizes his contentions in behalf of this view as follows: (1) What is natural cannot be pathologic. The functions of the uterus are natural and include the reception of the impregnated ovule, its nourishment and retention until development is complete, and then its expulsion. (2) During the intrauterine life of the fetus the parturient canal remains closed for the protection of the fetus. Its dilation at the time of labor is painful because sensitive parts are stretched. The pain is therefore inseparable from parturition. Parturition being natural, it follows that inseparable incidents are also natural. (3) This pain is common to all animals which give birth to their young from a uterus with a placental attachment. (4) Compared with other important functions, parturition is a great rarity. If the commonly repeated functions were painful, the species could not continue its existence. There would be no gain in having the vegetative functions painful. The one is in the life of the individual, the other in the life of the species. (5) The uterine contractions are chief among the causes of pain. Their intermittent character, which provides safety for mother and fetus, proves their physiologic nature. (6) The pain of parturition in the second stage is a stimulant to renewed effort for the expulsion of the fetus. (7) The lack of revivability of this pain in the memory soon after its occurrence, while pain of another character is easily remembered, proves its biologic importance. [W.K.]

2.—Craig from a series of studies believes that there occur in the blood of cases of tertian, and especially in the blood of estivoautumnal fever, two forms or perhaps varieties of the **flagellated malarial organism.** He recommends the following method of obtaining flagellated bodies. The finger or ear is carefully cleansed with alcohol, as are also the slides and cover-glasses. Either the finger or lobe of the ear is compressed. A puncture is made with a sterile needle and the first drop of blood wiped away. The second drop remains exposed until the slide is gently breathed upon when the tip of the drop is pressed npon the side of the slide which has been thus moistened. The cover-glass is then immediately placed over it and the preparation is ready for examination. The slight exposure to air and the small amount of moisture upon the slide seem to hasten exflagellation, since specimens so prepared almost invariably contain flagellated bodies. The two forms of flagellated parasites above referred to are designated as the active and passive flagellated plasmodium. The active form is the most common form found in the blood of tertian malarial fever. It is also found in estivoautumnal fever, but in this condition varies somewhat in morphology in unessential particulars. The chief facts to be noted in reference to the active form are the extreme activity of the pigment in the parasite prior to exflagellation and during the time the flagella remain attached to it; the clubbed extremity of the flagella and the separation and constant individual existence of the flagella, and their power of individual and progressive movement in the blood. While the passive flagellated plasmodium is more common in estivoautumnal fever than in tertian malaria, not every case shows flagellated organisms. They will only be found in the peripheral blood in those cases of fever showing crescents, for it is from the crescent that they develop. The author in the course of his studies was fortunate enough to have observed this process of development. The points to be especially noted in the passive flagellated parasite are that the pigment does not become active and distributed throughout the plasmodium; the circular arrangement of the pigment; the absence of clubbed outer extremity to the flagella, and the frequent presence, at the juncture with the round body, of a nodule which resembles exactly the clubbed extremity of the flagella of the active body. Instead of the rapid serpentine lashings of the flagella in the active form the movements in this form apparently consists in a rapid revolving upon their axes, the flagella sometimes pulling themselves loose from the round body and again becoming attached to it. In specimens in which the nodular swelling is not noted the pigment has a more rapid vibratory motion. These forms of malarial parasite represent the efforts of flagella which have been set free in the circulation to penetrate into the interior of the parasite represented by the round bodies just described. [S.M.H.]

5.—Three cases of operation for the **radical cure of inguinal hernia** are reported. The features considered of special interest are the presence, in the first case, of cyst about the size of a chestnut within the sac and adherent to it; in the second case operation had been performed by the family physician for the relief of strangulation, but hemorrhage had not been fully controled, and blood had effused into the scrotum and infiltrated the adjacent subcutaneous tissues. The hemorrhage was checked by a firm bandage, and 3 days later the clots were removed from the scrotum and the radical operation completed. In the third case a mass of omentum was firmly adherent to the testicle and cord. All of the patients made good recoveries. [M.B.T.]

6.—Bradley reports a case of **acute leukemia** occurring in a boy aged 8 years. There was marked enlargement of the anterior cervical glands on both sides of the neck; some dyspnea; harsh breathing, with prolonged expiration; temperature 100° F. The patient had a brassy cough. On the twelfth day of the illness anemia was pronounced; the dyspnea more decided; the spleen enlarged to 2 or 3 fingers' breadth below the margin of the ribs; the liver was slightly enlarged, as were also the inguinal, axillary and epitrochlear glands. The blood-examination showed 1,850,000 red corpuscles, and 85,000 whites. The differential count showed 69% of large lymphocytes, 28% of small lymphocytes, and 3% of polymorphonuclears; no eosinophiles. The patient wasted rapidly, and finally died within less than 8 weeks from the onset of the illness. [S.M.H.]

7.—Three cases of **aseptic surgery** are reported, which were undertaken in the cabins of negroes under unfavorable conditions. In the first case both ovaries were removed; in the second, both tubes and both ovaries were removed for cystic disease, and in the third case a breast was excised, because of chronic abscess. [M.B.T.]

8.—Manley discusses the **peculiar phases hernia presents in the female.** He calls attention to the influence of pregnancy in producing aggravating or strangulating hernia. The frequent recourse to celiotomy for the exploration or treatment of pelvic disease and the employment of drainage results very often in postoperative ventral hernia. The rules laid down for the operative treatment of rupture in the male must be widely deviated from when the inguinal areas are the seat of lesion in the female. Her inguinal canal is but an almost invisible slit; the round ligament but a rudiment, sometimes absent. However, inguinal hernia, when it does occur in the female, usually produces a wide breach in the abdominal walls at site of emergence. For the wide diastasis of the median raphe, or extensive atrophic changes in the lateral muscles of the abdominal walls, surgery can accomplish little, if anything. The treatment of this infirmity must be prophylactic. The pregnant woman, with a marked tendency to a sagging forward of the abdominal walls should be girded up by a properly adjusted circular support; and when labor is violent or very protracted, muscular overstrain should be relieved by the use of forceps or manual support of the overdistended abdomen. [W.K.]

9.—Waxham believes that the secret of success in **the climatic treatment of tuberculosis** lies in the early diagnosis of the disease and the removal of the patient at this early stage to a suitable climate. The present status of the populations in some of the States which have been favorite resorts for cases of tuberculosis towards the unfortunate victims is to be condemned. With the present methods of prophylaxis there is no reason why the tuberculous invalid should not live in these communities with perfect safety to the inhabitants. One thing that should be opposed, however, is the sending of invalids in the last stages of consumption to the various health-resorts. When first coming to a high altitude the hours of rest should be greatly prolonged and the amount of exercise reduced to a minimum. If fever exists rest should be absolute. Sunshine and outdoor-life are important elements in the treatment of tuberculosis, and where patients are unable to walk about they should be kept out of doors in reclining chairs or in beds. [S.M.H.]

Medical Record.

December 23, 1899. [Vol. 56, No. 26.]

1. An Account of Some Personal Work on the Mosquito-Malaria Theory, with Remarks upon the Present State of the Investigation. WILLIAM N. BERKELEY.
2. The Submaxillary Part of the Operation for Epithelioma of the Lip. CHARLES N. DOWD.
3. The Prevention of Contagious Diseases. FRANK W. WRIGHT.
4. Ligature of the First Portion of the Left Subclavian Artery for Aneurysm: Death after Four Weeks. F. KAMMERER.

1.—Berkeley believes that we may safely presume that Anopheles, if not the only mosquito, is at least the one most often concerned in malarial propagation. During the past autumn he made diligent search in the neighborhood of New York for the discovery of Anopheles without being able to find a single specimen. He succeeded in discovering several specimens of Culex. Experimenting with Culex with a view of determining its position as a host resulted negatively. There is one point of practical value to which he calls attention, namely, that the malarial patient should be isolated from mosquitos and considered a source of danger both to family and community so long as germs circulate in the peripheral blood. [S.M.H.]

2.—Dowd again calls attention to the necessity for exploration of the submaxillary spaces in patients from whom **epithelioma of the lip** are removed. He cites instances in which **infected lymph-nodes** were found even when the growth was very small. The general belief that the lymph-nodes can be felt if infected is erroneous. Explora-

tory incision is advocated located beneath the margin of the jaw and extending about an inch inward from the facial artery. At least three localities should be examined in order to make certain that no infection is present; the anterior part of the submaxillary gland, which is most commonly affected; the space under the chin between the bellies of the digastric muscles, next most commonly affected; and the region beneath the border of the jaw about the posterior part of the submaxillary glands. In addition, the region of the internal jugular vein should be explored when the submaxillary nodes are found infected. As yet the ultimate results of the operation cannot be determined, but there seems no good reason why the glands should not be explored in this condition, as well as in any other form of carcinoma. [M.B T]

3.—Wright calls attention to the laxity of the enforcement of the laws created for the purpose of the **prevention of contagious diseases.** He insists upon means to bring about their enforcement, and recommends the maintenance of a good hospital for the exclusive accommodation of the subjects of contagious diseases in every city. Of the 62 principal cities in the United States and Canada less than one-fourth are provided with decent hospitals for contagious diseases, some not even having a place for the care of smallpox. Such hospitals should possess a modern disinfecting apparatus and a properly constructed detention building for the suspected but undeveloped cases. [S M.H.]

4.—A man, 47 years old, who had a history of syphilitic infection 20 years previously, noticed a small swelling on the supraclavicular region. He had received a blow some weeks previously. The growth gradually increased, and after 3 weeks, numbness in the third and fourth fingers of the left hand was noticed. When first seen the tumor was of the size of a man's fist, covering the sternal end of the left sternomastoid muscle and the clavicle. The skin was adherent, the pulse was scarcely retarded, but an expansile pulsation was very marked. Considering the advanced condition of the aneurysm it was concluded that palliative treatment would be of little value, and an operation was decided upon. An incision 6 inches in length was made, passing over the ends of both clavicles. A vertical incision, beginning at the cricoid cartilage, joined this incision, and the flaps thus outlined were dissected from the underlying parts. With the help of the Gigli-saw about an inch and a half of the right clavicle and 2 inches of the left clavicle were resected. The upper end of the sternum was removed for half an inch, exposing both innominate veins. Owing to adhesions, the artery could not be reached, therefore two inches of the sternal end of the first rib, and the corresponding part of the sternum were removed. Two blunt curved retractors were inserted below the venous arch, and was pulled upward with great force. The tissues to the left of the 3 arteries springing from the aortic arch were separated with the finger, and on making pressure upon the subclavian against the vertebral column, pulsation in the aneurysm immediately ceased. The artery was separated from the surrounding tissues by the aid of the left index finger and a pair of curved scissors (which were not used for cutting) until sufficiently isolated to allow passing a ligature around it. This difficult task was successful only after several prolonged attempts. Several pieces of strong chromicized catgut were tightened until pulsation in the aneurysm and the arteries of the left upper extremity entirely ceased and the knot was completed. No drainage was used. The operation lasted over 3 hours, but the patient's condition after it was good. The following day faint pulsation was felt in the left radial artery, but none could be detected in the aneurysm, and on the third day sensation was apparently normal. Edema of the upper extremity appeared and gradually increased. On the 19th day the dressings were found saturated with considerable fresh blood, and several clots were found in the wound. On the 25th day there was another sudden and severe hemorrhage, and there had been more or less continuous loss of small amounts of blood since the previous hemorrhage. The next day after the second hemorrhage, death from exhaustion took place. A necropsy was performed which showed that the hemorrhages were caused by the rupture of the artery at the site of ligature. Dowd finds records of **ligation** of the **subclavian artery** in its **first portion** in only 2 previous cases—that by Rodgers in 1845, with a fatal result; and the patient of Halsted's, who recovered. [M.B.T.]

Medical News.

December 23, 1899. [Vol. lxxv, No. 26.]

1. Some Observations on Modern Cerebral Surgery. GEORGE EMERSON BREWER.
2. The Government Sanatorium for Consumptive Soldiers of the United States Army. EARL S. BULLOCK.
3. Empyema in Infants. DAVID BOVAIRD.
4. Surgical Clinic of PROF. SENN.
5. A Simple Method for the Treatment of Ingrowing Nails —A Clinical Suggestion. GERALD B. WEBB.

1.—Brewer says that **cranial traumatism** results in a number of conditions requiring prompt **surgical interference.** These conditions are hemorrhage, contusions, laceration of the brain and meninges, pressure from depressed bone and inflammatory exudate, and secondarily abscesses, cysts, area of chronic meningitis or cerebral softening. Operative procedures may often be necessary simply to combat sepsis. In cases of traumatic or focal epilepsy, operation is indicated in recent cases where a general epilepsy has followed and in cases where the attacks are of a purely Jacksonian type, especially when the injury corresponds to the motor center, presiding over the muscles causing the convulsion. [G B.W.]

2.—Bullock describes the **sanatorium** recently established at Fort Bayard, New Mexico, **for the treatment of officers and enlisted men in the United States Army suffering from tuberculosis.** The climate is excellent; the altitude over 6,000 feet; the atmosphere is dry. The place appears to be in many respects ideal. The conditions of social life are not quite as satisfactory as in Colorado, but otherwise New Mexico and Arizona present many advantages. Patients suffering from home-sickness usually do badly. [J.S.]

3.—Bovaird says that in the New York Foundling Hospital during the last 10 years there were 82 cases of **empyema,** and 69 of these were under 2 years of age. In 28 cases there was no involvement of the lung. Clinically, it is at times most difficult to diagnose and locate the pus. In opposition to the course of empyema in adults, in children the disease is short and critical, some cases dying within 48 hours, and the mortality, in all cases of children, is very high. The rational signs are the same as those of pneumonia, and the only positive sign is the finding of pus with a large exploratory needle. Practically all pleural effusions in infancy are either purulent from the beginning or soon become so, and when pus has been found drainage is called for. [G B W]

4.—In a case of **sarcoma of the nasopharyngeal space,** Senn, after ligation of the right external carotid, removed the growth by splitting the soft palate and taking the tumor away piecemeal. There was profuse hemorrhage and the bed of the growth was thoroughly cauterized. One week later all the symptoms of difficult breathing, pain and cerebral congestion had disappeared. In another case, one of carcinoma of the tongue, in which that organ was removed by Kocher's incision, the patient could talk almost as well after the operation as he could before. [G.B.W]

5.—Webb's method of treating **ingrowing toe-nail** is to bend a piece of wire so as to fit under the free end of the nail. The ends of the wire are then carried backward and strapped to the dorsum of the toe with a few adhesive strips. [G.B.W.]

Boston Medical and Surgical Journal.

December 21, 1899. [Vol. cxli, No. 25.]

1. Disinfection and Prevention in the Sick-room. CHARLES HARRINGTON.
2. Experiments upon the Disinfection of Rooms with Formaldehyd Gas in the City Hospital at Charlottenburg, Berlin. A. W. FAIRBANKS. With Remarks by Prof. E Grawitz.
3. The Thyroid Gland and the Menopause. CHAUNCEY R. BURR.
4. Two Emergency Cases at the Massachusetts General Hospital. CHARLES L. SCUDDER.
5. The Clinical Manifestation of a Physiologic Fact. WILLIAM H. ROBEY, JR.

1.—Harrington calls attention to the fact that **isolation,** as attempted, is often inefficient in houses of the poor on account of lack of room, and in the houses of the well-to-do on account of the carelessness of the family. He has made a series of experiments with a number of proprietary **disinfectants,** and found that they were all worthless. He has tried some of the ordinary chemical disinfectants, such as carbolic acid, mercuric chlorid and formaldehyd. All of these proved partially efficient, but formaldehyd was the only one that gave uniformly satisfactory results. [J S.]

2.—Fairbanks continues the account of his **experiments with formaldehyd** gas. Fragments of cloth were allowed to soak in cultures of virulent pyocyaneus, diphtheria-streptococci, and staphylococci, and exposed in various ways. The microorganisms were mixed with dust and placed in remote corners, and in addition, cultures, diphtheric membranes, noninfected objects, and some live animals were placed in the room. With two grams of formaldehyd per cc., with the exposure lasting 24 hours, cultures were obtained from some of the anthrax specimens, from the diphtheric membrane, from pus, from the anthrax-cultures on agar, and from the glycerin-agar culture of tubercle-bacilli. In all cases, however, when the formaldehyd gas had gained free access to the objects, complete sterilization occurred. It appears that the albuminous envelop of a diphtheric membrane and dust may afford considerable protection to bacteria. Grawitz discusses these results and believes that the following regulations should be generally employed: All the bed-linen, mattresses, etc., should be sterilized in steam; particles of pus, sputum, etc., should be removed with a cloth dampened in sublimate solution, which is then burned. All objects in the room should be so fixed that the gas has free access; the windows should be tightly closed and the doors opened at the end of 12 hours. (According to the foot-note.) He also describes a series of experiments made to determine the minimum length of time required in which it was found that 12 hours was quite adequate. [J.S.]

3.—Burr believes that an **overactive thyroid gland** is in many cases responsible for the **nervous phenomena of the climacteric.** He relates the history of an interesting case in which he considers the exophthalmic goiter was the direct result of long continued congestion of the thyroid consequent upon the menopause. The thyroidal congestion of menstruation is relieved upon the appearance of the uterine flow. Young women often complain at such times of a feeling of oppression about the neck, which leads them to seek relief in a tight neck-band. When no flow appears, as at the menopause, this congestion may readily take on a pathologic condition, owing to long continuance. In such a case, as in exophthalmic goiter, autointoxication may be expected. There is a marked similarity between the secondary symptoms of thyroidal intoxication and those of the menopause. Thus headaches, neuralgias, paresthesias, flushings, tremors, and hysteria are common to both states.

4.—In the first case reported by Scudder, a boy 5½ years old, fell, injuring his hip and abdomen. A staphylococcic infection took place, causing an **osteomyelitis of the ilium,** which, in spite of an operation, caused death within 6 days from the time of injury. The second case was one of **extra-uterine pregnancy,** with rupture of the sac in the eighth week. At the operation considerable blood was found in the abdominal cavity. The tube was tied off, the blood removed and the abdomen closed. The patient made a good recovery. [G B.W.]

5.—Robey calls attention to the fact that in infants during sleep the pupils are contracted to pinpoint size. [J.S.]

Journal American Medical Association.

December 23, 1899. [Vol. xxxiii, No. 26.]

1. The Progress of Medical Education; a Suggestion for a Better Arrangement of the Medical Curriculum. BAYARD HOLMES.
2. On Latent Infection and Subinfection, and on the Etiology of Hemochromatosis and Pernicious Anemia. J. GEORGE ADAMI. (*Concluded.*)
3. Naso-Pharyngeal Adenoids as a Causative Factor in Ear Diseases. ALLEN T. HAIGHT.
4. The Papillitis Accompanying Brain-Tumor. JOHN E. WEEKS.
5. Diagnosis and Treatment of Middle-Ear Diseases. JAMES H. FARBER.
6. The Gouty Diathesis. EDWARD P. ADAMS.
7. A Cyst of the Pancreas: Operation: Recovery. JAMES B. EAGLESON.
8. Smallpox in Ohio. C. O. PROBST.
9. How Control Variola? S. L. JEPSON.
10. Infectious Ulcerative Stomatitis. JOHN S. MARSHALL.
11. Alopecia. DELOS L. PARKER.
12. On Some of the Uses of Peroxid of Hydrogen in Dermatology. L. DUNCAN BULKLEY.

1.—Will be considered editorially.

2.—In continuing his paper on **latent infection** and subinfection, Adami takes up a discussion of various forms of infection which have not, up to this time, been fully understood. He questions whether there can be any more satisfactory explanation of certain cases of surgical infection than this theory of the possible infection of wounds, not from outside, but from bacteria circulating in the tissues, which, under normal conditions, are destroyed and rendered harmless, but which under the abnormal traumatic conditions of the operation are now able to proliferate and set up local disturbances. The usual explanation of the abundant growth of bacteria in the various organs after death is that while there may oftentimes occur an agonal invasion of bacteria, the essential cause of putrefaction is the entry of bacteria, more especially through the intestines after death. This explanation is based on the observation of large numbers of intestinal bacteria in the tissues about 10 hours after death. Adami believes this appearance of postmortem invasion of the tissues is only apparent, not a real fact; it occurs because there is a preliminary period in which the bactericidal action of the tissues continues and the number of bacteria to be obtained from the tissues by ordinary methods is singularly small: following this there is multiplication. The existence of a condition of subinfection is considered probable. Adami has found minute diplococcoid bodies peculiarly frequent in the liver-cells in cases of hepatic cirrhosis. The frequency with which the colon-bacillus has been found by other observers, associated with more acute hepatic disease, renders it not impossible that this bacillus may have some part to play in connection with the condition. A careful study of material from cases of hemochromatosis with the highest power, shows that when the pigment has not clumped together into too large masses, in the liver-cells for example, or in the abdominal lymphatic glands, there are, in a very large proportion of the ultimate fine masses of pigment, distinct diplococcoid forms or bodies. In short, the condition of hemochromatosis is of bacterial origin. Anderson, one of Adami's demonstrators, has made a special study of the bacteriology of the stomach in 3 cases of pernicious anemia. He has found in all a complete absence of hydrochloric acid, with the presence, however, of considerable quantities of lactic and some butyric acid, and in all the cases he obtained by plating pure cultures of the colon-bacillus, and what is more, on making sections from one of the stomachs he found numerous diplococcoid forms in the submucous tissue. This was long before the nature of the pigment in the liver had been realized. In order to confirm the result, Ford made an independent examination in a case at the Royal Victoria Hospital, which absolutely confirmed the findings of Anderson in every respect. [M B.T.]

4.—See PHILADELPHIA MEDICAL JOURNAL, Vol. IV, page 15.

6.—Adams believes that in most cases of **gouty diathesis** a rigid and proper attention to diet is of more benefit than medicinal treatment. It may be safely asserted that in gouty diathesis there is always an excess of the urates; whether or not it be due to an excessive manufacture of them in the economy, or to a storing up of them from a deficient elimination, they are decidedly increased by the use of nitrogenous foods, alcoholic stimulants, a deficient amount of oxygen, cold and dampness, and lack of muscular exercise. Therefore, all these conditions, which tend to their formation, must be removed or diminished as far as possible. Fairly large quantities of water or liquid are useful, in that by diluting the fluids of the body they seem to hold in solution or take up a larger percentage of the uric acid and also to prevent deposits forming. So far as mineral waters are concerned, Adams believes that they do good only in so far

as they serve to introduce into the system a large quantity of water, and the more expensive it is, the more it is likely to be taken, for a patient will drink water for which he has to pay, when he will not drink largely of that which is easily obtained. Coffee is not deleterious in gout when it acts as a diuretic, otherwise it does harm and should be avoided. Milk is another valuable drink for the gouty, and when it constipates should be combined with seltzer water. Condiments act as valuable assistants to digestion; however, common salt should not be taken in large quantities, nor food containing much of it used, as the lymph in the vicinity of the synovial joints and sheaths has a particular affinity for it, and the biurate of soda is so easily formed in the presence of sodium chlorid. The dried leguminous vegetables, like beans, peas, etc., must be avoided, as nitrogen enters too largely into their composition. Corn is considered the most valuable of the vegetable foods; it contains a small percentage of maizinic acid, a valuable amount of assimilable nutriment, with considerable bulk, and does not disagree with the stomach, when young and fresh. Greens, potatoes, beets, squashes, lettuce, celery, tomatoes, and most fruits are recommended. Fish may be used as a less deleterious substitute for meat. Fats, starches, and sugars, when properly cooked and digested, do not contribute to the formation of uric acid, and their free consumption acts to restrict the amount of proteid or nitrogenous food. Piperazin, in doses of 15 gr. daily, or fluid extract of corn-silk, ½ ounce, are remedies thought to have considerable value. With such diet, we should encourage employment and pleasant exercise. [M.B.T.]

7.—See PHILADELPHIA MEDICAL JOURNAL, Vol. III, p. 1333.

8.—Probst states that **smallpox** made its appearance in Ohio April 6, 1898, during the 14 months following 1882 cases and 30 deaths were reported. Out of 88 counties 45 were invaded, and the disease prevailed in 61 cities and villages, besides, in most instances, invading rural districts surrounding them. The disease was marked by its exceeding mildness and by many failures to recognize its character, both operating to favor its spread. Six distinct outbreaks in as many different communities were directly traced to a traveling theatrical company, some of the members of which were affected with the disease. A most remarkable feature of these outbreaks was that in none of them was the nature of the disease thus started recognized until months afterward. The symptoms of the disease were variable. The preliminary fever was in many cases slight and almost unnoticed. Secondary fever appeared in only a small proportion. The eruption in most instances was more superficial than common, involving the true skin less, so that in most cases the pitting was slight. The eruptive period was often much shortened and pursued a somewhat irregular course. While the disease was so very mild, nevertheless several deaths occurred from hemorrhagic smallpox, and 2 from the malignant, purpuric form. Vaccination, even if performed many years previously, gave almost perfect protection. When the disease prevailed in a community for months, masked under some other name, vaccination became the best means for diagnosis. A house-to-house canvass in such cases, with a history of the patients and their families, revealed the fact that with few exceptions the disease had gone through family after family, picking out the unvaccinated. [M.B.T.]

9.—Jepson states that no acute infectious disease is so easily controled as **smallpox,** because: It manifests itself externally and should rarely be mistaken for any other disease; it is greatly dreaded, hence as a rule carefully avoided; its germs are easily destroyed; and we have in vaccination an absolutely certain protection. In the epidemic at Wheeling, W. Va., in 1895, there were 146 cases with 16 deaths, all of persons never vaccinated. This was 26% of the unvaccinated. Not a serious case occurred among those who had ever been vaccinated. Many of them took no medicine and were not confined to bed for an hour. Not one case occurred among persons protected by recent vaccination. Three of the worst cases, one fatal and the others almost so, were second attacks of smallpox. Recent vaccination is regarded as a better protection against smallpox than is the disease itself, unless the attack was recent. There is a very great amount of prejudice against vaccination. This is largely based on ignorance, but not a small part of it is due to the many bad results of careless vaccination—results often caused, not by impure virus, but by vicious methods of introduction or neglect by physicians of the commonest antiseptic precautions. An isolation-hospital is regarded as next in importance to vaccination in the sanitary management of smallpox. A series of excellent rules in the sanitary management of the disease are given. [M.B.T.]

Berliner klinische Wochenschrift.

August 7, 1899. [36. Jahrg., No. 32.]

1. Upon the Technic of Hardening and Cutting Large Sections of Brain. F. SIEMERLING.
2. What Significance has the Yellow Coloring of Stomach-Contents with Alkalies. A. BAER.
3. Concerning Stenotic Hypertrophy of the Pylorus in a Child. TH. ROSENHEIM.
4. Early Diagnosis in Choroidal Sarcoma. P. SILEX.

1.—After discussing the various **methods of hardening the brain,** Siemerling states his experience that brains hardened in formol solution become changed in color; however, if 2 parts of formalin be added to 100 parts of Müller's solution this differentiation of color is no longer noticeable. The hardening of the brain in 10% formalin solution, followed by Müller's fluid, gives it a particularly favorable consistency for sectioning, and there is never any tendency to break. Staining by aniline dyes is not successful after hardening in formalin, for the outlines of the cells are not obscured, due probably to the destructive action of the formalin on the cells, and this action is also seen on the finer nerve-fibers, especially the second layer of tangential fibers. He finds Jung's microtome particularly good for getting serial sections. After cutting, the sections are placed in a .55% solution of chromic acid and then are treated with Weigert's solution. [M.B.T.]

2.—Spitzer several years ago described a **peculiar reaction of the filtered stomach-contents upon the addition of alkalies.** It consisted in the production of an **intense, lemon-yellow color,** usually with the formation of a brownish precipitate when concentrated alkalies, except carbonates, were added. Baer has made a study of this reaction. He found that the reaction showed a certain dependence upon the optic rotation of the stomach-contents, inasmuch as when these were dextrorotatory it was always positive. In the majority of cases in which Trommer's test was negative and in which there was levorotation or optical indifference, the reaction was negative. The reaction was positive in cases in which a roll was ingested, as in Ewald's test-breakfast. It was generally positive with a mixed diet, negative with contents from a fasting stomach, and negative after the exclusive ingestion of albumins. The author attributes the reaction to the food ingested, particularly to the carbohydrates. He was not able chemically to isolate the substance that produces the reaction. For **diagnostic purposes** the test **has no value,** as it depends upon the quality of the ingesta, the nature of the secretion, and the condition of motility. [D.R.]

3.—A boy, 6 years old, was taken with vomiting following an attack of measles. This symptom continued, although his appetite remained good and he did not complain of other disturbances of digestion. He was treated with various medical means, including lavage, without success. His condition finally became so bad that operation was considered necessary. On opening the abdomen the pylorus was found to be 6 to 8 cm. broad, a thickened tumor-like condition was present, the muscular coat was hypertrophic, and the mucosa was thickened, although there were no signs of scars or ulcers. **Pyloroplasty** was performed and after the operation the disease took a favorable course for some time, then the boy's condition again became bad and in spite of all treatment continued to grow worse until a second operation was considered necessary to save the child's life. The pylorus had become fastened down by adhesions, this probably being the cause of the unfavorable symptoms. Gastroenterostomy was performed, and since then the child's condition has much improved and he has been free from unfavorable symptoms. [M.B.T.]

4.—A physician, 50 years old, came to the author complaining of blurred vision in the right eye. Vision in both eyes was two-thirds, tension was equal. There was a slight, so-called "relative negative scotoma" in the right eye; the retina in one portion of the right eye was slightly prominent,

greenish-gray, and somewhat marbled in appearance. After considering the various possibilities, namely, detachment of the retina, detachment of the choroid, exudative choroiditis with secondary detachment of the retina, choroidal hemorrhage, retroretinal cysticercus, conglomerated choroidal tubercle, gumma, and choroidal sarcoma, Silex decided that the condition was a sarcoma. The physician declined other consultation and permitted the author to enucleate the eye-ball, although the assistants and other physicians cognizant of the case declared that they would not permit enucleation of an eye-ball with two-thirds vision in a case in which the diagnosis was not absolutely certain. Upon sectioning the eye-ball a tumor was found, 6 x 3 x 1½ mm. in size. Microscopically, it proved to be a **melanotic, spindle-celled sarcoma of the choroid.** The author rightly declares this case to be a triumph of the ophthalmoscope. Regarding the patient's chances for the future, the author quotes Fuchs, who found return of the growth in 13% of the cases. In all those in which the tumor was removed in the earliest stages, there was no recurrence. Metastasis is more frequent than recrudescence of the growth. As to the time of its development, nothing is known except that metastasis occurs very early and that the operation is nearly always too late. The fact that the tumor in the present case was very firm, poor in bloodvessels and pigment, very small, and removed at an early stage, justifies the hope that there will be no metastasis of the growth. [D.R.]

Münchener medicinische Wochenschrift.

August 8, 1899. [46. Jahrg., No. 32]

1. Artificial Ectropion of the Lips of the Os Uteri, Caused by a Pessary. A Contribution to the Knowledge of the Function and Structure of the Porti Vaginalis and the Vaginal Arch. SCHAEFFER.
2. The Diagnosis of Endothelial Diseases of the Cornea, Caused by the Use of Fluorescein, especially in the Beginning of Sympathetic Ophthalmia. BIHLER.
3. Moment Röntgen-ray Views of the Thorax. RIEDER and ROSENTHAL.
4. The Spreading of Contagious Sexual Diseases in the Army and among the Classes, with Comments upon the Therapy of Gonorrhea. VOGL.
5. Concerning Osteomalacia. WETZEL.
6. How do we Obtain Blood-serum from Human Convalescents? WEISBECKER.
7. Concerning Newer Remedies and Methods of Therapy, and Prophylaxis for Gonorrhea in Man. KOPP.

2.—The peculiar staining qualities of **fluorescein** gives the ophthalmogist a method of diagnosing early lesions of the cornua. Especially important is this early diagnosis in sympathetic ophthalmia. The green color may appear early enough to allow of treatment which may have for its aim the restoration of the eye and sight instead of the enucleation which is so urgently demanded as soon as the older methods have recognized the sympathetic disease. [G.B.W.]

5.—This case of **osteomalacia** was a married woman, 41 years of age, who in 1875 had had her only child. The disease had begun 10 years back and had been gradually increasing in severity until the patient was bedridden and could scarcely move hand or foot. During an examination of the pelvic organs the right femur was broken with only the smallest portion of a causative force. Death occurred from peritonitis, the result of fecal retention. [G B W.]

6.—Weisbecker has used the serum of patients convalescing from measles, scarlet fever, typhoid fever, pneumonia, and diphtheria, in the treatment of these diseases, respectively, and in the present article describes the **method of obtaining this serum.** The serum cannot be taken from every case of the particular disease, but certain precautions must be observed. In the first place, the individual must be decidedly ill and must be complaining a great deal, indicating the extent of the disease. Mild cases with but slight fever are not good sources of serum. In pneumonia cases it is best to choose those who have had fever for from 7 to 9 days; in diphtheria, those whose temperature is irregular. A fever of 2 or 3 days is sufficient in the latter disease, if associated with marked general symptoms. The cases should be as nearly typical as possible. If there is any marked complication the serum should not be used. Regarding treatment of cases which are to supply the serum, Weisbecker states that as little should be done to interfere with the natural course of the disease as possible. The treatment should be completely indifferent; antipyretics are not to be given; likewise no anodynes, expectorants, laxatives, etc. Compresses and baths should not be used. The diet should consist of milk, bouillon, eggs, and plenty of water. The **proper period for withdrawing the blood** must be carefully chosen. It is best to perform the venesection in the early stages of convalescence. The author usually waits until the temperature has been normal for 3 days, counting the first day on which it is normal as "1." He usually takes the blood on the evening of the third day. In typhoid fever the fourth or fifth day will answer. In addition to being afebrile, the patient must present the general symptoms of convalescence. In scarlet fever it does not matter whether there is a nephritis present or not. When the patient is without fever venesection is performed in 3 or 4 days. The technic of venesection is described, no specially new feature being offered. The blood is received in screw-top glass vessels holding from 150 to 250 cc. The amount of blood withdrawn is, on an average, 250 cc., but may in strong persons be increased to 500 or 600 cc. In children up to 10 years, a quantity of 200 cc. should not be exceeded. The vessel is put in a cool place and the serum withdrawn at the end of 48 hours. If the amount is small, the clot may be expressed with the hands under antiseptic precautions. The serum is distributed in glass vials of from 10 to 15 cc. contents. It is not necessary to add an antiseptic to the serum. The author has kept vials in a cool place for years; but in order to be perfectly safe, a few drops of a 0.5 solution of carbolic acid may be added. The serum obtained usually constitute about two-fifths of the original quantity of blood. The **dose is 10 cc.**; in small children, 5 to 6 cc. It would be better if the whole quantity of blood could be used in injections. By allowing the blood to stand for several months, the clot is gradually liquefied and the whole quantity can thus be made useful. Such blood, however, readily decomposes and it is better, probably, to use only the serum. Active blood-serum can only be obtained from those that have not received antitoxin. The serum is usually injected into the thigh. Pain is apt to follow from the distention. The injections are indicated in all except the very mild cases. In pneumonia the injections are especially indicated in old people, and as early as possible. It is hardly necessary to inject after the third day; no results are obtained. A single injection of from 10 to 15 cc. in adults, and from 6 to 8 cc. in children, is generally sufficient. If after one injection the symptoms become intensified, **venesection** is indicated, especially in the pneumonia of drunkards. As by this venesection some of the serum previously injected is removed, another injection of from 5 to 6 cc. should be given. He has performed venesection after a previous serum-injection in scarlet fever with good results. Exanthems were never observed. [D.R.]

7.—Itrol, recommended by Credé and others as possessing the power of penetrating more deeply into the mucous membrane, was not found very satisfactory by Kopp, although it is nonirritant, and under its use complications seem to be less frequent. It is cheap, but decomposes readily. **Mercury oxycyanate** does not seem to have any power to destroy the gonococci, but it has the advantage of being nonirritant. The author was at no time able to abort an attack of gonorrhea with any of the newer remedies so much vaunted. Janet's method of irrigation proved of no value for the purpose of aborting an acute attack. For subacute posterior urethritis, however, Kopp has used it with satisfactory results, but instead of employing potassium permanganate he uses a solution of silver nitrate of 0.2 and 0.5:1,000. In chronic uncomplicated cases he employs potassium permanganate in 0.75% solution. Previous to this irrigation the prostate should be massaged. He speaks plainly regarding **prophylaxis.** It will never be possible, in his opinion, to control the sexual instinct, which becomes particularly powerful at a certain period of life. And as the natural gratification of the sexual appetite is the lesser evil, it is best to banish all prejudice and enlighten the young concerning the dangers of venereal diseases, so that in case they become infected they at once seek medical aid. Next to the use of a protection, the best prophylactic is a 2% solution of silver nitrate instilled into the fossa navicularis in imitation of Credé's treatment of the eyes of the newborn. [D.R.]

Practical Therapeutics.

Under the charge of

A. A. STEVENS, A.M., M.D.

Medical Uses of Electricity.—Taylor (*The Clinical Journal*, October 11, 1899) says that in **spinal caries,** more especially in old people, there is often severe pain of a girdle character, which the use of the galvanic current often considerably relieves. As to the use of the galvanic current in sensory conditions to relieve pain he does not think it is of very much importance which pole is used. It has been stated that more relief is obtained by using the negative pole as the fixed one, and stroking the affected part with the positive pole, but he does not think it matters which pole is fixed in regard to the relief of pain. As a rule, it is much better to let the positive pole be the fixed one, because then there is not so much tendency to blistering as if the negative be fixed. However, if the use of the negative pole as the fixed one affords more relief to the patient, it should be selected. He has known cases of **tabes** in which there was considerable anesthesia benefited to some extent by the use of a wire brush to stimulate the skin, and he has known a certain amount of relief afforded to lightning pains by galvanism; but, as a rule, he does not think much is to be hoped for from the use of electricity for the relief of pain in locomotor ataxia. He has seen very great relief afforded in **rheumatoid arthritis** by galvanism applied in the electric bath. This is simply an ordinary bath with one of the poles immersed in the water and the other stroked over the painful parts. There is nothing mysterious about the electric bath; it can be given with an ordinary bath and an ordinary galvanic current. In **trifacial neuralgia** he has seen temporary relief follow the use of galvanism, but he has never seen anything approaching a permanent cure. The condition of **spasm of facial muscles,** which is very disagreeable and painful, often excited by some painful emotion, is also one which may be treated by means of the galvanic current. In some cases galvanism seems to effectually allay the spasm. Electricity is also very useful in **sciatica;** it is useful, first, in relieving the pain, which is often severe, and, in the second place, it is useful in stimulating muscles which have become wasted, and thus aiding their growth. In sciatica itself the best current to use is the **galvanic** current, and it is best used by having the patient lie with one of the flat conductors over the sciatic area, the other pole being stroked over the distribution of the nerve. He has known very great benefit, and, indeed, practically complete relief afforded in sciatica from comparatively few applications of the battery. He has also seen the condition very considerably relieved by the application of the **faradic** current. One would think that by stimulating the muscles and causing pressure to be exerted on the sciatic nerve the pain would be increased, but that is not so in all cases, and in certain cases the faradic current seems to answer in the same way that a galvanic does in others. But one must be prepared to give the patient a certain amount of pain in sciatica in the application of electricity.

Gastric Pain.—Van Valzah and Nisbet recommend the following tablet as an excellent gastric analgesic, to which codein may be added when the pain is spasmodic or very severe:

℞.—Alcoholic extract of belladonna, Extract of cannabis indica ... of each $\frac{1}{10}$ grain.
Extract of coca ..... 3 grains.

When to Amputate in the Recently Injured.—Bloodgood (*Progressive Medicine*, December, 1899) writes as follows concerning this subject: "Recently injured limbs demanding amputation can be divided into two groups: Those patients whose general condition is good, the symptoms of shock slight, and in whom the loss of blood has been but very little. In such cases an amputation may be done at once. Nevertheless, there is no great hurry, and it is always better to give the patient the benefit of the doubt. The patient should be placed in bed and external heat applied; salt-solution by the rectum and under the skin, although not positively indicated, will be a safeguard. A hypodermatic of morphin (gr. $\frac{1}{10}$ to $\frac{1}{8}$) will do good by its relief of pain and restlessness. The injured part can be prepared carefully for operation. This delay of from one to two or three hours decreases rather than increases the possibilities of death. The operation can be done carefully and completely, and unless the surgeon misjudges the condition of the patient, the mortality should be practically *nil*. All other cases belong to the second group. In these one observes all degrees of shock from varying amount of loss of blood, and shock due directly to the extent and nature of the injury. In such cases one should check the slightest loss of blood, and at once treat the patient most energetically for shock and loss of blood, if any has occurred. Quiet in a bed elevated at the foot, external heat, repeated and *slow* infusion of salt-solution beneath the breasts, and, if retained, salt per rectum, hypodermic injection of small doses of morphin (gr. $\frac{1}{20}$ to $\frac{1}{10}$), unquestionably do good. The advantages of hypodermatic injection of strychnin and atropin are difficult to estimate. Hare is very positive that atropin is indicated, because of its action on the vasomotor apparatus. It seems settled, from a pathologic standpoint, that it is not the heart but the vasomotor system that is collapsed in shock. The heart needs more fluid, which can be supplied by salt-infusion, but the vasomotor construction needs assistance; its weakness with dilation of the vessels means death; theoretically, and apparently practically, atropin is the drug. External heat, with elevation of the foot of the bed, and salt-solution are the chief remedies.

"The amputation must not be delayed too long; after, perhaps, six hours each hour increases the danger of infection—but just how long the surgeon should delay is a difficult and, I believe, not yet settled question. In the majority of cases, if the patient is to recover at all from the shock, some signs of improvement should be seen in four to six hours. In these cases the operation should be rapid and the anesthetic time very short. The operation should consist of a simple amputation of the crushed member."

Influenza.—H. C. Wood recommends:

℞.—Antipyrin ..... 15 grains.
Pilocarpin hydrochlorate ..... ½ grain.
Tincture of aconite ..... 8 drops.
Water ..... 1½ ounces.

Take a tablespoonful, immediately followed by a hot general or footbath (10 minutes); then, the patient being covered in bed, one dessertspoonful in a tumbler of hot toddy, repeated, if no sweating occur, in 20 minutes. When there is pain, if morphin does not disagree with the patient, $\frac{1}{6}$ of a grain may be added to the mixture.

Glutol is a combination of gelatin and formaldehyd. It appears as a gray, odorless, and tasteless powder. When brought in contact with living tissue it liberates formaldehyd, and so acts as an antiseptic. Henry (*Thèse de Lyon*, 1899; *British Medical Journal*, December 9, 1899) finds that the formaldehyd is set free only in the presence of tissues which are still vital, and not by contact with dead tissue. On this account glutol would seem to be of use in wounds, ulcers, etc., when there is little tendency to cicatrization from any cause whatever; thus, chronic varicose conditions, diabetic sores, trophic lesions, are cases in which it is indicated. It is also useful in venereal sores, syphilitic or otherwise, the chronic suppurative foci of tubercle and deep burns. In short, in those cases in which iodoform has up to the present proved of greatest service, glutol may be employed, and the advantages which it presents are the continued liberation of an antiseptic principle which is much greater than that of iodoform. The absence of toxic or irritant properties, and of odor, are further important points in its favor.

Indigestion with Subacidity.—Andrews (*Northwestern Lancet*, November 1, 1899) states that the object of treatment should be not only to supply the deficiency, but to stimulate the gastric glands to an increased secretion of hydrochloric acid. This indication can be met by the judicious use of lavage. The lavage should be employed, preferably, not very long before the injection of a meal, and should consist in the use of a normal saline solution at a temperature of 100°, continued until the water comes from the stomach clear. The normal saline solution not only stimulates a flow of hydrochloric acid, but, through its absorption, contributes to the production of the acid. An alkali, notably sodium bicarbonate, given before meals will excite the gastric glands to

an increase of acid. When hydrochloric acid is indicated, doses of not less than ½ a dram of dilute acid should be employed, and this should be given in not less than half a glass of water, from 20 to 30 minutes after eating. Bitter tonics are of value, but should always be given before meals; if given on a full stomach it has been found that they will to some extent retard digestion. A valuable prescription when there is troublesome indigestion with subacidity is the following:

℞.—Sodium bicarbonate..... 160 grains.
Infusion of quassia..... 8 ounces.
A tablespoonful in a little water 30 minutes before meals.

Bronchiectasis.—Anders has found the following combination useful:

℞.—Balsam of copaiba..... 1 to 2 drams.
Ammonium chlorid..... 2 drams.
Extract of licorice..... 1 dram.
Ammoniac mixture to make ..... 3 ounces.
Two drams every 4 hours.

Xeroform.—Nuguera (*Deutsche militärärztliche Zeitschr.*, Part 5, 1899; *British Medical Journal*, November 25, 1899) claims excellent results from xeroform in the treatment of wounds. The wounds were first freely irrigated with a 1 in 1,000 sublimate solution, then a fine layer of xeroform powder was strewed over the skin, and the whole covered in with sublimate gauze and carbolized wool. Sutures were applied in saber wounds without loss of substance. The dressings were not changed till they were soaked through. The wounds healed remarkably well; even bad gashes closed in two or three weeks. The secretion from the wound was completely taken up by the powder and sterilized. Most of the cases thus treated were not admitted into hospital till from one to three days after the wound was received. Xeroform, according to Nuguera, is valuable as a primary application when less portable antiseptics are not at hand, since it destroys the sepsis in dirt and discharge around the wound.

Contagious Impetigo.—According to Abraham (*Clinical Journal*) the pustular and crustate eruption characteristic of this disease is due to infection with the staphylococcus aureus and albus, and he claims that complete cure can be effected in a week or two by the use of the following antiseptic lotion and ointment:

℞.—Creolin..... ½ dram.
Water.....10 ounces.

The patients are instructed to use this lotion mixed with equal parts of hot water, and then to apply the following ointment:

℞.—Ammoniated mercury..... .....40 grains.
Ointment of rose-water..... 1 ounce.

The creolin when mixed with water forms a milky fluid. It is an excellent antiseptic, and it allays itching.

Treatment of Chronic Nephritis.—Hare (*Therapeutic Gazette*, December 15, 1899) writes that many patients with contracted kidney, unless they are markedly gouty, can have a liberal diet, provided it is one which is not calculated to produce digestive disturbances. These patients need not have their meat cut from the diet list, but should be allowed to take good wholesome food in moderate quantity. Many physicians of large experience believe that to eliminate red meat and eggs from the diet-list, when the patient has chronic parenchymatous nephritis, is to deprive him of a large amount of nourishing food which in reality he can take with impunity, provided it is not taken in excess. In acute nephritis, of course, it is advisable to avoid albuminous food until the acute period of the disease is passed away. If it is believed that the scanty urine depends upon inactivity of the renal epithelium, the administration of caffein may be wise, or in other instances the production of free diuresis by the use of bitartrate of potassium and juniper berries in infusion may produce the best results. This old combination, which has to a large extent dropped out of use with some practitioners, is much too valuable to be lost sight of.

If, on the other hand, an examination of the heart indicates that this organ is unduly feeble, and that the albuminuria and scanty renal secretion depend upon renal stasis, then digitalis or strophanthus, alone or combined with juniper berries and bitartrate of potassium, is very useful. While the administration of copious draughts of water is advisable in a certain number of cases, it should be governed by the dropsical condition of the patient; if there is deficient renal elimination of fluid, because the kidneys are unable to pass it out of the blood, it is manifest that copious draughts of water will not remove impurities from the body, but will simply tend to increase dropsical tendencies.

While iron is often useful, Hare believes that too much reliance is often placed upon it; aside from the fact that when given in mixture a diuretic effect is produced, large doses of iron probably do more harm than good, as they tend to produce constipation. Probably spirits of mindererus, when given alone, would produce almost equally good results; and minute doses of iron were given in pill form, equally good influences would be produced in combating anemia. For the relief of dropsy by hydragog purgatives and hot-air baths are therapeutic measures of the greatest value. In the author's experience medicinal diaphoretics are not of any great value. Pilocarpin is too much of a heart-depressant to be employed in most of these cases, and either because of its depressing effect upon the heart, or by reason of its causing a profuse outpouring of the secretions into the bronchial tubes, its use is apt to produce that gravest of all conditions in nephritis—edema of the lungs. Hare is of the opinion that it ought never to be employed in combating uremia, except perhaps when given in very minute doses to aid the action of the hot pack, and then the circulatory system should be assisted by minute doses of strychnin, which drug, however, may be contraindicated if the poison of the disease seem to be producing great nervous irritation.

Serotherapy in Tuberculosis.—The correspondent of the *Lancet* (November 25, 1899) writes from Rome that three "cures" for tuberculosis are at present competing for favor in Italy—two of them, that of Cervello, of Palermo, and that of Ruata, of Perugia, consisting of medicated inhalations, and the oldest of them, that of Maragliano, of Genoa, proceeding by serotherapy. This last has just received an emphatic endorsement from Rigazzi, an Italian consultant of wide experience in chest-affections. The last case under his treatment was that of a patient suffering from advanced tuberculosis with fever, harassing cough, rusty expectoration, grave loss of flesh and weight, and extreme general prostration. At the end of 1896 Rigazzi employed the Maragliano serum, and persevered with the injections till all the above symptoms were arrested—arrested, moreover, definitively. Three years have now elapsed since the patient left Rigazzi's hands, and when last seen he was found to be comparatively robust, having brought up his weight to 87 kilograms, and being at length able to resume his professional work. This case is by no means an isolated instance of the efficacy of the Maragliano method, and is worthy of attention, as the claims of other and more recent therapeutics, particularly the medicated inhalations in use at Palermo and Perugia, have tended to throw its undoubted success somewhat into the background.

[Raimondi and Moscucci (*Arch. Ital. Clin. di Med.*, October 15, 1897) report 15 cases of phthisis treated with Maragliano's serum; 5 of these had incipient phthisis, 10 had advanced phthisis with cavities and high temperature. Of the 15 cases, 4 showed persistent improvement, 6 seemed improved, and 3 were unimproved. There were no untoward results. Francesca (*Riforma Med.*, June 28, 1897) reported favorable results with the serum in tuberculosis of the lymph-glands. Zanoni (*British Medical Journal*, January 28, 1899) reported 412 cases of tuberculosis treated with the serum, and of these 16% were cured, 48% improved, and 25% remained stationary.]

Hydrotherapy in Phthisis.—Blackader (*Montreal Medical Journal*, July, 1899) says that hydrotherapeutic measures are among the most valuable adjuvants in the treatment of phthisis. Cold compresses are extremely serviceable for the relief of many of the minor ailments of tuberculous patients; while the cold sponge or douche, taken in a regular, methodical way, is of great value in toning the vasomotor system, and preventing the tendency to "catch cold" easily, so notable in many tuberculous. The best chest protector, says Ransome, consists in well douching the chest night and morning with quite cold salt water.

Original Articles.

GRAVE SECONDARY ANEMIA, SIMULATING PROGRESSIVE PERNICIOUS ANEMIA.[1]

BY J. M. DACOSTA, M.D., LL.D.,

of Philadelphia.

THE case before you is one of profound anemia. I shall first relate the history.

John W., 47 years of age, a mariner, was admitted into the hospital on November 24, eight days ago. He is profoundly anemic, with a yellowish, or light lemon color, tint to the skin. He says that this was more marked at the beginning than it is now, and it was more marked when he was admitted than it is this morning. Without reading all the details of the history, I will state that there are certain points which stand out clearly. In the first place he has been dyspeptic since 1893. He had been in excellent health previously, but he then had an attack of dysentery while at Hong Kong. He was jaundiced at the time and passed very dark-colored urine. He has had attacks of hepatic colic and has passed gallstones on four occasions since. The last stone was passed in September of this year; he was much jaundiced during the attack. He also had fever, and he tells us that he always has had fever in these attacks, when he passes the gallstones. Between the attacks he is weak and suffers, as already remarked, with dyspepsia. In addition to this chronic digestive disturbance, he states that seven days before admission he vomited some blood. This was the only time that he had vomited blood, and it came after a paroxysm of coughing. It was mixed with the contents of the stomach. It was at first a bright red color, but afterwards a liver color, as if partially digested.

He has still some cough and there is impairment of the percussion-note at the right apex; but there are no tubercle-bacilli in the sputum. We may exclude the lungs as the source of the bleeding. His conjunctivae are pale. There is a general pallor of the skin mixed with a slight lemon hue. When he came into the hospital, his face was of a bright yellow color, and this was not the yellowness of jaundice, because the conjunctivae were as pale then as they are now. Further points in the case are: a slight blood-murmur, systolic and soft, in the heart; and some enlargement of the left lobe of the liver, which is, however, not tender to the touch. There is no enlargement of the spleen. There is no dropsy. The urinary examination showed nothing abnormal.

The examination of the blood is of great significance. We find that there is only 17% of hemoglobin and the blood-count shows 2,649,842 red cells to the cubic millimeter. Relatively the white cells are increased, there being to the same quantity of blood 12,600 leukocytes. Therefore, with this extraordinary diminution of hemoglobin, and the red cells reduced to one-half the proportion in normal blood, we have an actual increase of white cells. The red cells are also irregular in their outlines, making the condition of poikilocytosis, as it is technically called. It is also noted that there are no megalocytes, or very large, red blood-cells, and no nucleated red disks. Here is the report of the last microscopic examination:

Reds,	2,692,800.		
Whites,	12,600.		
Whites,	Polynuclear	— 83%	
	Mononuclear	— 5%	(small)
	"	— 8%	(large)
	Transitional	— 2%	
	Eosinophiles	— 2%	
		100%	

Now, what conclusions are we warranted in drawing from these examinations of the blood? In the first place, they show a leukocytosis, but they absolutely exclude leukemia. Irrespective of numbers we could not have leukemia with this kind of leukocytes.

What is the cause of the marked anemia? Is it pernicious anemia, or is it secondary anemia? This is a very important question. By pernicious anemia we mean a condition in which the blood is profoundly altered and the red blood-corpuscles diminished enormously, without our being able to detect any organic cause for the diminution in spleen, liver, or any other structure. Has the patient before us pernicious anemia? I do not think so. It is true that there is a great diminution of the red blood-cells with no apparent organic disease to account for it, except it be connected with the gastric disturbance and slight enlargement of the left lobe of the liver. But if we go a step farther, and look for the characteristics of the blood in pernicious anemia, we will find that they do not correspond with the blood-examination in this case.

In pernicious anemia, notwithstanding the great diminution of red blood-corpuscles, you will not have the hemoglobin reduced in the same proportion. In this case, on the contrary, the hemoglobin is reduced to a degree below that which corresponds with the reduced number of red blood-cells, to 17%. This is the first point. The second point is the irregular characters of the red blood-cells, the poikilocytosis. While this is found in pernicious anemia, it is also found in all grave, secondary anemias; so that this does not prevent me from reaching a conclusion against pernicious anemia. Thirdly, and this is a matter of very great importance, in pernicious anemia we do not have an increase in the white blood-cells. Here we have over 12,000—usually, in health, we have about 7,000 or 8,000,—therefore, the positive increase of the white cells is also against the diagnosis of pernicious anemia. Further, there are no nucleated red blood-corpuscles, which are so commonly seen in pernicious anemia.

If this be not a case of pernicious anemia, what then is it? It is a secondary anemia, an anemia consequent upon some definite organic cause; a grave anemia, too, but less grave in its prognosis than pernicious anemia. In secondary anemia, we have the red blood-corpuscles very much reduced in number and altered in shape, the white cells may be much increased and the hemoglobin very much diminished, and these characteristics correspond with what is found in this case. To this we add the fact that there are no nucleated red blood-corpuscles, so that the point which we have just found to be against the supposition that this was a case of pernicious anemia, is in favor of secondary anemia.

To what is the secondary anemia due? That is a very difficult question to answer. On looking over the history of this case, I thought that it might have been only a secondary anemia following disease of the bile-ducts. Having had several attacks of gallstones, he may have had cholecystitis or cholangitis and consequent anemia. But I was unable to get a history of

[1] A clinical lecture delivered at the Pennsylvania Hospital, December 2, 1899.

persistent liver-disease. Against this view also is the fact that there is no tenderness over the liver and no elevation of temperature; in fact there are no local symptoms whatever upon which to base this diagnosis. The absence of bile from the urine would, though not conclusive, also be against it. I may further state that there is nothing in the spleen and nothing in the kidneys that will account for this grave anemia; the hemorrhage, I believe to be due to the state of the blood.

Then this thought came into my mind. There are cases that I have seen—I do not say many, because the cases are comparatively rare, yet a number—in which the gastric tubules atrophied, and as a result a profound anemia developed. In this form of secondary anemia, you will have a history of prolonged indigestion as a prominent feature; and this agrees with the clinical notes of the patient before us. To test this view, we gave him a trial-meal, and examined the contents of the stomach. We found only the faintest acidity, due to hydrochloric acid, which unquestionably was very greatly diminished in quantity; there was no lactic acid. The absence of this was against cancer, as were the absence of pain, tumor and vomiting. Thus I conclude that the anemia is secondary to the condition known technically as achylia gastrica.

In pernicious anemia, as you are aware, the prognosis is absolutely unfavorable. There are lulls and temporary pauses in the downward course of the disease, but the patient does not recover. In secondary anemia the prognosis is generally more favorable, and the patient may recover, partially at least, from his anemia. In the form represented by the patient, much will depend upon how completely, and how many of, the gastric tubules have been impaired, and how far the function of the stomach can be restored.

This man is taking arsenic, in the form of Fowler's solution, three drops every four hours, and we shall further on ascertain if he can digest iron. Considering the absence of the secreting power of the stomach, its inability to secrete gastric juice, I think it will be proper to place him also on dilute hydrochloric acid, about 20 drops before meals, the arsenic to be continued after meals. We shall put him on suitable diet—plenty of milk, eggs, meat-juice, and also, if he can take it, small pieces of underdone meat, finely cut up; he shall have a meat-diet chiefly. Every time he takes a meal, he may also take two grains of caroid to digest it. In other words, we will try to give him bloodmaking food and help his stomach in the task of digesting it.

CASE OF SUCCESSFUL SUTURE OF THE VAS DEFERENS DIVIDED IN A HERNIA-OPERATION.

By JOHN B. ROBERTS, M.D.,
of Philadelphia.

In May, 1899, I operated for the radical cure of a large inguinal hernia in a young man. While separating the sac I found that the spermatic cord had been thinned out by pressure from the large hernial mass. Notwithstanding great care in the dissection and my constant appreciation of the danger of dividing the vas deferens, I was so unfortunate as to cut this tubular structure completely across. After sewing up the hernial ring and before closing the wound, I united the cut ends of the vas deferens in the same manner as an ureter is at times repaired after similar injury. I did this by making a split in the lower portion of the tube for a short distance and drawing the upper portion into the lower split end by means of two sutures and needles attached to the upper end. After the upper portion was drawn into the lower a few sutures were used to close the split and hold the parts together.

I do not know that this is an unusual operation, but I record it, as it seemed to me to be indicated by the condition unfortunately produced. Within a few weeks I have seen the patient and found that there has been no special change in the testicle of that side; it certainly had not undergone atrophy and seemed to be physiologically normal. I report the case simply to show that the divided vas deferens should be united in a manner such as that indicated, whenever the surgeon has the misfortune to divide it. I am inclined to believe that when it is divided in hernia-operations it is usually let alone without an attempt at repair. The testicle must then undergo atrophy or at least remain functionally useless.

ON THE SIGNIFICANCE OF BOVINE TUBERCULOSIS AND ITS ERADICATION AND PREVENTION IN CANADA.[1]

By J. GEORGE ADAMI, M.A., M.D.,
of Montreal, Can.
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In determining the significance of bovine tuberculosis, so as to arrive at adequate conclusions—adequate that is from all points of view—three main questions have to be asked and answered. These are:

1. Is tuberculosis in cattle a source of danger to other cattle, so as to seriously affect their well-being and to be a source of loss to their owners?

2. If infectious from animal to animal, is it infectious from animal to man, and thereby a grave source of danger to the human race?

3. If infectious from animal to man, what are the commonest modes of infection, and as a sequel to this, how are we to diminish the danger?

If even the first of these only can be answered in the affirmative, then it becomes necessary to inquire how the disease can be arrested; and it is for our profession,

[1] Read before the Canadian Medical Association, at Toronto, August 30, 1899.

as interesting itself in disease in general, to take a leading part in agitating for this arrest. If both the first and second, then we are not only indirectly but directly affected; and to allow tuberculosis in cattle to gain a headway without ourselves employing all the means in our power to arrest its progress, is little less than criminal.

Today I propose briefly to consider in order first the significance of the disease, next its frequency in our country, and finally the steps necessary to stamp it out.

I. *Is tuberculosis in cattle a source of danger to other cattle?*

To this the answer is an unqualified affirmative. We have abundant evidence here in Canada that the introduction of an infected bull, as again of infected cows, into a herd previously free from the disease, has been followed within a short time by symptoms of the disease in members of the old herd.

The ravages which this disease creates among the cattle of civilized communities is something appalling. Here in Canada, as I shall proceed to point out, we are in a relatively very favorable condition and most of us in our profession see very little of the disease and of its results. It is otherwise in the old world—there the steady spread of this plague among the dairy herds is creating widespread alarm. That it is extending there is no doubt; the following table of slaughter-house statistics, which I take from an article by Professor Conn, gives some idea of the rate of this spread:

BAVARIA.		BERLIN.	
1877	1.62%	1883	2.86%
1888	2.7 %	1885	2.10%
1895	5. %	1896	15.45%
SAXONY.		**LEIPZIG.**	
1888	4.90%	1888	11.1 %
1890	15.7 %	1889	14.9 %
1895	27.46%	1890	22 3 %
		1891	26.7 %
		1895	33.3 %

These figures show the amount of tuberculosis from slaughter-house records.

It may be objected that this increase is only apparent, that the veterinarians and the officials at the slaughter-houses have of late years learned to recognize the disease with increasing accuracy, a single tuberculous gland being now often detected whereas it was passed over in earlier years. It may also be objected that other factors have to be taken into account, namely, the experience of inspectors, the attitude of the inspectors towards the disease—a desire to find little resulting in little being found, and vice versa—that, further, the age of the animals slaughtered affects the results (tuberculosis being a disease showing itself especially in older cattle).[2] But all through the period indicated by the above table great attention has been paid to the subject by veterinarians; their eyes have been opened to the existence of the disease and to methods of gross anatomic diagnosis in the carcass. At Leipzig, more especially, as Conn points out, the inspection has been most careful, it has been under the same management during the whole period, so that the results of successive years may more safely be compared with each other than in most cases, and Leipzig affords the strongest evidence of the increasing frequency of the disease.

The rise in percentage of tuberculous cattle seen in the slaughter-houses at Leipzig from 11.1% to 33.3% in 7 years is veritably appalling, and no other explanation can be afforded than that the disease, in Germany at least, is spreading with terrible rapidity. So much, indeed, is this the case that competent authorities there are of opinion that in a few years there will be no breeding-herds left unaffected. If in place of the slaughter-house statistics we take those afforded by the tuberculin-test, the percentage of cases found in animals other than yearlings is yet higher than those afforded by the slaughter-houses. In Germany and Denmark veterinarians have come to the conclusion that the amount of tuberculosis is over 50% of all animals in the land, many large farms being found without a single sound animal. In other words, about half the animals in northern and western Europe would seem to be afflicted with tuberculosis.

Corresponding statistics for Great Britain do not exist, nevertheless the conditions there, it would seem, are scarcely if at all more favorable. Thus in the county of Midlothian, abattoir statistics show the existence of the disease in 22% of the animals slaughtered, in Yorkshire a percentage of 22.8, Durham 18.7, and in London 25%, and this, be it remembered, are slaughter-house results and not those derived from the tuberculin-test. In fact, tuberculosis among the most valuable and most highly bred herds is so extensive that extreme precautions should be taken and stringent contracts made by the buyer as well as stringent regulations framed and carried out by the Government to insure that however great the cost of the individual cow or bull imported, the animal be found perfectly sound and unaffected by the disease before it is permitted to enter the country.

Personally, though in this I speak in no official capacity, I am inclined to think that, taking into consideration the fact that if once an animal has been inoculated with tuberculin it may not give a second reaction until more than a month has elapsed, I would urge that all cattle imported for breeding purposes be kept in quarantine for 6 weeks at least, and only permitted to be delivered to owners in this country if at the end of that period they fail to react. Otherwise, by any other course, there is a distinct danger that the disease may be introduced into herds previously quite free from the disease.

[2] According to Röckl—I quote from the report of Dr. P. H. Bryce to the Provincial Board of Health, Toronto—from a consideration of some 51,000 animals slaughtered in German abattoirs in 1888-89, according to the age of the animal the infection was found,

6 weeks old	0.6%
6 weeks to 1 year	0.6%
1 to 3 years	11.4%
3 to 6 years	33.1%
Over 6 years	43.4%

Nor even in the eastern and older populated States of America is the condition more satisfactory; certainly in Massachusetts, where the most painstaking observations have been made, the disease has been found very common. In their report for 1895, the Cattle Commissioners of that State show that in some large herds the percentage of animals reacting to tuberculin was as high as 100%. These are, it is true, extreme cases. Of 3,195 of the animals reported by inspectors and others in various parts of the State, 810, or about 24.58%, reacted. Of neat cattle examined at the stock yards about 6.21% were condemned; while in the district of Nantucket, selected because of the position as an island on the coast upon which there were relatively few cattle, and these fairly well isolated, 6 of the 665 animals upon the island, or rather under 1%, reacted to the test. This, while it shows considerable variation in the prevalence of the disease, under varying conditions, shows also that it is far from infrequent, and that care must be taken with regard to importation of stock for breeding purposes from the Eastern States as from across the sea.

What are the results and what the dangers from this extraordinary prevalence of the disease elsewhere?

First and foremost there is the effect upon the animal itself, upon its value as a milker, a breeder and a meat-giver. While for some months a cow acting to the tuberculin-test may remain sleek and give abundant milk, sooner or later the disease progresses, she emaciates, dries up, becomes useless, and when killed is almost valueless—what was once a valuable animal is finally a great loss to the farmer.

In the second place—though this matter I shall not discuss at the present moment—there is the danger to the community in employing the milk and meat from such an animal. In any case, where this disease is at all frequent the loss to the farming community and so to the country at large is enormous.

Even in Scotland, which cannot be called a large country or one in which cattle raising and cattle breeding is the staple occupation of the inhabitants, Professor Wright, in 1893, estimated that tuberculosis in cattle caused an annual loss of dairy stock of about £440,000, or $2,200,000, and this apart, I take it, from considerations of loss of milk and butter and loss as breeding animals.

We may therefore conclude, that purely from the standpoint of the agriculturist, it is all important that this disease be, if possible, eradicated.

II. *If infectious from animal to animal, is bovine tuberculosis infectious from animal to man?*

The answer to this question is generally given as an unhesitating affirmative. I wish, however, to point out to you today that while we must accept the affirmative as the correct answer, and while it is the duty of the individual and of the State to act in full accordance with the belief that this is so, the amount of reliable evidence of direct transmission of tuberculosis from cattle to man is singularly slight. For let us consider the means at our disposal for determining this point. Could we make a direct experiment the determination would be easy and straightforward; but this is just what we cannot do. To inoculate the human being with tuberculous material or to expose to infection from a diseased cow, would be a criminal act; it would differ in no sense from attempted murder. We can, it is true, perform the opposite experiment, that of inoculating cattle with phthisical sputa or other tuberculous material from man. If we do this, as Theobald Smith has pointed out, we discover the remarkable fact that cattle are relatively insusceptible or are but slightly susceptible to human tuberculosis. Whereas tubercle-bacilli obtained from cattle introduced into other cattle induce a relatively virulent disease, those obtained from man either set up mild chronic disturbance tending to be localized or lead but to transient results,—such tubercules as are formed undergoing absorption and disappearance. That, because, for cattle, bovine tubercle-bacilli are very virulent, therefore they are also very virulent for man, more so than are the human bacilli,we know from comparative bacteriology to be an absolutely unsound deduction. This may be so, but it may not. We have fairly abundant evidence that passage of pathogenic germs through a series of animals of one species leads to those germs attaining their maximum virulence for that species, but not by any means necessarily for other species. Indeed at times the virulence for other species is distinctly lessened by such passage; and in connection with tuberculosis we have distinct evidence that the bacilli obtained from fowls suffering from tuberculosis differ even more widely in properties from those obtained from man than do the bovine tubercle-bacilli. Despite some earlier observations to the contrary it is now generally found that fowls may, with impunity, be fed with human phthisical sputa without becoming infected. Kruse has, it is true, obtained in a few cases from the human body tubercle-bacilli of the avian type, indicating that man may be infected from birds. But we cannot legitimately apply these observations by analogy to the case of bovine tuberculosis and man. We are forced therefore to fall back upon evidence of another type.

Do the bacilli gained from the human and bovine species possess a morphologic and cultural identity? They do not. The bovine grow more freely in the ordinary glycerinated media; they are, I find, of greater relative breadth; while again, as already indicated, pathogenetically they exhibit different degrees of virulence, and this when inoculated not only into cattle but into guineapigs and the small animals of the laboratory. Koch, it is true, in his classical experiments held them to be identical, but later research has shown them to be so distinct as to make some observers consider them distinct species. But to classify them as

distinct is to pass beyond what is right and reasonable. We are accumulating more and more facts to show that pathogenetic bacteria may undergo extensive modification according to the nature of their environment and that within certain limits bacteria may show more or less permanent variation of common properties as a result of variation in environment. And in this matter of tuberculosis we have the most important observations by Nocard and Roux, that avian tubercle-bacilli, which differ more widely from the human than do the bovine, can be shown not to be a distinct species, but what may be termed "races."

While under ordinary conditions human tubercle-bacilli inoculated into birds are destroyed and lead to no organic changes, if a pure culture of such bacilli be placed in collodion capsules and those be then hermetically sealed and introduced into the abdominal cavities of birds, when protected thus from the body-cells, but fed by the body humors which diffuse through the collodion, they will grow and in the course of weeks assume all the characters and all the pathogenetic properties of the avian bacilli. We can only from this conclude that the races of the tubercle-bacilli spring from a common stock, and have undergone material modifications according to their surroundings. So far, however, bacilli having all the morphologic and cultural characteristics of the bovine "race," have not been isolated from the human organism, nor do I know that so far, by placing protected human bacilli in the abdominal cavity of the cow, these have assumed the bovine character. It is in this last experiment, I believe, that the solution of the question is to be found. For if we can show that under favorable conditions the human bacillus can become highly pathogenetic for cattle, the converse would also seem to hold that there are conditions under which bovine tubercle-bacilli can be pathogenetic for man.

Failing direct experimental and bacteriologic evidence of the absolute identity of bovine and human tuberculosis, we are, for an answer to this question, driven back yet further, and this time to casuistic evidence. Have we any evidence or absolute proof that by natural means tuberculosis has been conveyed from cattle to man? We generally teach that we have such positive proof; and at first thought it would seem easy to collect cases after cases in which, for example, butchers and those dealing with tuberculous animals have become infected through wounds, etc., or again of children and other human beings fed upon the infected milk of tuberculous cattle developing tuberculosis. But when we come to examine into these cases, we must be struck by the lack of positive evidence afforded. To prove the case we must be able to absolutely exclude every other possible mode of infection, and with human tuberculosis so common a disease, such exclusion is a matter of extreme difficulty. It must be shown that the individual has not come into contact with any other human being actively suffering from the disease. In the case of butchers it has to be proven that they have dealt with tuberculous cattle and no other infected animals; previous cases of human tuberculosis in the neighborhood have also to be excluded, for we know that in dwelling-houses the virus may linger for long in the dust, and in hangings of rooms. Thus, to obtain an uncomplicated case is a matter of the greatest difficulty.

Upon broad principles, it is true, the frequency of tuberculosis among children and its increasing frequency during the period when they have a diet largely of cow's milk, would appear to be a strong argument in favor of believing that the milk of cows affords the most likely source of infection. Only in this last week's *British Medical Journal*, in an able paper by G. F. Still, of the Great Ormond Street Hospital for Children, the matter is brought forward very clearly. He considers a series of 769 consecutive necropsies on children under 12 years of age; of these no less than 269, or more than one-third of the total number of cases showed tuberculous lesions. We find in these 269 cases, 117, or no less than 43%, occurred at the milk-drinking period of life, namely during the first 2 years of life, and 56.5% occurred in the first 3 years. Undoubtedly the main incidence of tuberculosis in the young corresponds more or less exactly with the period in which milk forms, or should form, the chief article of diet, and, as Still quotes from a report on tuberculosis presented to the Council of the British Medical Association, "the mortality from tuberculosis in early childhood is not decreasing as it is at other ages in the United Kingdom, and the opinion that this great prevalence of the disease in childhood is due to infection through the alimentary canal by milk from tuberculous cows, appears to be well founded."

But now let us analyze Dr. Still's very careful studies upon the sequence of infection. To determine such sequence is a difficult matter, because tuberculosis in children so rapidly tends to become generalized that it is difficult to make out which are the oldest and which the more recent lesions. But a study of the lymphatic glands affords material aid; thus, large cheesy or caseous masses in a mesenteric gland with scattered tubercles in the peribronchial, indicates that the intestinal lesion is primary, and conversely, if the peribronchial glands be the more affected, infection has been more probably through the respiratory tract. Tubercular adenitis of the larynx and tubercular ear-disease would also appear to be mainly due to infection through the air rather than the food. Thus, in the 269 cases above referred to the channel of infection was as follows:

RESPIRATORY.

Lung	105	136	153 = 57.2%
Probably lung	33		
Ear	9	15	
Probably ear	6		

ALIMENTARY.

Intestine.....	53	63 = 23.4%
Probably intestine..	10	

OTHER CASES.

Bones or joints.....	5
? Fauces.....	2
Uncertain.....	46
	269

It thus follows that respiratory rather than alimentary infection is the commoner in children in about the ratio of 57.2% to 23.4%. While this is the case it must also be admitted that the proportion of cases of alimentary infection is relatively high—so high as to make it very probable that the staple food of children, namely, milk, does play a part in the spread of the disease.

When now we come to examine the individual cases there are some which it is very difficult to explain unless we assume that infection has been through the milk. But while admitting this we have to confess that with scarcely an exception the evidence afforded is not absolutely exclusive of possibility of infection by other means.

Demme records a case of 4 infants in the Children's Hospital at Berne, issue of sound parents, without any tuberculous ancestry, who died of intestinal and mesenteric tuberculosis as the result of feeding on the unsterilized milks of tuberculous cows. These were the only cases in which he was able to exclude the possibility of other causes for the disease, and was satisfied that the milk alone was to blame.

The Cattle Commissioners of Massachusetts give reference to a case of an infant, son of a college-mate of one of their body, a comparatively strong, healthy child of 21 months, who, visiting a relative for a week, drank unsterilized milk of a cow which was soon after condemned and killed in a state of generalized tuberculosis; this child died 3 months later with mesenteric tuberculosis. Only distant relatives had died of this disease, and the child had seen but one of these and that for short intervals. A second child of the same family, brought up on sterilized milk, remained in robust health; the parents were free from the disease. Even in a case like this, convincing as it seems, more information is required with regard to the nurse and servants of the household, the possible existence of any case of tuberculosis in the house of the relative visited, and so on.

Ernst quotes similar cases. Ollivier's well-known case, quoted in the *Semaine Médicale* of February 25, 1892, is also not quite perfect. The case was that of a girl of apparently healthy parentage and previous surroundings, who died of meningeal tuberculosis. She was educated at a boarding-school where 13 pupils had been ill with and then had died of tuberculosis within a few months. The milk supplied to the school was from cows kept on the premises; these animals, upon examination, were found to have tubercular disease of the udders, and to suffer from general tuberculosis. Here, for example, it might be urged that under school conditions one girl might easily convey the disease to the other. The swiftness, however, with which the disease affected simultaneously a large number of individuals is on the whole in favor of regarding the disease as having been brought about through the milk. Thus the evidence, while not absolutely convincing, is *strongly* in favor of the view that tuberculosis can be conveyed through the milk of animals extensively diseased, and this being the case we cannot sit with hands folded and regard the extension of bovine tuberculosis with indifference, but must make such regulations as will diminish the possibility of such infection.

III. *What are the most frequent modes of infection?*

Naturally, apart from actual contact with the diseased animals and their products, the commonest modes of infection are by the animal products used as food, namely, the meat, milk, and milk products. There are but a few words that I wish to say in this connection: The infectiousness of meat may be rapidly dismissed—Sims Woodhead, and the British Royal Commission have shown that while the ordinary cooking of meat is sufficient to destroy tubercle-bacilli, and while thus in English-speaking countries the danger of infection from this source is reduced to a minimum, it nevertheless may happen that the portion of a large joint in the center may not be subjected to a temperature sufficient to kill the bacilli. At the same time the report from the same Royal Commission shows clearly that even in fairly well advanced cases of tuberculosis the bacilli are present in but small quantities, in the meat itself; in fact, muscle is one of the last tissues to become the seat of the tubercular process. They show that the great danger is not from the existence of tubercles within the meat, but of contamination of the surface in the process of dressing, by the knives and hands of the operators becoming smeared with material from other regions which are the seat of extensive disease.

When such susceptible animals as guineapigs, *fed* directly with the expressed juice of raw meat, do not thereby become infected, it is, to say the least, little likely that cooked, or even partially cooked, meat can set up infection in man. Where the disease is so far advanced that the meat may become dangerous to humanity, there is little likelihood of such meat being exposed for sale or employed as a food.

With milk, the problem presents several difficulties. Accepting it as a fact that this can convey infection, the conditions under which it does so are, I think, not generally recognized. Thus the British Royal Commission lay it down that only when the udder is diseased does the milk become infectious, and would suggest that the withdrawal from the dairies of cows having any disease whatever of the udder, would form

some approach to security against the serious danger incurred to man by the use of tuberculous milk; "but it would not be an adequate security." The report further states, "if the expert finds tubercle-bacilli in the milk, the cow has dangerous tuberculosis of the udder; if he does not find them, he may apply a further test by inoculating some susceptible animals with the milk and thereby learning the nature of the udder disease. By this test he will rarely be misled."

In this conclusion the British Commission strongly supported Nocard's opinion upon this subject. But this view that the tubercle-bacilli only pass into the milk when there is disease of the udder, I feel convinced is founded upon imperfect knowledge. This conviction is based upon the results of observations conducted by Dr. C. F. Martin and myself for the Dominion Government during the course of last year.

On 10 cows placed at our disposal by the Minister of Agriculture necropsies were made and we could not find a trace of a single tubercular focus in any one of the udders, and that notwithstanding very careful study and examination. Any part that upon section looked to us the least suspicious was subjected to examination under the microscope. Yet in the milk of two of these cows we detected bacilli in fair numbers, in 4 others on certain occasions we saw forms which we were compelled to describe as undoubted bacilli, and, what is more, two of the guineapigs inoculated with the milk from the cow which showed the greatest number of bacilli, undoubtedly succumbed to tuberculosis. It is true that the majority of the animals inoculated with this same milk remained perfectly free from the disease, *i. e.*, of 29 guineapigs and 26 rabbits inoculated intraperitoneally with varying quantities, only two guineapigs succumbed, while, again, a calf fed solely with the milk from this cow remained in perfect health, although fed for 5 months. Had only this cow shown no sign of tuberculous disease of the udder we might have thought that our failure to recognize it was due to insufficient examination, but the same absence of udder-disease was seen in the case of the other cow which afforded fairly frequent bacilli.

Since publishing our report, Rabinovitch and Kempner have contributed to the Congress of Tuberculosis at Berlin a paper in which, by inoculation into guineapigs, they came to a similar conclusion. Taking 15 cows which had reacted to tuberculin, receiving the milk direct into sterilized glasses and inoculating guineapigs with a mixture of the precipitate and creamy layer after centrifugalization, they obtained the following results:

From 10 of the animals (66.6%), they obtained a positive result, but of these animals only one showed clinically definite tuberculosis of the udder, and one other showed udder-tuberculosis under the microscope. The remaining 8 cases were found at necropsy, 3 of them, to present advanced generalized tuberculosis without tuberculosis of the udder, one showed slight tuberculosis, and the remaining 4 only presented either dubious or absent clinical signs of the disease. They thus come to the conclusion that tubercle-bacilli can pass into the milk even in the early stage of tuberculosis in which there is no recognizable disease of the udder, as also in cases in which the disease can only be detected by the tuberculin reaction.

It has been objected to results of this nature that the bacilli in these cases are not truly tubercle-bacilli, but are contaminations of a relatively non-pathogenetic form. Thus recently it has been pointed out that there may be present in milk a bacillus which microscopically is undistinguisable from the true tubercle-bacillus and which when inoculated into guineapigs produces a disease and frequently death with symptoms very similar to those of true tuberculosis. But to animals other than guineapigs, this bacillus is not harmful and probably it has no effect on man. Only by fuller experimentation is it possible to distinguish between these two types of organisms, and it is urged that recognizing the presence of this false bacillus in milk and butter, experiments such as those above described are open to serious question. Indeed, some go so far as to claim that nearly all the fatal results obtained from inoculating butter into guineapigs have been due to this false bacillus and not to the true one.

Such a bacillus has been isolated from ordinary timothy grass and undoubtedly resembles very closely the tubercle-bacillus. But herein comes the difficulty in accepting this explanation for our experiments and those of Rabinovitch. In our case the udders were carefully washed with creolin before milking, and whereas the milk was first passed through a sterilized funnel into sterilized bottles which we brought immediately to the laboratory, later the milk was received direct from the cleansed udder into the sterilized bottles. There was here practically no chance for contamination of the milk unless, indeed, it be held that this false tubercle-bacillus is a normal inhabitant of the larger milk-ducts. Rabinovitch and Kempner took similar precautions. It is also interesting to note, in the second place, that we found a relationship between the number of bacilli present in the milk and the extent of the tuberculous process in the animal. Two animals in which we found the bacilli most extensively present were those showing most extensive disease of the lungs. Such a relationship would be impossible were we dealing with contamination. Thus I can only fall back upon the belief that just as I have recently shown the gland cells of the liver and of the kidney can take up and discharge the colon-bacilli, so the cells of the actively working milk-gland in cattle have a similar power; and just as I find that the colon-bacilli tend to be attenuated in their passage, so would I attribute the somewhat altered appearance of these tubercle-bacilli in the milk of animals suffering from udder-tuberculosis,

direct action upon them in the process of excretion id would recognize that their lowered infective powers e due to the same result.

At the present moment, at the Experimental Station Outremont, I am putting this view to the test. For yself, therefore, I cannot but come to the somewhat unatisfactory conclusion that, whereas, in the first place, ie milk of animals not suffering from udder-tuberculosis may contain bacilli; nevertheless, such milk is ot of high infective power, and that, therefore, the freiency with which the bacteriologist may, by inoculaon into guineapigs, find the milk to be infectious, is ot absolute indication of its danger when employed a food for man. Only when there is recognizable lder-tuberculosis, and active bacilli are discharged to the milk in enormous numbers, in consequence of cerative changes occurring in these tubercles, is there al danger. For practical purposes, therefore, I agree ith Nocard that, as regards milk-supply, local tuberulosis of the udder is what has to be most especially iarded against, and this, not because the evidence at ir disposal affords absolute proof of the transmission tuberculosis from cattle to man, but because the end of the evidence is all in that direction.

On the Extent of Tuberculosis in Canadian Cattle.

So far as I can see, unless it be in the Western ates, there is no large tract of country in the North emperate Zone in which cattle are so free from berculosis as are our Canadian cattle. During the ear 1898 the testing of cattle was encouraged to e utmost possible degree by the Government, and ore especially, and as is natural, where there was ıy suspicion of tuberculosis, there, in one part or other the Dominion, applications were made for inspection. ı these *suspected* herds, over 10,000 head of cattle were oculated, and of these, only 5% reacted. While rther of 90,000 cattle inspected at Montreal during 94, on the eve of debarcation, at a time when, in conquence of the active measures taken by the British overnment against importation of Canadian cattle ı account of suspected pleuropneumonia—a disease hich, I may add, is absolutely nonexistent here—at a eriod, that is, when great care was being taken not to port animals showing any infectious disease, only 80 imals were rejected by the inspectors, and of these 80 ly 2 were recognized as suffering from tuberculosis—ıd even in them this was local. I do not quote this st figures as direct statistical evidence of the relative equency of the disease. But this I would say: could ıy other country collect 90,000 head of cattle under nilar conditions and only have 2 rejected on these ounds?

Similarly that same year the lungs of 2,504 animals ere examined in the abattoirs of Montreal, St. John, B., and Halifax, N. S., and among these there were only 14 cases of tuberculosis, or a percentage of 0.6. There is, I say, no other country which can show such low figures. One reason for this is, that for now some years great care has been exercised in insuring that animals imported for breeding purposes are absolutely healthy. Another is, that the keeping of animals within town limits, cooped up in dairies, is almost unknown; and yet another reason is, that our animals in general have abundant pasturage, and roam over wide areas; during the greater part of the year they live in most healthful conditions.

Were any other indication needed with regard to the rarity of tuberculosis in our cattle, it is to be found in the following fact: For purposes of investigation at the Experimental Farm at Outremont, in order that Dr. Higgins and I could compare the infectiousness of milk from animals with advanced disease and that of animals showing no disease of the udder, it is absolutely necessary that we should obtain one or two cows showing udder-disease. This most important portion of our investigations is at a standstill, merely because we cannot obtain such animals. We only heard of one small collection of cases which we could not utilize, as a matter of principle, because the owner, hearing that they were necessary to us, immediately demanded a ridiculous price. But Dr. McEachran, the Chief Inspector, with the authority of the Minister, has sent detailed orders to all the inspectors over a large area of country, asking them to look out for and report any such advanced cases; that was some months ago, and still we are waiting to obtain these cattle.

Prevention of Tuberculosis.

This rareness of tuberculosis among our cattle makes it possible to hope for a complete eradication of the disease. In the old world, where the disease is so common, such an eradication appears both chimerical, and absolutely impracticable; and there to begin a crusade of extermination, and slaughter every animal giving the tuberculin-reaction, would ruin the farmers and would also ruin the Governments; to slaughter only animals showing clinical symptoms would be but a sop in the pan; it would certainly not extinguish the danger of contagion and the slow spread of the disease. To restrict the movements of animals reacting to tuberculin would mean placing the whole country under the ban and would absolutely paralyze the cattle industry. While, again, to compensate the farmers for the condemned animals would be found the cause of great dissatisfaction; the disease is so lingering and the eventual emaciation so marked that it is very difficult to arrive at any conclusion as to what was the original value of the animal. The most that can be done there is to introduce what is known as Bang's system, namely that of separating the healthy from the diseased animals in separate byres, keeping them apart, and, gradually as the diseased animals die off, replacing them

in the sound herd by animals which do not react, and also by adding to this sound herd the calves born to the diseased stock, it having been found that such calves removed immediately from their mothers, show almost without exception no sign and no tendency towards the disease.

Now, on the other hand, returning to Canada, the disease is so rare that Dr. McEachran calculates that probably throughout the entire dominion but 10,000 animals show clinical symptoms, and this is probably an excessive estimate. Were there 10,000 and were these to be slaughtered, even at full value, compensation would not exceed $250,000. Those reacting to tuberculin would be, of course, more numerous, but of these 70% at least, if not a much higher per centage, could be fed and slaughtered for beef under supervision, while in the case of highly bred cattle reacting to tuberculin in which no clinical symptoms are discoverable, they could be kept in isolated buildings and treated and bred from under Bang's system.

I cannot but cordially endorse Professor McEachran's opinion that by the expenditure of an amount of money trifling in itself as compared with the enormous benefits that would accrue both to the live stock industry and to the people of Canada, the disease could be practically eradicated in the course of 3 or 4 years.

Leaving out of account the hygienic importance of such eradication, "45% of the population of Canada is engaged in rural pursuits; the railways depend upon agriculture for one-fourth of the freight they carry and the canals one-third. As regards the shipping industry, more than half of the total exports are agricultural products, the value of which for 1897 amounted, according to the Year book, to the sum of $44,533,592. . . . Surely no reasonable expenditure," to quote Dr. McEachran, "can be withheld to eradicate a disease that interferes with the development of an industry of such importance to the country's prosperity." And when in addition to this we regard also possible danger to the health of humanity, surely it is our duty as medical men to support strongly any attempt on the part of the Government to bring about the prevention of this disease in cattle.

I am most anxious that it be understood that I speak as a private individual, but at the same time as one who has for the last two years continually studied the subject in its various aspects. If it seems overbold and too large a project to introduce this attempt to eradicate the disease simultaneously over the whole Dominion, at least it seems to me that the endeavor might be started in certain well-defined and isolated areas, Prince Edward's Island for example, Cape Breton or Nova Scotia. For let my previous contention be kept in mind: that the danger of infection of cattle from man is minimal. The disease in cattle can in all probability be kept under, even though no coincident steps be taken to arrest tuberculosis in man.

A corps of inspectors might be empowered to make a complete and perfect visitation, to kill off and compensate for all animals showing clinical evidence of the disease, to isolate or buy at full value and place on Government reserves all animals reacting to tuberculin according to the condition of their owners, and their capacity or incapacity to undertake this work for themselves; to disinfect all byres in which infected animals have been discovered and to prevent, temporarily, the entrance of animals into the areas visited after undergoing tuberculin-test, thereby making a trial of whether it is possible that these areas can be rendered absolutely exempt from bovine tuberculosis.

I believe that this can be done and done at a cost relatively so small as to be incommensurate with the accruing benefit. For if we in Canada can establish herds absolutely free from the disease, this means that in a very few years Canada will become the great center for the breeding of high-class cattle, and European countries would have to come to us to reestablish their herds; they cannot do it at home; we only, with the possible exception of certain of the Western States, are in a position to make a fruitful endeavor to get rid of the disease in the course of 3 or 4 years. While by rigorous quarantine individual states might succeed in ridding themselves of this pest, the task would be difficult because of the long border lines. Islands or peninsulas afford the best opportunity for making the experiment. Hence I urge that it is for us to begin in our island provinces.

FURTHER THOUGHTS ON THE SILVER-NITRATE INJECTIONS IN THE TREATMENT OF PULMONARY PHTHISIS.

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of Philadelphia.

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I HAVE now used the silver-nitrate injections over the course of the vagi in the neck in the treatment of pulmonary phthisis for more than a year, and, I believe, with the most gratifying results. I do not mean to intimate that their application is attended with unvarying success in every case, but the conclusion that I would draw from my experience is, that no other remedy has ever given me such decided and specific effects on the cough, expectoration, appetite, sleep, night-sweats, general strength, and weight of this disease as this has.[1] During this period I have given more than two thousand injections, and, as is frequently the case with a new experiment,

[1] See PHILADELPHIA MEDICAL JOURNAL, Feb. 11, 1899.
" *Boston Medical and Surgical Journal*, Feb. 9, 1899.
" *New York Medical Journal*, Feb. 11, 1899.
" *British Medical Journal* (Supplement), March 25, 1899.
" *College and Clinical Record*, March 15, 1899.
" *The Medical World* (Editorial), May, 1899.
" Also Dr. G. H. Franklin's article in PHILADELPHIA MEDICAL JOURNAL, April 15, 1899.

ıe original ideas in regard to its practical use have ndergone some modification since its introduction; nd in order to make the method as effective as pos- ble in the hands of those who have used it, and of thers who will use it, I have concluded to give my ırther experience with it in this brief contribution.

Seat of Injection.—I have been taught by this that the de of the neck in which the injection accomplishes its est work, varies in different individuals, and even in the ıme individual at different periods, and cannot always e readily determined in advance. As I said in my revious communication on this subject, it is a good lan to give most of the injections on the side of the eck below which the infected lung is located. This ill do for a beginning, and may be a good rule to fol- w throughout in some cases, but in others it will be und that in time the injections become unserviceable ı that side, and give better result on the opposite side the neck. In order to demonstrate this as briefly possible I will refer to the notes of one of the cases which the influence of the seat of the injection on ıe patient's weight is well brought out.

This patient gained altogether 27 pounds in 27 eeks—from 137 to 164 pounds. His first injection as given on the left side and he gained 10 pounds in e two following weeks. At the end of this time he ceived the second injection on the right side and ined 3 pounds in the next two weeks. The next in- ction was then given on the left side, and he gained pounds in one week. An injection then on his right de raised his weight 3 pounds in one week; and after is period the injections of the left side seemed to have st their former marked effect on the weight, and the incipal gain between 155 and 164 pounds followed e injections which were given on the right side of the ck. The aggregate gain in flesh due to the injection as 15 pounds after those in the left, and 12 pounds ter those in the right side; although the principal in of the former was obtained in the beginning of e treatment, while the principal increase of the latter as obtained at a later stage, and after the left-side jections had done their best work. For some time fore this fact was clearly demonstrated by the weight- cord, the patient, after the first month, volunteered e statement that he seemed to experience greater re- f of his symptoms from the right, than from the left- le injections.

This patient's affection consisted of a chronic infil- ıtion of the upper part of the right lung, and while e injections on the left side conferred a great deal of nefit on his symptoms and general condition, it came evident, as the treatment advanced, that the od effects of the injections were most persistent when ven on the side where the lung-lesion was located. this connection it is interesting to note that after e patient had been under treatment for a month and half he resumed his work—that of blacksmithing, which he had been compelled to relinquish nearly a year before—and has been steadily at it for 8 months, and looks well and strong, although he lost a few pounds in flesh during the hot summer, which is coming to him again.

Strength of Injection.—I am convinced from more recent experience that this is another point which requires further study before it can be finally determined. After much experimenting at first I concluded that from 4 to 7 minims of a 2.5% solution of silver nitrate were sufficient to bring about the desired degree of irritation. In a discussion of the vagus treatment of phthisis before the Berks County Medical Society, last summer, Dr. Charles W. Bachman, of Reading, who had considerable experience with the injections, stated that he had received good effects from the injection of 10 minims of the same strength of solution, and even of larger doses. Since that time I have used 5 minims of a 5% solution, and I believe with benefit in some cases. One reason why one hesitates to increase the strength of the silver, is the fear of producing abscess. I feel, however, that there is not sufficient ground on this score to justify the least alarm, for it seemed to me, for some time, that in many instances those patients make the most rapid and effective progress in whose necks abscesses form and break, and in consequence a running discharge is set up.

Other points in the practical application of this treatment might be dwelt on, but I believe those referred to above are among the most important.

In the course of a short time I shall collect and review the cases that have come under my observation since my last publication, and I shall then take the opportunity to make further comments.

A NEW PILE-CLAMP.

BY ARTHUR E. HERTZLER, A.M., M.D.,
of Halstead, Kansas.

THE accompanying cut shows very clearly the distinctive characters of the instrument. It need only be added that by placing the joint at the extreme end of



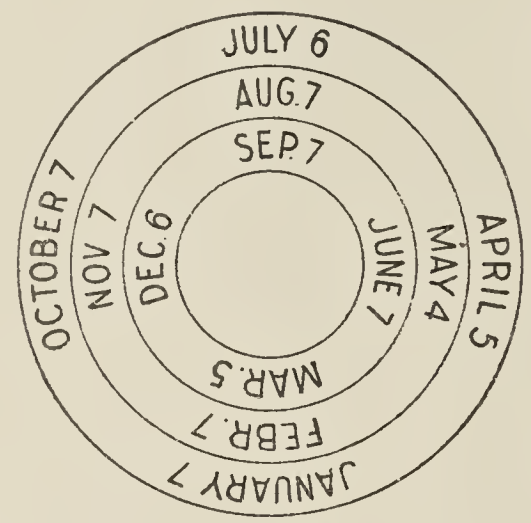
the instrument, instead of at its center, the blades are made to move parallel to each other, thus insuring an even pressure on the tissues within the grasp of the instrument.

AN OBSTETRIC TRICYCLIC CALENDAR.

BY WM. L. KANTOR, M.D.,

of New York City.

THE calendar submitted here has the advantage of being compact, simple and portable. It may be copied on the reverse of an ordinary card and carried in the vest pocket.



It should be used as follows: The date of the last menstruation being given, add the numeral on the right hand of the month in which it occurred to the corresponding date of the month immediately following on the same circle, and you obtain the exact day on which labor should take place. *E. g.*, last menstruation December 17; labor, September 17 + 6 = September 23.

A CASE OF TETANUS SUCCESSFULLY TREATED WITH ANTITETANIC SERUM.

BY E. B. ADAMS, M.D.,

of Springfield, Mass.

Surgeon to Mercy Hospital.

H. K., German, 12 years old, in good general health, with nothing of moment in his past history, called at my office June 30, 1899, with a small wound in the palm of his left hand, ½ inch from the root of the third finger, caused by the discharge of a blank cartridge in a toy pistol. The wound was thoroughly cleansed with 1 : 1000 mercuric chlorid solution, the bit of paper wad removed, and after repeated syringings a cotton drainage was inserted to the bottom of the wound, gauze, and a roller-bandage applied. The boy was directed to come to my office every morning and have his hand dressed, and this he did most faithfully, missing only once in 13 days. There was during this time nothing alarming in his symptoms; the wound suppurated rather more than I expected for 2 or 3 days, but as the tenderness did not extend or any cellulitis appear, the fear of sepsis gradually wore away, and I felt less anxious. July 13, he complained of some tenderness above his elbow, and I found an enlarged and tender gland at the inner border of the biceps, about 2 inches above the elbow. This I opened freely, but failed to find any pus; it bled freely and I dressed it with an antiseptic solution. During this time the wound in the palm of his hand had progressed favorably and was nearly healed. At 5 P.M., July 13, his temperature was 103.2°, and pulse 115. At this time Dr. F. W. Chapin saw him with me. He had no stiffness of the muscles of the throat or jaw, but he could not open his mouth quite as wide as we thought he should, and on being requested to drink some water, on the last of 6 or 7 swallows he seemed to choke a trifle. Such were the symptoms and conditions, and they gave very little warning of the violent storm which was to break in a very few hours.

I procured 20 cc. of antitetanic serum, and waited developments. At 12.30, 1 and 3.30 A.M. on the 14th, he had three violent spasms; his facial and throat muscles became tense, the corners of his mouth drew down, and his head was drawn back slightly. He could open his teeth hardly one-quarter of an inch, and his clothes and body were fairly drenched with prespiration. He complained between spasms of pain and tenderness in his neck and throat, and also of his tongue, which he had bitten during his attacks. At 2.30 I administered hypodermically in the lumbar region, after most rigid antiseptic precautions, 10 cc. of the serum; at 5 A.M. 10 cc. more, at 9 A.M. 20 cc., and at 2 P.M. 10 cc., making 50 cc. in about 12 hours. This apparently controled both the severity and frequency of the attacks. The spasms were tonic in character, varying in length from 15 seconds to 3 or 4 minutes, and coming irregularly, sometimes at intervals of 5, 10, or 15 minutes. Sometimes he would sleep half an hour or even more, but invariably going into a spasm on awakening, screaming, crying, and calling for help in the utmost terror, while the angles of his mouth were drawn down, his lips purple, and around his mouth, a livid white from the contraction of the orbicularis oris. As the muscles relaxed the bed-linen and his clothing would be drenched with perspiration.

On the second day I gave him 20 cc. of serum, on the third day 40 cc., on the fourth day 30, and on the fifth day, and last day that I used it, I gave 10 cc., making 15 injections of 10 cc. each, or 150 cc. in all. The highest temperature reached during the disease was on the 13th as above stated—102.4°; after that it ranged for 5 days between 99.4° and 101.4°. During the same time his pulse ran from 100 to 120 per minute, dropping on the seventh day abruptly to 70, while his temperature dropped to 97.6°.

On the second, third and fourth days the posterior cervical and dorsal muscles were affected, the head was drawn back, and the sternocleidomastoids stood out in bold relief. He could get his head forward between spasms, but as soon as the voluntary effort ceased, the posterior muscles would assert their power and draw the head sharply back again. He laid easiest on a mattress without pillows.

The only nourishment was milk; for the first 3 or 4 days deglutition was difficult, but his teeth were at no time quite closed; the spasms in the throat when he swallowed were extremely painful and discouraging, so much so that only when he became thirsty would he attempt to drink. The contractions, both tonic and clonic, reached the lower abdomen and legs on the fourth day and affected the sphincters, and made urination a very slow and tedious function; however, we got through without resorting to the catheter.

On the night of the third day I gave 10 grains of soda bromid every hour from 11 P.M. for 4 hours, to see if he would rest better. It did not have any perceptible effect. That was absolutely the only drug administered during the whole course of the attack aside from the serum, except 2 or 3 spoonfuls of a light laxative. After the third day he had frequent warm sponge baths. On the twelfth day after his first spasm he was sitting up in his room rolled up in a blanket, pale, silent, and meek. On the fourteenth day he was out on the veranda, smiling, still silent, but with furtive glances at the railroad yard where the early morning peach-trains came in. On the sixteenth day he was on top of the barn building a pigeon-coop. Could I see him just a moment? "No; too busy; no time to waste on doctors now!"

GENERAL AND LOCAL INFECTION BY THE BACTERIUM COLI, WITH REPORT OF CASES.[1]

By J. N. HALL, M.D.,

of Denver, Col.

During the past few years many cases of general infection by the Bacillus coli communis have been reported, and we begin to recognize that this agent plays a much more important role in the production of certain obscure conditions than we formerly attributed to it. Found normally in the intestinal canal, and ordinarily about the foreskin, vulva and neighboring parts, it is occasionally found in the normal anterior urethra. It is usually harmless when found in these localities, but is extremely pathogenic in many cases if transplanted elsewhere.

I shall not enter upon a description of the bacillus, but will merely note that so many varieties of it have been described, that Baginsky[2] says we should speak of the group of colon bacilli rather than the species. It is certainly well established that the organisms are greatly more virulent under some circumstances than others.

The Bacillus coli may and often does cause many diseases, as cystitis, nephritis, pyelonephritis, perinephritis, peritonitis, endocarditis, icterus, disease of the gallbladder, meningitis, lymphangitis, urethritis (one case), abscess, sepsis, pyemia, and septicemia. The culture is sometimes a pure one, but often mixed with pus-organisms, and of greatly varying virulence.

Much valuable experimental work has been done bearing upon the modes of infection by the Bacillus coli. It is well known that cystitis is often caused by the introduction of the organism upon the catheter from the outer orifice of the urethra. Posner and Lewin[3] found that, although the urine did not become infected in simple retention, if the bowel were tied at the anus in small animals, and the urethra also ligated, cystitis occurred. In the retained urine were found red and white blood-corpuscles, epithelial cells, and gas-forming organisms, believed to be the Bacillus coli. The fluid in the peritoneal cavity between the rectum and the bladder remained sterile, while the kidneys showed the bacilli, proving that the infection occurred by absorption and excretion through the urinary organs, and not by direct transmission through the walls of the cavities involved. It is well established that the typhoid bacillus is taken up and excreted in this manner also.

As confirmatory evidence of the truth of the foregoing proposition, it has been shown that by putting a culture of the Bacillus prodigiosus in the rectum, its absorption may be proven by the demonstration of the organisms, easily recognized by their red color, in the blood of the heart-cavities, the urine, the bile, and the juice of the kidney. Savor proved that the Bacillus coli did not enter the organs after death, for in healthy organs no infection was present.

The colon-bacillus passes through the urinary tract without damage to the organs involved, in ordinary cases, but if there be stagnation in the bladder, suppuration ensues.

Wredin[4], admitting that most inflammations of the bladder are caused by the Bacillus coli, believes that the infection is not from emboli, but that it occurs through anastomoses of the blood and lymph-vessels. He damaged the mucous lining of the rectum in male rabbits by the injection of hot water, by croton oil, or by scratching with a blunt hook, and then found that the bacilli introduced into the rectum, or native to the rectum of the rabbit, were shortly present in the urine, causing a cystitis. After wounds of the anus the results were negative, although infection resulted after prostatic injury.

Oker-Blom,[5] from experimental evidence, concludes that after 10 hours' complete obstruction the Bacillus coli wanders through the rectovesical septum, independently of the action of the leukocytes, especially after paralysis and distention occur. Other bacteria do likewise, but in less degree. If peritonitis occurs, the direct transmission of the Bacillus coli from one organ to another is thus readily accounted for.

Savor,[6] after a study of 17 cases, states that pyelonephritis in combination with cystitis is, in the majority of the cases, caused by the Bacillus coli without the presence of the pus-organisms. It is not, however, the sole source of pyelonephritis, since this is caused by the proteus of Hauser in a small number of cases. He states that the infection is usually an ascending one from the bladder, although the contrary condition is entirely possible, the kidney being primarily involved in this case. In one case of cystopyelitis crouposa the streptococcus pyogenes was the agent of infection.

Albarran[7] found that in 25 cases of cystopyelonephritis the colon-bacillus was the causative organism in 23.

Schmidt and Aschoff[8] found the Bacillus coli 12 times in 14 such cases, and 9 times in pure culture. Albarran and Hallé,[9] found it in 47 out of 50 cases. Von Wunscheim[10] found it in pure culture in 11 out of 16 cases. Nathan[11] has found the bacillus in the vomitus, in a case in which it appeared in enormous numbers in the urine, and also in pustules appearing on the tongue and lips.

Having thus demonstrated the fact of the absorption of the Bacillus coli into the blood, the occurrence of any of the diseases above mentioned may be readily explained. Hitschmann and Michel[12] have recorded a case of endocarditis and pyemia from this organism, which was present in pure culture in the exudation in the heart, and in the abscesses found scattered through the internal organs. The atrium of infection was an

[1] Read at the meeting of the Rocky Mountain Interstate Medical Association, July 27, 1899.

injury from a catheter. Other cases of similar nature, but not confirmed bacteriologically, are reported by Netter and Martha,[13] and by Littmann and Barlov,[14] the former following a cholelithiasis, the latter a pyonephritis.

CASE 1.—M. K., male, 5½ years of age, had had rheumatism for 6 days. When examined by Dr. L. Freeman and myself, January 7, 1898, he had had retention of urine of nearly 24 hours' duration,which was immediately relieved by catheterization. This urine was cloudy, acid, and contained great numbers of colon-bacilli, which persisted throughout the course of the disease. Dry pleuritic friction was heard in the left chest.

During the next two days the pleurisy extended, being found on the right side on the 9th. On the 10th, disseminated areas of bronchopneumonia were noted. The abdomen was distended, and, with the high temperature, the facial appearance and mental condition suggested typhoid fever. The Widal reaction was negative, however, and nothing further indicative of typhoid arose.

A purpuric eruption was present, scattered sparcely over the body during the greater part of the illness.

Pericarditis with moderate effusion next presented itself, Dr. Whitney seeing the case in consultation at this time. This complication cleared up in a few days. About January 20, there was pain over the left kidney, and he began to pass pus in the urine. This continued until death on February 2. During the last 2 days he vomited small amounts of pus and urinous-smelling matter, stained with blood.

The treatment was mainly directed toward supporting the patient's strength and preventing the spread of the urinary infection. It was unsuccessful. No autopsy was obtained. There seemed no room for doubt that a pyelitis had followed the cystitis, and that a perinephritic inflammation had eventually broken through in to the digestive tract, permitting the vomiting of urinous matter.

CASE 2.—H. F., male, 36 years of age, liquor dealer, entered St. Anthony's Hospital, May 23, 1898, for treatment for an abscess of the chest-wall, which had existed 2 weeks. I saw him with Dr. Leonard Freeman, the attending surgeon. Cystitis with retention had developed before entrance, and Dr. Freeman had evacuated 2 quarts of urine by catheter at one time.

The patient was extremely fat, cyanotic, delirious, and evidently very sick. Several small abscesses were scattered over the body. A purpuric eruption was present, more abundant on the legs than elsewhere. The circulation and respiration were very poor, and, owing to his obesity, the examination of the heart and lungs unsatisfactory. It was practically negative. The abdomen was greatly distended with wind.

Dr. Freeman found great numbers of colon-bacilli in the urine, which was acid, cloudy and foul smelling as in the first case,with a trace of albumin. The most striking feature of the case was that gas accumulated in the bladder and escaped with a loud bubbling at intervals, especially during catherization. The gas was generated in similar manner in the bottle in which the urine was corked up for transportation to the office.

The patient failed gradually. Some days later sugar was found in the urine in considerable amount. He died June 23; Dr. W. N. Beggs conducted the autopsy. The essential features in the examination were the presence of septic spleen, with disseminated abscesses, an acute parenchymatous inflammation of the kidneys, a fatty liver, roughened by interstitial contraction, a dilated fatty heart, and an abscess containing several ounces of foul pus behind the upper end of the sternum.

Kelly and MacCullum[15] have discussed the formation of gas in the urine, and we find that this case falls into the class in which glycosuria exists, stated by them to be most frequent. Guiard goes so far as to state that all cases of pneumaturia are dependent upon the action of bacilli of the colon group upon urine containing sugar. As confirmatory evidence we have, in many cases, reports of the determination of CO_2 as the gas, of the lessening of the sugar in the urine after the development of the cystitis, and of the presence of alcohol in the urine, the process being the ordinary alcoholic fermentation.

Darling[16] states that the Bacillus coli generates carbonic acid, hydrogen and other gases from saccharine solutions.

It is important to note the character of the urine in these cases. Of many specimens examined by Dr. Freeman and myself, all were acid, foul-smelling, cloudy, and loaded with the bacteria mentioned. The appearance and odor would lead one at first to consider the urine an ammoniacal one, and the acid reaction was a surprise to me at first. The gross appearances of the urine are fairly characteristic so far as we may judge by these cases.

The symptoms, those of an obscure septicemia, do not seem to yield to treatment, so far as I have been able to gather from the literature, when severe, as in these two cases. Treatment has been of so little avail, that I have laid little stress upon it in this paper. The most obvious lesson, is that we should be more careful in the use of the catheter to avoid infection, although this had already occurred in both of the cases quoted, before they were seen by either Dr. Freeman or myself.

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16 *Boston Medical and Surgical Journal*, November, 1894.

Fibers Uniting the Acoustic Nerve with the Cerebellum. Edinger (*Neurologisches Centralblatt*, October 15, 1899), has endeavored to prove by means of secondary degeneration, the existence of these fibers. In regard to the nucleocerebellar tract, he was able to study the changes in a case of congenital aphasia of the right cerebellar hemisphere and vermiform process. The fibers that usually enter the nucleus of the vagus from the side were absent, and there were fewer fibers entering the dorsal acoustic nucleus in the floor of the fourth ventricle. The direct sensory cerebellar tract was studied in the brain of a dog whose labyrinths had been removed. It was found that numerous fibers had degenerated as far as the ventral portion of the vermiform process. As a result of experiments upon fish brains, made by Bethe, fibers could be traced by the Marchi method extending to the cerebellum and those from the acousticus made up the greater portion of its substance. Edinger, in a postscript, suggests the term lateral root field for that portion of the medulla occupied by the descending roots of the cranial nerves. [J.S.]

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